Developing the Research Culture:
The Impact on an Academic College of Education in Israel

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By
Eva Katz

Supervisor: Dr. Marianne Coleman

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ABSTRACT

Academic colleges of education in Israel, similar to colleges all over the world, have witnessed a change in their academic ethos in the past decade, and demand a combination of effective teaching and research as the basis for tenure and promotion. This thesis examined how the research culture is developed and what benefits can be derived from the growing involvement in research.

The research focused upon a detailed case study of a large academic teacher education college, and data derived from two questionnaires, participatory observation, documentary material and interviews. Developing the research culture involves: the creation of new organizational structures (establishment of the research unit), changing behavior (induction and mentoring of beginning researchers, providing role models), reinforcing behavior by extrinsic and intrinsic rewards, changing people and their position in the organization (hiring and promotion procedures).

Findings indicate that involvement in 'lower' and 'higher status' research activities alike, have a positive effect on teaching and can energize the faculty, enhance intellectual environment and improve student instruction. It appears that the more the respondent is engaged in research and the higher the level of his/her education, the more he/she believes that research is improving teaching.

There is agreement among teacher educator researchers that research work fosters professional and career development. The young and ambitious are engaged in research for extrinsic rewards: additional pay, Ph.D. or promotion, but are skeptical about their chances to be included in decision-making processes. Teacher educators, towards the end of their career, view research work as an activity that can contribute to their professional growth and self-actualization.

Connecting inquiry, grounded theory and methodology, provide the basis for learning to teach, inseparable from learning to inquire, and teacher educator researchers can form a 'living bridge' between university and practice.
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CHAPTER 1 : INTRODUCTION

The purpose of the study is to examine the change in the research culture in response to the academization process, and the benefits that can be derived from the growing involvement in research, as it is exemplified at one College of Education in Israel. The introduction provides the context for this case study, by outlining the current state of higher education and teacher education in Israel. It begins by providing a portrait of the teacher education system, and of educational reforms that brought about engagement in research in academic colleges of education in Israel and in other countries. Academic roles at universities and academic role preferences of teacher educators will then be discussed. It continues questioning how useful research have to be and who should be engaged in the research production - university academics or also classroom teachers? The introduction concludes with consideration of the implications of this debate on teacher education, and identification of the research questions for this thesis.

The Higher Education System in Israel

The foundations of the higher education system in Israel were laid in the 1920s when the Technion (1924) and the Hebrew University of Jerusalem (1925) opened. When the State of Israel was established (1948) these were the only two universities in the country. The increase in population, as well as economic and social developments, led to a demand for higher education and, in response, five new universities were established during the 1950s and 1960s: Bar-Ilan University, Tel-Aviv University, the University of Haifa, Ben-Gurion University of the Negev, and the Weizmann Institute of Science (The Council for Higher Education, 2000).

From the mid 1970s there was an additional stage of development and diversification in the higher education system in Israel. The Open University began to operate and its operation soon extended to all parts of the country. At the end of the 1970s teacher
training in Israel underwent a process of academization, with the transformation of formerly post-secondary teacher training seminaries into institutions of higher education (ibid.). One result of the process of academization has been the extension of the study program to four years and accreditation to grant a B. Ed. degree together with a teaching certificate (Fresko, 1996, p.1435).

During the 1990s the higher education system underwent additional development, when the 10th amendment to the Council for Higher Education (CHE) Law made possible the opening of various academic colleges: general colleges, technological colleges and colleges devoted to one profession or discipline. A further innovation was the introduction of a new budgetary status: some of the new colleges are not publicly supported or budgeted by any government or a State agent (The Council for Higher Education, 2000).

Currently the higher education system in Israel comprises eight universities, about twenty academic institutions that are not universities (both budgeted and extra-budgetary), approximately twenty-one academic institutions for the training of teachers and a number of academic programs at eight regional colleges, for which universities are academically responsible.

Graduates of the teacher training colleges, twenty-one at the time of the writing, receive a B.Ed. and a teaching certificate. The colleges are funded and supervised by the Ministry of Education. Recently, the Ministry of Education and the Council of Higher Education have worked to broaden the scope of the initial B.Ed. degree to include B.A. and B.Sc. degrees and even an M.Ed. program. They hope that opening teacher education colleges to liberal arts education and continuing programs beyond the B.Ed. may modify further the character of the colleges of education and increase the interest of better students (Ziv, 1995).
Since the late 1960s Israel has seen an overall upward shift in the educational and socio-economic profile of its population (Figure 1.1). The number of high school students has doubled and the Israeli educational system is approaching the point where almost fifty per cent of an age-cohort completes high school (Ariav et al., 1993).

When the State of Israel was established in 1948 there were about 1,600 students in institutions of higher education and by the end of the first decade of statehood the number of students had increased to about 9,000. During the 1960s there was rapid growth (about 14 per cent per year) in the number of students and in 1970 there were
more than 35,000 students in the higher education system. The rapid growth of student numbers continued during the 1970s and by 1980 reached 56,000 (Figure 1.2). During the 1980s growth tapered off to about 2.5 per cent per year and in 1990 there were 76,000 students in the higher education system (Table 1.1).

Table 1.1 Number of Students in Higher Education Institutions, by Degrees (1990-1999).

<table>
<thead>
<tr>
<th>Degree</th>
<th>1990</th>
<th>In percentages</th>
<th>1999</th>
<th>In percentages</th>
<th>Yearly Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>76,056</td>
<td>100.0</td>
<td>158,163</td>
<td>100.0</td>
<td>8.5%</td>
</tr>
<tr>
<td>B.A.</td>
<td>55,246</td>
<td>72.6</td>
<td>120,250</td>
<td>76.0</td>
<td>9.0%</td>
</tr>
<tr>
<td>M.A.</td>
<td>16,100</td>
<td>21.2</td>
<td>29,993</td>
<td>19.0</td>
<td>7.2%</td>
</tr>
<tr>
<td>Ph.D.</td>
<td>3,910</td>
<td>5.1</td>
<td>6,320</td>
<td>4.0</td>
<td>5.5%</td>
</tr>
<tr>
<td>Certificate</td>
<td>800</td>
<td>1.1</td>
<td>1,600</td>
<td>1.0</td>
<td>8.0%</td>
</tr>
</tbody>
</table>

Since 1990 the institutions of higher education have expanded their activities significantly. The number of students, at all degree levels (bachelor's, master's and doctorate) increased from 76,000 in 1990 to about 158,000 in 1998.

Figure 1.3 Percentage of Students Studying for First Degree by Institution between 1986-1999.

Of these, 85 per cent were in universities (including students in academic programs in regional colleges under the auspices of universities), 8 per cent were in various colleges, and 7 per cent were in twenty-one academic teacher-training institutions (ibid.) (Figure 16)
The expenditure per student in Israel is relatively high compared to other countries (Figure 1.4), and the percentage of students finishing first degrees in Israel can be compared to percentages in other developed countries (Figure 1.5).

Generally, undergraduate studies include three- or four-year programs focusing on one or two subjects. Universities offer graduate studies at the master’s and doctorate levels.

**Figure 1.4 National Expenditure per Student in Different Countries in $ in 1995**


All institutions are accredited by the Council for Higher Education (CHE), which is the supreme authority for higher education issues and policies. The members of the CHE, headed by the Minister of Education, are representatives of the more established institutions, primarily universities. The power of the Ministry of Education is exerted through the budgeting process of higher education and the role of the Education Minister in the CHE’s work (Ariav and Seidenberg, 1995).

Parallel to the academization process of the twenty-one colleges of education and the development of eight community colleges that are under state supervision, at least 20 foreign universities from the U.S., Great Britain, Hungary and Spain opened branches in Israel. These institutions grant different degrees including B.A., M.A., M.Ed., and
Ph.D., lack the Israeli Universities' rigidities and offset their higher fees with shorter degree programs and fewer requirements. There has been some controversy about the status and quality of these initiatives. As a result the Council of Higher Education (2000) recently published on its web site the list of foreign universities that are accredited and are allowed to function in Israel. This way Israel joins the international trend of globalizing higher education. According to Altbach (1999) 1.5 million students around the world are studying outside their home. Developing countries, along with Eastern Europe and parts of Asia, are experiencing the trend of foreign academic institutions, working with local institutions or setting up on their own, offering academic programs and degrees. Distance education, using the Internet, is also being used to deliver degrees.

Figure 1.5 Percentage of Students Finishing First Degrees in Developed Countries and in Israel in 1996

The Teacher Education System in Israel

Teacher preparation in Israel is characterized by waves of reform, which have appeared and reappeared throughout the short history of the state (Ariav and Seidenberg, 1992, Dror, 1992). These reforms relate to the belief that improved teacher education programs will improve instruction and increase the status of the teaching profession (Ariav et al., 1993). School reform in Israel presumes a relationship from teacher
education and training, to student teaching, and eventually to classroom practice. Finally, higher educational practice and achievements generally are related to national development and economic growth (Gottlieb, 1991).

At present, three types of institutions have teacher education programs in Israel:

1. Departments of teacher education in universities prepare teachers for junior and senior high schools. Students can either enroll on an one-year program or begin their training in the third year of studies toward an undergraduate degree and study for two years. In both tracks, students enter the teacher education program after establishing a strong disciplinary basis, and their studies center around education and pedagogy. Upon graduation they are awarded a B.A./B.Sc. degree and a teaching diploma. In 1990, 1,500 student teachers received a B.A./B.Sc. and teaching diploma. Of those, 765 studied in the five universities that have teacher education programs (Ariav and Seidenberg, 1995).

2. Twenty-one “academic” colleges for teacher education (authorized by the Council for Higher Education (CHE) to grant an undergraduate degree) prepare teachers for early childhood education, for elementary and junior high schools, and for special education. Students study four years of subject matter and pedagogy. Graduates receive a B.Ed. and a teaching certificate. In 1990, the Ministry of Education initiated a comprehensive study of the academization process as a basis for future planning and policy decision-making. The research team was interested in finding out how the reforms have influenced the new academic colleges, their entrants and the school system, which absorbs graduates trained in these colleges. The findings show that the academic colleges of teacher education improved their academic programs and raised admissions requirements, yet have not managed to recruit the student elite (Kfir, et. al., 1993).

3. Twenty-two non-academic colleges prepare teachers in three-year programs for the same grades and populations as the academic colleges. Graduates of these programs do
not receive an undergraduate degree; upon graduation they are awarded only a teaching diploma.

The focus of this thesis is on academic colleges for teacher education in Israel.

**Colleges for Teacher Education**

According to the Central Bureau of Statistics (http://www.cbs.gov.il/), in 1999/2000 school year forty-three teacher-training colleges existed in Israel, forty Hebrew and three Arab, with 31,063 students and 4,626 full time teaching posts. These institutions also differ one from the other in their ideological and religious orientations. 15,352 students are under state supervision, 6,743 students are under state-religious supervision, and 6,347 students under other religious supervision. 2,621 students belong to the Arab teacher education system. Arab students who study in Jewish institutions are not counted as Arabs. 16.6 per cent of the students are men. From the forty-three colleges, twenty-one went through the academization process, and the others are in different phases of the academization process (Ziv, 1995). Teacher education is highly controlled by the Ministry of Education. The Ministry requires an entrance examination for college candidates and it dictates part of the curriculum. Based on supply and demand forecasts, the Ministry decides on annual quotas for each college and on the extension or reduction of departments in the colleges (Ariav and Seidenberg, 1995).

According to data provided by the Ministry of Education: The Education System in the Mirror of Numbers (2000, p. 59) during the 1998/99 school year, 68 per cent of the 28,481 students in teacher training institutions studied in academic colleges. In the Arab sector, where the academization process started only in 1995, 87 per cent of the 2,110 students studied for an academic degree. Colleges in the super religious institutions decided not to go through the academization process.

The twenty-one colleges of education can be classified according to geographical
location, religious affiliation, size and fields of study. Partial information about the academic colleges can be found at Mofet Institute’s (a national center for research and staff development for teacher educators) web site (http://www.macam98.ac.il/net/michlalot.htm):

In the north: (1) Oranim Academic College of Education (with 5,500 students), (2) Gordon College (500-1000 students), (3) Ort Braude College is training students in engineering technologies (less than 500 students), and (4) Wizo College in fashion, architecture and graphic design (500-1000 students), (5) Shaanan College for religious studies (700 students). Two Colleges for Arab teachers: (6) the College of Sharia and Islamic Studies (420 students) at Baqa El Garbiya and (7) the College for Arab students at Haifa (over 1000 students).

In the central part of Israel: (8) Beit Berl College (with 6,000 students), (9) Kibuzim College of Education (with 4,000 students), (10) Lewinsky College (over 1000 students), (11) Wingate Institute for physical education and the (12) College for technology instruction at Tel Aviv (500-1000 students), (13) Talpiot and (14) Orot Colleges train women in spirit of religious Zionism. In Jerusalem – (15) Ort Academic College for technology (less than 500 students), (16) David Yellin College (with 2,400 students), (17) Jerusalem College for Women (with 1,700 students) (18) Efrata College and (19) Lifshitz College for religious men.

In the south – (20) Ahva academic center (over 1000 students), (21) Kaye College (with 2,000 students) at Beer Sheva.

An internal document of the Ministry of Education (Yeshua, 2001) predicts that only the large colleges with more than 1000 students will survive, and be able to recruit the necessary funds to attain high academic standards, and introduce studies for the M.Ed. degree. To summarize, seven per cent of all students in Israel study in teacher education colleges, and about sixty-eight per cent of these students study in academic colleges,
including students from the state-religious supervision and the Arab sector. Beit Berl, the subject of this thesis, is one of the colleges with the largest number of students, which is the result of the amalgamation of several smaller colleges: a teacher-training institute with a general program, the Arab Teacher Training Institute, and the School of Fine Arts and Crafts, which trains teachers and artists.

The Academization Process and the Need for Research

Since 1979 colleges for training teachers in Israel have undergone and continue to undergo considerable change. The major alteration has been that they are gradually becoming academic institutions (Ariav and Seidenberg, 1992, Ariav, et al., 1993). One result of this reform has been an extension of the study program to four years and accreditation to grant a B. Ed. degree together with a teaching certificate (Fresko, 1996, p. 1435). The process of academization has also resulted in changes among the faculty at these institutions. In the past, teacher educators had been trained as schoolteachers, meaning that they had either no academic degree or only a Bachelors degree. The trend today is to hire instructors who have a Ph.D. degree (Kfir, et. al., 1997). Many of the existing faculty, with M.A. degrees, were encouraged to retire or return to the universities to obtain a Ph.D. degree. New faculty was given tenure only if they possessed a Ph.D. The academic colleges opened new professional opportunities for a growing number of highly qualified and well trained academics who could not find positions within the limited number of universities, did not get tenured or were not interested in a “publish or perish “ environment (Ariav, et. al., 1993).

As part of this changing landscape, a reform has been introduced to “upgrade” the role of teacher educators through incentives to professional advancement. Up to now, teacher educators became candidates for tenure after only 2-3 years of teaching. Salaries rose only in accord with wage agreements between the teachers’ labor union and the
government, and the teacher educators’ main task was instruction. A full-time job in a teacher training college is 16 hours in the classroom per week. Unlike their counterparts in Israeli universities, their job description did not include research and publication, and their relatively heavy workload leaves them little time to devote to these pursuits (Ariav, et al., 1993). Since 1997, four academic positions have been added to the existing position of “teacher”. These four positions are: senior teacher, instructor, senior instructor, and senior instructor A. The criteria for moving from one position to the next are based on evaluation in the following areas: educational initiatives, development of learning materials, and research and scholarship. Advancement through the positions can add fifteen per cent more to the salary. This, in addition to a 29.70 per cent increment to their salary, that all teachers in Israel can accumulate automatically, for developing professional skills (one per cent for each 128 hours of study). Since January 2001, a fifth, professor position was added, the salary increase was extended to a maximum twenty percent, and the quota in each position was expanded by five percent (Ben Shabbat and Abbas, 2001). It is hoped that the reform to institute professional advancement for faculty members will encourage teacher educators to engage in other activities, besides teaching. Research and development is expected to be one of them. In an effort to encourage academic research among faculty in the teacher training colleges, research units and research committees have been established (Fresko, 1996).

The Ministry of Education established the Mofet Institute – a national center for research and staff development for the “academic” and non-academic” teacher education colleges. The Institute has a grants committee to support research efforts, sponsors professional workshops issues publications and a journal, and has sponsored since 1993, every third year, an international conference on teacher education. The Mofet Institute began to encourage research in teacher education.

The entry to research is continuously challenged by the universities and the CHE, which
try to maintain the historic distinction between prestigious academic institutions and the practical and professional schools (Ariav and Seidenberg, 1995), despite a global trend toward academization in a variety of institutions in Israel and in other countries as well.

**International Dimensions of Education Reforms**

Lafferty and Fleming (2000) report on a series of amalgamations within the higher education system in Australia and the redesignation of various colleges and institutes of technology as universities, as the previous ‘binary divide’ between, on one hand, universities and, on the other, colleges and institutes of technology was formally dissolved in 1989. McCaughey (1994) argues that liberal arts faculty in the USA have witnessed a dramatic change in the scholarly ethos at their colleges in the past decade. Although teaching is still viewed as their primary mission, many liberal arts colleges now demand a combination of effective teaching and scholarly productivity as the basis for tenure and promotion. Although still the principal suppliers, universities are no longer the lone bastions of academic writing as scholars at undergraduate, teaching-oriented liberal arts colleges are making significant contributions to the literature of economics (Bodenhorn, 1997).

A similar process occurred in 1992 in the UK, inaugurating an era of intensified competition between universities. The former polytechnics or ‘new’ universities entered the RAE (Research Assessment Exercise) rating for the first time in 1992, this meaning a heightening of the importance of research for the academic staff of ‘new’ universities, the great majority of whom previously saw themselves predominantly as teachers (Hannan and Silver, 2000, p. 118). The ‘old’, pre-1992, universities have long given higher priority to research.

Changes occurred in teacher education too, but of a different type. In recent teacher education policy, in the UK, four themes emerge: the shift away from the educational disciplines, the shift towards school based approaches, the emergence of more
centralized forms of accountability of teacher competence and the greater responsibility of schools in the professional development of teachers (Young, 1998). These changes, supported by the radical Right, exemplified by the Hillgate Group (1988) and also those who are not members of the radical right, like Hargreaves (1989), politically motivated and contested by both universities and teacher educators, advocated teacher education to be taken out of the hands of the colleges and universities and put into the hands of teachers. Change brought about by increased central direction and control of initial teacher education in England, has both homogenized and reformed courses in teacher education, which continued to become increasingly prescriptive, with the implementation of the National Curriculum for Initial Teacher Training, the standards for the award of Qualified Teacher Status (QTS) and national testing of all entrants to teaching in literacy, numeracy and information and communications technology (Williams and Soares, 2000). The inability of Schools of Education to produce a synthesis between theory and practice led to the shift away from the academic research-oriented paradigm. The advancement of theories, under the banner of respectability, has given rise to the generation of political skepticism (Pring, 1996). The future of teacher education under the Labour Government remains unclear at the time of writing, and the transfer of teacher education to the school is not necessarily expected to enhance quality (Hoyle and John, 1998).

In the United States, a wave of educational reform has been underway since 1983. The Holmes Group, organized in 1985, is a consortium of 100 of the nation’s research universities. It produced a trilogy of reports that outline a specific plan for the reform of schools, the profession and teacher education.

After the first report, the Holmes Group institutions agreed to extend their teacher education programs to include more study in both content and pedagogy. Many institutions eliminated the undergraduate education major and moved to programs that
required students to major in the subject they plan to teach, complete a fifth year of professional education studies, and serve a one-year internship before they could be recommended for licensure as beginning teachers.

In their second report, published in 1990, the Holmes Group described Professional Development Schools, the type of school that would be necessary to serve as a laboratory to prepare the kinds of teachers envisioned as ‘Tomorrow’s Teachers’. By Professional Development School the Holmes Group mean: a laboratory school for university research, a school for the development of novice professionals, for continuing development of experienced teachers, for the research and development of the teaching profession and a place where children could be exposed to the best practices in education. In the third report released in 1995, the Holmes Groups addresses the problem of uneven quality in the education of educators and recommends that those institutions, which cannot or will not meet high standards, should not be permitted to continue to prepare teachers and other educators (Ishler, 1995). Ariav and Clinard (2000) report on an attempt to introduce the Professional Development School concept to Israel. Between 1994-1996, Ariav, from Beit Berl College tried to develop cooperation between one school and the College, but the attempt was not successful, she was not backed by management and faculty.

Putkiewicz (1996, p. 45-54) describes the place of educational research in the academic-oriented teacher training in Poland. Research projects have been traditionally undertaken by universities, higher schools of education, the Polish Academy of Science, and the research institute of the Ministry of Education. Since 1989, research has also been promoted by autonomous schools and teachers’ collective groups such as the Civic Educational Association. All student teachers, within universities and higher schools of education, are engaged in some sort of educational research, during their education and training. Involvement in research during in-service training has been fostered especially
Sheng (1994) describes the post-1978 period in teacher education in China. Although he does not mention educational research, he mentions the argument about whether teachers’ colleges should be teaching-oriented or academic-oriented. Should teacher education institutions be oriented towards development of students’ teaching ability or toward academic competence? The teaching oriented model argues that professional development should be the goal of teacher education programs, whereas the academic-oriented model maintains that only solid disciplinary knowledge could make a competent teacher. The teaching-oriented model has mostly been in a disadvantaged position. Academic knowledge was believed to be the first and foremost goal of higher education in China.

To conclude, despite the global trend toward academization, teacher-training colleges, all over the world, struggle whether they should be teaching-oriented or academic (research)-oriented. Recently, in Great Britain the shift is towards school-based approaches and centralized forms of accountability of teacher competence. In Israel, for the last twenty years the shift is towards an academic research-oriented paradigm. Are teacher educators trained to do research? What academic roles can be found in teacher education compared to academic roles at universities?
Academic Roles

Academic Roles at Universities

Academic work consists largely of teaching students. Seventy-two per cent of the 114,721 academic staff employed at universities and colleges in the UK in 1994/1995 had as their primary employment function either ‘teaching’ or ‘teaching and research’, while only 28 per cent were defined as ‘research only’ (Higher Education Statistics Agency, 1996, table 16). Research is usually the highest status activity within the university and institutions that want to increase their status typically try to raise their research profile (Acker and Feuerverger, 1996). While the major function of many academics is teaching and research, others, like heads of department and deans of faculties spend the majority of their time in administration and management. It might be argued that the average academic splits his or her working time between teaching, administration and research. Blaxter et al. (1998) identify five roles in academic life at universities, and they are briefly summarized as follows:

- teaching has to do with enabling and facilitating learning through a variety of instructional and support strategies, whether face to face or at a distance. It involves planning, delivery and assessment, in addition to specialist activities such as tutoring and supervision;

- researching involves the careful investigation of issues of interest – to the researcher(s) and/or the funder(s) – with the aim of exploring existing understanding and/or seeking practical solutions to existing problems or issues. It may be funded or unfunded in which case it may be termed scholarship, and conducted by an individual or a group;

- managing comprises the range of administrative, developmental and political roles involved in running programmes, departments, faculties, institutions,
societies and professional bodies. It involves dealing with colleagues and other members of staff in both formal (e.g. comities) and other setting;

- writing concerns reporting on different aspects of academic work to wider audiences, which may be specialist or general. It may use print or electronic means for dissemination, and involve books, articles, course materials, reports, memoranda or other forms of presentation;
- networking has to do with the development and use of personal and professional contacts (academics and non-academics), with a view to maintaining and furthering academic careers and projects. It may take place within, between or outside departments and institutions, and may or may not be confined to a particular subject area.

Aitkin (1991) proposes a radical rethinking about academic career. In a modern university, academic staff members should recognize that they can be expected to contribute to five diverse tasks (not only research), and excellence is the desired performance level in each one of them. In addition to teaching and learning, staff members should be engaged in research (the acquisition of new knowledge and scholarship, and the organization and distillation of existing knowledge), and in collegial administration or making the place work and community service (the extension of the university to its community) (ibid.). Hannan and Silver (2000, p. 116) add enterprise (including links with industry and potential employers, marketing and sponsorship) as a new role in some universities.

**Academic Roles in Teacher Education**

To learn about teacher educators' academic role preferences, the multi-year Research About Teacher Education (RATE) Project, sponsored by the American Association of Colleges for Teacher Education (AACTE, 1987-1994) can be utilized. Results were collected from a sample of faculty from nearly 400 institutions from three strata:
bachelors' degree, masters' degree and doctoral degree institutions. The RATE study results were consistent throughout the study: faculty report spending about sixty per cent of their time on activities related to teaching, a little less than twenty per cent of their time on scholarship, and a little more than twenty per cent of their time on service activities. Faculty report that they would like to spend even more time on research than their institutions desired.

There is a near-universal desire within faculty to have more time for scholarship. It is clear from the data that the widely cited 'publish or perish' normal to higher education has now permeated all levels, including bachelors only institutions, once devoted to teaching and service with scholarship often defined as "remaining current with one's field". Goodlad (1990) contends that teacher education faculty, whatever they might like to do, are inevitably driven to respond to the apparent demand for more scholarship:

‘Data from all our sources converged on the conclusion that the importance of scholarly work had increased on all campuses during recent years, not only adding to expectations for faculty members but also shifting the order of their priorities’. (p. 167)

He further notes that:

‘No matter how much faculty members might wish to change the ordering of priorities in the missions of their college or university, requirements for acquiring tenure push them toward the behavior known to be most rewarded. It is reasonable to assume that faculty morale is significantly affected by discrepancies between the mission they prefer and the mission they perceive as most closely related to criteria for tenure’ (pp. 182-183).

In England, a key trend in postgraduate secondary initial teacher training is the reduction in the role of the higher education (HE) tutor and increased role of school-
based mentors (Williams and Soares, 2000). Debate about the relationship of HE to the school has centered upon the extent to which roles are or should be complementary and upon whether a distinctive contribution for HE can be articulated. Current policy makers, by legislating and initiating training routes with no required HE involvement (e.g. School Centered Initial Teacher Training (SCITT) and the Graduate Teacher Scheme), implicitly reject the thesis that Higher Education has a necessary role (ibid).

In the late 1980s, the Department of Educational Studies in the US restructured elementary and secondary teacher preparation programs to include extensive field components and extended coursework, as a response to the Holmes Group (1986) agenda to establish Professional Development Schools (Darling-Hammond, 1994). These programs required new staffing arrangements. To lighten the burden and involve teachers more integrally in teacher education, the departments of education converted several tenure track faculty lines to clinical faculty lines to meet the institutional needs of labor-intensive PDS field work. To learn about the involvement of faculty in research, Bullough et al. (1997) interviewed one third of the faculty at University of Utah, and found that they can be classified in three distinctive groups:

- discipline-driven researchers, those who see themselves primarily as psychologists, historians, philosophers, anthropologists
- field-focused researchers, those who publicly assert they are teacher educators, many of whom conduct content-area related research in areas such as science education and math education
- clinical faculty, whose involvement in research is limited.

Tenured, discipline-driven faculty is almost totally removed from teacher education, which is left in the hands of the clinical faculty. Tenured faculty prefer to focus on
producing scholarship driven by national agendas, rather than work with or write about more local and conceptualized issues. Field-focused researchers are torn between the desire to do substantive research connected to schools and the demands of a research university that values publications in theoretical journals over teacher education journals (Bullough et al., 1997). The American Association of University Professors has expressed concern that increased use of non-tenure line faculty for university instruction will result in lower educational quality (American Association of University Professors, Committee G, 1993). The Holmes Group report (1995) argues that clinical faculty should form a ‘living bridge’ between campus and practice.

It is evident that in teacher education, in addition to lecturers, there are the pedagogic supervisors or clinical faculty. Historically, their role consisted primarily, if not solely, of supervising student teachers (Zimper and Sherrill, 1996, p. 293). Today, the clinical faculty’s role is interpreted more broadly to encompass bringing the experience of school setting into the university, as well as working with the university at school sites (Cornbleth and Ellsworth, 1994). The variations across institutions and programs are significant, as is the varied degree of detail on the role definitions and functions, as the following titles and role descriptions indicate: teacher-in residence, visiting instructor, clinical supervisor, classroom teacher educators (Zimper and Sherrill, 1996, p. 294). Williams and Soares (2000) suggest, in the context of the current drive towards teaching as a research-based profession, that the distinctive expertise of higher education tutors, compared to school-based mentors in the UK, is in research and familiarity with the latest thinking.

To summarize, the academization process initiated a paradigm shift in teacher educators’ academic roles in Israel. Teacher educators, with different academic roles and preferences, are now expected to be engaged in research, in addition to teaching. This thesis will investigate: to what extent lecturers and pedagogic supervisors in Israel
are engaged in research; what benefits can be derived from the growing involvement in research and how it can impact on the institution and the individuals within it.

**Questioning the Value of Educational Research**

What is the basis of the rationale for the move to a research culture at colleges of education? What is the aim of educational research and how useful must it be? The American Assembly of Collegiate Schools of Business (AACSB) Task Force on Research (Jacobs *et al.*, 1987) has stated four justifications for research:

- It improves the general knowledge of society;
- It is a necessary ingredient in effective teaching;
- It improves the practice of a particular discipline in the real world of affairs;
- It is necessary to perpetuate one's own discipline or ...one's own self-image

The task force concluded that all faculty in all business schools should teach and transmit knowledge and that research enhances one's teaching ability. Likewise, Richardson and Parker (1992) argue that research stimulates intellectual activity and encourages faculty to stay current in their field. Research activities in academic institutions should focus on the following outcomes:

- **Professional development**: for the sake of professionalism, faculty must be updated with the latest research;
- **Exposing students to research**: students must internalize research culture and methods, and should be able to make professional decisions based on logical and empirical grounds;
- **Self-evaluation**: assessment of educational process, which in turn supports institutional improvement.
Defenders of research usually argue that it creates new knowledge about teaching, learning, and the administration of schools that can then be applied to the improvement of educational practice (Borg and Gall, 1989). Critics, especially those expected to implement the new findings, complain that the knowledge and theory generated is not useful because it is "too theoretical" (meaning that is not sufficiently practical) or not relevant to the particular context in which they work. Consequently, the vast majority of educational practitioners view research as contributing to the advancement of theory, but not to the improvement of practice. The debate hinges on how immediately and transparently useful research must be. Is its main aim to inform today's classroom teacher about effective practice or to inform society about the broad role of education within it? (Sylva, 2000).

In the UK, four government-funded publications (Hargreaves, 1996, Hillage et al, 1998, Reynolds, 1998, Tooley, 1998) question the value of educational research and call for a focus on empirical research designed to inform and improve the practice of teaching. Hargreaves (1996) and Reynolds (1998) criticize what they see as the uncertain focus of educational research, calling respectively for a shift in emphasis towards 'what works' and towards teacher effectiveness. Tooley (1998), on the other hand, accepts the broad relevance of the bulk of educational research, but criticizes its quality and therefore its applicability. Hillage et al. (1998), while acknowledging that the nature and purpose of educational research is itself a valid subject for debate, nonetheless propose a strongly instrumental model based on the concept of 'fitness for purpose'. All four publications are constrained, or at least guided, by the agendas of their sponsors: a process that Ball (1995) suggests has the effect of taming the researcher:

"Through a combination of financial restructuring and Faustian deal-making, the academy is tamed. As a result, research perspectives and research funding are increasingly tied to the policy agendas of government". (p. 259)
As an immediate aftermath of Hargreaves' 1996 lecture, the Teacher Training Agency (TTA) established a drive towards 'Teaching as a Research-Based Profession', with a new source of TTA funding for small-scale school-based research projects, followed by a second phase with school-based research consortia supported by Higher Education Institutions (HEI). The emphasis within these small-scale research projects is on producing generalizable results that will be of value to other teachers (Atkinson, 2000). The primary purpose of providing TTA funding for school-based research projects has been to generate the 'evidence' on which future teaching can be based. As a result 'evidence-based teaching and research' has become both a buzz phrase and a goal for funders and policy-makers (ibid.).

According to Fueyo and Koorland (1997) adaptive curricular responses to state standards, instead of challenges, may be the evidence of a lack of commitment to research in the field. In strong professions, the arbiter of standards is the validation of research in practice, not the vagaries of the licensing agencies. Lanier and Little (1986) too, point out that the lack of a body of research knowledge in teacher education is a major obstacle preventing the field from changing or improving. Goodlad (1990) believes that one of the conditions necessary for teaching to be a viable profession is to have a coherent body of necessary knowledge and skills. A large, complex, rapidly growing body of professional lore requiring years of sustained study for its mastery characterizes strong professions (Fueyo and Koorland, 1997). Professional programs in strong professions respond to knowledge production and scholarly norms, monitoring the validation of research in practice and changing requirements for licensure. Response to relevant inquiry affects practice and tests for licenses in professional programs determined by the conventions of practice. This is the professional model (Goodlad, 1990, p. 266).
The current debate about the value of educational research and its contribution to professional and institutional improvement (Middlewood et al., 1999, p. x) leads to the question: who should conduct research? University academics or practitioners and teacher educators as well? And what are the implications of practitioners’ research on teacher education?

**Research and Teacher Education**

Teaching in schools and teaching in teacher education in colleges and universities are inevitably interrelated (Freiberg and Waxman, 1990, p. 617). As professionals, teachers must base decisions on systematic knowledge, foster inquiry and the discovery of new knowledge. Fueyo and Koorland (1997) assert that providing teachers with professional skills, consisting of education and training as a result of research on teaching, is a promising vehicle for achieving the connection between knowledge production and professional teacher preparation, and propose weaving the strand of teacher as researcher throughout preservice teacher preparation. Smylie and Conyers (1991) suggest recasting in-service teacher education programs to reflect paradigm shifts from deficit-based to competency-based approaches, in which teachers' knowledge, skills, and experiences are considered as assets. Professional development organized according to this approach will, in Smylie and Conyers' view, shift teachers away from dependency on external sources for the solution to their problems and toward professional growth and self-reliance in instructional decision-making.

This thesis will examine how useful and relevant is educational research for teacher educators at Colleges of Education in Israel; who is engaged in research and what they hope to gain from it for themselves and the organization. It will investigate how the research culture in teacher education is developed and what benefits can be derived from the growing involvement in research: for professional and career development, and
for improvement of teaching and learning. The focus will be mainly on the management of the research culture and not on the product or educational research itself. In order to follow up the areas discussed, a case study of one college of the twenty-one academic colleges for teacher education will be used. Information about the college is presented next.

**Beit Berl College of Education**

To better understand teacher education in Israel, and the change in the research culture in response to the academization process, the examination of a single institution can illuminate some of the issues at stake (Ariav and Seidenberg, 1995, p136). Beit Berl College is one of the largest of Israel’s twenty-one academic colleges of education in Israel, with about 6,000 students and a faculty of more than 700. It is one of the first four colleges that were chosen for the introduction of the academization process (Ziv, 1995), and this inquiry may therefore illuminate processes that have only recently started at other colleges. Founded in the 1940s, it was named after Berl Katzenelson, a thinker and leader of Israel’s Labor Movement. Beit Berl’s School of Education grants a Bachelor of Education (B.Ed.), earned after four years of study. Graduates are qualified to teach in Israel’s formal and informal educational institutions. The School’s curriculum for the formal network trains teachers for kindergartens, elementary and junior high schools, providing specialized studies in three main fields: the humanities and social studies, sciences and languages. Studies in psychology, sociology and educational methodologies provide theoretical foundation. In addition, over 1,000 teachers participate in in-service training and courses every year, which introduce new teaching techniques and enrich their general knowledge. Students are taught how to use technology for their own educational needs, such as information retrieval from library databases and the curricula banks of pedagogic centers. They also learn how to integrate the computer into classroom studies, in subjects ranging from geography and agriculture.
to Bible studies and many others. The wide variety of computer-based programs available for the support of language studies is highlighted as well.

The College operates on three principal planes:

1. The School of Education encompasses a teacher-training institute with a general program, the Arab Teacher Training Institute, and the School of Fine Arts and Crafts, which trains teachers and artists.

2. The College offers diploma studies and special programs for continuing education in librarianship, translation and editing. Reflecting the changes occurring in the region – the progress of the Peace Process, a Hebrew – Arabic/Arabic – Hebrew translation course was introduced last year. Israeli Jewish and Arab students alike attend it. New immigrants, whose mother tongue is English, are offered courses enabling them to work as auxiliary English teachers in school or as private tutors.

3. A Law Enforcement program in cooperation with the Open University of Israel, which grants a B.A. in the Social Sciences to graduates of the four-year program.

Some of the special activities taking place at the College include:

Networking and International relations: Beit Berl has close contacts with Europe, whose political and social history bears great affinity to that of Israel’s evolving traditions. The Willy Brant Pedagogic Center for European Studies is hoped to play a primary role in fostering international relations. The new Center will develop programs, adapting and translating materials for the school curricula and for training teachers in transmitting the courses. It will serve as the nucleus for a B.A. program in European Studies and will strengthen ties with European academic institutions by inviting guest lecturers, and will plan workshops, seminars and conferences. The Israeli-German House provides a venue for exchanges with overseas youth. Built with the support of the German League of Cities, its main aim is to acquaint young Germans with Israel. A
variety of academic lectures and seminars are organized by the College faculty for the visiting groups, introducing them to Israel’s many dimensions.

The Department of Special Projects and Outreach to English-Speaking Countries primarily addresses North America, offering programs for exchange of faculty and youth groups as well as joint research projects. It also develops innovative, experimental teaching programs in English, for teaching subjects that are related to Jewish history.

The Research and Evaluation Unit

Beit Berl College emphasizes not only academic achievement and communal responsibility, but also an on-going commitment to research. The faculties carry out research related to the College’s goals. In 1989, in an effort to encourage research among faculty, the Research and Evaluation Unit was established (Fresko, 1996). The establishment can be seen as part of the academization process. The goals of the Unit are as follows:

- to conduct valid and reliable research in the areas of education and teacher training which will contribute to efforts to improve teacher preparation, as well as instruction and learning in the schools;
- to encourage the college teaching staff to engage in scholarly research endeavors as befitting an academic institution;
- to develop research skills and scientific thinking among instructors and students by providing services needed to conduct research (computer assistance, statistical advice, professional consultation, etc.);
- to provide the College with on-going feedback and evaluation concerning different study programs and activities.

In 1995, Seidenberg, the rector and chairman of the academic council at Beit Berl, published a case study on Beit Berl College and summarized what had changed in the
last wave of reform and what provided the challenges for the future. Some of his findings include: the curriculum structure and contents had changed, as the academic program had become an integrated four-year course of study (Ariav et al., 1991). Admissions requirements and college examination had also changed (Kfir and Feigin, 1992). The faculty had changed in two ways: new faculty members must have at least a master’s degree and those holding doctorates receive preference, while veteran faculty members are strongly encouraged to continue their studies toward higher degrees. There was also an increase in the number of full-time instructors (Ariav and Seidenberg, 1995, p. 140). Challenges for the future were outlined as: improving the quality of pedagogic studies; planning for constructive interrelationships between the School of Education and the Liberal Arts College to be opened shortly at Beit Berl; initiating advanced clinical degrees for practitioners. He suggested opening M.Ed. and Ed.D. programs for teachers and administrators who wish to continue their studies beyond the B. Ed., but are not interested in the more theoretical and research oriented M.A. and Ph.D.; changing the working conditions of the faculty and establishing tenure and promotion criteria to improve instruction, enhance research, and acknowledge the academic status of teacher educators (Ariav and Seidenberg, 1995, p. 144).

Seidenberg concluded that reforms provide impetus for change, but the nature, quality, and velocity of the change are unpredictable and uncontrollable. Too many social, economic, and political forces participate and interact in a way that impact on the context in which the reform takes place. Many issues have remained unresolved, new problems emerged and additional opportunities have arisen (Ariav and Seidenberg, 1995, p. 145).

**Purposes of the Thesis**

In response to the changing needs of Higher Education in Israel, the teaching force went through an academization process. This reform served as a trigger for change. The quest
for improvement included “upgrading” the role of teacher educators by the introduction of incentives to professional advancement. It is intended that the institution of professional advancement will encourage teacher educators to engage in research. The purposes of the thesis are:

A. To examine the change in the research culture in response to the academization process, as it is exemplified at one college of education in Israel. How is the research culture institutionalized and reinforced?

B. To investigate what benefits can be derived from the growing involvement in research and how it can impact on the institution and the individuals within it?

Main Research Questions

Institutionalization of the Research Culture

1. What are the characteristics of teacher educators who are also researchers?
   - What are teacher educators' preferences in conducting research?
   - What kind and type of help do teacher educators expect from the college in conducting research?
   - To whom should teacher educator researchers feel professionally accountable?
   - What is the optimal degree of autonomy appropriate for teacher educator researchers?

2. What motivates teacher educators to conduct research?
   - Is teacher educators’ research activity motivated by extrinsic or intrinsic needs?
   - What motivational needs influence teacher educators’ research behavior: Existence needs, relatedness needs, growth needs, or need for power?

3. What benefits can be derived from involvement in research, according to teacher educators?
How can involvement in research bring to teacher educators’ job enlargement and enrichment?
How can scholarly work inform and support the education and work of teacher educators?

4. What organizational structures are developed to support the research culture within the college?
What are the benefits and shortcomings of research units at colleges of education in Israel?

5. How is induction and mentoring of beginning researchers done and by whom?
How can research related induction and mentoring affect individuals and the institution?

6. How is the research culture developed at the college?

The Impact of Research on Managing People and Organizational Performance

7. How is involvement in research contributing to the recruitment, selection, promotion and removal of employees?
How does the research activity of teacher educators contribute to their evaluation?
Do teacher educators who are also researchers perceive themselves as working harder than other teachers, and should they get paid more?

8. How can engagement in research promote the career development of teacher educators?
How can engagement in research contribute to matching individual and institutional career needs of teacher educators in Colleges of Education in Israel, in the four working-life career stages?
How can involvement in research affect the career movement of teacher educator researchers within Colleges of Education in Israel?
9. How can research activity advance the professional development of teacher educator researchers?

10. Does research enhance or inhibit teaching?

Are student teacher supervisors engaged in research and to what extent?

Are student teacher supervisors, engaged in research, receiving higher student evaluation scores on their teaching?

Is engagement in “lower status” research, related positively to teaching of student-teacher supervisors?

11. Are teacher educator researchers included in decision-making processes at the college and do they perceive themselves as being included?

Should teacher educators engaged in research, be promoted and included in decision-making processes at the college?

Which model best describes teacher educators’ research utilization at the college?
CHAPTER 2 : LITERATURE REVIEW

A literature review was performed to learn more about teacher educators and the change process needed to introduce educational research in colleges of education in Israel. It starts by examining teacher educators' distinguishing features, their attitudes and preferences toward research and then the planned organizational change process needed to introduce educational research. The review continues by investigating how the research culture can be developed, what are the organizational structures that might support research, and induction and mentoring of beginning researchers as a way to communicate the research culture to employees. In concludes with a discussion on the impact of research on individuals and the links between research and organizational performance.

Characteristics of Teacher Educator Researchers

The first section will present a close-up on teacher educators. What is known about teacher educators? What are their attitudes and preferences toward research? Are they trained to conduct research? How committed are they to conduct research? Scholars and researchers have written relatively little of substance about teacher educators. Ducharme and Ducharme (1996) from the US indicate reasons for the sustained study of teacher educators. The presence of teacher education in higher education is relatively recent and somewhat problematic, in view of their substantive ties to elementary and secondary schools in such matters as the use of school sites for field experiences (Reynolds, 1995). Continuing debates about teacher education’s place in higher education affect the role and status of teacher educators.

Faculty Demographics

The RATE (Research about Teacher Education) project showed that the faculty in the US are about seventy per cent male in foundation and secondary education and fifty-
three per cent male in elementary education, ninety per cent white, five per cent black
65-75 per cent tenured at professor or associate professor, 85-90 per cent with doctoral
degrees, average age of fifty, and likely to remain in their current positions. Doctoral-
granting institutions have consistently higher percentages of faculty at professor rank
than bachelor’s or master’s-level institutions. In Israel, during the 1999/2000 school
year, 4,626 full time teaching posts existed in forty-three teacher-training colleges, forty
Hebrew and three Arab (http://www.cbs.gov.il/).

Faculty Age and Experience

The teacher education faculty in the RATE studies is mature and experienced
(Ducharme and Ducharme, 1996). The average age of faculty is about fifty; Female
assistant professors are about three years older than male counterparts. Nearly all
teacher education faculty in the RATE study have had eight to nine years prior
experience in the lower schools as teachers, department chairs, and administrators,
which explains why the age of a large number of faculty is 50 and over. Although the
percentage of female faculty has been higher in subsequent years, Ducharme (1993)
reports faculty composition by gender as sixty-five per cent male and thirty-five per
cent female as does Shen (1995). Thus, despite being responsible for the preparation of
overwhelmingly female elementary and secondary school teachers, the teacher
education faculty remains a male dominated group. The RATE surveys indicate that
females are more likely than males to supervise students in early field experiences and
in student teaching and more likely to have more student advisees and spend more time
on committee work. Significantly, they report spending less time on scholarly and
research activities that lead to tenure, promotion, and higher salary. Women’s salaries
reach only 80-90 per cent of men’s salaries when rank, time in higher education, and
degrees held are included. The view that university and college teacher educators lack
relevancy to schools may need re-examination, not only because of their prior
experience but also because most faculty maintain current relationships with the lower schools.

**Rank and Tenure**

Data from the 1993 National study of Post-secondary Faculty in the US illustrate where and what program areas non-tenure-track (NTT) faculty work, and show that women and minorities are more heavily represented among non-tenure-track faculty than among full-time tenured and tenure-track professors (Baldwin and Chronister, 1996). NTT faculty generally is in the early stages and lower ranks of an academic career. Many do not have access to the full array of support and professional development opportunities, particularly support for improvement of teaching and research skills and for participation in professional association activities, and are ineligible for sabbaticals and retraining funds. The resultant staffing instability on some campuses and the potential loss to higher education of talented individuals should be issues of concern for higher education leaders and public policy makers.

**Gender Representation**

All the areas under consideration as parts of the RATE faculty surveys are interrelated; it is difficult to write of gender matters without touching upon rank and tenure. Sharp differences in gender representation exist across professional ranks and among areas of specialization. Female teacher education faculty is disproportionately represented in the lower academic ranks. Females, nearly twenty-eight per cent of the total sample, constitute only twelve per cent of the full professors and sixty-three per cent of the assistant professorships. In doctoral level institutions sixty-four per cent of the elementary education faculty were male, while student participants in the study were almost ninety-three per cent female. Ducharme and Agne (1989) note that females enter the professoriate later, teach more and publish less. These factors could militate against
their progress through the tenure and promotion process. Faculty who are primarily in a
student supervisory role consistently have lower percentages at the associate professor
and professor levels. Only twenty-four per cent of college-based supervisors hold full
professor rank.

Recently, Schneider (1998) suggests that the gap in productivity between male and
female scientists is closing. In the 1960s and 1970s, female scientists published sixty
per cent as much as their male colleagues. In the 1980s and 1990s, they were writing
75-80 per cent as much. Also, most professors are writing roughly the same amount,
regardless of their sex. Likewise, Acker and Richards (2000) report that representation
of women among full-time faculty has substantially increased compared with figures of
20 or 30 years ago. Women now comprise about a quarter of full-time faculty in Canada
(Drakich and Stewart, 1998) and twenty-eight per cent of tenurable faculty in Australia
(Probert et al., 1998, p. 21). Predictably, they are less well represented in senior ranks,
holding eleven per cent of full professorships in Canada and twelve per cent of positions
above senior lecturer level in Australia. Nevertheless, women are indisputably now a
significant part of the academic labour force; moreover, they have a presence in the
middle ranks and are beginning to appear in the upper levels of university management.

But Park (1996), in her detailed review of literature on gender and academic work in the
USA, noted that women in universities do more teaching, more student advising and
more service and that it is not a coincidence that these activities are rewarded less and
that doing them diminishes the amount of time available for research work. Tenure,
promotion and merit criteria remain narrowly focused on research. Acker and
Feuerverger (1996), drawing from in-depth interviews with twenty-seven women
academics in faculties of education in Canada, found a gendered division of labor,
wherein women believed that they worked harder, in comparison with many of their
male colleagues, assuming primary responsibility for nurturing the young and serving
men, but receiving little credit for doing so. Kenway and Langmead (1998, p. 30) point out that feminist academics are located in a particularly difficult position today, as knowledge is transformed into a commodity in order to yield economic returns to the university. In the new ‘masculinist managerialism’ culture (Leonard, 1998), decisions based on market forces, performance indicators and efficiency criteria supplant those based on collegiality or equity (Davies and Holloway, 1995). Blackmore (1999, p. 2), too, discusses the complex location of women in leadership, and especially feminists, in these ‘new hard times’, in which, for many, ‘the contradictions are too great, the emotional labour and physical work too demanding’.

Gallop (1995) distinguishes between the hard-working and long-suffering female academic (the ‘good-girl feminist’) and the women who, while acknowledging their nurturing side, also take pleasure in the power they have through their visibility and their control over knowledge (the ‘bad-girl feminist’). With this binary view of women academics’ experiences, Eagleton (1998) argues that a new understanding needs to be forged that takes account of the simultaneous experience of pleasure, constraint, passion and control in women’s negotiation of their place in educational institutions (Tamboukou, 1999).

**Training for Research in Education**

Doctoral students in teacher education are older by up to 10 years than the average Ph.D. students, and they have greater experience in the world of work, especially in teaching, than do doctoral students in other university programs (Dupuis and Post, 1991). From a study of twenty-nine doctoral students they found that they placed the statement “prospective teacher educators need guided practice conducting research at the college level” at the far lower end (place 7 out of 9). In other empirical studies in the United States (Buswell et al. 1966) it was observed that research productivity of post-doctoral researchers coming from schools of education was low. In Buswell et al.’s
In the study, the average age at completion of the doctoral studies was over 39 years. The average age was nearly 10 years less in many science disciplines.

Both the low research productivity and the high age were related to the predominance of experienced teachers in the programs – teachers who started their doctoral studies late and completed them in a situation where family and alternative professional aspirations competed for their time and involvement. Further investigations showed that candidates for training in education come from two main groups: teachers who hold a certificate to teach at primary or secondary level and return to universities for further education, thus increasing the age of entry considerably. The other group constituted of young persons with first-level university degree in education, psychology and sociology.

Doctoral studies provide the main route to research activity, and since youth and experience are difficult to combine in one person, several attempts have been made to produce post-doctoral researchers at an earlier age. Two doctoral degrees have been offered: the doctor of philosophy (Ph.D.), which is more research oriented and the doctor in education (Ed.D.), which is more professionally oriented (Hamqvist, 1997).

Some other means of encouraging research have been tried: organizing graduate studies in courses, providing more research supervision, reducing the length of dissertations, simplifying publication procedures and providing economic support.

University programs in education have been criticized not only for producing graduates who are too old and whose productivity in research is low, but also for not having adapted themselves to the needs of large-scale research efforts, particularly of an interdisciplinary character. Minor research problems tend to be preferred to those that are socially important, mainly because training in education takes place in isolation from other disciplines (Buswell et al., 1966).

**Accountability**

Accountability means being required to give an account of events or behavior in a
school or college to those who may have a legitimate right to know (Bush, 1994, p. 309). To whom should teacher researchers be accountable? Sockett (1980) argues that teachers ought to be accountable to: employers, peers, and pupils.

In contrast, Scott (1989, p. 19) suggests that the accountability of teachers and educational institutions is directed by norms, codes of practice and sets of values that are self-imposed. Professional accountability relates to professional self-control. Teachers are judged by peers on the basis of their adherence to professional norms and values. Kagan (1986, p. 40) suggests that groups of professionals should establish detailed codes of conduct in relation to each aspect of their work, to protect schools from demands for product-oriented outcomes. At the same time, Sockett (1980, p. 19) suggests that the teacher should be regarded as an autonomous professional and not as a social technician, within the bureaucratic framework of a school.

**Academic Autonomy**

Autonomy is a dimension of empowerment that relates to teachers' beliefs that they can control certain aspects of their work life. The hallmark of autonomy is the sense of freedom to make certain decisions (Short, 1994). Autonomy is a necessary prerequisite for a sense of accomplishment. Schools that create environments that support experimentation by teachers also build teachers' sense of autonomy. Althbach and Lewis (1995) found that academic freedom is one of the core values of higher education, as many respondents from different countries noted that they are free to determine the content of the courses they teach, and feel free to do research on any topic that is of interest. Employee autonomy is a higher-order need. When autonomy declines below an appropriate level, or is used excessively, the organization fails to develop and use the talents of employees. Most success is gained in the broad middle ground of use (Newstrom and Davis, 1997, p. 505). Professionals, especially researchers, expect a degree of autonomy of operation in view of the extent of their training (Coleman, 1994,
How can this contradiction between accountability and autonomy for teachers and teacher educators who have to operate as professionals within an organizational framework be explained? A measure of autonomy is required for practitioners to be effective while the school remains accountable for their performance (Bush, 1994, p. 315). Head teachers are both leading professionals and chief executives by virtue of their background as experienced teachers and their formal position as official leaders of the school. The chief executive is accountable to external stakeholders while the leading professional facilitates a measure of teacher autonomy.

Elliott et al. (1979, p. 8) believe that accountability is more appropriate than responsibility for 'autonomous' professionals. Teachers are entitled to the status of a profession only if they are in a position to accept responsibility for their activities. People can be held responsible for their activities only if they are free to decide between alternatives. Responsibility can only be ascribed to those who are free to act autonomously. Edwards (1991, p. 30) suggests that accountability leads to control while autonomy fosters the release of human potential.

Although important, full autonomy and self-isolation may lead to an attitude that the researcher's work exists for its own sake without any obligation to tie it to the larger organization (Davis, 1977, p. 337). Ball (1987, p. 121) states that it may be that autonomy is a 'privilege granted by the head on certain terms and conditions', and the maintenance of boundaries provides a basis for 'divide and rule'. In this thesis, the aspect of teacher educator researchers' autonomy and accountability, related to their research work will be investigated.
What Motivates Teacher Educators to Conduct Research?

At Colleges of Education teacher educators are the main human resource. If an organization employs many scientific and professional workers, and if they are a major group in an organization, then it needs to make some adaptations in its way of life in order to integrate them effectively (Davis, 1977, p. 342). To change culture, it is necessary to change the behaviour, values, attitudes and beliefs of individuals (Williams et al., 1993, p. 78). Teacher educators and especially researchers can be defined as 'professional teachers' (Coleman, 1994, p. 64) or 'scientific and professional workers' (Davis, 1977, p. 335). Their authority comes from their expertise and they are rather independent within the organization (Davis, 1977, p. 343). Managers and professional employees, whose physiological and security needs are well met, seek higher-order needs (Davis, 1977, p. 47). This thesis will explore what appears to motivate teacher educators’ research behavior and what are the practical implications of the work motivation theories for management.

Work Motivation Theories

Motivation and its management are core elements of human resource management. A study of work motivation has two basic strands: first, why people behave in the way they do in the workplace, and secondly how they can be helped to engage in work behaviors, which are beneficial to the organization and themselves (Riches, 1994, p. 223). Two different theories of motivation will be presented here: the content or cognitive theories of motivation and the behavior modification theory of motivation.

Content or Cognitive Theories of Motivation

Nearly all conscious behavior is motivated, or caused. Motives are expressions of a person’s needs. Needs may be personal and internal. Incentives, on the other hand, are external to the person (Davis, 1977, p. 40). People can use their jobs as mechanisms for
satisfying their needs.

According to Maslow's (1954) hierarchy of needs model, people have needs they wish to satisfy. He focuses attention on five levels, from the most basic, low level need to the highest-level need, in the order: physiological needs, safety and security needs, belonging and social needs, esteem and status needs and self-actualization and fulfillment needs.

Herzberg et al.'s (1959) model provides a distinction between maintenance factors, which are necessary but not sufficient, and motivational factors, which have the potential for improving employee effort:

- maintenance factors or extrinsic rewards can be job security and working conditions, and they dissatisfy employees primarily when they are absent.

- intrinsic motivators are internal rewards that a person feels when performing a job, that evolve from the work itself. They can be tied to other behavioral developments, such as job enrichment, empowerment, self-leadership, and quality of work life (Newstrom and Davis, 1997, p. 125).

Nias (1981) cited in Riches (1994, p. 233) has applied Herzberg's theory to an educational context. Using a sample of 135 primary school teachers, she found that job satisfaction arose out of factors which were intrinsic to the job, but also identified 'negative satisfiers', which if removed would result in more job satisfaction whereas the contextual dissatisfiers would not do so. Tien and Blackburn (1996) explored the motivating effect of rewards on faculty's research behavior. They cited Finkelstein (1984, p. 101) who concluded that intrinsic rather than extrinsic motivation plays the preeminent role for faculty publishing in higher education. Behymer (1974) too concluded that intrinsic rather than extrinsic motivation determines faculty's research performance. Tien and Blackburn (1996) argue that the intrinsic claim is open to doubt, because traditional faculty surveys possess imprecise motivation measures, and that
there was lack of theory base for generating hypotheses. They used the 1989 Carnegie national survey data from 2,586 full-time faculty members to test their hypotheses. Their first hypothesis was based on the behavioral reinforcement theory, suggesting that promotion has a motivating effect on faculty research. It emphasizes the predicting function of distributing promotion (a reward) on the changes of productivity. The other hypothesis was that the selection function views promotion as the result of high productivity. The selection function implies productivity differences between promoted faculty and non-promoted faculty. Results failed to support completely either the behavioral reinforcement theory or the selection function they proposed.

Alderfer’s E-R-G model (1972) proposed a modified need hierarchy with three levels:

- existence needs which combine physiological and security factors such as pay, working conditions, job security and fringe benefits;
- relatedness needs involve being understood and accepted at work
- growth needs involve the desire for self-esteem and self-actualization.

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<tr>
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<tbody>
<tr>
<td>Self-actualization</td>
<td>Growth</td>
<td>Motivators: Advancement Growth Achievement</td>
<td>Need for Achievement</td>
</tr>
<tr>
<td>Esteem</td>
<td></td>
<td></td>
<td>Need for Power</td>
</tr>
<tr>
<td>Affiliation</td>
<td>Relatedness</td>
<td>Maintenance factors: Job security Salary Working conditions</td>
<td>Need for Affiliation</td>
</tr>
<tr>
<td>Security</td>
<td>Existence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physiological</td>
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</table>

Table 2.1 Work Motivation Theories
Adapted from Hellriegel et al, p. 219

McClelland (1971) developed a classification of three motivational drives and pointed out their significance to motivation:
• achievement – a drive to accomplish objectives and get ahead
• affiliation – a drive to relate to people effectively
• power – a drive to influence people and situations

In modern societies many workers have already satisfied their lower-order needs, so they are mainly motivated by higher-order needs and motivators. All need models that have been discussed up to this point are known as content or cognitive theories of motivation, because they focus on the content (nature) of items that may motivate a person (Newstrom and Davis, 1997, p. 127). They relate to the person’s inner self and how the person’s internal state of needs determines behavior. The different work motivation theories are summarized in Table 2.1.

**Behavior Modification Theory of Motivation**

Behavior modification focuses on the external environment by stating that a number of employee behaviors can be affected by manipulating their consequences (Skinner, 1953). It is achieved through operant conditioning and assumes that the causes of behavior are outside the person and in the environment. Various approaches may be used, like positive and negative reinforcement, shaping and extinction. Criticisms of behavior modification are that it manipulates people and that it does not work very well in complex work environments (Davis, 1977, p. 68). The major benefit of behavior modification is that it makes managers become conscious motivators. It encourages managers to analyze and monitor employee behaviors (Newstrom and Davis, 1997, p. 133).

Cognitive models dominate present thinking about motivation. They are more humanistic models, (for example, Maslow’s need hierarchy) and assume that people are autonomous and self-actualizing, being motivated by their own internal needs. People
are considered to have internal needs, and managers motivate people by providing a work situation that satisfies their inner needs while at the same time achieving objectives of the organization (Davis, 1977, p. 68). Most motivational models look at the same set of human needs, but with different approaches and interpretations. This thesis is investigating how motivational needs, from those listed above, are linked with teacher educators' research behavior at Colleges of Education in Israel.

To summarize, teacher educators have experienced an elevation over the past hundred years from the status of high school teacher to that of university professor (Labaree, 1992). Hargreaves (1995) captures the dilemma in which many teacher educators find themselves. They are caught in a university environment, and are held accountable according to university norms of professional conduct rather than the norms that originated in being a good teacher. They have been under growing pressure to carry out research and publish in academic journals, activities for which they have little training or interest. Most teacher educators are skilled practitioners who are torn between the desire to continue their development as good teachers, and learning about becoming a researcher (Day, 1995). The change in culture and the growing importance of research, as part of the role of teacher educators at Colleges of Education in Israel, led to the development of a number of research questions for this section:

What are the characteristics of teacher educators who are also researchers?
What are the perceptions articulated by the teaching staff of the college to the institutionalization of the research culture?
What are teacher educators' preferences relating to the conduct of research?
What kind and type of help do teacher educators expect from the College in conducting research?
What benefits can be derived from involvement in research, according to teacher educators?
How can scholarly work inform and support the education and work of teacher educators?

What motivates teacher educators to conduct research?

Is teacher educators’ research activity motivated by extrinsic or intrinsic needs?

What motivational needs influence teacher educators’ research behavior: Existence needs, relatedness needs, growth needs, or need for power?

**Job Enlargement and Enrichment**

Job enlargement and job enrichment are approaches to motivation suggesting that jobs can be enhanced by making them more appealing to people. Job enlargement is the practice of expanding the content of a job to include more variety and a greater number of tasks at the same level (Greenberg and Baron, 1997, p. 163). Job enrichment or ‘vertical job loading’ is where individuals can gain more responsibility, autonomy and control over the tasks they perform (Riches, 1994, p. 240). Job enrichment gives employees a high degree of control over their work, from planning and organizing, through implementing and evaluating the results. It is based on Herzberg’s (1959) studies indicating that the most effective way to motivate workers is by focusing on higher order needs. In this thesis an attempt will be made to explore how teacher educators’ jobs can be enlarged and enriched through involvement in research activity.

Job specialization and simplification were popular in the early part of the 20th century. Taylor’s (1947) principle of scientific management attempted to stimulate performance by designing jobs in the most efficient fashion. Employees were assigned narrow jobs and supported by a rigid hierarchy in the expectation that efficiency would improve. However, many difficulties developed from that classical job design. Workers became isolated from their co-workers, because their highly specialized jobs weakened their community of interest in the whole product. They became bored with their jobs and
higher-order needs (social and growth) were left unsatisfied.

As workers became more educated, more affluent and more independent, they began reaching for organizations with a better quality of work life (QWL). QWL seeks to employ the higher skills of workers and to provide an environment that encourages them to improve their skills. The idea is that human resources should be developed and not simply used (Newstrom and Davis, 1997, p. 294). The difference between job enlargement and enrichment is summarized in Figure 2.1:

![Figure 2.1 Difference between Job Enrichment and Enlargement](Adapted from Newstrom and Davis, 1997, p. 295)

A Job Characteristics Approach

Hackman and Oldham (1980) developed the job characteristics model, which specifies five core dimensions that can help people feel that they are doing meaningful and valuable work, and enrich their jobs. They are:

- skill variety: allows employees to perform different operations that require different skills;
- task identity: allows employees to perform a complete piece of work;
- task significance: the amount of impact, as perceived by the worker that the work has on other people. The key point is that employees should believe they are doing something important;
autonomy: some degree of freedom, gives employees some discretion and control over job-related decisions, building a sense of responsibility;

feedback: information that tells workers how well they are performing. It can come directly from the job (task feedback) or it can be given verbally by management and other employees.

The direct effects, the personal and work outcomes of the core job dimensions are summarized in Table 2.2:

<table>
<thead>
<tr>
<th>Core Job Dimensions</th>
<th>Direct Effects (Psychological states)</th>
<th>Personal and Work Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skill variety (Different skills and abilities used)</td>
<td>Perceived meaningfulness</td>
<td>High internal work motivation; Improved work performance; High satisfaction with the work; Reduced absenteeism and turnover;</td>
</tr>
<tr>
<td>Task identity (Complete piece of work)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task significance (Importance of work)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autonomy (Control over task performance)</td>
<td>Perceived responsibility</td>
<td></td>
</tr>
<tr>
<td>Feedback (Information about performance)</td>
<td>Perceived knowledge of results</td>
<td></td>
</tr>
</tbody>
</table>

This thesis seeks to link theories of motivation with the increased research activity that is now taking place in Colleges of Education in Israel.

Deriving from this section the following research question will be addressed:

How, according to teacher educator researchers, is research work contributing to the five dimensions of the job characteristics approach?
Developing the Research Culture

Change In Culture

After discussing teacher educators’ characteristics and how can their jobs be enlarged and enriched by research, the methods and processes that can be used by organizations to change the culture, and especially the research culture will be presented.

Organizational Culture

Organizational culture is a way of looking at and thinking about behavior in organizations, and offers a useful perspective for understanding what is occurring in schools and colleges (Prosser, 1999, p. 11). The culture of organizations comprises its values (Schein, 1985), beliefs, operational norms, attitudes to and care for its employees. Also, it includes rites and ceremonies, celebrations of achievement, formal and informal networks, systems of communication, and the ideology that the organization espouses (Mintzberg, 1983). Further more, it covers perceptions, expressions of need and interest, patterns of expectation (Schwartz and Davis, 1981) and general orientations (Morrison, 1998). Culture is the product of the interaction among managerial functions and organizational characteristics (O’Neill, 1994a, p. 118), and research on culture rarely focuses on school culture per se, but more often in association with, or as framework for, studies of ‘effectiveness’, ‘improvement’, or ‘change’ (Prosser, 1999, p. 7). In addition, organizations typically have several cultures operating within them (Greenberg and Baron, 1997, p. 472), and any school’s unique culture is the aggregation of its subcultures (Prosser, 1999, p. 11).

Leaders who are interested in changing their school’s culture should first try to understand their existing culture. The values, beliefs, and attitudes held by faculty reflect their socialization experiences and, in essence, mirror faculty culture. Graetz’s (1973) view of culture is where culture shapes and is shaped by social interaction.
Healthy and sound school cultures correlate strongly with increased student achievement and motivation, and with teacher productivity and satisfaction (Stolp, 1994). Stronger school cultures have better-motivated teachers and are a result of the implementation of a clear mission statement, shared vision, and school-wide goals. In an environment with strong organizational ideology, shared participation, charismatic leadership, and intimacy, teachers experienced higher job satisfaction and increased productivity (Cheng, 1993). A strong culture results when individuals come to agree and internalise the values of the organization. It cannot be imposed but can be fostered by common shared experience, involvement and persuasion (Williams et al., 1993, p. 299). The benefits of a strong organizational culture are a commitment to the organization, effort above minimum, behaviour that is self-reinforced.

**Defining Change in Culture**

Williams et al. (1993, p. 299) reject the approaches to culture that define it as an invisible and unconscious entity which is impossible to measure, change or investigate. Such approaches are intuitive and have no evidence to support them. For them it seems more sensible to define culture in such a way that it can be measured, changed, related to organizational performance and subjected to empirical investigation. Fullan (1982) coined the phrase that ‘change is a process, not an event’. Change can challenge individuals to develop their attitudes, behavior and skills. It can also operate at whole school level and have far-reaching implications for the culture and organization of a school (Craft, 2000, p. 175). Firestone and Corbett (1988) examined how the diffusion of innovations within educational systems is done and found that typically it involves an organizational change process, rather than an individual decision-making. Planned organizational change refers to a multidimensional set of activities and processes designed to change individuals, groups, organizational structure and processes (Morrison, 1998, p. 14). All organizations face processes of change whether this is
organic change or whether it is rapid change. There are two objectives underlying planned organizational change: (1) to improve the capacity or ability of the organization to adapt to changes in its environment and (2) to change patterns of employee behavior. This thesis will examine how the change in the research culture can influence organizational performance and employee behavior.

Approaches to Managing Change

A major challenge facing organizations is to manage change effectively. Rigid hierarchies, high degrees of functional specialization, narrow and limited job descriptions, many written rules and procedures, and impersonal human relationships may be cause for inadequate response to the demands for change from within or outside of the organization. An educational leader has three major tasks in relation to culture: diagnosing the present character of the culture, directional – deciding in what ways to change the culture and managerial devising and implementing a strategy for moving the culture in the chosen direction (Hargreaves, 1999, p. 48).

The traditional assumption is that culture change must be 'top-down', but recently it is argued that 'top-down' changes rarely produce significant or lasting changes at lower levels in the organization. They do not take into account lower level concerns and motivations (Williams et al., 1993, p. xiv), and do not succeed in building universal commitment and ownership. This emphasizes the need for clear leadership and for effective participation in the decision-making process. Carnall (1995, p. 38) too, argues that the old culture of organizations (hierarchical, bureaucratic, with clear boundaries and demarcations, paternalistic and an emphasis on control and risk avoidance (McGregor's Theory X applied to organizations) must be replaced by the new culture of teamwork and connection, empowerment and trust, risk-taking and innovativeness, and support for action (McGregor's Theory Y applied to organizations). Hargreaves (1999, p. 56) also mentions possible variations in school cultures, from traditional to collegial,
but management of change requires developmental structures or temporary systems for
specific, short-term development tasks. A different outlook is presented by Lafferty and
Fleming (2000) who examined the restructuring of Australia’s university system, and
reported that the introduction of corporate managerialism has changed the work
performed by academic staff. The emergence of higher education as a major export
industry and a vehicle for attaining greater international competitiveness, has led to
more intense regulation of academic work. Hierarchical line management, with clear
divisions between different categories of academic staff, may then replace collegial
forms of administration. To conclude, a clear leadership, or even a hierarchical line
management can be sometimes more suited to introduce change, especially as a vehicle
for attaining greater competitiveness, and to have more intense regulation of academic
work (Lafferty and Fleming, 2000). However, Williams et al. (1993, p. xiv) advise
moving away from a hierarchical, bureaucratic culture to a more democratic culture of
connection, empowerment and participation in decision-making, to build commitment
and ownership.

Stages in Leading Change

Carnall (1999, p. 225) identified three characteristics as necessary conditions for
effective change: awareness, capability and inclusion. For change to be successful, those
involved must understand its objectives, and their role. Only then will they feel
confidence in the likelihood of success. Given that, they must be helped to acquire the
capabilities to handle the new tasks and work situations. Anthony (1994, p. 1)
distinguishes between covert and overt cultural change. The overt cultural change
involves new rhetoric; new values and beliefs precede new behavior and new structures.
Covert means, which are intended to produce a new culture, include changes in
structure, personnel, financial control and funding. Similarly, Schein (1985) explains
that change in culture involves development and support in material as well as cultural
features: its design and structure; systems and procedures; narratives, myths and legends about the organization; and its formal expressions of policy and outlook.

Handy's (1976) four cultures of an organization - power, role, task and personal, are associated each with a particular form of structure (web, bureaucratic, matrix and cluster). It is a difficult to determine whether the culture influences the structure or follows, but congruent structural features will sustain the leader’s cultural influence (Anthony, 1994, p. 39). Schools or colleges are not of a single type, and it would be desirable for all four types to be present and in alignment (pulling in the same direction).

Likert (1967) mentions three types of variables that can help managers to understand organizational processes to develop the research (Figure 2.2): first, causal variables that the management can change most directly. They include organizational structure, policies, training, and leadership behaviors. Second, intervening variables that are immediately affected by the causal variables. They include employee attitudes, perceptions, motivation, and skilled behaviors, as well as teamwork and intergroup relations; and end-result variables that represent the objectives sought by management. They include improved productivity, increased sales, lower costs, more loyal customers, and higher earnings, and are at least influenced by the research culture.

![Diagram of variables in Likert Organizational Development Approach]

Fullan (1991, pp. 47-8) too, identifies several stages to change: initiation (mobilization, adoption, i.e. when the decision to adopt a change is made); implementation (initial use,
i.e. when the change is first put into place); continuation (incorporation, routinization, institutionalization, i.e. whether the change becomes embedded and part of school life); and outcome, i.e. the effects, positive and negative, of the change. Morrison (1998, p. 143) suggests the following guidelines (Table 2.3) for educationalists to identify inhibiting and facilitating factors at the key stages of innovation identified by Fullan (1991):

<table>
<thead>
<tr>
<th>Change Stage</th>
<th>Inhibiting Factors</th>
<th>Facilitating Factors</th>
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<tbody>
<tr>
<td>1. Initiation</td>
<td>Meaning of change is unclear at the start; process in unclear; change is imposed; unrealistic proposal for change; lack of support; limited resources; senior leaders are obtrusive; the change is not an improvement</td>
<td>Clear and well structured approach to change; voluntary participation; common values and concerns; availability of resources; active initiation and advocacy; ownership of change; change seen as improvement</td>
</tr>
<tr>
<td>2. Implementation</td>
<td>Power conflicts; lack of vision; absence of early rewards; lack of trust; poor communication; inertia; lack of monitoring; opposition from senior staff</td>
<td>Early success; meets felt needs; open communication; presence of incentives; peer interaction and support; successful use of levers of change; integration of top-down and bottom up strategies; external support</td>
</tr>
<tr>
<td>3. Continuation</td>
<td>Lack of interest/ support/ funds; limited capability for sustained continuous improvement; unsustained change in behavior and values; no ownership of change; departure of leaders and staff</td>
<td>Change is institutionalized; change in the organizational culture; interest shown in fundamental change; ownership; availability of resources; clear direction of change; support of local facilitators and trainers; eliminating of contradicting practices</td>
</tr>
</tbody>
</table>

Table 2.3 Identifying Factors at the Stages of Change

Source: Adapted from Lung, 1998 in Morrison, 1998, p. 143
Strategies to Change

Successful change depends upon a strategy that recognizes the social and psychological processes involved. French and Bell (1990, pp. 98-111) recommend a data based, problem-solving process of organizational change that follows the steps involved in the scientific method. It consists of three steps: Gathering information about problems, concerns, and needed changes from the members of an organization; organizing this information in some meaningful way and sharing it with the employees involved in the change effort; planning and carrying out specific actions to correct identified problems. It often includes an evaluation of the implemented actions. It may go through repeated cycles of data gathering, information sharing, and action planning before its conclusion. The strength of their approach to change lies in its careful diagnosis of the current situation in the organization and its involvement of employees in the change process. People are more likely to implement and support a change that they have helped create. The pressure for change comes from within the group rather than from outside. This internal pressure is a particularly powerful force for change (Cartwright, 1951). The problem-solving model assumes the ability of participants to identify, operationalize and solve problems – a bottom-up strategy rather than a ‘top-down’ model. It is an attempt to build in ownership, engagement and involvement of all participants actively rather than as passive recipients of prefigured decision (Morrison, 1998, p. 16)

Organizational Development (OD)

Newstrom and Davis (1997, p. 416) and Morrison (1998, p. 38) too, advise an integrated approach to change known as organizational development (OD). OD is a planned, systematic process of organizational change based on behavioral science technology, research, and theory (Woodman, 1989). It draws from psychology, sociology and anthropology. Organization development relies on information from motivation theory, personality theory, and learning theory, as well as on research on
group dynamics, leadership, power and organization design. OD seeks to create self-directed change to which people are committed. It is a system wide change effort to improve both organizational effectiveness and employee well being (Hellriegel et al., 1994, p. 740). OD places equal emphasis on solving immediate problems and the long-term development of an adaptive organization. It places emphasis on a collaborative process of data collection, diagnosis, and action for arriving at solutions to problems and often leads to new organizational structure, job designs, and working relationships that break with traditional bureaucratic patterns. This integrated organizational development approach to change will be used to develop the framework for this thesis.

**Developing the Research Culture**

Many of the newly designated universities have their origins in applied and vocational disciplines where there is a stronger focus on teaching than on research (Pratt et al., 1999). In addition, doctoral qualification, the standard training for academic research, is generally not a prerequisite for employment in non-university higher education. The academization of these newly designated institutions, call for aspiring them in raising the research output of the staff.

Pratt et al. (1999) provide a case study of the development of a research culture in the School of Management Studies at the University of Waikato, New Zealand. They used managerial decisions to transform a faculty from being undergraduate-teaching-dominated in the late 1980s to one with a strong research profile by the mid 1990s. They draw on management theory to show the links between changes in belief, attitudes and values in bringing about a change in the organizational culture. The culture of the institution changed towards one that embraces research as part of the role of a university academic.

For Pratt et al. (1999) to transform the organization into one that could successfully compete in the new deregulated environment required a change in staff beliefs. It was
necessary for staff to believe that research and higher qualifications would be important for the future success of the school, and this was contrary to past experience and deeply held beliefs. Although there was a general acceptance of the need ‘to become more academic’, the fact that faculty jobs would depend on their ability to attract and retain different types of students from those they had recruited was not well understood. New performance targets included: the number of doctoral, graduate and MBA students, the number of research contracts, and publications.

Attempts were made to change people’s beliefs, attitudes and values using all the suggested ways by: open discussions about the purpose, policies, values of research in a series of school-wide meetings, a new human resource manual was developed, conference funding and research funding were made available more widely than in the past, and there was the creation of the Director of Research position.

Not only institutions in higher education, but also schools involved in site-based research programs, can experience an impact upon their culture, by becoming learning organizations. Middlewood (1999, p. 119) suggests the following factors, all of which are relevant to the College in this investigation, as important in achieving a change in culture through school-based research, involving a number of staff: the support of school leaders; presentation of the research group work’s to the rest of the staff; coordination of research projects and ensuring continuity.

Another example is the Berlin-White Action Research Model (BWARM) that was designed to prepare and support teachers in the development, implementation, and evaluation of innovation within their classroom. The yearlong program consists of three interrelated phases over four academic quarters: pedagogic awareness designed to provide knowledge and experiences to advance teacher learning and to serve as a springboard to educational innovations; research, development, and evaluation – which
prepares teachers in the fundamentals of inquiry in education; classroom applications -
three quarter hour-long seminars focusing on development of curriculum innovation and
data collection procedures, classroom implementation and data collection and analysis,
interpretation and report writing.
A culminating 2-day conference brings together teachers and other professional
educators to share the curriculum innovation and action research results. The findings of
a 5-year longitudinal study involving 92 elementary teacher researchers suggest that the
BWARM program enhanced teacher attitudes toward educational innovations and
educational research. It facilitates the implementation of educational innovations and
improved teaching and learning in individual classrooms, and changed the participating
teachers' views of their classroom roles to include reflection and inquiry (Berlin, 1996).
To summarize, the examples demonstrate an inter-relationship between teacher research
and educational change. To introduce teacher research, planned organizational change is
needed. It is a system wide change effort, which involves people, task, strategy and
structure-focused approaches to change. Teachers need to overcome resistance to
change. When change is introduced, and teachers engage in research, it can in turn
improve the ability of the organization to adapt to additional changes in its environment,
and further change patterns of employee behavior (Hellriegel, et al., 1992). It is a
collaborative process that can bring in the long-term to the development of an adaptive
organization. Morrison (1998, p. 41) states that a key leitmotiv that runs through all
literature on change is the centrality of the motivation of individuals involved in or
affected by the change. He refers to terms such as ‘agreement, involvement, need,
assistance, consultation, reward, support, motivation, incentives, reinforcement,
celebration of success’, terms that reinforce the need to view change not through the
mechanistic lenses of Taylorism but as focused on people. Change, therefore, concerns
This thesis will investigate the organizational change processes that were introduced to develop the research culture in one College of Education in Israel. Then, consider how the research culture is changing the College and employee behavior. The research question arising from this section:

How is the research culture developed, maintained and reinforced at the College?

**Theoretical/Conceptual Framework for the Thesis**

Ashcroft and Palacio (1996, p. 7) advocate to relate findings of research to a theoretical framework, which can be developed by the researcher or to use an existing one. Without such analysis, the results of insider research like the current thesis tend to be anecdotal and descriptive. The framework used to organize and analyze the findings of this thesis (Figure 2.3) is a synthesis of the several approaches. Anthony (1994, p. 1) suggests that cultural change involves changes in structure and personnel, in addition to change in values and beliefs (Figure 2.3, boxes A, B, C, D, F). Schein (1985) explains that change in culture involves development and support in material features such as design, structure, and formal expressions of policy (Figure 2.3, box B). Likert (1967) recommends organizational changes in structure, policy, training, as well as changes in employees attitudes, motivation and skills (Figure 2.3, boxes B, C, D, E, F, G). Williams et al. (1993, p. 78) approach includes six stages in which management can attempt to change the culture of their organizations and motivate employees to improve performance: by changing systems and structures, by changing beliefs, attitudes and values; by changing behavior; by changing the people in the organization; by changing people’s position in the organization and by changing the corporate image ((Figure 2.3, boxes A-H). From a synthesis of these approaches the model appearing in Figure 2.3 was developed to analyze the change in the research culture at colleges of education in Israel.
The existing faculty at Beit Berl is experiencing pressure to adjust to the new conditions that were imposed on them. If faculty is to be engaged in research, as well as teaching, time and resources have to be allocated, and unskilled faculty will need training. Research productivity measures have to be developed and a reward system established (Pratt et al., 1999). The College has to go through a period of planned organizational change or socialization process to the new culture. In addition, organizations need new structures that are flexible and adaptive and systems that both require and allow greater commitment and use of talent on the part of employees and managers (Hellriegel, et al., 1992, p. 716). This thesis will explore change in the research culture, in response to the
academization process, and its impact on academic colleges of education in Israel, using the model developed to organize and analyze the findings. Next, organizational structures that foster development of the research culture will be discussed.

Creating Organizational Structures to Support Research

The term organizational structure refers to the formal configuration between individuals and groups with respect to the allocation of tasks, responsibilities, and authority within organizations (Greenberg and Baron, 1997, p. 505). The connections between various clusters of functions of which an organization is composed can be represented in the form of a diagram known as an organizational chart. Analysis of organizational structures focuses on visible and tangible features of educational organizations: charting the relationships and lines of communication, or by job descriptions indicating role responsibility and lines of accountability, or by complex matrices outlining pay levels and job titles (Lumby, 1999, p. 64). The visual representations communicate one level of reality, the public statement of how people will relate to each other within the organization. The way people are rewarded and their role and place in the organization can indicate the status and value placed on each role. The representations of structure reflect current norms and values and are important aspects of culture.

Cultural analysis examines those seemingly intangible and invisible characteristics of organizations, which, nevertheless, contribute directly to managerial and organizational effectiveness within any institution. A distinction between culture and structure is helpful because it highlights the potential tensions between structures and policies, which constitute the official goals and formal relationships in the organization, and the values and informal networks of relationships which represent the practice and aspirations of the people who make up the organization (O’Neill, 1994a, p. 101).

The complexities of educational organizations demand appropriate management structures to promote effective and efficient development and delivery of all activities.
The relationship between structure, culture and activities is one of interdependence, because changes in any of the three dimensions will affect the established balance between all (Figure 2.4).

![Figure 2.4 Dimensions of Educational Organizations](image)

*Adapted from O’Neill (1994a, p. 101)*

**Organizational Structures of Educational Institutions**

The organizational structure of universities, libraries, hospitals and consulting firms is what Mintzberg (1983) calls a professional bureaucracy. In these organizations employees are highly trained specialists with considerable expertise in their field, and free to make decisions on their own. At the same time, the environment is highly formal, with lots of rules and regulations to follow (Greenberg and Baron, 1997, p. 505). The College’s structure is a divisional structure. It consists of a set of self-contained autonomous units or departments coordinated by a central headquarters. The departments operate more or less independently; their heads have considerable control over their departments, and report directly to top management. It enables top-level management to concentrate on large-scale strategic decisions. Organizational structures allow the economic and efficient performance, resource utilization, and monitoring the activities of the organization (Mullins, 1981, p. 73). In addition, they allow coordination of different parts of the organization and different areas of work, accountability for areas of work undertaken by groups and individual members of the organization, flexibility in order to respond to future demands and developments, and to adapt to changing environmental influences, and the social satisfaction of members.
working within the organization. Hargreaves (1999, p. 62) believes that it is often easier and more effective to change the structure than to change the culture. Change often requires the creation of development structures, such as working parties of task groups, rather than trying to use maintenance structures, where the culture is often directed to preservation of the status quo. Van Vught (1989, p. 258) from the Netherlands discusses ‘knowledge areas’ as the ‘building blocks’ of higher education, shaping the typical organizational structure of institutions, where ‘fragmentation is abundant’. Teachers have loyalties to their profession and their discipline (Hannan and Silver, 2000, p. 79). As subcultures they are likely to change less radically than the institutions and systems that build on them (ibid, p. 82). The organization will develop a structure, which reflects its original cultural and strategic needs (Williams, et al., 1993, p. 149). The organization has to sustain a delicate balance between ‘differentiation’ and ‘integration’; organizations that are rigidly controlled yet at the same time allow autonomy.

According to O’Neill (1994a, p. 117), traditional bureaucratic structures are appropriate and necessary responses to routine administrative demands, but to respond to constantly changing demands on the resources and expertise of the organization, radical management structures are needed. As ‘open’ systems, educational organizations are required to interact successfully with their environments in order to survive. Shared values and beliefs need to be developed, maintained and reinforced via a range of approaches in all organizational activities. This thesis will explore changes in the organizational structure of the College, to provide flexibility, to respond to new demands and developments, and in particular, the establishment of the Research Unit. Issues discussed in this section include the establishment of the Research Unit (changing systems and structures), locating the research and evaluation unit on the organizational chart of the College and evaluating how its position affects its status and influence on the culture.
Structures to Support Research

The conviction that a strong commitment to research was crucial to their survival was rather slow to emerge in many university departments of education in Britain. Most had historically been concerned with the training of teachers; many had tended to see research as an optional activity. The past decade has witnessed a significant transformation in attitudes as departments have attempted to build what Ranson (1998) terms 'cultures of research'; in the past few years the pace of change has quickened still further.

One important step that leading departments have taken has been to facilitate the emergence and support of departmental research programs. Such strategies have helped to identify issues requiring theoretical development whilst offering frameworks for establishing which particular opportunities for external funding to pursue (Gray, 1998).

A second step in many leading departments has been to create the conditions within which teams of researchers could be established and maintained. They have had high-level leadership, often at professional level. Such research teams or centers have generally been on the small side in education, ranging from three to six members, with established staff making up half or less of these numbers. The more successful teams have managed to stay together for a number of years.

Since funding for the maintenance of such teams or centers has tended to come from a number of sources, they have had to devote considerable energy to the problems of securing continuity. Funding is seen as crucial, enabling researchers to peruse research of 'cutting-edge' importance against a background of more bread-and butter activities (Ranson, 1998).

The third step was the establishment of research centers. Compared to academic departments, research centers are a very recent organizational phenomenon in universities in the USA (Stahler and Tash, 1994). With the influx of major federal
funding in the US for research during the past thirty years, centers have emerged as a flexible organizational structure particularly adapted to respond to the needs and requirements of research patrons – particularly federal government and private industry (Geiger, 1990). Research centers or research units have as their primary mission the conduct of research, but vary enormously across a number of dimensions, some of which include: the proportion of faculty versus professional staff researchers; level of separation from academic departments; level of integration with the university; level of interdisciplinary and multidisciplinary focus; relative emphasis of applied research.

Research centers promote the discovery of new knowledge through research and scholarship, but many argue that for centuries research and scholarship have been successfully conducted within the confines of academic departments, thus competing over recognition and prestige. Stahler and Tash (1994) undertook a survey to better understand the role of research centers at universities in USA. From a purposive sample of eighteen universities they concluded that research centers are perceived as an essential element in the expansion of research at these institutions by encouraging interdisciplinary collaboration and increasing research productivity and quality.

In Israel too, support structures for research have been also formalized. A committee of three researchers (Shamai et al., 2000) that was appointed in 1997 to investigate the research activity in Colleges of Education in Israel found that out of thirteen colleges that responded to the inquiry in 1998, twelve reported having a research committee and eight having a research unit.

The research questions deriving from this section are:

What organizational structures were developed to support research at the College?

What are the benefits and shortcomings of research units at Colleges of Education in Israel?

Induction and mentoring of novice researchers will be discussed next.
Induction and Mentoring of Beginning Researchers

Although mentoring may be most commonly associated with the induction of new teachers, it is also used for both the induction and professional development of middle and senior managers, and in programmes developed for headteachers (Bush et al., 1996). In addition, mentors can communicate aspects of culture through training programs, day-to-day coaching on the job and by providing role models (Hellriegel et al., 1992, p. 509). In this thesis the induction and mentoring of teacher educators who want to be engaged in research at Colleges of Education in Israel will be discussed.

Trethowan and Smith (1984, p. 1) identify induction as a process: 'which enables a newcomer to become a fully effective member of an organization as quickly and as easily as possible'. O’Neill et al. (1994, p. 68) sum up the purpose of induction in schools and colleges as: ‘socialization; achieving competence; and exposure to institutional culture’. Tickle (1994) suggests a practical support framework that may help the inductee to absorb some of the institutional or research culture. It can provide opportunities to meet staff and understand their roles, an introduction to the provision of resources and links to support services.

Maynard and Furlong (1994, p. 82) identified three strands of induction:

- the apprenticeship model, emulating the example of an experienced researcher;
- the competence based approach, where the mentor becomes a trainer, coaching to research competences;
- the reflective model, where the mentor takes on the role of stimulating critical reflection and becomes a ‘co-enquirer’.

Earley and Kinder (1994) identify the importance of flexibility and add that induction
should: meet teachers’ training needs; be a part of a school-wide approach to supporting all staff; be systematic and planned, including feedback to individuals; enable staff to become active and valued members who can contribute to the College; and lay the foundation for a life-long professional career.

**Faculty-to-faculty Mentoring**

Mentoring tends to fit fairly traditional college/university values, but the concept of mentoring dates back to ancient Greece and Homer’s epic poem, The Odyssey. Mentor, a friend of Odysseus, was asked to guide and educate Odysseus’s son. In the mentoring relationship, an experienced person provides support and a model for the next generation (St. Clair, 1994). It is an emotional interaction between a younger person and an older one in which the mentor’s responsibility is to help shape the growth and development of his or her protégé (Gold, 1996, p. 572). Today, mentoring activities in universities range from the professional, such as assistance with research and writing, teaching and grant writing, to the social, including shared meals and recreational activities (Wunsch, 1994). Most professionals consider a mentor to be an experienced person who provides the mentee with support, encouragement and knowledge. In return, the relationship also fosters the mentor’s professional activity and growth.

Mentoring can ‘extend the use of ... effective feedback, dialogue and target setting skills through a system of continuous professional development and support’ (Smith, 1996, p. 11). There is potentially a very strong link between mentoring and staff development activity: ‘mentoring offers support by providing individuals with someone who can give feedback, question, share, discuss, challenge, confront and guide one through the learning cycle’ (Kelly et al., 1992, pp. 173-4). The reflection that is part of the ‘learning stance’ identified by Tickle (1994) is enhanced by the opportunity for discussion and critical feedback.

‘Mentoring is often used in association with induction, but the impact of
mentoring may go beyond an induction process to become embedded in wider professional development’ (Coleman, 1999, p. 155).

Goodwin, et al. (1998) conducted a survey in thirteen schools, colleges and departments of education in Colorado, USA, to investigate faculty members’ attitudes, perceptions and experiences about faculty-to-faculty mentoring. Sixty per cent of the 125 respondents reported being mentored by another faculty member; forty-six per cent said that they had served as a mentor to another faculty member; thirty-four per cent of the respondents said that they had been both a mentee and a mentor. The major outcomes of mentoring focus on its contribution to research and scholarship, teaching and professional socialization. The three most frequently occurring responses, by both groups, related to the mentees’ scholarly activities (publications, grants, research projects), increased confidence and obtaining tenure. The next two categories of response were development of close friendships and improvement in teaching. Respondents failed to mention partnership activities as a focus or outcome of their mentor/mentee experiences. Effective mentoring relationships were characterized by attributes such as mutual respect, caring, accessibility of the mentor, compatibility, and support. Voluntary and informal mentoring seemed to occur more often and was more highly valued than involuntary or formal mentoring (ibid.).

**Theoretical Support for Mentoring**

Theoretical support for establishing mentoring relationships can be found in theories of human development (St. Clair, 1994). Social learning theory describes the principles of modeling and identification (Bandura, 1986). A less experienced educator acquires competence through involvement with one who demonstrates skills in research. Motivation theory also supports mentoring through its emphasis on relationship-seeking and competence-seeking behavior. We seek relationships because of our inherent need
for belongingness. Once relationships are established, we desire competence in our life’s work (Maslow, 1970). One way to achieve these goals may be through a mentoring relationship (St. Clair, 1994).

**Who are the Mentors?**

According to Newstrom and Davis (1997, p. 96) mentors are usually older, successful themselves, and respected by their peers (influential). They tend to be people with power and status in the organization (Hellriegel *et al.*, 1992, p. 692). Mentors must be willing to commit time and energy to help another person, be able to communicate effectively and share ideas in a non-threatening fashion, and enjoy one-to-one development of others. Mentors are often not the employee’s direct supervisor, which allows them to be more objective about the protégé’s strengths and weaknesses. The mentor may receive need satisfaction (especially self-esteem and self-actualization) from a sense of accomplishment in helping beginning researchers (Hellriegel *et al.*, 1992, p. 693). According to Carney and Hagger (1996, p. 128) the mentors see mentoring as an opportunity for professional development, ‘an opportunity to reflect on and question their own subconscious practice and to learn about new developments’.

Mullen (2000) created a Partnership Support Group (PSG) to tackle issues of mentoring, writing, and publication across faculty lines at a site for school and university research in Florida. In the project, teachers, professors, and administrators came together to study their own issues about and the processes of mentoring. It allowed supported joined inquiry, productivity and publication.

How can induction and mentoring impact on individuals and the institution? The following sections will emphasize the interrelationships between the socialization of beginning researchers and its influence on their career development and on the institution. Socialization emphasizes the interests of the organization while career development emphasizes the interests of the individual. The preferred outcome is
integration of organizational and individual interests (Gibson et al., 1994, p. 658).

**Mentoring and Career Development**

Generally conclusive evidence links mentoring to career development, organizational effectiveness and career satisfaction (Kram and Isabella, 1985). Career-related activities include coaching and challenging protégés while also publicizing their accomplishments and protecting them from political intrigues.

Perna and Lerner (1995) conclude from empirical research data that despite being older and having more years of education than their counterparts in business or corporate professions, faculty protégés appear to benefit from mentoring on both objective indicators and subjective perceptions of career success and satisfaction. This finding is consistent with primary theories of career development suggesting that planned exploration and feedback under the guidance of more experienced people is crucial for career development even after formal schooling ended (Super, 1953).

Coleman (2000) reported from a survey of all female headteachers in England and Wales (N=470) that: courses (87%), appraisal (69%) and mentoring (66%) were the most often cited means to encourage teachers to develop their careers.

Lyons and Scroggins (1990) suggest that academic mentoring differs from career mentoring. While mentoring can lead to success in business and the professions, having a mentor is considered absolutely essential for success in graduate school. All of the various activities and interactions involved in a doctoral programme require tremendous amounts of time and energy from both the mentor and the student. It can be assumed that students who are mentored gain valuable knowledge, expertise and experience, which contribute toward future professional endeavors. Having staff that are also doctoral students can have positive influence on the College. Working with a large sample (N=485), Pierce (1983) found that seventy-eight per cent of psychology doctoral students who had competed the degree had had an academic mentor. Bova and Phillips
(1984) reported on protégés in university settings and concluded from their research that mentoring relationships were critical for developing professionals in higher education. The protégés in their study learned risk-taking behaviors, communication skills, political skills, and skills related to their profession. Thus, they regarded mentoring as being quite positive. Johnston and McCormack (1997) report on a program to develop research potential of staff by matching inexperienced researchers with experienced researchers who acted in a mentoring role and a two-day workshop covering research skills. An evaluation of the program revealed that participants benefited from the support provided by their peers in the program as well as from the support provided by the mentors. According to Lyons and Scroggins (1990) mentors serve three primary functions in the lives of their protégés: to transmit formal scientific knowledge and technical skills, to introduce the student into the rules, values, and ethics of their discipline and to bolster their protégé’s confidence in themselves through encouragement and praise.

To summarize, institutions without a strong research culture are now being called upon to raise their level of research activity, and they need a range of strategies to support their academic staff to make the transition. Change in culture and the growing importance of research, led to the introduction of forms of induction and mentoring for beginning researchers. Induction and mentoring of beginning researchers should incorporate all factors required to meet teacher educators training needs. It can be systematic and planned, and be part of a school-wide approach to supporting staff, or individually suited to provide feedback, question, share, discuss, challenge, confront and guide the new researcher through the research process (Kelly et al., 1992, pp. 173-174). Induction and mentoring can be voluntary and informal or involuntary and formal, however its’ main purpose should be to enable staff to become active and valued members who can contribute to the College and lay the foundation for a life long
professional career (Earley and Kinder, 1994). The following research questions derive from this section:

How is induction and mentoring of beginning researchers done and by whom?

How can research related induction and mentoring affect individuals and the institution?

The Impact of the Research Culture on the Organization

The following sections will consider possible links between culture and performance (Figure 2.5). First recruitment, selection, promotion and removal of employees will be discussed, then allocation of rewards and status, and how they are related to developing the research culture at colleges of education in Israel. Then, consideration will be given to the influences of the research activity on individual interests: teacher educators’ career and professional development. Gibson et al. (1994, p. 658) suggest that the preferred outcome is integration of organizational and individual interests. Likewise, Adair’s (1988) model of action-centered leadership argues that a leader must attach importance to achieving the task, but at the same time, if possible, building and maintaining the team and developing and motivating individuals, as discussed in the concluding section – Empowerment through participation in management activities.

How can some cultures be associated with successful organizational performance? Furthermore, the ways in which an organization functions and is managed may have effects on maintaining or changing organizational culture.

![Organizational Culture and Performance](image)

**Figure 2.5 Link between Organizational Culture and Performance**

The techniques used to change culture cover a whole range of personnel practice, and personnel has a number of roles to play in the management and implementation of the organization’s culture and its change (Williams et al., 1993, p. 302). Implementation of
change can be done through: recruitment and selection; induction; training and
development; communications; payment and reward; appraisal; employee relations;
terms and conditions of employment; organization structure; counselling and
redundancy; social activities. Some basic methods of maintaining and further
developing the organization’s culture that will be discussed here:

recruitment, selection, promotion and removal of employees
allocation of rewards and status
role modeling, teaching and coaching (discussed earlier)

These methods, if applied, can affect organizational performance (Hellriegel et al.,

**Recruitment, Selection, Promotion and Removal of Employees**

The existing culture of an organization reflects past and present managerial functions.
Managers evaluate employees and those who are not well matched with or suited to the
organizational culture will be likely to exit, voluntarily or involuntarily (Figure 2.6).

![Figure 2.6 Methods of Maintaining Organizational Culture](#)

*Source: Adapted from Hellriegel et al., (1992, p. 508).*

One area that is influenced by the organizational culture is length of employment and
organizational fit. Voluntary turnover of individuals is related to culture. People remain
employed longer in cultures that stress pleasant interpersonal relationships than those
emphasizing hard work. Turnover is also lower among individuals whose personal
values more closely match those of the organizations in which they are employed than
those for whom personal and organizational values are less closely matched (Greenberg
Faculty Turnover and Gender

Faculty turnover can be effected by gender composition in academic departments (Tolbert et al., 1995). Using data collected from a sample of fifty academic departments in the US over the years 1977-88, the authors suggest that as the proportions of women in a department grew, turnover among women also increased, confirming the prediction that increases in the relative size of a minority will result in increased inter-group competition and conflict. The evidence also suggests, however, that when the proportion of female faculty reached a threshold of about 35-40 per cent, turnover among women began to decline.

Toren (1993) interviewed women full professors in Israeli universities and found that they had to work harder than the men to prove themselves, yet they were not generally bitter about it and did not see themselves as discriminated against. Similarly, Acker and Feuerverger (1996) found, drawing from in-depth interviews with twenty-seven women academics in faculties of education in Canada, that many of the participants saw qualities like being a hard worker as typical of themselves as persons. When they complain that they are on too many committees or that they do more than the average share of teaching, they frequently add that they have only, or mostly, themselves to blame. They reported working excessively hard, taking responsibility for supporting others, including colleagues and students, and being good ‘department citizens’. According to these respondents there is an unequal division of labor, with women working harder without sufficient recognition for the aspects of the work they care about or have to do (ibid.)

Allocation of Rewards and Status

Employees can learn about their organization’s culture through its reward system. The
rewards or punishments attached to various behaviors convey to employees the priorities and values of the organization (Hellriegel et al., 1992, p. 509). Rewards are a critical element of any organizational strategy for motivating employees. To motivate, employees must value rewards, and their distribution must be equitable. All factors being equal, the organization’s better-performing employees should receive more rewards than lesser-performing employees. Organizations typically provide two types of rewards:

1. Extrinsic rewards are those external to the job: salary and wages, fringe benefits, recognition, promotions

2. Intrinsic rewards associated with research:
   - achievement: a self-administered reward deriving from reaching a challenging goal
   - personal growth: individuals can see how their capabilities are expanded
   - autonomy: the right to make decisions without being closely supervised
   - participation in management activities and especially inclusion in decision masking processes.

Figure 2.7 The Organizational Reward Process
Source: Adapted from Gibson et al. (1994, p. 234).

Developing effective reward and performance evaluation systems constitutes two critical and challenging management tasks. Employee preferences differ concerning the content of rewards and also each appraisal technique has its strengths, weaknesses and
costs. Performance evaluation is a subjective emotional process that's vulnerable to human biases by those who evaluate.

The main objectives of reward programs are (1) To attract qualified people to join the organization, (2) to keep employees coming to work, and (3) to motivate employees to achieve high levels of performance. Figure 2.7 presents a model that integrates satisfaction, motivation, performance and rewards.

**Performance Related Pay (PRP)**

Performance related pay is linked with an assessment of several levels of performance, usually in relation to agreed objectives. It is about motivating people and developing performance-oriented cultures (Armstrong, 1996). The Institute of Personnel and Development in England has researched and explored reward strategies and performance management for a number of years. From the 1998 Performance Pay Survey, based on responses from employers with 1.5 million employees, it was found that performance related pay (PRP) was used by forty per cent of managers within the survey; team and skill/competency-based pay were less common but growing more rapidly; the mean value of the awards for all types was about 10%; public sector schemes were perceived to be less likely to generate beneficial outcomes. It was suggested that, though there were a few well-publicized withdrawals, most companies are sticking to PRP, and the proportion of all different forms of performance related awards continued to grow (Tomlinson, 2000).

A distinction can be made between skills-based pay and competency-based pay. Skills-based pay links pay and progression with the skills teachers have acquired, rewarding continuing professional development. But teachers may be rewarded for acquiring skills without necessarily using them. Competency-based schemes link reward to the demonstration of required behaviors (Walters 1995).
How can the college benefit from PRP? Expectations are that knowledge- and skill-based compensation will lead to a greater focus on student improvement and student achievement; raising the level of teacher professionalism; helping teachers focus on tangible, measurable professional goals; increasing teacher satisfaction by aligning compensation with professional development; defining a career ladder that will keep teachers in the profession; working with teacher organizations to meet their concerns while redesigning the compensation system. In England, performance related pay and performance management systems were intended to be implemented in 2000 (Tomlinson, 2000).

But there are opponents too. A report from a conference held in California 'Paying for What You Need: Knowledge- and Skill-Based Compensation' explains why individual merit pay has not worked when tried in the 1920s, 1960s and 1980s. It created competition among teachers when collegiality is essential; it ignored the majority of teachers; teachers were rarely evaluated well-until recently; there were no written standards of excellent teaching practice; it was often funded inadequately; it was usually dropped in the short term. Despite the criticism, performance evaluation probably won't be abandoned. How can performance be appraised?

**Performance Appraisal**

According to Latham (1992) performance appraisal and feedback involves: identifying measurement factors or goals against which to evaluate performance; measuring performance against such goals; reviewing performance levels attained by individuals; and developing improved future performance. A performance evaluation system can review past performance, as basis for making decisions concerning salary, promotion, retention, termination and feedback. Performance evaluation can also improve managerial understanding, can determine the organization’s human resource and training needs, and reduce favoritism in making reward-related decisions. One or more
parties inside an organization can evaluate an employee's performance: employee's supervisor, employee's peers, employee's subordinates or self-evaluation, and it should aim for future development (Hellriegel et al., 1992, p. 259).

Cummings and Schwab (1973) also talk about two purposes of performance evaluation: one is to reach an evaluative or judgmental conclusion about job performance and the other to develop employees through the system. These two purposes are compared in Table 2.4:

Table 2.4 A Comparison of Two Major Purposes of Performance Evaluation
Source: Adapted from Cummings and Schwab (1973, p. 5)

<table>
<thead>
<tr>
<th>Points of Comparison</th>
<th>Judgmental</th>
<th>Developmental</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time orientation</td>
<td>Past performance</td>
<td>Future performance</td>
</tr>
<tr>
<td>Objective</td>
<td>Improving performance by changing behavior through reward system</td>
<td>Improving performance through self-learning and personal growth</td>
</tr>
<tr>
<td>Method</td>
<td>Use of rating scales, comparisons, and frequency distributions</td>
<td>Counseling, mutual trust, goal setting, and career planning</td>
</tr>
<tr>
<td>Rater’s role</td>
<td>A judge who appraises</td>
<td>A supportive, counseling and encouraging person, who listens, helps, and guides</td>
</tr>
<tr>
<td>Ratee’s role</td>
<td>Listens, reacts and attempts to defend past performance</td>
<td>Actively involved in charting future job performance plans</td>
</tr>
</tbody>
</table>

As Table 2.4 demonstrates, the objectives, time orientation, and roles of the rater and ratee differ between judgmental and developmental evaluations. For this reason, most experts recommend that supervisor subordinate sessions addressing salary or promotion (the outcomes of judgmental evaluations) be kept separate from those dealing with personal and career development.

Performance Management
Performance management is different from traditional appraisal systems - it is arguably concerned with teams as well as individuals; agreement on accountabilities, expectations and plans; about continuously improving performance, developing competence and releasing potential; and concentrating on self managing learning. (Armstrong and Baron, 1998).

As an example, Marchant and Newman (1994) surveyed the heads of education divisions of 245 colleges and universities in the USA regarding their opinions about faculty activities and reward procedures. Of the institutions responding to the survey the average in-class teaching load was 9.6 credit hours per semester. The three top variables for tenure, promotion and merit pay decisions were refereed journal articles, book publication and student rating of teaching. Education administrators viewed tenure as having a greater effect on faculty behavior than the other variables. This implies that education administrators might feel substantially less control over tenured faculty members. In bigger and more prestigious universities education administrators tended to hold the perception that faculty are more likely to be motivated by a desire to obtain a professional reputation. These administrators would be more likely to use resources such as graduate student assistance, travel money and other support that could enhance reputation as a means to motivate their faculty (ibid.). Education deans rated the service factor and the publishing factor higher than did the department heads (Marchant and Newman, 1994). Education administrators from institutions active in the American Educational Research Association and those that were members of the Holmes Group view publishing as more important. Education administrators emphasizing research had larger libraries, larger faculties, more students, more masters' degrees granted, more development money and more sabbaticals granted. Although it is likely that the faculty at these institutions have more demands made upon them and more stress, they also have more resources. There was no significant relationship between tuition and any of
the factors \textit{(ibid.)}.

In another example, Dnes and Seaton (2001) examined if reforming tenure may have reduced research performance at universities. UK universities differ in the degree of protection afforded to academics by their tenure statuses. The hard tenure form made it virtually impossible to dismiss faculty, whereas the soft form allowed dismissal for financial reasons. Their findings were that hard-tenure universities have a stronger research performance and there is no reduction in performance contrary to prediction, that reform in tenure will reduce productivity. Their explanation is that the tenure “ghost” does not decline and the persistent research culture is well established in the hard-tenure universities.

Kfir (2001) evaluated the activities of the promotion committee at Beit Berl College, which was appointed in 1997. She found that from the 170 faculty members who can apply for promotion at the College, 124 applied for promotion, including twenty-two who applied more than once, and forty-six (27\%) never applied. The committee approved 124 new positions. From interviews of forty-five faculty she found that those whose promotion was approved are more satisfied than those whose promotion was denied. Even if they are satisfied personally, the promotion is not publicized in public, and it does not have the same importance as promotions at universities. Eleven faculty members were not aware of what are their rights regarding promotion.

To conclude, if effectively used, rewards can affect individual behaviors such as turnover, absenteeism, performance and commitment. Teaching and research performance evaluation will be further discussed in the next section. Intrinsic rewards will be further discussed in the section on “Participation in Management Activities and Empowerment”.

Deriving from this section, the following research question will be addressed:

How is involvement in research contributing to the recruitment, selection, promotion
and removal of employees?

How does the research activity of teacher educators contribute to their evaluation?

Do teacher educators who are also researchers perceive themselves as working harder than other teachers, and should they get paid more?

Some of these issues are related to the following section on the association between research and teaching, and will be further discussed next.

**Associations between Research and Teaching**

The change in culture and the growing importance of research, as part of the role of teacher educators at Colleges of Education in Israel, led to question the effect of research on teaching.

Does research enhance or inhibit teaching? While research and teaching are generally regarded as complementary aspects of an academic’s job, and are often seen to be mutually reinforcing, teaching has become widely perceived to be less important in the academic reward system. Teaching is something that more successful academics have tended to be excused from, so that they can fulfill the requirement to be productive researchers (Ramsden and Moses, 1992). Arguments are often advanced that research productivity helps to improve teaching effectiveness because it enables one to remain current in one’s field, or that it hinders teaching effectiveness because faculty spending more time on scholarship have less time to spend on teaching (Wachtel, 1998). Astin and Chang (1995) confirm that a real conflict or competition between research and teaching exist. High priority on student development and teaching tend to have a positive impact on undergraduate students, whereas those that heavily emphasize research tend to produce a negative pattern of student outcomes. In their work there is a strong negative association between an institution’s degree of emphasis on research and the priority that it assigns to teaching and student development.

Gottlieb and Yakir’s (1995) study defines faculty with research orientation (RO) as
spending more time on research, and faculty with teaching orientation (TO) spending more time on teaching. There was no significant difference in the mean job satisfaction of the two orientation groups, although higher-ranking academics were found to be more satisfied than academics of lower ranks. A total of 43 per cent of the RO faculty thought that their research had a positive effect on their teaching, whereas only 30 per cent of the TO faculty felt that their research had a positive effect on their teaching. Ramsden and Moses (1992) found from a survey of 1,489 faculty in thirty-four Australian higher education institutions that more senior staff tend to do less teaching, only ten per cent of professors said that their main interest was teaching, or leant toward teaching. Promotion to higher levels was often not possible on the basis of teaching performance, so promotion and financial reward flow to people who may be mediocre teachers but who are productive in research.

According to Altbach and Lewis (1995), faculty worldwide does not endorse the view that teaching and research necessarily work at cross-purposes. More faculty than not are convinced that their research has a positive influence on their teaching, and the majority of faculty in all countries are not of the opinion that the pressure to publish reduces the quality of teaching. Administrative assignments are seen as having a more negative influence on teaching than research. This thesis will examine the level of involvement in research of student-teacher supervisors in colleges of education in Israel and how this involvement is affecting their teaching? The choice of student-teacher supervisors, as subjects for this study, was determined by the Research Unit. To find out if research is having an effect on teaching, teaching and research performance need to be evaluated. Good research work can be reliably identified and is suitably rewarded; good teaching is supposed to be harder to detect and goes unrecognized (Gibbs, 1995).

**Evaluation of Teaching**
Evaluations of teaching can be conducted by students, colleagues, administrators and even the faculty members themselves (Adams, 1989), but student evaluations have been found to provide valuable information about the quality of teaching that correlates with other measures of teaching effectiveness (Miller, 1988).

Seldin (1985) found that systematic student ratings were "always used" as a component of faculty evaluation systems by more than eighty per cent of the business schools surveyed. Calderon et al. from the US (1994) found that close to ninety-five per cent of accounting departments use student ratings of instruction and as many as eighteen per cent rely exclusively on student ratings in evaluating faculty teaching performance. Ramsden and Martin (1996) found from a survey of thirty-two universities in Australia that only about half of them had developed criteria for identifying levels of teaching competence or teaching excellence and recognition of good teaching varied across the universities. Half of the universities reported using student feedback.

There is a huge existing literature, especially conducted in the US, on what factors affect, or bias, students' ratings of teaching, and these factors are summarized in papers of Feldman (1987, 1988) and Marsh (1987). Student evaluations of teaching effectiveness have served as formative and summative measurements of teaching (Miller, 1987). One formative use of student evaluations is as feedback to instructors who wish to modify their teaching practices, improve course content, format and structure (Yining and Hoshower, 1998). The summative function of teaching evaluations provides information for administrative decisions such as tenure, promotion and pay raise decisions and also provides information for students' selection of instructors or courses (Marsh and Roche, 1993). This function has been subject of controversy although in state supported institutions in the USA, teaching evaluations are publicly available information under the Freedom of Information Act. Overall, the literature supports the view that properly designed student ratings can be a valuable
source of information for evaluating certain aspects of faculty teaching performance (Calderon et al., 1994).

Other studies by Centra (1983), Feldman (1987), and Marsh and Dunkin (1992) have shown that there is no relationship or a very weak positive relationship between research productivity and teaching. In spite of this, there is evidence that institutions continue to use student evaluations as a factor in evaluating teaching effectiveness (Seldin, 1984), a practice, which has been widely criticized (Centra, 1993, p. 741). In this thesis student-evaluations of teaching were used to measure teaching effectiveness, which are done regularly by the Research Unit, twice a year.

**Research Productivity Measures**

Research is the coin of the realm for university scholars, although prioritizing research productivity begs quite a few questions (Park, 1996). In order to decide what makes for effective teacher research productivity measures, evaluation procedures of performance have to be developed. There are difficulties involved in attempting to measure or evaluate scholarly activities. For example, some institutions value books - particularly textbooks, - highly, whereas others denigrate them as personal economic activity (Richardson and Parker, 1992). The standard American Assembly of Collegiate Schools of Business (AACSB) categories are books, refereed journal articles, published proceedings, national presentations, regional presentations, trade magazines, professional nonrefereed journals, and case studies. Richardson and Parker (1992) calculated an overall scholarly activity index using weighted total for the various accomplishments: books (25), refereed journal articles (10), proceedings (3), national presentation (2), and regional presentation (1).

At universities, faculty is evaluated on the basis of their teaching, research, and service activities. To simplify the evaluation problem, Huettner and Clark (1997) analyzed only the journal-publishing and grant-getting ability of faculties as surrogates for research
output. The most common measures are number of journal articles, number of books, monographs, or chapters and research grant money. These numerical indicators may be adjusted for qualitative factors such as journal quality, number of citations, and prestige of the granting institution. (Taubes, 1993).

The emphasis or performance weight put on these indicators varies across disciplines. English and history departments, for example, may emphasize book publications, whereas science, engineering, and medical departments may put greater emphasis on external grants. Other disciplines (finance, psychology, geography) are reputed to emphasize journal article publication rates as important research productivity indicators. To make appropriate inter-disciplinary comparisons, Huettner and Clark (1997) suggest adjusting publication rates in different disciplines for the number of co-authors, journal quality and number of words per page. In general, faculty in the hard science disciplines (e.g. geology, chemistry, physics), publish a greater number of shorter, multi-authored articles per year than do faculty in economics, finance, and psychology. Acceptance rates also vary significantly across disciplines. On average, approximately sixty-two per cent of hard science articles submitted to the five highest ranked journals are accepted to publication, whereas only fourteen per cent of submitted social science articles are accepted. It should be noted that institutional expectations of research have increased dramatically over recent decades. Levels of scholarship once presumed to represent outstanding accomplishments are now viewed as bare minimums. In addition to quantity, publication of a variety of articles in top journals has also become more significant as an issue related to promotion and tenure (Clemens et. al, 1995, p. 464).

In the UK the Research Assessment Exercise (RAE) is used at four-year intervals dating from the mid-1980s to evaluate research outputs (Dnes and Seaton, 2001). University departments submit required details of their research to the Higher Education Funding Council (HEFC), which assesses the quality of the research using panels of experts for
each defined subject area. The subject panels assess performance against a five-point rating scale; with a five being the highest score for a "unit of assessment" that reflects international excellence. In 1996 the scale was expanded to a seven-point scale (Hannan and Silver, 2000, p. 117). The results are published and in recent years have become a major determinant of research funding; any drop down the RAE ladder can have drastic consequences (ibid, p. 118). In addition, Richardson and Parker's (1992) distinction between "lower status" and "higher status" scholarly activities will be used. "Lower status" research activities are more immediately relevant to real life, more concrete, and more amenable to being incorporated into the classroom opposed to scholarly or "higher status" research, scientific model building, and original empirical research as being often more abstract and complex. Higher status research is conducted and written, to be communicated to other professionals within a fairly narrow field of interest.

To conclude, faculty evaluation of performance serves as the basis for a number of reward procedures in higher education. Central to the idea of evaluation is the notion that comparisons can be made of faculty to a criterion or to members to other faculty members. Therefore, quantifying scholarly activity will have to be viewed as an approximate measure, not a precise calculation. In this thesis faculty's self reported research activity measures were correlated with student evaluations of teaching to find out if research affects teaching.

The research questions deriving from this section:

Are student teacher supervisors engaged in research and to what extent?

Are student teacher supervisors, engaged in research, receiving higher student evaluation scores on their teaching?

Are student teacher supervisors, engaged in "higher" or "lower status" research, graded differently on their teaching by their students?
The following section will consider how research activity can advance professional development of teacher educator researchers.

**Teacher Educators’ Professional Development and Research**

Richardson and Parker (1992) argue that research stimulates intellectual activity and encourages faculty to stay current in their field. How can educational research enhance teacher educators’ professional development and what motivates them to engage in research as a professional development activity? This section concludes with a consideration of the contribution of professional development activities to teachers’ career oriented personal needs.

**Professional Development**

The in-service education and training of teachers have been defined as ‘professional development activities engaged in by teachers to enhance their knowledge, skills and attitudes in order to educate children more effectively’ (Brown and Earley, 1990, p. 4). The notion that the principal objective of professional development is to enhance the quality of student learning experience has implications for the management, both of single activities and of planned programmes of professional development.

Research by Vulliamy and Webb (1991) suggests that in-depth reflection on practice, promoted on their course by case study and action research, often made a major contribution to participants’ professional development and led to changes in policy and practice for which they were responsible. Day (1991) proposes two factors contributing to the quality of professional learning: personal factors such as life-cycle and career-cycle stage, which influence the biography of the individual teacher’s professional learning and from the system side - the school’s culture influences the provision of professional learning opportunities (Figure 2.8).
What Motivates Teachers to Engage in Professional Development Activities

Teachers engage in professional development activities in response to extrinsic and intrinsic factors (Morstain and Smart, 1974). Joyce and Showers (1988) describe a theory of teacher growth based on a study of teachers' professional and personal lives.

They used a large-scale and longitudinal study among elementary and secondary teachers in California, to learn about opportunities for staff development and school improvement for individuals within the institutional context of the school and associated support agencies. Their findings suggest that over time, individuals develop a particular pattern of response and attitude toward personal learning and growth, and describe three types as:

- gourmet omnivores, about twenty per cent of their sample, as people who learned to scan and exploit their environment successfully, and who are more likely than others to bring their ideas they gain in their personal lives into the workplace and use them in their teaching;
- passive consumers, about seventy percent of their sample, who do not object to professional development but did not integrate it into their work;
- reticent consumers, about ten percent of their sample, who actually go out of their way to avoid growth and development, in both professional and personal contexts.

Scribner (1999) used a case study design to examine the factors that motivate teachers to engage in development activities, the ways they experience professional learning and
how work context influences their learning experiences. Extrinsic motivators were money incentives and licensure requirements. Intrinsic motivators were activities that address content knowledge needs, pedagogic skill deficits, and challenges to classroom management.

Scribner (1999) mentions traditional professional development activities such as graduate courses, in-service workshops and conferences, and also informal activities such as individual inquiry and job experience. Extrinsic motivators, such as money incentives and licensure requirements, channel teachers into traditional professional development activities, usually developed outside the school context and often loosely connected with teachers' classroom context. But it was found (ibid.) that conducting individual inquiry and job experience were the most powerful learning activities for teachers. Teachers expressed a deep distrust of outside experts with little or no knowledge of their teaching context. Teachers relied on their own experience as the primary source of knowledge and understanding. Although meaningful collaboration was rare, teachers perceived in-school collaboration as a rich source of contextually relevant knowledge affecting a range of professional activities.

Across schools, teachers described leadership as a factor that influenced access to, and the nature of learning opportunities. Observational data suggest that each principal approached in-service days differently. Some principals desire to direct organizational change and the learning needs of individual teachers, others allowed autonomy over professional learning decisions. Scribner (1999) suggests creating school cultures and school environments that support informal and formal professional learning activities, and that more attention must be paid to recognizing and rewarding less traditional, but important, teacher learning activities, such as collaboration and inquiry (Figure 2.9).

McLaughlin and Oberman (1996) described a symbiotic relationship between teacher learning and education reform, a relationship where successful reform relies on
continuous teacher learning, and effective teacher learning relies on new approaches to teacher professional development.

Figure 2.9 A Professional Development Schematic
Source: Adapted from Scribner (1999)

However, for new professional development approaches such as teacher collaboratives, subject matter associations, professional development schools, and teacher networks to reach their full potential, the nexus between learning and work must be thoroughly explored (Darling-Hammond and McLaughlin, 1995, Little, 1993).

Wallace (1986, p. 68) identifies a 'missing link' between training and performance, which indicates that off-the-job training courses suffer from difficulties of transfer of learning to the work situation. The missing link theory is relevant as well to transfer of research findings to the work situation. He suggests that designers of training and development activities have a responsibility to ensure that the learning activity incorporates strategies for implementing desired changes in school or college practice. Evaluation of professional development should aim to establish an explicit relationship between development activity and enhanced performance (O’Neill, 1994c, p. 296).
Professional Development and Career Development

Professional development can be also related to teacher educators' career-oriented personal needs, and will be more thoroughly discussed in the next section. Eraut (1972, p. 1) refers to the distinction between in-service training in which a teacher-employee is told what to do and how to do it, and in-service education in which a teacher-professional is supported in his task to answer the questions for himself (Table 2.5). A training perspective is intended to provide externally identified solutions to problems associated with curriculum delivery by teachers as employees. Needs analysis is extrinsic, providing a response to a specific training need. An education perspective encourages the analysis of problems and potential solutions by professional teachers themselves. Need analysis is intrinsic, conducted in the context of self-generated priorities. Jones et al. (1989, p. 5) distinguish between staff development which:

'provides the means for teachers to experience continuing education as part of a team of professionals, within a given institution, and professional development, which describes the career and personal development of the individual.'

Table 2.5 Definitions of Professional Development

(O'Neill, 1994c, p. 287)

<table>
<thead>
<tr>
<th>Term</th>
<th>Target</th>
<th>Needs analysis</th>
<th>Purpose</th>
<th>Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training</td>
<td>Groups or individuals with like needs</td>
<td>Extrinsic</td>
<td>Specific solution to fill gap in provision</td>
<td>Short-term</td>
</tr>
<tr>
<td>Staff development</td>
<td>Whole staff</td>
<td>Intrinsic</td>
<td>Priorities of institution or functional groups</td>
<td>Medium-term</td>
</tr>
<tr>
<td>Professional development</td>
<td>Individuals or groups with like needs</td>
<td>Intrinsic or extrinsic</td>
<td>Career-oriented personal needs</td>
<td>Longer-term</td>
</tr>
</tbody>
</table>

To summarize, professional development encompasses the concepts of:
Meeting the needs of professional role responsibilities at various career stages; improving professional performance and capability.

Conducting individual inquiry can be a powerful tool for professional development, that can satisfy intrinsic and extrinsic motivational needs, career needs, but it is essential to ensure that it incorporates strategies for implementing desired changes in college practice. From this section the following research questions can be asked:

How can research activity advance professional development of teacher educator researchers?

Next, how involvement in research can fulfill teacher educators’ career oriented personal needs will be discussed.

**How Can Involvement in Research Contribute to the Career Development of Teacher Educators?**

The nature of careers of academic staff has changed in the past decade, and this has impacted on academic work (Blaxter *et al.*, 1998). Employers have come under pressure to downsize, outsource, become more efficient, adopt flatter structures and use flexible workforces, if they are to survive in a more competitive and increasingly global market (Morgan, 1993). These organizational imperatives have altered the patterns of individual careers. It is largely an out-of-date concept that a career is likely to be stable over time. It is becoming more common for people to think in terms of ‘career portfolios’, interrelated sets of work experiences that may be combined to provide career evidence for a range of jobs (Thomson and Mabey, 1994, p. 123).

The linear, male model of career, where men entered an organization or occupation on leaving education, with the expectations of a job for life and occasional promotion, is now considered outmoded (Husbands, 1998). In line with this general trend, the opportunities for those entering academic employment today also tend to be less linear, secure and straightforward. A large proportion of the workforce, in higher education as
elsewhere, is now employed on part-time and/or short-term contracts.

Kfir (2001) found that only 170 faculty members at Beit Berl College in Israel out of several hundreds (around 600) are entitled to apply for promotion. With the greater uncertainty and the need for more adaptability, career development is more likely to be horizontal and requires self-direction and self-investment (Blaxter et al., 1998).

Middlewood (1999) investigated the effects of practitioners’ research upon staff of fourteen schools in England. Ninety-four per cent of respondents felt that they had learned new skills which were relevant and which boosted their professional standing. This actual skill as a researcher (the process), linked with the extensive additional knowledge generated by the research (outcome), was directly responsible, according to fifty two per cent of teachers, for advancing their professional careers, either through promotion to a more senior post in another school or within their current school (Middlewood, 1999, p. 85). Toren and Moore (1998) analyzed the career patterns of a cohort of faculty members in a large Israel University and found that women’s career trajectories are characterized by ‘hurdles’. At each rank they stay longer and their advancement probability is lower than men’s even when their publication rates are taken into account.

Career Stages

A career stage in a person’s life is a period of time characterized by distinctive and fairly predictable developmental tasks, concerns, needs, values, and activities (Hellriegel, et al., 1992, p. 688). Career stages can be examined from two perspectives: Career movement of an individual within a specific organization and An individual’s passage through career stages spanning his or her entire working life.

Career Movement within an Organization

Individuals most often think of career movement as advancement up some management or technical hierarchy with ever-increasing salary, status, and responsibilities. Career
moves in an organization are more complex than this. Individuals can move in three
directions in an organization (Figure 2.10): vertically, horizontally and (more subtly)
 inclusively (Schein, 1971).

Vertical movement - A change up or down formal organizational levels. During a
vertical career movement most people receive a series of raises and promotions, but
only a few individuals rise to the very top ranks of the organization, and some
individuals reach their final hierarchical level early in their careers. Organizations differ
in the number of hierarchical opportunities available: some may be quite flat on terms of
steps to the top; and other may have many levels, or ranks.

Figure 2.10 A Model of Career Movement in the Organization
Source: Schein, E. (1971). The Individual, The Organization and the Career:
Horizontal Movement - The lateral change of individuals between functional or technical areas. Horizontal career movement relates to individuals’ areas of knowledge, skills, and expertise. In colleges it can be moving from one department to another.

Inclusion - movement toward the inner circle, or core, of an organization. This type of movement occurs when a manager earns trust, develops greater understanding of the organization, gains greater responsibility, and is consulted on important matters more frequently. A person can become more “central” to the organization without being promoted to a higher rank by acquiring expertise and the trust and confidence of a top manager and co-workers. Similarly, a person can move up in the hierarchy and yet still not be included in important core activities and decisions. Inclusion is the most subtle and confusing aspect of career moves within an organization. People may go through their entire careers completely unaware of their position in terms of inclusion (Hellriegel et al., 1992, p. 690).

**Working-Life Career Stages**

Individuals typically move through four distinct career stages during their working lives: establishment, advancement, maintenance, and withdrawal (Super, 1980).

![Figure 2.11 Working-Life Career Stages](image)

*Figure 2.11 Working-Life Career Stages*

Figure 2.11 summarizes these stages and indicates the expected relative levels of performance as employees move through their careers. When joining an organization, during the establishment stage, the new employee must learn to perform at least some tasks competently and to decide which tasks are essential and which require less attention. The advancement career stage often involves new experiences: special assignments, transfers, promotions, offers from other organizations, and chances for visibility to higher management (Hellriegel et al., 1992, p. 694). College graduates will change jobs an average of four times during their careers: many of those job changes will occur during the advancement stage.

Moving into the maintenance career stage is often associated with a number of personal changes. Changes in physical appearance and a mid-life-crisis usually occurs between the ages of thirty-nine and forty-four (Feldman and Weitz, 1988, pp. 69-80). A career that has not matched a person’s dreams and expectations can lead to feelings of resentment, sadness, frustration and severe personal problems. During this stage, a person may take one of three typical career paths: star, solid citizen, or decliner. Those who have been picked by top managers as stars will continue to receive promotions, new job assignments, greater responsibility, and higher status. Many employees become solid citizens. They are reliable, and do good work, but have little chance for promotion. These employees have reached a career plateau, a level at which the likelihood of further promotions is very low. In many cases, the plateau is reached because there are far more qualified people for higher-level positions than there are positions available. Solid citizens do the same job for many years. Many develop non-work interest and become deeply involved in community and family activities. Decliners have little chance for promotions. Often they are given dead-end positions. Decliners tend to have few relationships at work, and hope to hang on until retirement.
The withdrawal career stage occurs for most people when they reach about sixty years of age (Hanisch and Hulin, 1990). At this time, older employees may establish mentoring relationships with younger employees. Many spend time and energy on developing key people to replace themselves upon their retirement. In this thesis an attempt will be made to understand how involvement in research can enhance teacher educators careers.

**Change in Scholarly Productivity over Career Periods**

The patterns described can be identified in research on academic careers, although the situation may be complicated by the dual nature of more senior jobs, which need to incorporate teaching, research, publications and administration. Fulton and Trow (1974, p. 54) found that many professors' interests and values ‘turn away from research and toward teaching with increasing age’. Bayer and Dutton’s (1977) research reveal that scholarly productivity declines at advanced career stages and that article publication peaks at about 5 to 10 years of career age. Pelz and Andrews (1976) identified a saddle-shaped curve of scholarly productivity with age, where productivity peaks during the 30s, drops off, then rises again in the 50s.

Baldwin and Blackburn (1981, p. 604) identified some ‘difficult’ and some ‘easy’ career periods, suggesting that the foci of an academic career change with age and experience. Teaching was found to be especially demanding during the first three years because of the coverage of new courses with unfamiliar material. As careers progress, additional committee work and administrative responsibilities become more prominent. Attention to scholarly matters declines over all areas of activity, and pressure and stress decrease over the course of a career.

Pfeffer (1983) uses the cohort explanation for determining differences in scholarly productivity. The cohort explanation posits that people are more malleable during certain periods of their lives (e.g., during graduate study) and that socialization
Cox (1991) developed tables that may be used by faculty to identify and compare their specific effort allocations within their specific rank and experience groups. In particular, the effort allocations reported by recently promoted faculty (1-2 years of experience) may be useful in suggesting the behavior required for promotion. Cox concluded from his findings that experience is inversely related to the amount of effort allocated to research alone and to the aggregate of teaching, research and service and a significant positive relationship was found between rank and administrative activity.

Deriving from this section the following research questions will be answered:

How can involvement in research enhance teacher educators' career development?

What effect has research on the four working-life career stages of teacher educators in colleges of education in Israel?

How can involvement in research affect the career movement within the organization of teacher educators in one College of Education in Israel?

Next, teacher educator researchers' participation in management activities as a way of motivation and empowerment will be examined.

**Participation in Management Activities and Empowerment**

To build a universal commitment and ownership to change in culture, Williams et al. (1993, p. xiv) suggest to take into account lower level concerns and motivations and shift the power out of the offices of managers into the hands of employees, allowing them to make decisions themselves. Empowerment is the passing of responsibility and authority from managers to employees. Beyond autonomy, it also involves sharing the
appropriate information and knowledge that allows employees to do what is needed to help the organization meet its goals (Gibson, et al., p. 412). Many employees want to become more empowered and participation is an important vehicle for empowering employees. It includes mental and emotional involvement of people in-group situations that encourage them to contribute to group goals and share responsibility with them. Participative managers consult with their employees, bringing them in on problems and decision so that they work together as a team (Newstrom and Davis, 1997, p. 228). If employees are allowed to play a meaningful role in the organization, their feelings of self-esteem will increase and they will contribute their abilities and efforts to help the organization succeed.

Educated and higher-level workers often seek more participation, because they feel more prepared to make useful contributions (Newstrom and Davis, 1997, p. 237), although teachers in general, report feeling deprived of the opportunity to participate in decision-making activities (Bacharach et al., 1990). Jones (1997) reports that eighty-seven per cent of respondents to a survey (N=405) from 36 campuses perceived themselves to be deprived of participation in decision-making. At the same time, Altbach (1995), who conducted a Carnegie Foundation's international survey of the academic profession, among 20,000 professors from fourteen countries, including Israel, reports that there may be a relationship between research productivity and such intrinsic rewards as a sense of empowerment and overall satisfaction (ibid.). How can involvement in research activity empower teacher educators? Are teacher educators, engaged in research, promoted and included in decision-making processes at the college? To answer these questions two sources of organizational power will be presented here, which are relevant for the discussion: interpersonal and situational or structural sources of power (Figure 2.12).
Interpersonal Sources of Power

Power is the capacity to influence the behavior of others. It can be used in referring to individuals, groups, or organizations (Hellriegel et al., 1992, p. 534). French and Raven (1959) identified five interpersonal sources of power that can further be divided in two broad categories: organizational and personal.

Organizational:
- reward power - is an individual's ability to allocate or control merit pay raises;
- coercive power - is an individual's ability to influence others' behavior by means of punishment for undesirable behavior;
- legitimate power most frequently refers to a manager's ability to influence subordinates' behavior because of his position in the organizational hierarchy;

Personal:
- expert power, which is an individual's ability to influence others because of skills, talents or specialized knowledge;
- referent power's origin is the result of being liked or admired.

Figure 2.12 Sources of Power in an Organization
Based on Hellriegel et al. (1992, p. 535)

Reward, coercive and legitimate sources of power have organizational bases. Referent
and expert power depend much more on personal characteristics (Hellriegel et al., 1992, p. 539). Expert power is most relevant to teacher educators’ research activity, but also referent and reward powers (they can allocate merit pay raises and serve as role models). When employees are empowered, their supervisors are less likely to be “bosses” who push people around (using coercive power) and are more likely to serve as teachers, or facilitators, who guide their teams by using their knowledge and experience (expert power) (Gibson, et al., p. 412).

As an example, Keith and Babchuk (1998) in the US, make a distinction between institutional contexts of prestige and personal performance indicators of prestige and faculty productivity. Studies demonstrate that there is a positive association between departmental prestige and the corresponding level of scholarship generated by its respective faculty (Zuckerman, 1988, Clemens et al., 1995).

Structural or Situational Sources of Power

Another perspective to power is determined by hierarchical relations and is created by the division of labor and departmentalization, which result in unequal access to information, resources, or decision-making. Some of the categories include (Hellriegel et al., 1992, p. 541):

- knowledge as power;
- resources as power;
- decision making as power and
- networks as power.

All situational or structural sources of power are relevant to the research activity and of teacher educators at Colleges of Education. Departmental characteristics that can influence prestige are faculty size, student enrollment, and post-graduation employment. From a case study within a large university in the US, Salancik and Pfeffer (1974) found that various academic departments may be very unequal with respect to the power
they possess. Some may have more students, be more prestigious in their national reputation, receive greater grant support, and have more representatives on important university committees than others. As a result, they have greater control over valued resources. The more powerful departments proved to be the more successful in gaining scarce and valued resources from the university (e.g. funds for graduate student fellowships, faculty research grants). As a result, they became even more powerful, suggesting that within organizations, the rich sub-units get richer. More research leads to higher prestige and greater financial returns to the institution that in turn, produce even greater levels of scholarship.

Keith and Babchuk (1998) too examined the association between prestige and scholarship, for the discipline of sociology using evaluative ratings from three national studies and objective data on publications. But they found that scholarship is less important in determining prestige ratings than the past reputations of departments and their affiliated universities. University prominence is far more important determinant in establishing a department than characteristics representing the objective accomplishments of the department. Irrespective of scholarly achievement, it is nearly impossible for many departments of sociology to dramatically change their national rankings within the discipline, although administrators, apparently, have accepted the scholarship-prestige argument, that increased levels of faculty scholarship lead to greater perceptions of prestige. To conclude, knowledge, resources and networks can all provide sources of power in academic institutions, but how is involvement in decision-making?

Teacher Participation in Decision-Making

Participation is a sharing process between managers and employees. It is built upon the leader-member exchange model of leadership (Dansereau et al., 1975). This model suggests that leaders and their followers develop a somewhat unique reciprocal
relationship, with the leader selectively delegating, informing, consulting, mentoring, praising, or rewarding each employee. In exchange, each subordinate contributes various degrees of task performance, loyalty, and respect to the manager (Newstrom and Davis, 1997, p. 233). The quality of the relationship varies, depending on the balance of exchanges made, some employees attaining favored status and others perceiving some unfairness in their treatment.

Organization theorists such as McGregor (1960), Herzberg (1987), Lickert (1967) and Ouchi (1981) have all suggested that participatory decision-making (PDM) would lead to more effective organizations and higher staff morale (Jones, 1997). Vroom’s (1964) review of five correlational studies and three field experiments found that participatory decision-making had a positive impact on both production and job satisfaction. Schweiger and Leana’s (1986, p. 150) review, however, concluded that ‘... in neither the laboratory nor the field is there evidence to suggest that PDM is consistently superior or inferior to non-PDM’. The impact of participatory decision-making of teachers on student achievement - most of the evidence does not support a positive correlation between the two variables. Summers and Johnson’s (1995) review of twenty studies found ‘virtually no evidence that participatory decision-making translates into improved student performance’. Crockenberg and Clark’s (1979) investigation however did find a positive effect. Decision making models by Vroom (1973), Tannenbaum and Schmidt (1957), Hersey and Blanchard (1972) and Fiedler (1967) all imply a contingent style of management, such that some situations call for subordinate participation while some do not. According to these models, managers should consider such factors as employee maturity, skill level, willingness to be involved, leader personality and the type of problem when using participatory decision-making (PDM) techniques (Jones, 1997).

Empowerment also depends on the college’s style of management: collegial or
bureaucratic. Bush (1995) argues that the collegial model of organizations is strongly normative, recognizes the authority of expertise, assumes a consensus in decision-making and a common set of values, as opposed to the bureaucratic model of organizations, which reinforces the right of managers to manage, sets agendas and goals, clarifies employees' powers, thereby minimizing the effects of disagreement and micropolitics, relieving workers of the need to be involved in extensive discussions and decision making (Morrison, 1998, p. 157).

**Perceived and Actual Participation in Decision-Making**

Perceptions of participation in decision-making are based on individuals' interpretation of their own and others' actual participation (Johns, 1988), an interpretation that, in turn, is influenced by the perceivers' experiences, motives, and emotions. Perceived participation in decision making is not synonymous with actual participation, but the latter strongly influences the former. Denton and Zeitinoglu (1993) investigated the extent of female-male differences in perceived and actual participation in decision-making in a university setting in Canada. From 133 self-completion questionnaires (69 per cent women and 41 per cent men responded) they found that women were less likely than men to perceive themselves as participating and also actually participating in university decision-making.

To summarize, teacher educator researchers are higher-level employees, experts in their field, who can be empowered by recognition of their expertise and their inclusion in decision-making processes. Participatory decision-making can lead to more effective organizations and higher staff morale (Jones, 1997). This thesis will examine teacher educator researchers are included in decision-making processes, as an indicator of the recognition of their expertise.
How Research can Influence Policy Making

Tensions between researchers and policymakers depend on certain constraints under which policy is shaped and implemented. Some of these are discussed by Husen (1997) and presented in Table 2.6:

<table>
<thead>
<tr>
<th>Researchers</th>
<th>Policy-makers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Researchers in education perform their tasks at teacher-training institutions at universities</td>
<td>Policymakers are interested in research that addresses problems which are on the agenda of government agencies</td>
</tr>
<tr>
<td>Use paradigms to which they have become socialized during their graduate studies</td>
<td>Interested in applied or decision oriented findings</td>
</tr>
<tr>
<td>Want to contribute to fundamental knowledge</td>
<td>Want to use research in order to support or legitimize a prefabricated position</td>
</tr>
<tr>
<td>Are anxious to preserve their academic autonomy, critical and independent attitude</td>
<td>Are pragmatists, regard research as an instrument for achieving a certain policy</td>
</tr>
<tr>
<td>Seek recognition among peers, Place high premium on reports that can enhance their academic reputation</td>
<td>In the administrative agency status depends on seniority and position in the organizational hierarchy</td>
</tr>
<tr>
<td>Research can take as long as six years to complete</td>
<td>Timetable requires outcomes to be available “here and now”</td>
</tr>
<tr>
<td>There are difficulties for educational research to prove its usefulness</td>
<td>Demand that research should be strictly decision- or policy oriented and address problems “in the field” only</td>
</tr>
<tr>
<td>Results can be interpreted as counterevidence, not conclusive.</td>
<td>Demand “relevant facts” of a simple, straightforward nature to solve problems in the larger social context</td>
</tr>
<tr>
<td>Researchers have been accused of “left leanings” and subversive intentions</td>
<td>Usually want to preserve the status quo, perceive social research as subversive radicalism</td>
</tr>
</tbody>
</table>

Table 2.6 Disjunctions between Researchers and Policymakers
Source: Adapted from Husen (1997).

As a result of the disjunctions between researchers and policymakers, Weiss (1979) distinguishes between seven different “models” of concepts of research utilization in the social sciences (a taxonomy):
Research and development model - the way research in physical sciences is utilized, its applicability in social sciences is limited

Problem solving model - where results from a particular research project are expected to be used directly in a pending decision making situation. Researchers often do not agree among themselves about the goals of certain actions, nor are they in agreement with the policymakers.

Interactive model which assumes an ongoing dialogue between researchers and policymakers

Political model – research findings are used as ammunition to defend a standpoint. A frequent case is that policymakers in power have already made their decision before they commission research that will legitimize the policy for which they have opted

Tactical model – a controversial problem is “buried” in research as a defense against taking a decision at the present moment

“Enlightenment model” – (Weiss, 1979, p. 428) research penetrates the policy process in a subtle way, permeating not by specific projects, but by its generalizations and orientations percolating through informing publics and coming to shape the way in which people think about social sciences. Research can sensitize policymakers to new issues. Empirical evidence appears to support this model. In a study where she was interviewing 155 policymakers in Washington, D.C., Weiss found that fifty-seven per cent of them felt that they used research but only seven per cent could point to a specific project or study that had had an influence.

Research-as-part-of-the-intellectual-enterprise-of-society model – Social science research contributes to widening the horizon for the debate of certain issues.

The conclusion from analyses of the relationships between research and policymaking is that the former has an influence in the long run but not in the short term, following
specific projects at specific points of time. The impact of research is exercised by the total body of information and the conceptualization of issues that research produces. Research percolates into the policy making process and the notion that research can contribute is integrated into the overall perspective that policy-makers apply on a particular issue. Research findings can contribute to the enlightenment of those who prepare decisions, which are not taken at a given point in time, but are rather accretions (Husen and Kogan, 1984).

The research question deriving from this section:

Are teacher-educator researchers included in decision-making processes at the college and do they perceive themselves as being so?

How can engagement in research empower teacher educators in Colleges of Education in Israel?

Which model best describes teacher educators’ research utilization at the College?

**Conclusion**

To introduce teacher research in Colleges of Education in Israel, planned organizational change is needed. It is a system wide change effort, which involves people, task, strategy and structure-focused approaches to change (Williams *et al.* 1993, p. 78). Teachers’ inquiry requires the following actions: forming research communities; using literature and their own experiences to investigate issues in the field collectively; generating research questions and conducting systematic inquiries into teaching, learning, and administration in their own settings. It also involves organizing their research as social and collaborative processes; and disseminating their findings through oral and written presentations (Lytle *et al.*, 1993). Change comprises teamwork and connection, empowerment and trust, risk-taking and innovativeness, and support for action (McGregor’s Theory Y applied to organizations) (Carnall, 1995, p. 38).
Organizational structures for conducting research suggested (Stahler and Tash, 1994) are research centers or departments of universities or colleges. Since motivation for conducting research varies, induction and mentoring of beginning researchers is one way suggested to communicate the research culture to employees.

As change is introduced, and teachers engage in research, it can improve the ability of the organization to adapt to additional changes in its environment, and further change patterns of employee behavior (Hellriegel, et al., 1992). It is a collaborative process that can lead in the long-term to development of an adaptive organization.

A link is suggested between research culture and organizational performance: the research culture can affect length of employment, organizational fit, and effort. Reward systems include intrinsic and extrinsic motivators and require development of research productivity measures among teacher educators. Distinction was made between faculty with research and teaching orientation, "lower" and "higher" status scholarly activities (Richardson and Parker, 1992), accountability and autonomy, and judgmental and developmental performance evaluations.

As teachers become co-producers of research, research becomes more relevant to them and contributes to their professional development (Hargreaves, 1998, p. 54). Teacher research has the effect of enhancing the teacher's professional status, also generating self-knowledge and personal development in such a way that practice can be improved. It can convey teacher educators' career development. (Hellriegel, et al., 1992, p. 688).

Career stages can be examined from two perspectives: career movement of an individual within a specific organization and an individual's passage through career stages spanning his or her entire working life.

The involvement of teachers is seen as one way of making research more relevant. Investigating practice provides both the evidence to justify change and the probability that teachers will be motivated to innovate if they have been directly involved in
identifying the need. Also, leaders who research their own practice, in schools and classrooms, are more likely to adopt policies in line with the needs of their pupils and students (Bush, 1999, p. vi).

To conclude, school culture can be viewed as a unifying theme that provides meaning, direction, and mobilization for school members, resulting from a synthesis of group aims that is summed up as ‘the way we do things around here’ (Prosser, 1999, p. 14).

The intention of this thesis is to understand how the research culture at colleges of education in Israel can be developed and how the change in culture can improve the quality of educational provision. From a synthesis of several approaches discussed in the literature review, a framework was developed to organize and analyze the findings of this thesis (Figure 2.3).

Research methods employed in this thesis will be discussed next.
CHAPTER 3 : RESEARCH METHODS

Behavioral scientists' interest in the problems of organizations is relatively new, becoming popular in the early 1950s. They produce theory, research, and generalizations concerning the behavior, structure, and processes in organizations (Gibson et al., 1994, p. 727). Having identified teacher educators in Colleges of Education in Israel as the subject of the research, and the purpose of the study as the building of a research-focused culture and how it can impact on the institution and the individuals within it, it is now necessary to consider the research methods to be used to collect the empirical data. The most appropriate research methods for this study will be identified and the reasons for the selection explained and justified.

Research Paradigms

Cohen and Manion’s (1994, p. 40) definition for research:

"Research is best conceived as the process of arriving at dependable solutions to problems through the planned of systematic collection, analysis, and interpretation of data. It is a most important tool for advancing knowledge, for promoting progress, and for enabling man to relate more efficiently to his environment, to accomplish his purposes, and to resolve his conflicts" (Mouly, 1978).

There are two strands of theory, which underlie research approaches. They are summarized by Cohen and Manion (1994, p. 36) as two opposing conceptions of social reality: normative and interpretive. Quantitative or normative approaches, supported by the positivist paradigm, believe that human behavior is essentially rule-governed, and that the world is made up of observable, measurable facts. Positivists assume that a fixed, measurable reality exists external to people (Glesne, 1999, p. 4). The quantitative, positivist approach to organizational behavior research is exemplified by precise
definitions, control groups, objective data collection use of scientific method and replicable findings (Van Maanen, 1983). These characteristics stress the importance of reliability, validity, and accurate measurement.

On the other hand, qualitative research is more concerned with the meaning of what is observed. The interpretivist, constructivist or relativist paradigm, seeks understanding of the world of human experience, resisting the form and structure of quantitative approaches. It portrays a world in which reality is socially constructed, complex and ever changing (Glesne, 1999, p. 5).

A major consideration is whether the overall research design should reflect the quantitative (positivist or normative) or the qualitative (relativist or interpretive) paradigm. Foster (1999) links the politics of research (issues of race, class and gender) to the history of educational research in general. According to her article, almost all of the first researchers in education were white, protestant, male members at top schools of Education as Harvard, Stanford, and others. It was during this period that quantitative analyses and psychological approaches came to predominate the educational research community (Langemann, 1997). The field of educational research until the middle of the 20th century, came to be dominated by large-scale surveys, distant hierarchical relationships between researcher and researched, unequal and dominant gender relationships, thus being racist, sexist, and class biased. Women were measured against the male standards (Gilligan, 1982). Concepts of “academic supremacy” such as cultural deprivation, cultural deficit, disadvantaged, were developed.

Since the 1980s, the interpretive, qualitative, ethnographic, feminist, critical approaches began to gain a foothold in educational research as alternative conceptions. Accordingly, many educators began to explore education from a constructivist paradigm; one in which schooling was situated within a social world and in which teaching and learning were viewed as complex, multilayered, meaning-making activities
that drew from both the social and cognitive realms (Donaldson, 1979; Piaget, 1952; Vygotsky, 1978, 1986; Wells, 1986). In order to explore the dimensions and implications of this type of teaching and learning, some scholars began to adopt alternative paradigms of education research. Those paradigms valued context, acknowledged the ways in which schooling was embedded within the larger framework of the social sciences, and required the use of qualitative methodologies to better represent the complex realities of teaching and learning within this holistic social world. Consequently, a wider range of research began to appear in the professional literature, including descriptive studies, ethnographies, case studies, historical research, and a variety of theoretical pieces. In spite of these changes, debates continued to rage regarding both the legitimacy and significance of qualitative research, and positivism continued to be the dominant research paradigm in many facets of the field (Crawford and Cornett, 2000).

Since the late 1980s, The American Educational Research Journal (AERJ), the official journal of the American Educational Research Association (AERA) began publishing interpretive research on a consistent basis. The number of women on AERA sponsored journals editorial board is reaching today a high of fifty per cent. It can be concluded that with the entrance of women and scholars of colour to educational research, there was also a paradigm shift from quantitative to qualitative research (Foster, 1999). Since organizations are so complex, researchers and managers can use more than one method of research when studying an organization (Daft, 1983). Blending and integrating quantitative and qualitative research can help researchers and managers to better understand, cope with and modify organizational behaviour (Gibson et al, 1994, p. 739). The normative approach is based on the causes of behaviour, which are rooted in the past, whereas the interpretive approach has a focus on action and shared experience. The normative approach relies on general theories of human behaviour, whilst the
interpretive sees theory as emergent and must arise from particular situations, or 'grounded' in the data. Theory should therefore not precede research, but follow it.

To summarize, the choice of the research approach, the emphasis and the degree of compromise between the two paradigms reflect the philosophical starting point, the nature of the questions being asked, but also the interests and skills of the researcher. In this thesis a range of quantitative and qualitative techniques will be used side by side, to enable confirmation of each other, via triangulation, and to provide richer detail and fresh insight, and to develop a theoretical framework for introducing the research culture.

**Linking Qualitative and Quantitative Data**

Rossman and Wilson (1991) suggest three broad reasons for linking qualitative and quantitative data:

- to enable confirmation and corroboration of each other via triangulation;
- to elaborate or develop analysis, providing richer detail;
- to initiate new lines of thinking through attention to surprises and paradoxes, "turning ideas around", or providing fresh insight.

Miles and Huberman (1994, p. 41) alternate the two kinds of data collection, beginning with exploratory fieldwork, leading to the development of quantitative instrumentation, such as a questionnaire (Figure 3.1).

**Figure 3.1 Designs Linking Qualitative and Quantitative Data**

<table>
<thead>
<tr>
<th>Qualitative (exploration)</th>
<th>Quantitative (questionnaire)</th>
<th>Qualitative (deepen, test findings)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantitative (survey)</td>
<td>Qualitative (fieldwork)</td>
<td>Quantitative (experiment)</td>
</tr>
</tbody>
</table>

The questionnaire findings can be further deepened and tested systematically with the
next round of qualitative work. Or the initial survey helps point the field-worker to phenomena of importance; the field-worker moves to develop a close-up, strong conceptual understanding of how things work; and a quantitative experiment is designed to test some resulting, perhaps competing, hypotheses.

In this thesis, something similar to the second design was used. First quantitative data was collected, from ninety-six teacher educators at the College. Then qualitative data was collected, to supplement the quantitative data, using interviews and participatory observation. Then, for further understanding, quantitative data was collected at a later stage, from thirty-three student teacher supervisors.

**The Place of the Researcher**

The research methods used here are both qualitative and quantitative, as felt appropriate to the research questions. The interview questions are based or related to the questions that appeared in the questionnaires. In all research methods used the researcher is a participant observer. As a lecturer at Colleges of Education since 1980, and at this specific College since 1986, the researcher witnessed most of the events mentioned in this research and experienced the paradigm shift from teacher educators as research consumers to research producers. While studying for her Ph.D. degree, the researcher became involved in several research projects, received two small research grants, submitted papers for presentation in conferences and for publication in journals. She received grants to travel to a conference in Switzerland and several conferences in Israel. She was party to many discussions on the subject on different occasions, the subjects of the research being her colleagues. The phenomenological meaningfulness of lived experience – people’s interpretations and sense making of their experiences in a given context, constitute today an appropriate and legitimate focus for social inquiry. Understanding meaning is not a matter of manipulation and control, but rather a question of openness and dialogue (Smith, 1989, p. 137). At root, the interpretivism is
about contextualized meaning. Reality resides neither with an objective external world nor with the subjective mind of the knower, but within dynamic transactions between the two (Barone, 1992).

A practical problem the researcher was faced with is how to produce a practice-based doctorate, that is a doctorate, which inquires into an aspect of her own practice, (Winter et al., 2000) and at the same time makes an original contribution to knowledge. All research, including doctoral research, is about getting new knowledge (Griffith, 1998). The difficulty is getting agreement about what should count as 'new knowledge'. The professional practitioner is capable of producing practice-based knowledge, which is context-bound. Practice-based knowledge is constructed and constrained by the researchers’ perspective, in relation to race, gender, class, disability or nationality (Winter et al., 2000). Its’ main contribution is to practice. But can contribution to practice be considered original contribution to knowledge? The answer is yes, but only if the doctoral thesis can demonstrate its relevance beyond the immediate context and include generation of novel concepts, frameworks or theory, in addition to delineation of policy recommendations (Johnson, 1997). The qualitative and quantitative methods appear to be effective and complementary, producing more in-depth information to analyze the complexities of the research culture (Katz and Coleman, 2000b).

In the next section the various approaches to educational research are considered.

Research Approaches

Attempting to add more reality and rigor to the study of organizations, behavioral scientists have developed systematic field research techniques, such as personal interviews, observation, use of archival data, and questionnaire surveys. Fellow workers, subordinates and superiors can be interviewed before drawing conclusions.
But the researcher does not have to rely wholly on what the subjects say. In addition, archival data, records, charts and statistics on file may be used to analyze a problem or hypothesis (Salancik, 1979). A researcher may investigate an area where he or she has a reasonable degree of knowledge and expertise, and may want to compare an image or hypothesis with other practices. Conversely, the area being researched may be completely new, at national, local or site level and firm body of literature may not exist. In such cases the researcher is likely to uncover new patterns and relationships. In the present research, literature on the subject of building a research culture at university level already exists, but relatively little can be found on Higher Education in Israel, and even less can be found on Colleges of Education, where this whole process of academization is relatively new.

According to Hellriegel et al. (1992, p. 49) the four most common types of research design are case study, the field survey, the laboratory experiment and the field experiment. Johnson (1994) identifies six possible approaches to research in educational management: surveys, case studies, documentary research, experimental research, non-reactive research and action research. In this thesis, the case study approach is used.

**The Research Design**

The present research is a case study that uses a range of research methods (Adelman et al. 1984, p. 94), having in common the decision to focus an enquiry around one academic college of education in Israel. An alternative approach to the research questions might have been to conduct a survey of the twenty-one colleges of education in Israel who have undergone academization, or a sample of some of them. Focusing on one college enables the use of a range of quantitative and qualitative research techniques that can produce more in depth information to analyze the complexities of the research culture. However, future research across a larger sample, or the whole population of colleges will be necessary to endorse the experience of this "pioneer" in
the field of academization. The research findings will be triangulated with research findings on teacher educators from three colleges, collected by Kfir and Cohen (in press), which are not published yet, but the researcher of this thesis could access them.

The present case study used the following research methods:

- two survey questionnaires, one voluntary to the entire population of the college’s faculty in June 1999, and the second, compulsory, administered to thirty-three pedagogic supervisors, in June 2000.

- participant observation of a yearlong course, in research methods for faculty members at the college during the 1999/2000 school year, organized by the Research Unit, and participation in yearlong individual guidance and mentoring from a member of the Research Unit.

- unstructured interviews with twenty teacher educators from the college about their attitudes and perceptions on research, during 1999/2000 school year on different occasions such as: at staff meetings, conferences, and workshops.

- documentary analysis of the abstract book and participants’ list of the Third International Teacher Educators Congress in June, 1999 held at Beit Berl college of education in Israel, publications of researchers at the college, and publications of the Research Unit.

Data collected through the questionnaires will be used to answer the following research questions: characteristics of teacher educators who are also researchers; their perceived attitudes toward participation in research activities and in decision making processes at the college; what motivates them to conduct research; does research enhance or inhibit teaching; and how involvement in research can contribute to teacher educators career and professional development.

Data from participant observation and interviews will be used to understand more in depth and answer the following research questions: how the induction and mentoring of
beginning researchers was done; how involvement in research can contribute to the recruitment, selection promotion and selection of employees, to teacher educators career and professional development, and how the culture changed as a result of the fostering of research activity amongst teacher educators.

Documentary data will be used to learn about the organizational structures developed to support the research culture, the extent of teacher educators’ research activity and how many role-holding teacher educators at the college are engaged in research activities.

**Case Study Research**

Case study has become increasingly popular as a means of investigating practice in schools, colleges and universities. It takes the school or college itself, as the ‘case’ and examines it with a view to increasing understanding of the phenomenon and in some cases, to generalizing it to a wider population of schools. Nisbet and Watt (1984, p. 73) stress that case study is not simply an example or an anecdote, but involves systematic collection of evidence. In a case study, a researcher seeks detailed information about an individual or a group through a review of records, interviews, questionnaires, and observations (Hellriegel *et al.*, p. 50). According to Cohen and Manion (1994, pp. 106-107), the case study researcher typically observes the characteristics of an individual unit – a child, a clique, a school or community. The purpose of such an observation is to probe deeply and to analyze intensively the multiple phenomena that constitute the life cycle of the unit, with a view to establishing generalizations about the wider population to which that unit belongs. In Yin’s (1994, p. 137) definition, the case or unit of analysis in a case study research can be a single individual:

> "An individual person is the case being studied, and the individual is the primary unit of analysis. Information about each relevant individual would be collected and several such individuals or ‘case’ might be included in a multiple case study".
In the present research, the unit of analysis is one academic college of education in Israel, but within the case study, the focus of the research is the development of the research culture within one college.

**Single or Multiple Case Studies**

Yin (1994) distinguishes between single and multiple case studies. Single case studies may be appropriate in one of the following circumstances:

- A critical case, which meets all the conditions for testing a theory.
- An extreme or unique case
- A revolutionary case of a previously inaccessible phenomenon.

The college chosen in the present case study is a critical case, which meets the conditions for testing the research culture in the other twenty-one colleges of education in Israel. As mentioned before, a committee of three researchers (Shamai et al., 2000) that was appointed in 1997 to investigate the research activity in colleges of education in Israel found that out of thirteen colleges that responded to the inquiry in 1998, twelve reported having a research committee and eight having a research unit. The college in our inquiry has a research unit and a research committee, hosted the Third International Conference on Teacher Education in 1999, where eighty faculty members from the college presented one hundred twenty papers. It can be assumed that the research activity at this college is one of the more advanced, compared to the other colleges of education in Israel, since it was one of the first four colleges chosen for the introduction of the academization process (Ziv, 1995). This inquiry can illuminate processes that have only recently started at other colleges, and the findings will be true to other colleges of education in Israel. Being one of the largest colleges, there are also more opportunities and measures to implement change.
Generalization

Case study research may be criticized because it does not match the survey approach in terms of generalization. "During the conduct of the study the description of the case will increasingly emphasize its uniqueness" (Adelman et al., 1984, p. 95). However, Adelman et al. (1984) claim that generalization may be possible. This may occur through moving from an instance to the class it purports to represent. For example, a study of individual cases of grant maintained (GM) schools (Bush et al., 1993) may be generalized to other GM schools of a similar type.

Bassey (1999) distinguishes between statistical and 'fuzzy' generalizations and links these notions to quantitative and qualitative approaches:

"The statistical generalization arises from samples of populations and typically claims that there is an x per cent or y per cent chance that what was found in the sample will also be found throughout the population: it is quantitative measure. The fuzzy generalization arises from studies of singularities and typically claims that it is possible, or likely that what was found in the singularity will be found in similar situations elsewhere: it is a qualitative measure" (Bassey 1999, p. 12).

However, it may be more important for case studies to be 'relatable' than to be generalizable. Previously, Bassey (1981) argued that:

"an important criterion for judging the merit of a case study is the extent to which the details are sufficient and appropriate for a teacher working in a similar situation to relate his decision-making to that described in the case study. The relatability of a case study is more important than its generalizability. " (Bassey, 1981, p. 85).

Silverman (2000, p. 103) suggests four answers to obtain generalizability:

- combining qualitative research with quantitative measures of populations;
- purposive sampling guided by time and resources;
• theoretical sampling;
• using an analytic model which assumes that generalizability is present in the existence of any case;

The author of this thesis believes that the case study discussed in this research is not unique, and some generalization of findings may be possible, to other academic colleges it represents (Adelman et al., 1984). Qualitative and quantitative research methods used enable fuzzy generalization (Bassey, 1999).

However, Alasuutari (1995, p. 156-7) concludes that:

“Generalization is ...[a] word... that should be reserved for surveys only. What can be analyzed instead is how the researcher demonstrates that the analysis relates to things beyond the material at hand ... extrapolation better captures the typical procedure in qualitative research.”

**Strength of Case Study Research**

Adelman *et al.* (1984, p. 101), Cohen and Manion (1994, p. 123), and Nisbet and Watt (1984, p. 76) all refer to certain strengths or advantages of case study research. Adelman *et al.* believe that case study data are in harmony with the reader’s own experience, and thus provide a ‘natural’ basis for generalization. A reader of a case study is able to employ ordinary processes of judgment to understand the social actions described. Their strength lies in their attention to the subtlety and complexity of the case in its own right. Case studies recognize the complexity of social situation and offer some alternative interpretations and provide a variety of complex data source for researchers and users whose purposes may be different from our own. Case studies are ‘step to action’. They begin in a world of action and contribute to it. Their insights may be directly interpreted and put to use; for staff or individual self-development, for institutional feedback; for formative evaluation; and in educational policy making. In addition, case studies present research or evaluation data in a more publicly accessible form than other kinds of
research report. The language and the form of the presentation tend to be less dependent on specialized interpretation than conventional research reports. The case study is capable of serving multiple audiences. Case studies may contribute towards the ‘democratization’ of decision-making (and knowledge itself). At their best, they allow the reader to judge the implication of a study for himself.

Nisbet and Watt (1984) point to two other, highly pragmatic advantages of case study research that are appropriate for this thesis too: it is particularly suited to the individual researcher (p. 76), and it can complement the survey approach. A large-scale survey can be followed up by case studies, to test out conclusions by examining specific instances. Alternatively, for opening up a new problem where it is difficult to formulate hypotheses, the case study may precede a survey, to identify key issues (p. 77).

**Weaknesses of Case Study Research**

Case study research also has several limitations, which are set out by Nisbet and Watt (1984):

Uniqueness – case study may focus on a unique institution or phenomenon

Generalization – case studies are often not susceptible to generalization. Despite Bassey’s (1999) notion of ‘fuzzy generalization’, it may not be possible “except by an intuitive judgment that ‘this case’ is similar to ‘that case’.... The observer in a case study has to be selective (Nisbet and Watt 1984, p. 77).

Uneven Access – researchers may find that they have differential access to people, documents and events in case settings and this may distort findings.

The main weakness of this thesis is the inadequate access to data and people, and the ethical dilemma of not criticizing colleagues. Not all management members approached agreed to be interviewed, and only publicly available data could be accessed. In
conclusion, case study research is a valuable approach for many educational enquiries and provides the potential for rich and in-depth analysis of real situations. It also gives a genuine understanding of complex phenomena but it lacks the rigor and generalizability of survey research. The choice of method must depend on the focus and purpose of the study rather than the preferences of the researchers.

**Case Study Methods**

Adelman *et al.*'s (1984) definition of a case study refers to a 'family of research methods'. Once the research approach has been chosen, it is necessary to choose the appropriate research tools. "Research tools are the means by which different approaches to research are operationalised" (Johnson, 1994, p. 37).

"The distinction between research approach or method on the one hand and tools or instruments on the other is an important one. Choice of preferred research method provides a general orientation or outline of how you intend to proceed with your research and what sort of data might prove useful to you " (O'Neill *et al.*, 1995, p. 27).

Johnson identifies a number of issues in connection with the selection of research tools (1984, pp. 5-18). They can be summarized as the level of expertise of the research in, for example interviewing, front or end loading (preparation work for questionnaires on the one hand, or transcriptions and recording on the other). Johnson (1984) identifies the questionnaire, interview, observation, records and commissioned diaries as examples of tools. Marsh (1992) also includes checklists, portfolios, individual files, anecdotal records, logs, audio and videotapes, slides/prints, time-on task-analysis and external consultants as examples of research tools. The main members of the ‘family’ are interviews, observation and documentary analysis. Bassey (1999, p. 81) refers to these methods as follows:

Asking questions
• Observing events
• Reading documents.

Nisbet and Watt (1984, p. 82) regard the interview as ‘the basic research instrument’ in case study research and stress that it is much more loosely structured than the survey interview, “allowing each person to respond in his unique way”. Bassey (1999, p. 81) emphasizes the importance of the ‘social skills of the interviewer in relating sensitively to the respondents” who “may not have previously given deep thought to the issue and may actually be constructing his position during the interview”.

Observation may be the basic tool in classroom research and can be significant for studies of management issues, for example in observing meetings. Bassey (1999, p. 82) points to the potential pitfalls of observation and to the skills required by the researcher:

“The actors know that they are being watched. Some behave as though they were no outsiders present, some are on edge throughout, some ‘play to the gallery’ and some forget. The personal skills of the researcher are important in terms of putting the actors at their ease and cognitive skills are important in selecting and noting significant aspects of the event”.

Documentary analysis is an indispensable element in most case studies and involves the selection and editing of documents directly relevant to the hypothesis or research questions. Johnson (1994, p. 37) identifies a fundamental difference between the interview and the questionnaire, which is the empowerment of the respondent in the latter. She argues that for the questions to be successful they must be clear and comprehensible, that methods for administering the questionnaire should be in place and that the respondent needs to be motivated.

**Asking Questions**

Questionnaires are sets of written items to which the subject is asked to respond. It is one of the most frequent used data-gathering device (Dunham and Smith, 1979). A
questionnaire may measure the respondent's attitudes, opinions, or demographic characteristics. Questionnaires can be used to measure variables such as job satisfaction, need fulfillment, job stress, leadership style, values vocational interest and so on (Hellriegel et al., 1992, p. 55). Among the advantages of using questionnaires: provide a relatively inexpensive way to collect data; can be administered by relatively unskilled people; can be mailed or given to groups; and can be answered anonymously. In terms of disadvantages: missing data if people do not answer; a low response rate make the results invalid; do not permit individual flexibility (ibid., p. 56).

Anderson (1990, p. 195) suggests that the survey is a method for obtaining information, which is not available from any other source. He differentiates between the survey and census, which attempts to collect data from all members of the group. The idea of the sample is a feature of the survey method, which "is intended to study a population, by selecting and studying a sample of people who belong to it" (Anderson, 1990, p. 195). An experimental study of alternatives to the US decennial census questionnaire shows that shortening the questionnaire and respondent-friendly questionnaire design improve response rates, whereas asking a potentially difficult and objectionable question lowers response rates (Dillman et al., 1993).

Having defined the population and target population, it is necessary to consider the sample. Anderson (1990, p. 199) points out the importance of a comprehensive sample in which each person has a known probability of selection. "The most perplexing question to both novice and experienced researchers is the question of sample size". He points out that the sample must be representative of the target population for statistical estimates to be valid. He goes on to identify a number of issues:

Variability of characteristics: the greater the variability of characteristics within the population, the larger the sample

Confidence level: for example sample characteristics will not differ from the
population characteristics more than 5% or 1% of the time

**Tolerance:** the need to establish how precise the estimate should be

**Sample size versus proportion:** the absolute size of the sample is the major determinant of precision rather than the proportion

**Sub-divisions or cells:** the number of sub-divisions is critical, and the aim should be to have at least 30 in each cell.

Cohen and Manion (1994, p. 89) agree with the minimum figure of 30. Anderson (1990, p. 201) summarizes by stating: “The major concern in choosing a sample is that it is large enough to be representative of the population from which it comes”. The sample should reflect the overall population, and the sample size is one possible source of error.

In the recent study, the first questionnaire was sent to the whole population (census). Even though not everybody answered, all respondents are involved, or want to be engaged in research activity. The second questionnaire was compulsory and was sent to thirty-three student-teacher supervisors, who belong to all fifteen fields of study for junior high and higher education at the college. The study did not include student teacher supervisors who belong to the lower tracks: kindergarten, elementary and special education. Among those who belong to the lower tracks, nobody has a Ph.D. degree and all are women. The decision to choose this particular group of student-teacher supervisors was made by the research unit. The respondents were included in the first questionnaire too, but their special role could not be identified, and because the first questionnaire was voluntary, they could choose not to answer.

**Response Rate**

A meta-analysis of prior studies of techniques to induce mail survey response rates was conducted by Yammarino and Skinner (1991). Significant effect sizes for the predictors ranged from an increase in response of 2 per cent to 31 per cent. The analysis found no
significant effect for sponsorship, and non-monetary incentives were not a significant predictor of response rates. Repeated contacts in the form of preliminary notification and follow-ups, appeals, inclusion of a return envelope, postage, and monetary incentives were effective in increasing survey responses. Brennan and Hoek (1992) found that the final response rate to a 5-page questionnaire, after two follow-up mail outs, each containing an additional copy of the questionnaire, a reply-paid envelope, a cover letter, sent to non respondents after two and four weeks, and a follow-up telephone survey, was sixty-six per cent. Tyagi (1989) examined the effects on response patterns of the manipulation of appeal types, anonymity-no anonymity, and the promise-no promise of feedback of research results. He received 414 usable responses from 610 sales persons of a life insurance company. The results suggest, that individually, none of the three factors studied had any effect on increasing response patterns. Requests for quicker response increase the response speed but not the response rate.

In this thesis one follow-up letter was sent, and about ten per cent of additional responses were obtained, with an overall response rate of twenty-five per cent. Although this is rather low response rate, it is not unusual for similar questionnaires in Israel. Gottlieb (1994, 1995) sent the Carnegie International questionnaire to approximately one third of the total faculty population of Israel, randomly sampled, stratified by institutional size. The questionnaire was sent to 2,225 faculty and 502 completed forms were returned (22.56 per cent). Kfir and Cohen (in press) received 400 responses (44.6% response rate) to a questionnaire sent to faculty of three academic Colleges of Education in Israel, after a follow-up letter that included the questionnaire again.

According to Hoinville and Jowell (1978) respondents to surveys tend to be favorably disposed towards the survey’s aims, are receptive to new ideas, rapid decision-makers, high achievers, especially educationally. It may be that those who responded are those who are most favorably inclined towards research. No responses were obtained from
teacher educators not engaged in research.

The Pilot Study

A pilot study is useful for testing many aspects of the research process: the observation techniques, interview questions, questionnaire (Glesne, 1999, p. 38). The development of the first questionnaire (Appendix A) in this study began in 1999, and was subject to several revisions by the research unit’s head. First, it was tested in a pilot study to ten faculty members and in June 1999 it was put in the mail boxes at the college, of all faculty members of School of Education. No problems were identified in the pilot study, although in the final version several respondents wrote of problems encountered answering some of the items in the questionnaire. Responses were returned to the researcher’s mailbox in the teacher lounge. Seventy-six responses were returned. In October a follow-up letter was sent, and twenty more responses were received, overall ninety-six responses.

In the first questionnaire in the present study, the following subdivisions or cells have been identified for analysis and the number of respondents in each cell is: males/females - 30/59, tenured/untenured 70/20, M.A./PhD. 51/43, no publications/ 1-10 publications/ more than 10 publications 11/52/30.

Gaining Access

Gaining access refers to acquisition of consent to talk to whomever you want, read whatever documents you require or observe what you want (Glesne, 1999, p. 39).

Gaining access was problematic for the second questionnaire in particular. First, the research was proposed by the author of this thesis and the Research Unit agreed to cooperate and include a special section in the pedagogic supervisors self-evaluation form, for research purposes. This way, the second questionnaire became compulsory and was administered to thirty-three pedagogic supervisors at the College, parallel to
student evaluation of teaching, conducted at the end of 1999/2000 school year, by the research and evaluation unit of the college. No pilot study was used, but the consequences from the first questionnaire were adopted. Students of each student teacher (pedagogic) supervisor had evaluated his or her teaching using a questionnaire that included twenty-two questions. Respondents rated these items using a 9-point Likert scale with the following scale values: 1 do not agree to 9 agree very much (Appendix B). The rating results consist of four ratings and a summative rating of all twenty-two questions. The five ratings, developed by the Research Unit are:

A. Teaching and relevance to practice in the courses related to pedagogic supervision
B. Difficulty of the assignments and load
C. Giving instructions
D. Interpersonal communications skills
E. Overall student reported evaluation of teaching

About two months later, each supervisor received a confidential report of his or her rating results and for comparison, also the average rating results of all student teacher supervisors. In addition to the students' evaluation of teaching, each teacher student supervisor evaluated his or her teaching, using the same questionnaire the students used.

To the self-evaluation questionnaire a section was added, for research purposes that included questions about the respondents' research activities. This way, self-reported personal and professional information about involvement in research was obtained from the respondents, and the information could be correlated with the student-reported evaluation of teaching. The purpose was to examine the relationship between involvement in research and student-evaluation of teaching.

**Measures**

In considering the clarity of the questionnaire it may be helpful to analyze the types of questions used. Youngman (1986, in Bell, 1993, pp. 75-6) identifies seven question...
types and they are summarized as follows:

Verbal/Open – Expected response a word, phrase or extended comment. Some content analysis may be needed.

List – A list may be offered, answers may be selected

Category – Response is one of a set of categories (e.g. age 20-39). Respondent can only fit into one category.

Ranking – Could be used for the respondent to place qualities or categories in order.

Scale – Various scaling devices may be used (nominal, ordinal, ratio, interval).

Quantity – Response is a number

Grid – A table or a grid is provided to record answers to two or more questions at the same time

In the present study, the first questionnaire included seventeen items that measured different attitudes toward research, on a 4-point Likert scale (ranking). In addition the questionnaire included fourteen yes/no items (list), where respondents marked their preferences and expectations from the College when conducting research. At the end of the questionnaire, respondents were asked twenty-two categorized demographic questions. The second questionnaire, administered to thirty-three pedagogic supervisors, included eleven categorized demographic questions and ten ranking questions about their involvement in research activities. These data were correlated to the evaluation of their teaching, received from their students.

In the questionnaires in this thesis, for personal and professional information - categories were used (e.g. number of publications: no publications/ between 1-10 publication/ more than ten publication). For information on attitudes and perceptions a ranking 4-point Likert scale (do not agree/ slightly agree/ agree/ agree very much) was used. The even number of possibilities enabled to obtain significantly different results.
For information on preferences a list was provided and respondents could choose several answers (e.g. for the question ‘what kind of help for conducting research would you like to get from the college?’ the following list was provided: research grant/teaching less hours/statistics/help from the library/institutional courses in conducting research/management’s recommendations about preferred topics/secretarial help/other). Bell (1993) and Lavan (1985) give important advice, which can be summarized as follows:

- ambiguity, imprecision and assumption should be avoided
- simple language should be used
- double, hypothetical, sensitive and leading questions should be avoided
- a pilot study is essential
- bias in the design should be avoided
- there should be a good layout with adequate spacing
- analysis should be considered
- it should start with “warm up” questions
- there should be clear instructions for distribution and return

Some respondents wrote remarks on the questionnaire: two respondents wrote their names, one apologized for being late to return the questionnaire, one commented that the items are formulated in masculine (grammar), one respondent circled the wrong answer and apologized for the correction, one respondent (engaged in qualitative research) did not answer on the Likert scale part, said when returning the questionnaire personally, that the items are too general.

Five respondents commented on item ten that “Researchers are more talented”. They wrote talented in what? Six respondents commented on the first item – “Researchers invest more in work”. Comments were - not clear, with students? in teaching? Two
respondents commented on item two "Researchers are better teachers" – what is the meaning of a better teacher? There were no comments on items eleven to seventeen.

**Interviews**

Fontana and Frey (1994, p. 363) suggest the following types of interviewing:

Structured interviewing refers to a situation in which the interviewer asks each respondent a series of pre-established questions with a limited set of response categories. The responses are also recorded by the interviewer according to a coding scheme that has been already been established. Converse and Schuman (1974, p. 53) observe that there is no single interview style that fits every occasion or all respondents. The interviewer must be aware of respondent differences and take in consideration the social interaction context.

Group Interviews of several individuals simultaneously in formal or informal settings (Fontana and Frey, 1994, p. 363). The interviewer/moderator directs the interaction and inquiry in a structured or unstructured manner, depending on the purpose. Group interview has the advantages of being inexpensive, data rich, flexible, stimulating to respondents, recall aiding, cumulative and elaborative over individual responses. But emerging group culture may interfere with individual expression, the group may be dominated by one person, makes it difficult to research sensitive topics.

Unstructured interviewing or the open-ended ethnographic (in-depth) interview, as Loflane (1971) points out, goes hand in hand with participant observation, and many of the data gathered in participant observation come from informal interviewing in the field. Unstructured interviews are used in attempt to understand the complex behavior of members of society without imposing any a priori categorization that may limit the field of inquiry (Fontana and Frey, 1994, p. 366).

New directions in qualitative interviewing focus on increased attention to the voices and feeling of the respondents (Marcus and Fisher, 1986) and the interviewer-respondent
An increasing number of researchers are using multimethod approaches to achieve broader and often better results, also referred as triangulation. In this thesis, the researcher first used two questionnaires with pre-established questions with a limited set of response categories to attain a large number of responses. Then participant observation and informal unstructured interviews were employed to understand the complex nature of teacher educators' research behavior.

**Observing Events**

Observation is a versatile research tool, which can be used to derive both quantitative and qualitative data.

"the observer can be 'free', that is the observer simply writes what happens; or it can be 'structured'; a specific list of activities is looked for and checked off when they occur, while everything else is ignored." (Kane, 1985, p. 53).

There are basically two types of observation: systematic and participant.

**Systematic Observation**

The term systematic observation means that what the researcher observes or records is guided by or influenced by preexisting questions or hypotheses, in contrast with the more casual and random nature of most of our every day observations (Rosnow and Rosenthal, 1996, p. 73). An instrument for observation will specify:

The categories of behavior to be noted

What is classified as an act of behavior

Time intervals for recording observation

Scales of categories for classifying the behavior.

**Participant Observation**

Participant observation provides the opportunity to record the behavior of a collectivity or group, whether in a meeting or a series of less formal activities, by acquiring the
status of a “trusted person” (Glesne, 1999, p. 43). It is sometimes used interchangeably with fieldwork, field observation and even ethnography. If the participant observer is watching and recording in its natural state is called naturalistic observation (Rosnow and Rosenthal, 1996, p. 75), which makes it especially susceptible to criticisms of interpreter effects (Rosenthal, 1976). There are two ways in which participant observation is used in the social sciences, depending whether it is a familiar or unfamiliar setting: to understand the world as it is seen by those acting within it: and to reveal the taken-for-granted, common sense nature of that everyday world itself. Whether the role is overt or covert, it requires time commitment (Brewer, 2000, p. 60), the researcher’s interpretation of the observational records may be unwittingly biased, sample sizes may be reported in a rather casual way, sampling is often opportunistic and quantitative methods are not used (Rosnow and Rosenthal, 1996, p. 75).

In participant observation, the intention is to get rich data. In order to do so, events and actions are examined in context. Observation notes are vital, and preferably not pre-coded. The researcher is the key research instrument. The researcher can decide if he or she wants to be only an observer or a participant (Ball, 1983), and can be both according to the situation. Weick (1968) catalogs the special advantages of naturalistic observation: it enables to watch events in their wholeness, thereby giving us a sense of the relevant parameters of events, which may not be captured in experiments. It permits to records events as they occur, so that we need not rely on past events records or people’s memories. Burgess’s (1982, p. 45) view is that the main instrument of data collection in participant observation is the researcher, who has to maintain a balance between ‘insider’ and ‘outsider’ status; to identify with the people under study and get close to them, but maintaining a professional distance which permits adequate observation and data collection. According to Glesne (1999, p. 44) participant observation ranges across a continuum from mostly observation to mostly participation.
The author of this thesis participated in a yearlong course in research methods for staff members, organized by the Research Unit, as a staff development activity, thus being a conclusive participant. She was a full participant, simultaneously functioning as a member of the research methods course and also an investigator. Her observations were recorded in a notebook, and did not cause any disturbance in the discourse of the activity. When some aspects of the discussion were not clear, it was possible to ask questions. The lecturer and the participants were told at the first meeting that the researcher was conducting participant observation, and there was no opposition to that.

In addition, the author conducted participant observation on her and her supervisor’s involvement in the virtual conference organized by Mofet, in February 2001.

**Reading Documents**

The documentary approach is concerned with the interpretation of mute evidence – written texts and artifacts (Hodder, 1998, p. 110). Lincoln and Guba (1985, p. 277) distinguish documents and records on the basis of whether the text was prepared to attest to some formal transaction. Records include certificates, licenses, and contracts. Documents are prepared for personal rather than official reasons and include diaries, memos, letters, filed notes. Robson (1993, p. 274) lists a wide range of primary and secondary documents including meeting minutes, letters, memoranda, diaries, speeches, newspaper and magazine articles, written curricula, course outlines, notices and letters and other communications to parents, and inspection reports. Within a school a range of open and closed documents may be available, and one of the ethical considerations of the researcher has to be to decide on what evidence can be used. Scott’s (1990) classification of documents is useful, and he draws attention to the importance of authorship and availability. His classification looks at authorship as personal or official (private or state), and access is defined as closed, restricted, open-archival or open-published.
Cohen and Manion (1994) also refer to historical research, which they identify as being mainly qualitative in approach, although content analysis and frequency analysis can provide quantitative data. They define historical research as: the systematic and objective location, evaluation and synthesis of evidence, in order to establish facts and draw conclusions about past events (Cohen and Manion, 1992, p. 43). Scott’s (1990) mentions four points to consider, which are the issues of authenticity, credibility, repetitiveness, and meaning.

To learn more about the research activity at the College, this thesis will examine the participation of staff members from the College in the Third International Teacher Educators Congress in June, 1999 held at Beit Berl College of Education in Israel, who presented papers, what is their education. The list of participants will be compared to the list of the academic committee members, and to the list of heads of departments, to examine if researchers are included in decision-making processes at the College. In addition, publications of researchers, publications of the Research Unit, all open-published documents will be analyzed mainly to attain quantitative data (e.g. number of books written, number of publications in Hebrew and English).

Analysis of Data

Analysis of Qualitative Data

Qualitative data, collected from interviews, open-ended questionnaires, observation and some documents may be "rich, full and real" (Robson, 1993), but present particular difficulties in analysis. According to O’Neill et al. (1995, p. 39) qualitative analysis of data is problematic, and this should involve the organization of data into patterns and categories, and interpretation of those data. Robson (1993, p. 401) mentions frequency, patterning, clustering, factoring, relating variables, building of causal networks and
relating findings to general theoretical frameworks as possible tactics, and mentions that it is about "the discovery of regularities". Miles and Huberman (1994, p. 10) define qualitative data analysis as consisting of three concurrent flows of activity: data reduction, data display, and conclusion drawing/verification. Conclusion drawings must be tested for their plausibility, their sturdiness and their validity. They suggest the following interactive model for data analysis (Figure 3.2).

Figure 3.2 Components of Data Analysis: Interactive Model
Adapted from Miles and Huberman (1994, p. 12)

Organization and sorting of data may be done ‘manually’, literally cutting and pasting relevant parts of the data, or writing a coding category on the notes or transcript, where appropriate. Alternatively, word processing packages can be used by adding a code, for example “&” to a particular type of response and then using the search to find facility to identify the code and thus all the instances of one kind. (O’Neill et al., 1995, p. 39). Coding all responses to an open-ended questionnaire will enable the researcher to retrieve all instances of a particular kind, and begin to establish themes, or patterns. Word processing packages can also be used to a limited extent to aid analysis by cutting and pasting the relevant sections of notes from different interview respondents, to group the responses, thus avoiding much re-reading of transcripts. Data reduction refers to the process of selecting, focusing, simplifying, abstracting, and transforming the data that
appear in written-up field notes or transcriptions (Miles and Huberman, 1994, p. 10).

Interpretation of the data may be done through comparison with theoretical propositions, derived from the literature, or as in this present research, from collected quantitative data, and working towards issues, which can be used to organize the material, or by exploring the data. The latter process might follow the following stages:

  - Familiarization, reading through the transcripts;
  - Reflection, comparison with other research, to formulated hypotheses;
  - Conceptualization of important concepts;
  - Cataloguing or coding concepts.

  Linking all the variables to a holistic theory. (Adapted from Easterby-Smith et al., 1994).

In this present research the method of cutting and pasting was used to group responses from the unstructured interviews to two clusters: younger teacher educators, men and women, who want to engage in research for a Ph.D. degree, and older women, with M.A. degrees, who want to engage in research. The technique was used to relate variables to discover relationships between factors, building of causal networks and to relate findings to general theoretical frameworks.

Other ways of structuring analyses:

  - Chronological analysis or a longitudinal study: in the present study the change resulting from the induction and mentoring during the yearlong course in research methods can be presented chronologically.
  - Analysis of key events: in the present research participation in conferences or the yearlong course in research methods will be discussed.

Most approaches of the analysis of qualitative data relate to "the discovery of regularities" (Robson, 1993). The researcher needs to continually make decisions about
the relative importance of data, and be aware of his or her possible deficiencies as an analyst (O’Neill, 1995, p. 40). Glaser and Strauss’s (1967) account of grounded theory offers one way of developing analysis of observational data. It involves three stages: an initial attempt to develop categories which illuminate the data; an attempt to ‘saturate’ these categories with many appropriate cases in order to demonstrate their relevance; and developing these categories into more general analytic frameworks with relevance outside the setting. Brewer (2000, p. 167) suggests that ethnographic research in the preliminary stage can be used for clarification of concepts, formulation of hypotheses, discovery of new and unfamiliar data, adjunct to quantitative information. In the principal stage, ethnographic research can be used when the topic is complex or sensitive, or controversial, or when to subjects are resistant to research, small in number or difficult to locate geographically (ibid.).

Robson identifies a number of deficiencies of the human analyst:

Data overload, limitations on the amount of data that he can deal with.

First impressions – early input makes a large impression so a subsequent revision is resisted.

There is a tendency to ignore information conflicting with hypotheses already held, and to emphasize information that confirms them.

Uneven reliability – some sources are more reliable than others tends to be ignored.

Excessive confidence is rested in one’s judgment and co-occurrence tends to be interpreted as strong evidence for correlation. (Robson, 1993, pp. 274-5).

The presentation of analyzed qualitative material can be done in narrative form but it is possible to use a matrix or a flow chart. Matrices allow quantitative presentation of qualitative data, but must be accompanied by full explanation.

In this thesis data collection was not done all at once. The first questionnaire was
administered in June 1999. The participant observation and interviews were carried out during the 1999/2000 school year. The second questionnaire was then administered in June 2000. Data was reduced, displayed and conclusion drawing and verification was done during the whole period. Possible deficiencies, as suggested by Robson (1993, p. 274-5), may be excessive reliance on one researcher’s judgment, and data overload.

Analysis of Quantitative Data

Rosnow and Rosenthal (1996, p. 225) consider data analysis as falling into the stages of descriptive or exploratory analysis (basic summary statistics), or inferential analysis (statistical tests). Descriptive or exploratory analysis could involve measures of central tendency (mode, mean, median), measures of dispersion (range, standard deviation) of a finite population of events. As O’Neill et al. (1995, p. 44) suggest, this allows the researcher to become familiar with the data, check for errors in the sample and the data, checking the instrument has worked, looking for surprising results and establishing the next stages. Reporting descriptive research data can be done visually. In this thesis histograms or bar charts were used to display descriptive data about the respondents to the surveys.

Researchers are also interested in generalizing from a sample of known events to a population of unknown events. Inferential analysis attempts to make an inference from a finite sample to a population of unknown events (Rosnow and Rosenthal, 1996, p. 226). Inferential statistics consider the relationship between variables and consider differences. This could involve multivariate analysis, establishing probabilities, identifying the correlation coefficient (e.g. the Pearson Product-Moment Correlation), testing for differences (e.g. the t-test or the chi-square test).

From the two surveys, factors that may account for differences in survey findings were identified, and conjectural statements (known as hypotheses) about the relationship between two or more factors were made (e.g. how tenure, age, gender, previous
involvement in research, or education are affecting teacher educators' attitudes and perceptions on research). Thus, instead of just describing respondents' perceptions of their research performance, the researcher could make finer distinctions for example distinctions regarding tenure, age, gender, previous involvement in research, or education among groups of respondents. Comparison and statistical tests could then be applied to determine differences, similarities, or relationships (Sudman and Bradburn, 1982). The participant observation and interview data provided richness and detail to supplement and triangulate the quantitative data, and enabled the researcher to better describe changes over time that have taken place in the research culture in Colleges of Education.

Establishing Relationships

Researchers view variables not in isolation but as being systematically and meaningfully associated with or related to other variables. The correlation coefficient (r) measures the strength of association between two variables, but does not necessarily imply causation. Sometimes a third variable is the cause for both (Rosnow and Rosenthal, 1996, p. 250).

Statistical Significance

Besides describing data and looking for mutual relationships between variables, researchers frequently make comparisons among research groups. Many research projects examine differences between and relationships between variables. This is done by testing whether any differences between these variables are statistically significant. Two or more groups can be compared by calculating the difference between the means, and finding what is the probability that the difference is real or due to chance. The t-test is useful whenever there are two groups to be compared, but if more than two groups have to be compared the F-test is used, which is based on analysis of variance and
called ANOVA. The difference is that it analyzes variances (mean squares) instead of analyzing means (Rosnow and Rosenthal, 1996, p. 284-5). For example, in the present research, teacher educators were divided into three groups, by the number of publications, and their answers to the questionnaire were then compared for statistically significant differences. The larger the F ratio becomes, the greater is the dispersion of group means, relative to the dispersion of scores within groups, and the probability that the groups are significantly different is higher. Researchers prefer larger F’s because they are associated with smaller p’s. What do we mean by significance (p)?

The effect of one variable on another (whether it be a source of difference or an association) is said to be statistically significant if the likelihood of it occurring by chance is less than 5 per cent. This is known as the level of significance expressed as a probability (often simply p). In other words, the probability of the results occurring by chance factors is very slight. While p< .05 is widely accepted as an acceptable significance level, a probability of 1 per cent (p< .01) is regarded a highly significant in most instances. (Robertson, 2000, p. 18).

In the present research, means, standard deviations and correlation of variables were calculated to get some significant differences. Variances were examined by education, gender, number of publications and tenure. In writing up the analysis, first the quantitative findings will be presented, in order to get a broader picture, and then qualitative data will be presented to complement and illustrate those findings.

Validity and Reliability

The traditional criteria of methodological adequacy and validity were formulated by positivism to justify the use of quantitative methods in the social sciences (Altheide and Johnson, 1994, p. 487). Through the use of techniques that produce numerical data, that are presumed to reflect true measures of objective categories, they assert that "reliability" or the stability of methods and findings, is an indicator of "validity" or the
accuracy and truthfulness of the findings (ibid). Accordingly, validity is another word for truth:

“The extent to which any event would always be classified or described in the same way by the same person or by different observers” (Simpson, and Tuson, 1995, p. 63).

Reliability refers to a degree of consistency with which instances are assigned to the same category by different observers or by the same observer on different occasions. For reliability to be calculated, it is incumbent on the scientific investigator to document his or her procedure and to demonstrate that categories have been used consistently (Silverman 2000, p. 188).

Positivism answered the validity question in terms of reliability: reliable (repeatable, generalizable) methods and findings were valid ones (Altheide and Johnson, 1994, p. 487). But there is a wide range of personal, interpersonal, political, ethical, practical, economic, occupational, and rhetorical influences on problems. Ethnographers took a different approach. They ask informants and others for their recollections, points of view, and interpretations. Critiques argue that the reflexive character of ethnographic accounts renders them to not only “nonobjective” but also partisan, partial, incomplete, and bound to contexts he or she may represent (ibid). Classroom observation, for example, has been challenged on the difficulty of ensuring that all observers classify perceptions in the same way:

“Systematic observation has been subjected to severe criticism over the past ten years or more, on the ground, for instance, that it involves the imposition of crude, static categories upon a complex and processual reality”. (Scarth and Hammersley, 1993, p. 196).

Silverman (2000, p. 188) suggests five ways of thinking critically about qualitative data analysis in order to aim at more valid findings:
the refutability principle, only if we cannot refute assumed relations are we in a position to speak about 'objective' knowledge;

the constant comparative method, the researcher should always attempt to find another case though which to test out a provisional hypothesis;

comprehensive data treatment, implies actively seeking out and addressing generalization to every relevant data collected or to deviant cases;

deviant case analysis;

using appropriate tabulations, counting techniques.

In this thesis, the research findings of the participant observation were triangulated with the surveys' findings for validity and reliability. In the first questionnaire, Cronbach's $\alpha$ coefficient is used as an index of reliability. This is a measure of the internal consistency of the scale, and it ranges from 0 to 1. The nearer the value of $\alpha$ is to 1, the more reliable the scale. There is a column "Alpha if item deleted". This shows the value of Cronbach $\alpha$ if that item is deleted from the scale. If the value of $\alpha$ increases when an item is deleted, then that item is not a good item, since it is contributing negatively to the reliability of the scale. Conversely, if the value of $\alpha$ decreases when the item is deleted, then that item is a good item, since it is contributing positively to the reliability of the scale (Rosnow and Rosenthal, 1996, p. 126).

**The Validity of Student Evaluations**

In the second questionnaire student evaluations of teaching were used to investigate how involvement in research can affect teaching. According to Scriven (1995) generalizations about student ratings as a good indicator of learning gains or teacher merit are misleading since they assume there is a common property to all such ratings. Most forms, when used in the most common ways, are invalid as a basis for personnel action. Common examples of this kind of mistake include forms that ask for:
comparisons with other teachers; whether the respondent would recommend the course to a friend with similar interests, or whether "it's one of the best courses" one has had.

Several pragmatic considerations (logistical, political, economic, psychological), which impact on form design, are required for validity. These include: form length - if forms are too long students may not fill them in or may skip responses; type of question - forms should include the questions students want answered about the courses they are considering taking, thus avoiding resentment and a lack of willingness to complete the forms; forms should not include questions that students suspect will be used to discriminate against them or that are biased towards favorable (or unfavorable) comments. The validity of student rating forms is also dependent on the context of how and when they are administered. For student rating results to be valid, they must be obtained from properly administered tests, stringently controlled data collection, and thorough analysis of test results. Frequent errors include: the use of instructors to collect forms rating their own instructional merit, lack of controls over pleas for sympathy or indulgence by the teacher before forms are distributed; inadequate time to complete forms; failing to ensure an acceptable return rate.

To ensure the validity of results, errors in data processing, report design, and interpretation must also be avoided. Common errors include: the use of averages alone, without regard to the distribution; failure to set up appropriate comparison groups so that the usual tendency for ratings to be higher in graduate professional schools can be taken into account; treating small differences as significant, just because they are statistically significant; using factor analysis without logical/theoretical validation; ignoring ceiling/floor effects; using the ratings as the sole basis for either formative or summative evaluation.

Although student ratings are an important source of data for the evaluation of teaching merit, they should not be the only source. Similarly, student ratings form an essential
part of the data for the evaluation of courses, workshops, degree programs, etc., but they cannot carry the entire burden. It is essential to look at the data relating to other dimensions of merit such as needs, demand, opportunities for symbiosis, content, and costs, and estimate their relative importance. Student ratings must be considered very carefully in the context in which they are given.

Ethical Issues in Analysis

Traditional ethical concerns have revolved around the topics of informed consent, right to privacy (protecting the identity of the subject), and protection from harm (physical, emotional) (Fontana and Frey, 1994, p. 372). Sabar (1994) from Israel investigated the ethical concerns in teacher-thinking research. From interviews with twelve researchers in the field of education she found that only two respondents reported taking into consideration ethical concerns before the interview.

Miles and Huberman (1994, p. 289) suggest four larger theories of how to decide that an action is right, correct or appropriate (Table 3.1).

<table>
<thead>
<tr>
<th>Recruitment</th>
<th>Utilitarian</th>
<th>Deontological</th>
<th>Relational</th>
<th>Ecological</th>
</tr>
</thead>
</table>

Table 3.1 Ethical Frameworks and Aspects of Research
(Flinders, 1992)

A utilitarian, pragmatic approach judges actions according to their specific consequences – benefits and costs – for various audiences: the researcher, the researched, colleagues and public. A deontological view involves one or more universal rules, which boil down to: would I like this action to be applied to everyone- including
me? Flinders (1992) idea of relational ethics emphasizes issues of attachment, caring, and respect. Researchers taking the relational view stress equal-status collaboration; researcher and researched are now more symmetrical. He also adds the idea of ecological basis for ethical decisions, emphasizing the impact of actions on a complete, interdependent system in the broadest possible context. A comprehensive ecological view of ethics, leads the researcher to be sensitive to the language and meaning of the local “culture”, to avoid “detachment”.

The subjects chosen for this thesis are teacher educators who are involved, or want to be engaged in research, so the ethical issue is less acute, since teacher educator researchers are aware of the need to respond to questionnaires or interviews, and all four theories are relevant. The purpose of the thesis is first of all utilitarian for the researcher. As a Ph.D. thesis, it can contribute to her career, publication opportunities and funding of other research projects. But the institution and also teacher educators can benefit from the research. The deontological, relational and ecological views are relevant too, since the researcher tried to avoid imposition and detachment, did not mean to harm in any way and is responsive to the respondents’ confidentiality. Before sending for publishing, papers arising from the research were given for approval of the people involved, and also findings were presented on different occasions to the staff.

Harm to participants can come in many varieties: from a blow to self-esteem or “looking bad” to others, to threats to one’s interests, position, or advancement in the organization, to loss of funding for a program, on up to being sued or arrested (Miles and Huberman, 1994, p. 292). Answering the first questionnaire was completely voluntary but not the second one, but findings from the second questionnaire were coded and statistical analyses were done only by the Research Unit, for confidentiality reasons. Sieber (1992) makes distinctions between privacy, confidentiality and anonymity. Confidentiality and anonymity are usually promised to respondents, but
many times respondents can be identified, by different signs. In conclusion, ethical issues range from the early ones (the project’s worthiness, the researcher’s competence, informed consent, anticipated benefits and costs) to those occurring as the project develops (harm and risk, relationship with respondents, privacy, confidentiality/anonymity, and intervention) and those prominent late (research quality, data ownership and use of results). Dealing with ethical issues effectively involves heightened awareness, negotiation, and making trade-offs among ethical dilemmas, rather than the pure application of rules (Miles and Huberman, 1994, p. 297). Punch (1994, p. 90) is concerned that a strict application of ethical codes will restrict and restrain a great deal research and informed consent will make the research role untenable.

**Conclusion**

The present case study uses the following research methods to obtain data on the current state of the research culture at one College of Education in Israel: a combination of two surveys, interviews, participant observation and documentary analysis.

The doing of statistics may be precise and mathematical, but it depends also on the interpretation and judgment of the researcher (O’Neill, 1995, p. 46). Qualitative analysis can be criticized as it relies excessively on the researcher’s judgment (Robson, 1993, p. 274), however the combination of qualitative and quantitative methods appears to be effective and complementary, allowing for a degree of triangulation using a variety of research tools in a way, which is more manageable for the lone researcher.

The findings of the two surveys, the interviews, the participant observation, and the documentary research findings will be reported in the following chapter.
CHAPTER 4 : FINDINGS

Findings in this chapter are organized in four sections. The first two include quantitative findings from two different questionnaires, one administered in 1999 and the second in 2000. The third section includes qualitative findings from unstructured interviews and a participatory observation of a yearlong course in research methods for staff members at the College. The fourth section includes findings from documentary research.

Data collected through the two questionnaires was used to answer the research questions related to: characteristics of teacher educators who are also researchers; their perceived attitudes toward participation in research activities and in decision making processes at the college; what motivates them to conduct research; does research enhance or inhibit teaching; and how involvement in research can contribute to teacher educators career and professional development.

Results from the first Questionnaire (1999): Teacher Educators’ Perceptions and Attitudes toward Research (Appendix A)

Professional Information about the Respondents

From the ninety-six questionnaires that were returned (n=96), only eight respondents had not been involved in research in the past, 12 are not involved at the present and only two respondents are not interested in conducting research in the future. So the results are a good indicator of the attitudes of the faculty who are actually engaged in research or want to be involved in the future. It can be assumed that those who are not interested in research did not answer the questionnaire. Everton et al. (2000) found from 302 voluntary respondents to a questionnaire, about the impact and value of educational research, distributed by the Teacher Training Agency in the UK, that inexperienced teachers appeared to have less use for research, and they do not answer questionnaires.
Professional information about the respondents is presented in Table 4.1:

<table>
<thead>
<tr>
<th>Table 4.1 Professional Information about Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Education</strong></td>
</tr>
<tr>
<td>B.A.</td>
</tr>
<tr>
<td>M.A.</td>
</tr>
<tr>
<td>Ph.D.</td>
</tr>
<tr>
<td><strong>Tenure</strong></td>
</tr>
<tr>
<td>On tenure track</td>
</tr>
<tr>
<td>Not on tenure track</td>
</tr>
<tr>
<td>Did not answer</td>
</tr>
<tr>
<td><strong>Teaching experience</strong></td>
</tr>
<tr>
<td>Between 0-9 years</td>
</tr>
<tr>
<td>Between 10-20 years</td>
</tr>
<tr>
<td>More than 20 years</td>
</tr>
<tr>
<td>Did not answer</td>
</tr>
<tr>
<td><strong>Extent employment</strong></td>
</tr>
<tr>
<td>Half time or less</td>
</tr>
<tr>
<td>Half to full time</td>
</tr>
<tr>
<td>More than full time</td>
</tr>
<tr>
<td>Did not answer</td>
</tr>
<tr>
<td><strong>Years at the College</strong></td>
</tr>
<tr>
<td>Between 0-9 years</td>
</tr>
<tr>
<td>Between 10-20 years</td>
</tr>
<tr>
<td>More than 20 years</td>
</tr>
<tr>
<td>Did not answer</td>
</tr>
</tbody>
</table>

Thirty respondents are male and fifty-nine are female. The number of male respondents with M.A. (N=13) and Ph.D. (N=16) was almost equal, but it is lower than the number of female respondents (thirty-five have a M.A. degree and twenty-five a Ph.D. degree) (Figure 4.1).
Among the twenty untenured faculty that responded to the questionnaire, ten are employed half time or less (part time), ten half to full time and none more than full time. About twenty per cent of the respondents are employed half time or less, while at the College as a whole half of the employees are employed half time. It can be assumed that faculty employed half time or less has fewer chances to be engaged in research (Figure 4.2).

Information about the respondents’ studies is presented in Table 4.2:
Table 4.2 Information about the Respondents’ Studies

<table>
<thead>
<tr>
<th>Did you study abroad?</th>
<th>Number of Respondents</th>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>40</td>
<td>41.7</td>
</tr>
<tr>
<td>No</td>
<td>56</td>
<td>58.3</td>
</tr>
</tbody>
</table>

If yes, in which country?

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of Respondents</th>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>28</td>
<td>29.2</td>
</tr>
<tr>
<td>G.B.</td>
<td>5</td>
<td>5.2</td>
</tr>
<tr>
<td>South Africa</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>France</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>Romania</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>Canada</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>Belgium</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>Didn’t answer</td>
<td>58</td>
<td>60.4</td>
</tr>
</tbody>
</table>

Towards what degree?

<table>
<thead>
<tr>
<th>Degree</th>
<th>Number of Respondents</th>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>M.A</td>
<td>10</td>
<td>10.4</td>
</tr>
<tr>
<td>Ph.D.</td>
<td>22</td>
<td>22.9</td>
</tr>
<tr>
<td>Not towards a degree</td>
<td>3</td>
<td>3.1</td>
</tr>
<tr>
<td>Didn’t answer</td>
<td>61</td>
<td>65.3</td>
</tr>
</tbody>
</table>

In what languages do you read research publication?

<table>
<thead>
<tr>
<th>Language</th>
<th>Number of Respondents</th>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hebrew</td>
<td>87</td>
<td>90.6</td>
</tr>
<tr>
<td>English</td>
<td>94</td>
<td>97.9</td>
</tr>
<tr>
<td>Other language</td>
<td>28</td>
<td>29.2</td>
</tr>
</tbody>
</table>

About 30 per cent of the respondents reported that they studied in U.S.A., 5 per cent in U.K., and one person each reported about studies in South Africa, France, Belgium, Canada, and Rumania. About half (22 out of 43) of the respondents with a Ph.D. degree studied abroad, compared to only fifth of the respondents with M.A. (10 out of 51).

Information about respondents’ research work is presented in Table 4.3:

Table 4.3 Information about the Respondents’ Research Work

<table>
<thead>
<tr>
<th>Involvement in research</th>
<th>Number of Respondents N=96</th>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the past</td>
<td>84</td>
<td>87.0</td>
</tr>
<tr>
<td>At present</td>
<td>76</td>
<td>79.0</td>
</tr>
<tr>
<td>In the future</td>
<td>94</td>
<td>97.9</td>
</tr>
</tbody>
</table>
Seventy-three per cent of faculty members reported that they published in Hebrew, sixty-three per cent published in English and 8.3 per cent in other languages. Seven respondents read literature reviews in French, four in Yiddish, three in Arabic, three in German, and three in French and German, and two reported on Spanish. One respondent each, reported reading literature in Arabic and French, French, Arabic and German, French and Rumanian, French and Russian, French and Spanish. Only twenty-nine respondents use research findings for decision-making, change and improvement, and only thirty-two as bibliographical materials in their own courses. The majority of respondents (67 per cent) engage in research to provide comprehension in their field of study.

Participants to the questionnaire were asked to report how many papers they published. Almost sixty per cent of the respondents (25 out of 43) with a Ph.D. degree had published more than ten papers, while among the respondents with M.A. only ten percent (5 out of 55) have more than ten publications (Figure 4.3).
In this study well over half of the respondents have more than 20 years of experience in teaching and they also have the highest number of publications, as seen in Figure 4.4. Two respondents did not answer:

Figure 4.4 Years of Teaching Experience and Number of Publications of the Respondents

All respondents with no publications are on the tenure track. It is likely that respondents that are not on the tenure track and do not have publications did not respond to the questionnaire. Five respondents did not answer (Figure 4.5).
To what departments do the respondents belong? Answers are summarized in Table 4.4:

Table 4.4 Respondents' Department

<table>
<thead>
<tr>
<th>Belong to department</th>
<th>Number of Respondents</th>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>15</td>
<td>15.6</td>
</tr>
<tr>
<td>Special Education</td>
<td>7</td>
<td>7.3</td>
</tr>
<tr>
<td>Junior High School</td>
<td>6</td>
<td>6.3</td>
</tr>
<tr>
<td>Early Childhood</td>
<td>5</td>
<td>5.2</td>
</tr>
<tr>
<td>Elementary Education</td>
<td>4</td>
<td>4.2</td>
</tr>
<tr>
<td>Informal Education</td>
<td>3</td>
<td>3.1</td>
</tr>
<tr>
<td>Youth Advancement</td>
<td>2</td>
<td>2.1</td>
</tr>
<tr>
<td>Research Unit</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Sum</strong></td>
<td><strong>43</strong></td>
<td><strong>44.8</strong></td>
</tr>
<tr>
<td>Computer Sciences</td>
<td>9</td>
<td>9.4</td>
</tr>
<tr>
<td>History</td>
<td>6</td>
<td>6.3</td>
</tr>
<tr>
<td>Counseling</td>
<td>5</td>
<td>5.2</td>
</tr>
<tr>
<td>Hebrew Language</td>
<td>5</td>
<td>5.2</td>
</tr>
<tr>
<td>Literature</td>
<td>5</td>
<td>5.2</td>
</tr>
<tr>
<td>Bible Studies</td>
<td>4</td>
<td>4.2</td>
</tr>
<tr>
<td>English</td>
<td>4</td>
<td>4.2</td>
</tr>
<tr>
<td>Geography</td>
<td>2</td>
<td>2.1</td>
</tr>
<tr>
<td>-----------------</td>
<td>---</td>
<td>-----</td>
</tr>
<tr>
<td>Jewish Studies</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>Social Studies</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>Mathematics</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Sum</strong></td>
<td>43</td>
<td>44.8</td>
</tr>
</tbody>
</table>

About half of the respondents belong to the department of education, and the other half to different disciplines. In comparison, Shamai et al. (2000) investigated 239 research projects from sixteen Colleges of Education in Israel. In their research too, about half of the research projects are in subjects related to education and the other half are related to different disciplines.

To summarize, among respondents, there are almost twice as many females with an M.A. degree than with a Ph.D. All respondents with no publications are on the tenure track. In this study well over half of the respondents have more than 20 years of experience in teaching and they also have the highest number of publications Only about twenty per cent of respondents are employed half time or less.

**Perceptions about Teacher Educators’ Research Activity**

To find out more about teacher educators’ perceptions of research, respondents were asked to rate seventeen items using a 4-point Likert scale with the following scale values: 1 do not agree, 2 slightly agree, 3 agree, 4 agree very much.
Table 4.5 Perceptions about Teacher Educators’ Research Activity

The distribution of the responses in percentages and the average on a scale between 1-4 (Standard deviation in parentheses) (N=96)

To what extent you agree with the following sentences about teacher educators as researchers compared to other teacher educators:

<table>
<thead>
<tr>
<th></th>
<th>Do not agree</th>
<th>Slight agree</th>
<th>Agree</th>
<th>Agree very much</th>
<th>Didn’t answer</th>
<th>X (S.D.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Researchers invest more in their work</td>
<td>13.5</td>
<td>18.8</td>
<td>41.7</td>
<td>21.9</td>
<td>4.2</td>
<td>2.75 (0.968)</td>
</tr>
<tr>
<td>2. Are better teachers</td>
<td>27.1</td>
<td>27.1</td>
<td>21.9</td>
<td>20.8</td>
<td>3.1</td>
<td>2.38 (1.112)</td>
</tr>
<tr>
<td>3. Teacher researchers work harder</td>
<td>11.5</td>
<td>11.5</td>
<td>34.4</td>
<td>41.7</td>
<td>1</td>
<td>3.07 (1.003)</td>
</tr>
<tr>
<td>4. Should earn more</td>
<td>12.5</td>
<td>27.1</td>
<td>22.9</td>
<td>36.5</td>
<td>1</td>
<td>2.84 (1.065)</td>
</tr>
<tr>
<td>5. Have more professional contacts</td>
<td>2.1</td>
<td>8.3</td>
<td>40.6</td>
<td>46.9</td>
<td>2.1</td>
<td>3.35 (0.729)</td>
</tr>
<tr>
<td>6. Are highly regarded by the management</td>
<td>13.5</td>
<td>15.6</td>
<td>35.4</td>
<td>33.3</td>
<td>2.1</td>
<td>2.90 (1.027)</td>
</tr>
<tr>
<td>7. Are highly regarded by their students</td>
<td>17.7</td>
<td>33.3</td>
<td>32.3</td>
<td>14.6</td>
<td>2.1</td>
<td>2.45 (0.957)</td>
</tr>
<tr>
<td>8. Are highly regarded by their colleagues</td>
<td>2.1</td>
<td>17.7</td>
<td>42.7</td>
<td>36.5</td>
<td>1</td>
<td>3.147 (0.785)</td>
</tr>
<tr>
<td>9. Have better chances to reach management positions</td>
<td>14.6</td>
<td>15.6</td>
<td>39.6</td>
<td>26.0</td>
<td>4.2</td>
<td>2.80 (0.988)</td>
</tr>
<tr>
<td>10. Teacher researchers are more talented</td>
<td>30.2</td>
<td>32.3</td>
<td>22.9</td>
<td>10.4</td>
<td>4.2</td>
<td>2.14 (0.990)</td>
</tr>
</tbody>
</table>

The findings in Table 4.5 indicate that respondents believe that their research activity is
mostly appreciated by colleagues (3.147), then by management (2.9) and least by
students (2.45). Respondents do not believe that teacher researchers are more talented
(2.14), and that they are better teachers (2.38). But researchers have more professional
contacts (3.35). Standard deviation is the lowest on the following items: ‘researchers are
highly regarded by colleagues’ (0.785) and ‘researchers have more professional
contacts’ (0.729), which means that the responses are more consistent.

Table 4.6 Perceptions about Teacher Educators’ Research Activity (continued)
The distribution of responses in percentages and the average on a scale between 1-4
(Standard deviation in parentheses) (N=96)

To what extent, in your opinion, teacher educators’ research activity can contribute to
the following areas:

<table>
<thead>
<tr>
<th>Area</th>
<th>1 Do not agree</th>
<th>2 Slightly agree</th>
<th>3 Agree</th>
<th>4 Agree very much</th>
<th>Didn’t answer</th>
<th>X (S.D.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving self confidence</td>
<td>5.2</td>
<td>10.4</td>
<td>27.1</td>
<td>57.3</td>
<td>0</td>
<td>3.365 (0.872)</td>
</tr>
<tr>
<td>Involvement in decision making processes at the college</td>
<td>28.1</td>
<td>27.1</td>
<td>35.4</td>
<td>6.3</td>
<td>3.1</td>
<td>2.204 (0.939)</td>
</tr>
<tr>
<td>Improvement of teaching techniques</td>
<td>17.7</td>
<td>27.1</td>
<td>34.4</td>
<td>18.8</td>
<td>2.1</td>
<td>2.553 (1.001)</td>
</tr>
<tr>
<td>Developing leadership skills</td>
<td>31.3</td>
<td>34.4</td>
<td>28.1</td>
<td>4.2</td>
<td>2.1</td>
<td>2.053 (0.884)</td>
</tr>
<tr>
<td>Improvement of professional status</td>
<td>1</td>
<td>11.5</td>
<td>27.1</td>
<td>57.3</td>
<td>3.1</td>
<td>3.452 (0.745)</td>
</tr>
<tr>
<td>Openness to innovations</td>
<td>5.2</td>
<td>5.2</td>
<td>26</td>
<td>62.5</td>
<td>1</td>
<td>3.474 (0.823)</td>
</tr>
<tr>
<td>Professional growth</td>
<td>4.2</td>
<td>10.4</td>
<td>30.2</td>
<td>52.1</td>
<td>3.1</td>
<td>3.344 (0.84)</td>
</tr>
</tbody>
</table>

Involvement in research is seen as improving self-confidence; professional status, and
contributing to professional growth. Researchers are seen as more open to innovations,
but research is not seen as contributing to the development of leadership skills, and
researchers are not believed to be included in decision-making processes at the College
Correlation coefficients were calculated between all items, and some of the highest correlation coefficients are presented here:

**Table 4.7 Correlation between Research and Teaching**

<table>
<thead>
<tr>
<th></th>
<th>Researchers are better teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are highly regarded by students</td>
<td>( r=0.5623 \quad p=0.00 )</td>
</tr>
<tr>
<td>Researchers invest more in their work</td>
<td>( r=0.5189 \quad p=0.00 )</td>
</tr>
<tr>
<td>Research is contributing to improvement of teaching techniques</td>
<td>( r=0.500 \quad p=0.00 )</td>
</tr>
</tbody>
</table>

A positive correlation was found between researchers being good teachers and being regarded by students, investment in work and contribution of research to improvement of teaching techniques. (Table 4.7).

**Table 4.8 Correlation between Research and Appreciation from Management**

<table>
<thead>
<tr>
<th></th>
<th>Researchers are highly regarded by management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Researchers have better chances to reach management positions</td>
<td>( r=0.6198 \quad p=0.00 )</td>
</tr>
<tr>
<td>Research is contributing to professional growth</td>
<td>( r=0.5452 \quad p=0.00 )</td>
</tr>
</tbody>
</table>

A positive correlation was found between researchers are highly regarded by management and researchers have better chances to reach management positions and contribution of research to professional growth. (Table 4.8)

**Table 4.9 Correlation between Research, Professional Contacts and Openness to Innovation**

<table>
<thead>
<tr>
<th></th>
<th>Researchers have more professional contacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Researchers are more open to innovations</td>
<td>( r=0.5744 \quad p=0.00 )</td>
</tr>
</tbody>
</table>

A positive correlation was also found between researchers have more professional contacts and being open to innovations. (Table 4.9)
Analysis of Variance

Analysis of variance was calculated for all items on the personal and professional information list, but only variables that produced statistically significant differences are presented here: tenure, age, gender, previous involvement in research, education. From analysis of variance, significant differences were found between responses of teacher educators on the tenure track and those who are not on the tenure track (Table 4.10).

Table 4.10 Significant Differences in Responses of Teachers on the Tenure Track and those who are not on the Tenure Track
On a scale from 1 to 4. (Analysis of variance) (N=96).

<table>
<thead>
<tr>
<th></th>
<th>On Tenure Track N=70</th>
<th>Not on Tenure Track N=20</th>
<th>All respondents N=96</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engagement in research contributes to the professional status (p=0.0038 F=8.8696)</td>
<td>3.33</td>
<td>3.86</td>
<td>3.45</td>
</tr>
<tr>
<td>Researchers are highly regarded by colleagues (p=0.0336 F=4.6602)</td>
<td>3.014</td>
<td>3.42</td>
<td>3.11</td>
</tr>
<tr>
<td>Researchers are highly regarded by management (p=0.0165 F=5.98270)</td>
<td>2.79</td>
<td>3.40</td>
<td>2.93</td>
</tr>
<tr>
<td>Have better chances to reach management positions (p=0.0034 F=9.101)</td>
<td>2.68</td>
<td>3.4</td>
<td>2.85</td>
</tr>
<tr>
<td>Are engaged in decision making processes at the college (p=0.0538 F=3.8227)</td>
<td>2.147</td>
<td>2.6</td>
<td>2.25</td>
</tr>
</tbody>
</table>

All untenured respondents are engaged in research. Their answers, compared to teachers on the tenure track, are higher on the following items: teacher researchers work harder, invest more in work and are more talented but not that they should earn more. They are more likely to believe, that research can contribute to tenure.

Statistically significant differences were found between responses of teacher educators
with M.A. and Ph.D.s and are presented in Table 4.11:

Table 4.11 Significant Differences in Responses of Teacher Educators with M.A. and Ph.D. Degrees On a scale from 1 to 4. (Analysis of variance) (N=96).

<table>
<thead>
<tr>
<th>Teacher educators who do research:</th>
<th>( \bar{x} ) M.A. N=51</th>
<th>( \bar{x} ) Ph.D. N=43</th>
<th>( \bar{x} ) All respondents N=96</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are open to innovations</td>
<td>3.32</td>
<td>3.63</td>
<td>3.46</td>
</tr>
<tr>
<td>(p=0.0737 F=3.2736)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have more professional contacts</td>
<td>3.22</td>
<td>3.47</td>
<td>3.34</td>
</tr>
<tr>
<td>(p=0.0940 F=2.8654)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research improves self confidence</td>
<td>3.22</td>
<td>3.53</td>
<td>3.36</td>
</tr>
<tr>
<td>(p=0.079 F=3.1545)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher researchers work harder</td>
<td>2.82</td>
<td>3.33</td>
<td>3.05</td>
</tr>
<tr>
<td>(p=0.014 F=6.2797)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Should earn more</td>
<td>2.65</td>
<td>3.07</td>
<td>2.84</td>
</tr>
<tr>
<td>(p=0.0556 F=3.7583)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are better teachers</td>
<td>2.08</td>
<td>2.71</td>
<td>2.36</td>
</tr>
<tr>
<td>(p=0.006 F=7.9179)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher researchers are more</td>
<td>1.98</td>
<td>2.35</td>
<td>2.14</td>
</tr>
<tr>
<td>talented (p=0.0786 F=3.1663)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional growth</td>
<td>3.58</td>
<td>3.08</td>
<td>3.36</td>
</tr>
<tr>
<td>(p=0.0032 F=9.1995)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are highly regarded by management</td>
<td>3.2</td>
<td>2.56</td>
<td>2.91</td>
</tr>
<tr>
<td>(p=0.0029 F=9.3614)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have better chances to reach</td>
<td>3.2</td>
<td>2.33</td>
<td>2.81</td>
</tr>
<tr>
<td>management positions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(p=0 F=20.023)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Involvement in decision making</td>
<td>2.38</td>
<td>1.98</td>
<td>2.2</td>
</tr>
<tr>
<td>processes at the college</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(p=0.0365 F=4.5056)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improvement of teaching techniques</td>
<td>2.34</td>
<td>2.81</td>
<td>2.55</td>
</tr>
<tr>
<td>(p=0.0223 F=5.4111)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Responses of respondents with Ph.D. are higher on the following items: teacher educators who do research are open to innovations, have more professional contacts and research improves self-confidence. Also, according to respondents with Ph.D.s, teacher researchers work harder, should earn more, and are better teachers, and are more talented.

Responses of respondents with an M.A. are higher on the following items: research is contributing to the professional growth, and improves teaching techniques. Also, according to respondents with an M.A., teacher educators who do research are seen as
highly regarded by management, have better chances to reach management positions, and are included in decision-making processes at the College. The contradiction is that respondents with an M.A. degree have fewer chances to reach management positions or to be included in decision-making processes, but they are more likely to believe that research can contribute to reach these goals.

Significant differences were also found between the answers of respondents with different amounts of publications, as presented in Table 4.12. It should be mentioned that twenty-five out of the twenty-seven respondents with more than ten publications have a Ph.D. degree (i.e. virtually the same group).

Table 4.12 Significant Differences in Responses of Respondents with Different Amounts of Publications

On a scale from 1 to 4. (Analysis of variance) (N=96).

<table>
<thead>
<tr>
<th>Teacher educators who do research:</th>
<th>( \bar{x} ) No publications N=11</th>
<th>( \bar{x} ) 1-10 publications N=51</th>
<th>( \bar{x} ) More than 10 publications N=27</th>
<th>( \bar{x} ) All respondents N=96</th>
</tr>
</thead>
<tbody>
<tr>
<td>Openness to innovations (p=0.035 F= 3.48)</td>
<td>3.0</td>
<td>3.5</td>
<td>3.7</td>
<td>3.5</td>
</tr>
<tr>
<td>Are highly regarded by their colleagues (p=0.0515 F=3.066)</td>
<td>2.9</td>
<td>3.1</td>
<td>3.4</td>
<td>3.16</td>
</tr>
<tr>
<td>Should earn more (p= 0.0178 F=4.218)</td>
<td>2.5</td>
<td>2.7</td>
<td>3.31</td>
<td>2.85</td>
</tr>
<tr>
<td>Teacher researchers work harder (p=0.0004 F=8.597)</td>
<td>2.3</td>
<td>2.98</td>
<td>3.6</td>
<td>3.08</td>
</tr>
<tr>
<td>Are highly regarded by their students (p=0.0515 F=3.066)</td>
<td>2.1</td>
<td>2.3</td>
<td>2.8</td>
<td>2.45</td>
</tr>
<tr>
<td>Improvement of teaching techniques (p=0.099 F=2.37)</td>
<td>2.1</td>
<td>2.5</td>
<td>2.8</td>
<td>2.55</td>
</tr>
<tr>
<td>Researchers invest more in their work (p=0.0004 F=8.5)</td>
<td>1.9</td>
<td>2.7</td>
<td>3.2</td>
<td>2.75</td>
</tr>
<tr>
<td>Are better teachers (p=0.0016 F=6.93)</td>
<td>1.7</td>
<td>2.3</td>
<td>2.9</td>
<td>2.38</td>
</tr>
<tr>
<td>Teacher researchers are</td>
<td>1.6</td>
<td>1.9</td>
<td>2.8</td>
<td>2.15</td>
</tr>
</tbody>
</table>
Responses of respondents with more than 10 publications, compared to responses of respondents with no publications are higher on the following items: teacher researchers work harder, invest more in their work, are more talented, should earn more, and are better teachers. Research improves teaching techniques, teacher researchers are more open to innovations, and are highly regarded by their colleagues and by their students.

Responses of respondents with no publications, compared to responses of respondents with ten publications are seen as higher on the following items: teacher researchers are highly regarded by management, have better chances to reach management positions and are included in decision-making processes at the College. Men believe, more than women, that researchers are appreciated by colleagues. Women believe, more than men, that researchers have better chances to reach management positions (Table 4.13).

Table 4.13 Significant Differences in Men and Women’s Responses

<table>
<thead>
<tr>
<th>Teacher educators who do research:</th>
<th>Men</th>
<th>Women</th>
<th>All respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are highly regarded by colleagues (p=0.065 F=3.5 )</td>
<td>3.4</td>
<td>3.08</td>
<td>3.19</td>
</tr>
<tr>
<td>Have better chances to reach management positions (p=0.014 F=6.2 )</td>
<td>2.5</td>
<td>3.03</td>
<td>2.84</td>
</tr>
</tbody>
</table>
Preferences and Expected Help for the Research Activity

When asked if they could choose, how they would like to conduct research, the following results were received. Respondents could express several preferences.

<table>
<thead>
<tr>
<th>Research Preferences</th>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alone</td>
<td>37.5</td>
</tr>
<tr>
<td>With teams from the college</td>
<td>68.8</td>
</tr>
<tr>
<td>With researchers from other institutions</td>
<td>60.4</td>
</tr>
<tr>
<td>Full time</td>
<td>13.5</td>
</tr>
<tr>
<td>Part time</td>
<td>81.3</td>
</tr>
<tr>
<td>Not at all</td>
<td>2.1</td>
</tr>
</tbody>
</table>

Table 4.14 Respondents' research preferences
(N=96)

Eighty per cent of the respondents would like to be engaged in research part time. Sixty-seven per cent would like to engage in research in teams, and sixty per cent with researchers from other institutions. (Table 4.14).

On the question: What is the preferred help you would like to get from the College for conducting research? The responses are presented in Table 4.15:

<table>
<thead>
<tr>
<th>Preferred help from the College</th>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching less hours per week</td>
<td>84.3</td>
</tr>
<tr>
<td>Research grant</td>
<td>79.2</td>
</tr>
<tr>
<td>Help with statistics</td>
<td>51.0</td>
</tr>
<tr>
<td>Help from the library</td>
<td>43.8</td>
</tr>
<tr>
<td>Institutional courses in conducting research</td>
<td>25.0</td>
</tr>
<tr>
<td>Management’s recommendations about preferred topics</td>
<td>13.5</td>
</tr>
<tr>
<td>Secretarial help</td>
<td>46.9</td>
</tr>
</tbody>
</table>

Table 4.15 Expected help from the College
(N=96)

Half of the respondents would like statistical guidance help from the library and
secretarial help, and a quarter would like institutional courses in conducting research.

<table>
<thead>
<tr>
<th></th>
<th>On Tenure Track N=70</th>
<th>Not on Tenure Track N=21</th>
<th>All respondents N=91</th>
</tr>
</thead>
<tbody>
<tr>
<td>With teams from the College</td>
<td>1.37 (63%)</td>
<td>1.14 (86%)</td>
<td>1.32 (69%)</td>
</tr>
<tr>
<td>(p=0.0049  F=3.97)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full Time</td>
<td>1.91 (9%)</td>
<td>1.71 (29%)</td>
<td>1.87 (13%)</td>
</tr>
<tr>
<td>(p=0.0173  F=5.88)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part Time</td>
<td>1.13 (87%)</td>
<td>1.3 (71%)</td>
<td>1.16 (83%)</td>
</tr>
<tr>
<td>(p=0.0906  F=2.92)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Percent of the yes responses in parentheses)

Table 4.16 Significant differences in preferences in conducting research between tenured and untenured staff
(Analysis of variance, 1-yes, 2-no) (N=96).

Only 15 per cent of the respondents would like management’s recommendations about preferred topics. In handwriting ten respondents (10%) added in the “other” section: free access to academic libraries, participation in conference expenses, help in creating connections with researchers in other countries, help in publishing books, guidance in qualitative research, more interest in research.

From analysis of variance, statistically significant differences were found on responses to preferences and expected help for the research activity on the following variables: tenure, gender, education and number of publications.

Results indicate that teachers on the untenured track, more than teachers on the tenure track, would prefer to engage in research in teams and full time (Table 4.16).

Table 4.17 Significant differences in preferences in conducting research between men and women
(Analysis of variance, 1-yes, 2-no) (N=96).

<table>
<thead>
<tr>
<th></th>
<th>Men N=30</th>
<th>Women N=58</th>
<th>All respondents N=96</th>
</tr>
</thead>
<tbody>
<tr>
<td>With teams from the College</td>
<td>1.43 (57%)</td>
<td>1.22 (78%)</td>
<td>1.29 (71%)</td>
</tr>
<tr>
<td>(p=0.0371  F=4.48)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management’s recommendations about</td>
<td>1.633</td>
<td>1.37</td>
<td>1.46</td>
</tr>
</tbody>
</table>

176
preferred topics
(p=0.0196 F=5.65)
(Percent of the yes responses in parentheses)

<table>
<thead>
<tr>
<th></th>
<th>M.A.</th>
<th>Ph.D.</th>
<th>All respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alone</td>
<td>1.72 (27%)</td>
<td>1.48 (51%)</td>
<td>1.62 (38%)</td>
</tr>
<tr>
<td>(p=0.0183 F=5.77)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With teams from the College</td>
<td>1.21 (78%)</td>
<td>1.42 (58%)</td>
<td>1.31 (69%)</td>
</tr>
<tr>
<td>(p=0.034 F=6.289)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Help with statistics</td>
<td>1.37 (63%)</td>
<td>1.6 (40%)</td>
<td>1.48 (52%)</td>
</tr>
<tr>
<td>(p=0.0248 F=5.2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management’s recommendations about preferred topics</td>
<td>1.8 (20%)</td>
<td>1.93 (7%)</td>
<td>1.86 (14%)</td>
</tr>
<tr>
<td>(p=0.0787 F=3.16)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Women, compared to men, are more likely to prefer to conduct research in teams and receive management’s recommendations about preferred topics (Table 4.17).

Teacher educators with a Ph.D. and men prefer to engage in research alone. Teacher educators with an M.A. and women prefer conducting research in teams, they are likely to need more statistical guidance and likely to accept management recommendations about preferred topics (Table 4.18).

Teacher educators with no publications are likely to need more statistical guidance, and to accept management recommendations about preferred topics. Teacher educators with more than ten publications prefer to conduct research alone (57 per cent), compared to those with no publications (18 per cent) (Table 4.19).
Table 4.19  Significant differences in preferences in conducting research between teacher educators with different amounts of publications.

(Analysis of variance, 1-yes, 2-no) (N=96)

<table>
<thead>
<tr>
<th></th>
<th>x No publications N=11</th>
<th>x 1-10 publications N=51</th>
<th>x More than 10 publications N=27</th>
<th>x All respondents N=96</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alone (p=0.0324 F=3.56)</td>
<td>1.81 (18%)</td>
<td>1.67 (33%)</td>
<td>1.43 (57%)</td>
<td>(39%) 1.61</td>
</tr>
<tr>
<td>Help with statistics (p=0.0167 F=4.285)</td>
<td>1.18 (82%)</td>
<td>1.46 (54%)</td>
<td>1.66 (33%)</td>
<td>1.47 (51%)</td>
</tr>
<tr>
<td>Management’s recommendations about preferred topics (p=0.0469 F=3.165)</td>
<td>1.63 (36%)</td>
<td>1.9 (10%)</td>
<td>1.9 (10%)</td>
<td>1.87 (13%)</td>
</tr>
</tbody>
</table>

(Percent of the yes responses in parentheses)

Conclusion

To summarize, significant differences were found between teacher educators with different amounts of publications, with different qualifications, tenured or untenured, and males and females. About fifteen percent of the respondents are men, have a Ph D degree, and more than ten publication, and the same number among women. About thirty five per cent of respondents are women, with an MA degree and between 1-10 publications. Less than twenty per cent of respondents are not on the tenure track, and all of them are engaged in research. All other variables (e.g. teaching experience, years at the College, did you study abroad, or language of publication) did not provide statistically significant differences and are not presented here. The meanings of the results will be further discussed in the analysis chapter.
Results from the second Questionnaire (June, 2000): Involvement in Research of Student-Teacher Supervisors and Student-evaluation of Teaching (Appendix B)

This questionnaire was designed to find out if research has an influence on teaching. The self-reported involvement of teacher-student supervisors (also known as pedagogic supervisors or clinical faculty) in research activities was correlated with their students’ evaluation of teaching. Pedagogic supervisors are subject to the same demands as all other lecturers, and lately they can obtain tenure only if they have a Ph.D. degree. The respondents to the second questionnaire were approached through the first questionnaire too, but they could choose not to answer. The second questionnaire was compulsory.

The questionnaire was administered to thirty-three student-teacher supervisors, parallel to student evaluation of teaching, conducted at the end of 1999/2000 school year, by the Research Unit of the college. The thirty-three student teacher supervisors belong to all fifteen fields of study for junior high and higher education at the college, but did not include student teacher supervisors who belong to the lower tracks: kindergarten, elementary and special education. Among those who belong to the lower tracks, nobody has a Ph.D. degree and all are women. This decision was made by the Research Unit.

About fifteen students of each student teacher (pedagogic) supervisor evaluated his or her teaching using a questionnaire that included twenty-two questions. Respondents rated these items using a 9-point Likert scale with the following scale values: 1 do not agree to 9 agree very much. The rating results consist of four ratings and a summative rating of all twenty-two questions. The five ratings, developed by the Research Unit are:
A. Teaching and relevance to practice in the courses related to pedagogic supervision  4 items

B. Difficulty of the assignments and load  6 items

C. Giving instructions  4 items

D. Interpersonal communications skills  5 items

E. Overall student reported evaluation of teaching  22 items

About two months later, each supervisor receives a confidential report of his or her rating results and for comparison, also the average rating results of all student teacher supervisors. In addition to the students' evaluation of teaching, each teacher student supervisor evaluated his or her teaching, using the same questionnaire the students had used. To the student-evaluation questionnaire a section was added, for research purposes that included questions about the respondents' research activities. This way, personal and professional information about involvement in research was obtained from the respondents, and the information could then be correlated with the student-reported evaluation of teaching. The purpose is to examine if there is a relationship between involvement in research and student-evaluation of teaching.

Professional Information about the Supervisors

Table 4.20 Personal information about the student-teacher supervisors

<table>
<thead>
<tr>
<th>Age of respondents</th>
<th>Number of Supervisors</th>
<th>Percentage of Supervisors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between 30-40</td>
<td>2</td>
<td>6.06</td>
</tr>
<tr>
<td>Between 41-50</td>
<td>22</td>
<td>66.67</td>
</tr>
<tr>
<td>Between 51-60</td>
<td>9</td>
<td>27.27</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number of Supervisors</th>
<th>Percentage of Supervisors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>8</td>
<td>24.24</td>
</tr>
<tr>
<td>Female</td>
<td>25</td>
<td>75.76</td>
</tr>
</tbody>
</table>

As indicated in Table 4.20, among the thirty-three pedagogic supervisors, one quarter are male and three quarters are females. Six per cent of the supervisors are under forty,
and more than one quarter is above fifty years of age. The mean age of the pedagogic supervisors is 48.61 with a standard deviation of 6.14.

Professional information about the supervisors is presented in Table 4.21:

Table 4.21 Professional Information about the Student-teacher Supervisors

<table>
<thead>
<tr>
<th>Education</th>
<th>Number of Supervisors</th>
<th>Percentage of Supervisors of</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.A.</td>
<td>1</td>
<td>3.03</td>
</tr>
<tr>
<td>M.A.</td>
<td>20</td>
<td>60.61</td>
</tr>
<tr>
<td>Ph.D.</td>
<td>9</td>
<td>27.27</td>
</tr>
<tr>
<td>Did not answer</td>
<td>3</td>
<td>9.09</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tenure</th>
<th>Number of Supervisors</th>
<th>Percentage of Supervisors of</th>
</tr>
</thead>
<tbody>
<tr>
<td>On tenure track</td>
<td>25</td>
<td>75.76</td>
</tr>
<tr>
<td>Not on tenure track</td>
<td>7</td>
<td>21.21</td>
</tr>
<tr>
<td>Did not answer</td>
<td>1</td>
<td>3.03</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teaching Certificate</th>
<th>Number of Supervisors</th>
<th>Percentage of Supervisors of</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>30</td>
<td>90.91</td>
</tr>
<tr>
<td>No</td>
<td>3</td>
<td>9.09</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teaching Permit</th>
<th>Number of Supervisors</th>
<th>Percentage of Supervisors of</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>26</td>
<td>78.79</td>
</tr>
<tr>
<td>No</td>
<td>3</td>
<td>9.09</td>
</tr>
<tr>
<td>Did not answer</td>
<td>4</td>
<td>12.12</td>
</tr>
</tbody>
</table>

The number of supervisors with an M.A. degree is twice as many as with a Ph.D. degree. Three quarters of the supervisors are on the tenure track, and about ninety percent possess a teaching certificate. The supervisors teaching experience is presented in Table 4.22:
No respondent has less than ten years of experience. The mean teaching experience is 27.48 with a standard deviation of 7.09. But they are fewer years in teacher education and at the college. About half of the respondents are ten years or less at the College. The mean years at the College is 10.45, with a standard deviation of 6.33. One quarter of the respondents have been in teacher education at least twenty years. One third of the respondents have been more than thirty years in teacher education. The mean years in teacher education is 11.04 with a standard deviation of 6.24.
Responses about Involvement in Research

Table 4.23 Information about Student-teacher Supervisors' Publications

<table>
<thead>
<tr>
<th></th>
<th>Number of Supervisors (N=33)</th>
<th>Percentage of Supervisors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are you engaged in research activity?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>18</td>
<td>54.55</td>
</tr>
<tr>
<td>No</td>
<td>13</td>
<td>39.39</td>
</tr>
<tr>
<td>Did not answer</td>
<td>2</td>
<td>6.06</td>
</tr>
<tr>
<td>Number of publications in Hebrew</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No publications</td>
<td>11</td>
<td>33.33</td>
</tr>
<tr>
<td>Between 1-10 publications</td>
<td>15</td>
<td>45.45</td>
</tr>
<tr>
<td>More than 10 publications</td>
<td>6</td>
<td>18.18</td>
</tr>
<tr>
<td>Did not answer</td>
<td>1</td>
<td>3.03</td>
</tr>
<tr>
<td>Number of publications in English</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No publications</td>
<td>11</td>
<td>33.33</td>
</tr>
<tr>
<td>Between 1-10 publications</td>
<td>13</td>
<td>39.39</td>
</tr>
<tr>
<td>More than 10 publications</td>
<td>2</td>
<td>6.06</td>
</tr>
<tr>
<td>Did not answer</td>
<td>7</td>
<td>21.21</td>
</tr>
<tr>
<td>Did you write a textbook?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>16</td>
<td>48.48</td>
</tr>
<tr>
<td>No</td>
<td>16</td>
<td>48.48</td>
</tr>
<tr>
<td>Did not answer</td>
<td>1</td>
<td>3.03</td>
</tr>
<tr>
<td>Did you write a scientific book?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>3</td>
<td>9.09</td>
</tr>
<tr>
<td>No</td>
<td>26</td>
<td>78.79</td>
</tr>
<tr>
<td>Did not answer</td>
<td>4</td>
<td>12.12</td>
</tr>
<tr>
<td>Did you write a workbook or reader book?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>23</td>
<td>69.70</td>
</tr>
<tr>
<td>No</td>
<td>8</td>
<td>24.24</td>
</tr>
<tr>
<td>Did not answer</td>
<td>2</td>
<td>6.06</td>
</tr>
<tr>
<td>Did you write for the College’s newspaper ‘Mazav Hainyanim’?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>8</td>
<td>24.24</td>
</tr>
<tr>
<td>No</td>
<td>24</td>
<td>72.73</td>
</tr>
<tr>
<td>Did not answer</td>
<td>1</td>
<td>3.03</td>
</tr>
</tbody>
</table>

More than half of the supervisors reported involvement in some kind of research activity. About forty-five per cent of the supervisors have between 1-10 publication in Hebrew and in English, but only six per cent has more than ten publications in English.
compared to eighteen per cent having more than ten publications in Hebrew. About a quarter of the supervisors wrote an article for the College’s newspaper ‘Mazav Hainyanim’. About half of the supervisors reported that they had published a textbook, and almost seventy per cent had published a workbook. Almost all supervisors reported participation in conferences. Information about supervisors’ participation in conferences is presented in Table 4.24:

Table 4.24 Information about Student-teacher Supervisors’ Participation in Conferences

<table>
<thead>
<tr>
<th>In how many professional conferences did you participate?</th>
<th>Number of Supervisors (N=33)</th>
<th>Percentage of Supervisors</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>1</td>
<td>3.03</td>
</tr>
<tr>
<td>Between 1-10</td>
<td>19</td>
<td>57.58</td>
</tr>
<tr>
<td>More than 10</td>
<td>13</td>
<td>39.39</td>
</tr>
<tr>
<td>Did not answer</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>In how many professional conferences in Israel did you present a paper?</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
</tr>
<tr>
<td>Between 1-10</td>
</tr>
<tr>
<td>More than 10</td>
</tr>
<tr>
<td>Did not answer</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>In how many professional conferences at foreign countries did you present a paper?</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
</tr>
<tr>
<td>Between 1-10</td>
</tr>
<tr>
<td>More than 10</td>
</tr>
<tr>
<td>Did not answer</td>
</tr>
</tbody>
</table>

Most (97%) respondents reported that they participated in conferences, 75% presented a paper in a conference in Israel but only one third in conferences in countries other than Israel.

**Teaching Evaluation Scores**

The student assessment of teaching of the supervisors are presented in Table 4.25:
Table 4.25 Teaching Evaluation Scores
(On a scale from 1-9)

<table>
<thead>
<tr>
<th></th>
<th>Number of Supervisors</th>
<th>Students’ assessment of teaching $\bar{x}$ (S. D.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Teaching and relevance to practice in the courses related to pedagogic supervision</td>
<td>32</td>
<td>7.2 (1.9)</td>
</tr>
<tr>
<td>B. Difficulty with the assignments and load</td>
<td>32</td>
<td>4.7 (2.3)</td>
</tr>
<tr>
<td>C. Giving instructions</td>
<td>27</td>
<td>7.2 (1.9)</td>
</tr>
<tr>
<td>D. Interpersonal communication</td>
<td>32</td>
<td>7.5 (1.8)</td>
</tr>
<tr>
<td>E. General score of 22 statements</td>
<td>32</td>
<td>7.1 (1.6)</td>
</tr>
</tbody>
</table>

The average scores of sections A, C, and D are almost similar to the average score of the twenty-two statements E (7.1), but section B is much lower (4.7).

In the following section means, standard deviations and correlation of variables were calculated to obtain statistically significant differences. Variances were examined by education, gender, number of publications and tenure. All other factors did not provide significantly different results. Although the widespread belief in the possibility of ‘bias’ in the evaluation of students’ rating scores, McKeachie (1973) states that correlation of students ratings with particular background factors are not necessarily interpreted as a result of bias. Some may be genuinely causal.

According to Feldman (1988) students and faculty generally agree on what are the components of effective teaching and their relative importance. A counter view of Marsh and Dunkin (1992, p. 181) is that students cannot accurately evaluate teaching because students and faculty cannot agree on what constitutes good teaching. Ramsden (1991) suggests that differences among disciplines are large, and comparisons in student ratings should not be made across disciplines. Therefore, these findings have to be
viewed cautiously.

**Significant Differences in the Student-reported Evaluation of Teaching**

Table 4.26 Factors causing significant differences in the overall student evaluation
(On a scale from 1 - do not agree to 9 - agree very much). (Analysis of variance)

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean (S.D.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
</tr>
<tr>
<td>Male (N=8)</td>
<td>7.63 (0.42)</td>
</tr>
<tr>
<td>Female (24)</td>
<td>7.08 (1.19)</td>
</tr>
<tr>
<td>Did you write a workbook or reader book?</td>
<td></td>
</tr>
<tr>
<td>Yes (N=23)</td>
<td>7.43 (1.01)</td>
</tr>
<tr>
<td>No (N=7)</td>
<td>6.60 (1.20)</td>
</tr>
<tr>
<td>Did you write a scientific book?</td>
<td></td>
</tr>
<tr>
<td>Yes (N=3)</td>
<td>8.13 (0.378)</td>
</tr>
<tr>
<td>No (N=25)</td>
<td>7.05 (1.07)</td>
</tr>
<tr>
<td>Did you write for the College’s newspaper ‘Mazav Hainyanim’?</td>
<td></td>
</tr>
<tr>
<td>Yes (N=3)</td>
<td>7.96 (0.63)</td>
</tr>
<tr>
<td>No (N=11)</td>
<td>6.67 (0.64)</td>
</tr>
<tr>
<td>Number of publications in Hebrew</td>
<td></td>
</tr>
<tr>
<td>No publications (N=11)</td>
<td>6.68 (1.04)</td>
</tr>
<tr>
<td>Between 1-10 publications (N=14)</td>
<td>7.31 (1.00)</td>
</tr>
<tr>
<td>More than 10 publications (N=6)</td>
<td>8.22 (0.46)</td>
</tr>
<tr>
<td>Number of publications in English</td>
<td></td>
</tr>
<tr>
<td>No publications (N=11)</td>
<td>6.57 (0.81)</td>
</tr>
<tr>
<td>Between 1-10 publications (N=13)</td>
<td>7.67 (1.01)</td>
</tr>
<tr>
<td>More than 10 publications (N=2)</td>
<td>8.25 (0.77)</td>
</tr>
<tr>
<td>In how many professional conferences at foreign countries did you present a paper?</td>
<td></td>
</tr>
<tr>
<td>None (N=20)</td>
<td>6.92 (1.13)</td>
</tr>
<tr>
<td>Between 1-10 (N=11)</td>
<td>7.66 (0.77)</td>
</tr>
<tr>
<td>More than 10 (N=1)</td>
<td>8.4 (0)</td>
</tr>
</tbody>
</table>

Several significant differences were found in the overall and specific student reported
evaluation of teaching. Only factors causing significant differences in the overall student evaluation of teaching are presented in Table 4.26.

Student reported evaluation of teaching of males, and those who published more in Hebrew and English and presented papers in conferences in foreign countries is higher than of females and those who are not engaged in research activity.

Table 4.27 Factors causing significant differences in student evaluation of teaching and relevance to practice
(On a scale from 1- do not agree to 9 – agree very much). (Analysis of variance)

<table>
<thead>
<tr>
<th></th>
<th>A. Teaching and relevance to practice in the courses related to pedagogic supervision</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>x (S.D.)</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
</tr>
<tr>
<td>Male (N=8)</td>
<td>7.82 (0.44)</td>
</tr>
<tr>
<td>Female (24)</td>
<td>7.07 (1.36)</td>
</tr>
<tr>
<td>Did you write a scientific book?</td>
<td></td>
</tr>
<tr>
<td>Yes (N=3)</td>
<td>8.27 (0.58)</td>
</tr>
<tr>
<td>No (N=25)</td>
<td>7.03 (1.22)</td>
</tr>
<tr>
<td>Did you write for the College’s newspaper ‘Mazav Hainyanim’?</td>
<td></td>
</tr>
<tr>
<td>Yes (N=3)</td>
<td>8.00 (0.82)</td>
</tr>
<tr>
<td>No (N=11)</td>
<td>6.36 (0.90)</td>
</tr>
<tr>
<td>Number of publications in Hebrew</td>
<td></td>
</tr>
<tr>
<td>No publications (N=11)</td>
<td>6.63 (1.09)</td>
</tr>
<tr>
<td>Between 1-10 publications (N=14)</td>
<td>7.43 (1.27)</td>
</tr>
<tr>
<td>More than 10 publications (N=6)</td>
<td>8.20 (0.74)</td>
</tr>
<tr>
<td>Number of publications in English</td>
<td></td>
</tr>
<tr>
<td>No publications (N=11)</td>
<td>6.67 (0.88)</td>
</tr>
<tr>
<td>Between 1-10 publications (N=13)</td>
<td>7.67 (1.27)</td>
</tr>
<tr>
<td>More than 10 publications (N=2)</td>
<td>7.9 (1.27)</td>
</tr>
<tr>
<td>In how many professional conferences did you participate?</td>
<td></td>
</tr>
<tr>
<td>None (N=1)</td>
<td>4.70 (0)</td>
</tr>
<tr>
<td>Between 1-10 conferences (N=18)</td>
<td>7.24 (1.02)</td>
</tr>
</tbody>
</table>

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Results indicate that student evaluation of teaching of males and those who participate in professional conferences, publish in Hebrew and in English and in the College’s newspaper is higher than student evaluation of teaching of females or those who do not publish (Table 4.27).

**Table 4.28 Factors affecting student evaluation of difficulty with the assignments and load**

(On a scale from 1- do not agree to 9 – agree very much). (Analysis of variance)

<table>
<thead>
<tr>
<th>Sex</th>
<th>Male (N=8)</th>
<th>Female (24)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male (N=8)</td>
<td>5.46 (1.148)</td>
<td></td>
</tr>
<tr>
<td>Female (24)</td>
<td>4.375 (1.397)</td>
<td></td>
</tr>
</tbody>
</table>

Students of male supervisors reported that student assignments and workload were more difficult than that of females (Table 4.28).

**Table 4.29 Factors affecting student evaluation of ability for giving instructions**

(On a scale from 1- do not agree to 9 – agree very much). (Analysis of variance)

<table>
<thead>
<tr>
<th>Did you write for the College’s newspaper ‘Mazav Hainyanim’?</th>
<th>Yes (N=3)</th>
<th>No (N=11)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male (N=8)</td>
<td>7.90 (0.44)</td>
<td>7.18 (1.20)</td>
</tr>
<tr>
<td>Female (24)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No (N=11)</td>
<td>6.65 (0.83)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of publications in English</th>
<th>No publications (N=11)</th>
<th>Between 1-10 publications (N=13)</th>
<th>More than 10 publications (N=1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male (N=8)</td>
<td>6.59 (1.08)</td>
<td>8.14 (0.51)</td>
<td>9.00 (0)</td>
</tr>
</tbody>
</table>
Males, those who publish in English and write articles for the College’s newspaper received higher scores in giving instructions than females and than those who don’t write articles for the College’s newspaper (Table 4.29).

Table 4.30 Factors causing significant differences on student evaluation of ability of interpersonal communication skills
(On a scale from 1 - do not agree to 9 – agree very much). (Analysis of variance)

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>D. Interpersonal Communication</strong></td>
<td></td>
<td>(S.D.)</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ph.D. (N=9)</td>
<td>8.21</td>
<td>(0.88)</td>
</tr>
<tr>
<td>M.A. (N=19)</td>
<td>7.37</td>
<td>(1.25)</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male (N=8)</td>
<td>8.06</td>
<td>(0.56)</td>
</tr>
<tr>
<td>Female (24)</td>
<td>7.5</td>
<td>(1.32)</td>
</tr>
<tr>
<td><strong>Are you engaged in research activity?</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes (N=18)</td>
<td>7.94</td>
<td>(0.90)</td>
</tr>
<tr>
<td>No (N=12)</td>
<td>7.25</td>
<td>(1.45)</td>
</tr>
<tr>
<td><strong>Did you write a workbook or reader book?</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes (N=23)</td>
<td>7.86</td>
<td>(1.15)</td>
</tr>
<tr>
<td>No (N=7)</td>
<td>6.90</td>
<td>(1.27)</td>
</tr>
<tr>
<td><strong>Did you write a scientific book?</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes (N=3)</td>
<td>8.50</td>
<td>(0.46)</td>
</tr>
<tr>
<td>No (N=25)</td>
<td>7.50</td>
<td>(1.22)</td>
</tr>
<tr>
<td><strong>Did you write for the College’s newspaper ‘Mazav Hainyanim’?</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes (N=3)</td>
<td>7.63</td>
<td>(1.06)</td>
</tr>
<tr>
<td>No (N=11)</td>
<td>6.55</td>
<td>(0.68)</td>
</tr>
<tr>
<td><strong>Number of publications in Hebrew</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No publications (N=11)</td>
<td>7.13</td>
<td>(1.17)</td>
</tr>
<tr>
<td>Between 1-10 publications (N=14)</td>
<td>7.76</td>
<td>(1.21)</td>
</tr>
<tr>
<td>More than 10 publications (N=6)</td>
<td>8.58</td>
<td>(0.35)</td>
</tr>
<tr>
<td><strong>Number of publications in English</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No publications (N=11)</td>
<td>6.98</td>
<td>(0.93)</td>
</tr>
<tr>
<td>Between 1-10 publications (N=13)</td>
<td>8.21</td>
<td>(0.97)</td>
</tr>
<tr>
<td>In how many professional conferences did you participate? (p=0.0489)</td>
<td>More than 10 publications (N=2)</td>
<td>8.70 (0.42)</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>None (N=1)</td>
<td>4.80 (0)</td>
<td></td>
</tr>
<tr>
<td>Between 1-10 (N=18)</td>
<td>7.73 (1.08)</td>
<td></td>
</tr>
<tr>
<td>More than 10 (N=13)</td>
<td>7.46 (1.16)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>In how many professional conferences at foreign countries did you present a paper? (p=0.069)</th>
<th>None (N=20)</th>
<th>7.27 (1.29)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between 1-10 (N=11)</td>
<td>8.23 (0.73)</td>
<td></td>
</tr>
<tr>
<td>More than 10 (N=1)</td>
<td>8.60 (0)</td>
<td></td>
</tr>
</tbody>
</table>

Males, respondents with a Ph.D., respondents that are engaged in research, publish in Hebrew and English, participate in conferences received higher scores on interpersonal communication skills than females, respondents with an M.A. and those who are not engaged in research, do not publish and are not participating in conferences (Table 4.30).

It can be concluded that male student teacher supervisors, those engaged in research activities, in publication of papers, and participation in conferences receive higher scores on their students’ evaluation of teaching, on interpersonal communication skills and ability to give instructions, and more difficulty with student assignments and workload.
Qualitative Research Findings

Unstructured Interviews with Teacher Educators

Data from participant observation and interviews was collected to understand more in depth and answer the following research questions: how the induction and mentoring of beginning researchers was done; how involvement in research can contribute to the recruitment, selection promotion and selection of employees, to teacher educators career and professional development, and how the culture changed as a result of the fostering of research activity amongst teacher educators.

Data was collected during 1999/2000 school year. They were typed, then condensed and grouped according to questions asked during the interviews and themes that emerged. The interview data are selectively quoted in the analysis (Chapter 5).

Why should teacher educators be engaged in research?

From unstructured interviews with twenty teacher educators at the teacher lounge, at conferences and workshops during the school year, many views about research could be gathered. The emerging theme was promotion, tenure, and job security. The recruitment and selection of employees through involvement in research was mentioned on several occasions. Another theme is the contribution of research to the professional development and the career of teacher educators. They were glad that the importance of research was recognized, and that there is a change in research culture.

Reasons why teacher educators should not be engaged in research?

When discussing the topic with colleagues, many expressed their views on research. Some were sympathetic towards research and others were neutral or even hostile about the usefulness of research. Some of the negative opinions about research indicate how far the College still has to go in establishing a research culture. Negative views were
related to existence needs, working conditions and salary, or practical problems and difficulties in conducting research.

Some, especially those who are engaged in research, were frustrated by the lack of interest in their research results. When conferences were held, few colleagues attended. As an alternative to research, several of the faculty at the College are engaged in other activities, like writing books, making films, developing Internet sites.

How are research and teaching related?

One of the topics that evolved in many interviews was about how research work might be contributing to teaching. Many expressed their interest in the author's research about the connection between teaching and research. An apparent conflict in values between teaching and research often emerged. Opposing views were expressed. Some recognized the contribution of research to the professional growth of teacher educators; others linked research to employment, and saw no relationship between research and teaching.

Do managers need to have research experience and a Ph.D. degree?

Other issues referred to by three headteachers, who also teach at the College, and part of the responding group, were related to the contribution of research to managing people and to leadership skills. Most agreed that research does not contribute to the policy-making capacity of teacher educators and there was a range of opinions about the relationship.

To summarize, according to unstructured interviews, involvement in research can contribute to promotion, tenure, job security, professional development and career of teacher educators. Reasons why teacher educators do not want to be engaged in research include difficulties in getting access to data, lack of interest and use of the results, and also lack of compensation for the extra effort. Managers do not believe that involvement in research can contribute to the policy-making capacity of teacher educators.
Participant Observation in the Research Methods Course and Individual Mentoring from the Research Unit

Yearlong participant observation was conducted throughout 1999/2000 of the members of the research methods course and the individual mentoring from the Research Unit. Funding for the course and the mentoring was provided by the College. Before the beginning of the school year a letter was sent to all teacher educators offering them a course in research methods by a senior researcher at the College, or individual mentoring. New researchers interested in the course could choose from a list of topics according to their needs and interests and also had a choice of several time intervals during the week. About thirty signed up for the course, and the times that suited the most people were chosen. The course was conducted once a month and in addition, three whole day workshops were held and covered topics such as: action research, evaluation, writing a research proposal and a research report, and qualitative data analysis. It did not include usage of SPSS or other statistical software, or usage of databases for literature search.

Why did you sign up for the course in research methods?

Three different groups could be identified among the approximately 30 participants. The first group, about ten men and women, mostly young, were considering studying for a Ph.D. degree and wanted to upgrade their research skills. Their reasons for signing up for this course were generally fairly unspecific.

The second group, at least five teacher educators, including the author of this thesis, had already started their studies for their Ph.D. degrees. Some are studying at universities in foreign countries, others at universities in Israel. They were looking for specific answers to problems they had encountered, and also for some reassurance that what they are doing is acceptable.
The third group included about fifteen older women, with M.A. degrees, who tended to hold important positions at the College. Two are heads of departments, one the director of a learning center and one the editor of the internal newspaper.

The variety of needs expressed by the participants may have made this particularly difficult to achieve. Although the course was scheduled to last for the year, during the course of time, attendance began to reduce. Of the three groups, the first to stop coming were those who had started their Ph.D. After that, those who had not started Ph.D. degrees stopped coming. Their needs had not been specific and had not been clarified, and therefore they did not know how to take advantage of the help offered. A further aspect of the change in attendance was that all the men left the group and only women stayed.

During the second semester, those who remained (all women) decided to choose a research topic and develop it into a research proposal. The topic chosen was promoting reflection in teacher education. Participants read relevant literature, brought ideas to the classroom and research questions were developed. Different methodological issues were discussed and data collection methods were suggested.

**Why study for a Ph.D.?**

From the participant observation in the yearlong course and also from unstructured interviews with two lecturers from the College, who study for a Ph.D. degree, it was possible to receive in depth answers why teachers and teacher educators in particular study for Ph.D. degrees. Many said that they are engaged in research for career and promotion reasons.

But also a self- initiative approach was mentioned (Fullan, 1991). Issues raised were related to their professional growth, to self-esteem, and self-actualization, and also career issues. Several doctoral students mentioned having mentor/mentee relationships at the College, where they are employed.
Responses from the interviews can be organized in a matrix and they raise issues similar to those that could be identified in the responses to the questionnaires. The significant issues arising from the interviews are summarized in Table 4.31.

Table 4.31 Results from the participant observation and unstructured interviews

<table>
<thead>
<tr>
<th>Involvement in research can contribute to:</th>
<th>Percentage from the participants</th>
<th>Gender</th>
<th>Education</th>
<th>Age</th>
<th>Tenured or untenured</th>
<th>Previous involvement in research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-esteem, affiliation, inclusion</td>
<td>100%</td>
<td>Women</td>
<td>Ph.D. and M.A.</td>
<td>Older</td>
<td>Tenured</td>
<td>Serious or minor</td>
</tr>
<tr>
<td>Professional development</td>
<td>100%</td>
<td>Women</td>
<td>M.A.</td>
<td>Older</td>
<td>Tenured</td>
<td>Serious or Minor</td>
</tr>
<tr>
<td>For management and decision-making</td>
<td>Few</td>
<td>Men</td>
<td>M.A.</td>
<td>Older</td>
<td>Untenured</td>
<td>Serious or Minor</td>
</tr>
<tr>
<td>Promotion</td>
<td>50%</td>
<td>Men and women</td>
<td>M.A. and Ph.D.</td>
<td>Younger</td>
<td>Untenured and tenured</td>
<td>Serious or Minor</td>
</tr>
<tr>
<td>Career (Study for Ph.D.)</td>
<td>35%</td>
<td>Men and women</td>
<td>M.A.</td>
<td>Younger</td>
<td>Untenured and tenured</td>
<td>Minor</td>
</tr>
</tbody>
</table>

Conclusion

The induction process involved a central induction program, or it was possible to obtain individual guidance from another officially designated mentor from the Research Unit. The different groups of participants went through some of the stages of induction. Some were exposed to the research culture, some achieved a level of competence by writing research proposals and conducting research and some went through a whole socialization process (O’Neill et al., 1994, p. 68), which enables them to function effectively in the research community, including the presentation of papers in conferences and for publication.

Teacher educators want to be engaged in research for numerous reasons. The young and ambitious are looking for extrinsic rewards: additional pay, Ph.D. or promotion. Others
view research work as an activity that can contribute to their professional growth and self-actualization. They look for intrinsic rewards such as esteem, need for affiliation, relatedness, job autonomy. Teacher educators, towards the end of their career, may be more concerned with passing on their life experience through research, and look for professional affiliation and relatedness. But the variety of needs expressed by the participants made them particularly difficult to achieve. Some participants’ needs had not been specific and had not been clarified, and therefore they did not know how to take advantage of the help offered. Others preferred obtaining personal advice, which was also available, rather than attending the group sessions.

**Findings of Documentary Research**

Documentary data was collected to learn about the organizational structures developed to support the research culture, the extent of teacher educators’ research activity and how many role-holding teacher educators at the college are engaged in research activities.

**The Third International Conference on Teacher Education**

Between June 27 - July 1, 1999 Beit Berl College hosted the Third International Conference on Teacher Education - Almost 2000: Crises and Challenges in Teacher Education. From the book of abstracts it was found that eighty faculty members presented one hundred twenty papers.

<table>
<thead>
<tr>
<th>Presented Papers</th>
<th>Participated at the Conference</th>
<th>Has a Ph.D. degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>17</td>
<td>22</td>
</tr>
<tr>
<td>Females</td>
<td>63</td>
<td>71</td>
</tr>
</tbody>
</table>

As seen in Table 4.32, the number of females who participated and presented papers at the Third International Conference, in June 1999 is almost four times larger than the
number of males, but the number of males with a Ph.D. degree is equal to the number of females with a Ph.D. degree.

In 1997 the Research Unit at the College published a book of abstracts of the faculty’s publications.

Table 4.33 Publication Differences between Men and Women at Beit Berl College, until 1997

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research in Education</td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>Research in Disciplines</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>Sum</td>
<td>18</td>
<td>40</td>
</tr>
</tbody>
</table>

As seen in Table 4.33, although the number of publication of women is more than twice larger than of men’s, men publish more research in disciplines as History, Geography, Language, Computer Science, compared to women who publish more in Education.

The Israeli Educational Research Association’s (Earli) Conference

At the Israeli Educational Research Association’s Conference held at Tel Aviv University between October 25-26, 2000, six hundred participants attended and 350 presented papers, round-table presentations, poster presentations and symposiums. The organizing committee summarized the conference in an e-mail to all participants, and found that from the six hundred participants, 216 came from universities, 268 from colleges, 64 teachers and school principals, and 60 senior educators from the Ministry of Education. From Beit Berl College four men and thirty-two women presented papers, poster or round table sessions. Twelve faculty members from the College were on the committee that chose the papers for the conference out of one hundred and fifty six members.

Actual Participation in Decision-Making

In order to find out the actual participation in decision-making processes at the College,
the list of role holders in the academic board (N=66), teaching committee (N=18), heads of departments (N=22) and heads of teaching centers (N=15) was obtained. Several hold more than one role. Then each participant's publications were verified through the main library's catalog, and also their participation in the Third International Conference on Teacher Education, in June 1999, held at Beit Berl College in Israel.

From the sixty-six academic board members forty-eight (72%) have a Ph.D. degree, thirty-five (53%) are men, compared to 45% with a Ph.D. degree and 30% men among the respondents to the first questionnaire. Among the role holders there are more men and more with a Ph.D. degree than among the researchers. Twenty-six (40%) presented papers at the conference at Beit Berl, and additional eighteen (27%) wrote at least a workbook or a handout and their name appeared in the main's library catalogue. Some have seven, eight, or even nine publications. It was not possible to find information about ten (15%) Arab teacher educators but it is possible that they published in Arabic. Thus, at least two-thirds of the academic board members are engaged in research or publication of books. Almost all heads of departments are engaged in research, and also members of the teaching committee. Members of the Research Unit asked to be excluded from participation in committees because they want to remain objective.

To conclude, a variety of quantitative and qualitative methods were used, including two surveys, interviews, participant observation and documentary research findings. They appear to be effective and complementary, since they allow a degree of triangulation. The meanings of the results will be further discussed in the analysis (Chapter 5).
CHAPTER 5 : ANALYSIS

The analysis brings together data from the different research methods and concepts from the literature review. It starts by depicting teacher educators’ distinguishing features, their attitudes and preferences toward research, and needs that motivate their research behavior. It continues by describing how the research culture is developed: the creation of new organizational structures (establishment of the research unit), changing behavior (induction and mentoring of beginning researchers, providing role models), reinforcing behavior by extrinsic and intrinsic rewards, changing people and their position in the organization (hiring and promotion procedures). It concludes with discussing the impact of research on teaching, and on professional and career development.

Teacher Educator Researchers’ Distinguishing Characteristics

The Scope of the Research Community

Information about the researchers at the College was collected from their participation in conferences, listings of their research in abstract books, participatory observation, and through their answers to the questionnaire and interviews.

From the ninety-six questionnaires that were returned (n=96) to the author (25 per cent response rate), only eight respondents had not been engaged in research in the past, 12 are not engaged at the present and only two respondents are not interested in conducting research in the future. The results are probably a good indicator of the attitudes of the faculty who are actually involved in research or want to be involved in the future. From comparison to the attendance at the Third International Conference (N=140) held in 1999, where eighty faculty members presented papers, it can be assumed that the responses to the questionnaire (N=96) encompass between seventy to eighty cent of all researchers at the College, so at most, twenty-five per cent of the faculty is engaged in
Research. In comparison, from responses to a questionnaire sent to faculty of three academic Colleges of Education in Israel, Kfir and Cohen (in press) found from 400 responses (44.6% response rate) that about ten percent of respondents are not engaged in research at all, thirty-five per cent devote a negligible time to research, forty-one per cent devote considerable time on research, and six per cent most of their time to research.

Seemingly, more than half of the faculty of the three academic Colleges of Education, who do not answer questionnaires that ask about involvement in research, are not engaged in research, and at least half of the research activity of those who responded to the questionnaire was related to studies for M.A. or a Ph.D. degree. From the study of the academization process, Kfir et al. (1997) reported that although sixty-eight per cent of teacher educators in Israel report involvement in research, this research activity is related mainly to respondents’ studies towards M.A. or Ph.D. degrees, or to their additional employer. In a study conducted by Pellino et al. (1984), almost 90 percent of the respondents at research-oriented universities replied that they are actively engaged in research, which they expect to lead to publication, but only 22 percent of the respondents at community colleges gave an affirmative response. In addition, approximately 60 percent of the community college respondents stated that they had not been active in such research since graduate school. Sax et al. (1996) summarize the results of a national survey, which examined college faculty demographic in the US. The survey obtained responses from 59,933 faculty members at 384 institutions of higher education. Results indicate a declining interest in research and a general trend toward faculty aging.

Engagement in Research

Why is it that only twenty-five per cent of teacher educators at the college are engaged in research? Interviews were undertaken with teacher educators and participants in
induction and mentoring activities to receive more in-depth answers. Many views for being engaged in research were related to promotion, tenure, and job security. Those that related their interest in research to promotion issues stated:

“I want to apply for promotion, I need research publications.” (Woman, Ph.D., tenured, involved in research).

“I am not involved in any research, applied for promotion, and was turned down.” (Male with M.A., not involved in research).

“Today involvement in research is essential for tenure. You cannot become tenured faculty if you do not have a Ph.D.” (Young untenured woman, wants to study for Ph.D.)

The impact of research on recruitment and selection of new employees was also pointed out:

“I am sure that my involvement in research contributed to my employment by the College. The committee that interviewed me asked many questions about my research and publications.” (Woman, Ph. D., recently hired)

“There are many new employment opportunities for teacher educators who have research skills.” (Men, Ph.D. student)

Many respondents expressed the ‘top town’ initiative regarding research, that they are engaged in research for career and promotion reasons. But also a ‘bottom up’ self-initiative approach was mentioned (Fullan, 1991). Issues raised were related to their professional growth, to self-esteem, and self-actualization, and also career issues. Some of the answers were:
"I want to prove to myself that I can do it." (Woman, 50s, working on her Ph.D. thesis)

"When you present a paper at a conference, and you have a Ph.D. people listen to you more carefully. And believe me I have something I say." (Older woman studying for Ph.D.)

From the participant observation in the research methods course and also from the questionnaire it is evident that many engaged in research are older women, with M.A. degrees. Typical of their reasons for being engaged in research:

"I am approaching retirement. I never had the time to be involved in research, but now I am ready. I am interested in conducting some action research in my classroom." (Woman, 50s, M.A.).

Several interviewees were glad that the importance of research was recognized, and that there is a change in the research culture:

"I was engaged in research before too. I am glad that management now recognizes the importance of research. Before, few understood why I undertook research." (Man, Ph.D., in his 50s).

When discussing the topic with colleagues, many expressed their views on research. Some were sympathetic towards research and others were neutral or even hostile about the usefulness of research. Some of the negative opinions about being engaged in research indicate how far the College has to go in establishing a research culture:

"I like to be involved in practical issues, for me research is too theoretical." (Man, in his 50s, with M.A.)

"I am a ‘down to earth person’, so research is not for me. “(Woman, in her 50s,
"Nothing can come down to numbers or figures; real life problems cannot be solved by research." (Woman, in her 50s, with M.A.)

"Research findings can be manipulated according to the researcher's views; they don't represent the real situation. Real life is much more complex than research." (Man, in his 50s, with M.A.).

Some views were related to existence needs, working conditions and salary:

"I am very busy, I have a family to support, and doing research is a very time consuming activity, and you are not compensated for all the time you invest. I prefer teaching in another college." (Man, 30s, M.A.).

Several teacher educators expressed problems and difficulties in conducting research:

"It is difficult to get access to schools for research purposes; they do not want to reveal any significant information. Teachers are very suspicious of research, they are afraid to expose their teaching methods to criticism. The researcher can be threatening for them. Somebody from outside, who comes to inspect them." (Woman, in her 40s, M.A.)

"I am not an experienced researcher; I am not knowledgeable about research methods." (Woman with M.A., 40s).

A number of, especially those who are involved in research, were frustrated by the lack of interest in their research results. When conferences were held, few colleagues attended:

"The college likes to have faculty with Ph.D.s. The more staff members have Ph.D.s the more prestigious the institution becomes. But nobody is interested in
As an alternative to research, several of the faculty at the College are involved in other activities, like writing books, making films, developing Internet sites:

"I am involved in developing teaching materials for distance learning. I think it is more important than research. Research is looking at events that happened in the past, I am planning for the future". (Woman, 40s, M.A.)

Given the difficulties of doing research in education, why do research workers take on the challenge? An account by Stronach and MacDonald (1991) of the experiences of research workers on the InTER initiative provides some clues. There is intellectual excitement to be found at the 'cutting edge'. 'The project' they report 'is a remarkably motivating vehicle for individual commitment and communal loyalty'. But there was also a downside. 'Research workers exhibited self-sacrificing behaviour in relation to their careers and were prone to self-exploitation' (p. 70). On the basis of their survey evidence, in most cases such workers did not appear to be prepared to engage in this self-denying behaviour for very long; more pragmatic concerns quickly surfaced.

Other issues raised by three head teachers, who also teach at the College, were related to the contribution of research to managing people and to leadership skills. Interviews confirmed responses to the questionnaire. Most agreed that research is not contributing to the policy-making capacity of teacher educators and there was a range of opinions about the relationship between research activity and leadership skills:

"If you want to manage researchers you need to have research experience."
(Male head teacher).

"Managers do not need research skills, or research experience. You have to come with solutions to concrete problems. But for my lectures I read a lot of
Although headteachers do not perceive research as relevant to managing people, it can be assumed that involvement in research and the mentoring for research are contributing to their career advancement and professional development, and in the long run, will positively affect the institution. One study of CEOs found that nearly two thirds had had a mentor at some point in their career and that those who had had them received higher salaries than those who hadn’t (Kram and Isabella, 1985). Effective managers nearly always identify mentors and former bosses as important factors in their success.

To conclude, teacher educators want to be engaged in research for numerous reasons. The young and ambitious are looking for extrinsic rewards: additional pay, Ph.D. or promotion. Others view research work as an activity that can contribute to their professional growth and self-actualization. They look for intrinsic rewards such as esteem, need for affiliation, relatedness, job autonomy. Teacher educators, towards the end of their career, may be more concerned with passing on their life experience through research, and look for professional affiliation and relatedness.

Reasons for not wanting to do research include: lack of interest, lack of expertise, lack of belief in the usefulness of research, or involvement in other activities. Vaughan (1989), and Lord (1988) explain that since the written mission of the college does not refer to scholarship, many professionals understand that they are expected to emphasize their teaching responsibilities. The issue of motivation will be further discussed later.

**Part Time and Untenured Faculty**

Seventy three per cent of the respondents to the questionnaire are on the tenure track, while in reality they constitute about half of the employees at the College. An interesting finding is that all respondents with no publications are on the tenure track. Non-tenure-track respondents answered the questionnaire only if they have published, presumably hoping that their involvement in research will get the tenure.

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twenty non-tenure-track faculty that responded to the questionnaire, ten are employed half time or less (part time), ten half to full time and none more than full time. About 20 per cent of the respondents are employed half time or less.

These findings raise the issue of increased use of part-time and untenured instructors across the educational community. In the state of New York, "the part-time instructional faculty represents 50.5 percent of the state's higher education teaching staff" (Samuel 1989, p. 42). A national evaluation of adult education programs reports more than 80 percent of adult education instructors are part time (Development Associates, 1992). The increased use of part-time faculty and devices for limiting the number of tenured faculty indicate on attempts to create more flexibility in academic staffing (Mortimer, et al., 1986). These attempts raise several areas of concern addressed by Williams (1985): recruiting and hiring procedures that are more relaxed than those employed for full-time staff; the limited teaching expertise that part-timers bring to the classroom; the tendency of full-time staff to look down upon and alienate their part-time colleagues; and the unfavorable working conditions imposed by inadequate incentives for improved performance and by the limited access part-timers have to office and support services. The literature, he argues, tends to the conclusion that the "problems inherent in employing large numbers of part-timers . . . outweigh the advantages" and improved in-service activities are needed to ensure instructional quality (p. 38). Approaches to cope with these problems include provision of staff development for part-timers, formation of in-service training programs, peer support through a network of peer consultants.

The Ageing of Faculty

More than sixty per cent of respondents to the first questionnaire indicated having more than twenty years of teaching experience, but only about eighteen per cent are more than twenty years at the college. It can be assumed that many have prior experience in
the lower schools as teachers. The mean age of the pedagogic supervisors is 48.61 with a standard deviation of 6.14.

Like teacher educators in Israel, teacher education faculty in the RATE studies in the US is also mature and experienced (Ducharme and Ducharme, 1996). The average age of faculty is about fifty. Female assistant professors are about three years older than their male counterparts. Nearly all teacher education faculty in the RATE study in the US have had eight to nine years prior experience in the lower schools as teachers, department chairs, and administrators, which explains why the age of a large number of faculty is 50 and over. Nearly eighty per cent of elementary and secondary faculty had several prior years of work in schools. In addition, Ducharme and Agne (1989) note that females enter the professoriate later, teach more and publish less, a trend of a graying faculty, in their 50s and beyond, in the "late-middle" of their careers.

Are senior faculty vital and productive? In this study well over half of the respondents who have more than 20 years of experience in teaching also have the highest number of publications. Almost sixty per cent of the respondents with a Ph.D. degree had published more than ten papers, while among the respondents with M.A. only ten percent have more than ten publications, but almost seventy per cent have between one to ten publications. Attitudes of Israeli senior faculty concerning research and teaching were evaluated using the Carnegie International questionnaire by Gottlieb (1994, 1995). She reports that preferences for teaching over research were much more common among "newcomers" to the profession, women, lower rank faculty and those in the humanities, social sciences, fine arts and education. Bland and Bergquist (1997) report that senior faculty remain highly productive, compared to younger faculty, confident in their teaching and research skills, and possess a deep sense of commitment to their institutions. Factors that influence a senior faculty member's vitality and productivity include supportive academic culture, participative governance, decentralized
organization, opportunities for growth, autonomy. Everton et al. (2000) found too, from 302 questionnaires about the impact and value of educational research, distributed by the Teacher Training Agency in the UK, that 76.5% of respondents had at least twenty years teaching experience, and 73.8% of the teachers were over 45 years of age. They concluded that younger teachers showed less interest in research compared to older colleagues. Lorenzo and Banach (1992), on the other hand, drawing on demographic data, report on the problem of an aging faculty, nearing retirement, with little incentive to become actively involved in change efforts and ambivalence to utilize new educational technologies. Murray (1991) from the US recommends strategies to deal with issues of aging faculty such as encouraging them to take sabbatical leaves for educational enhancement.

**Feminization of the Research Faculty**

Between June 27- July 1, 1999 Beit Berl College hosted the Third International Conference on Teacher Education - Almost 2000: Crises and Challenges in Teacher Education. From the book of abstracts it was found that one hundred forty faculty members from the College participated and eighty faculty members presented one hundred twenty papers. Although the number of females who participated and presented papers was almost four times larger than the number of males, the number of males and females with a Ph.D. degree was equal. It appears that men are engaged in research mostly if they have a Ph.D. degree. Another interesting finding is that almost ninety percent of all attendants at the conference also presented at least one paper. It can be concluded that to increase participation in conferences, it is worthwhile encouraging the audience to give presentations.

In 1997 the Research Unit at the College published a book of abstracts of the faculty’s publications, and made possible to learn more about the effect of gender on research activity. Eighteen men and forty women were listed. Although the number of
publications of women was more than twice larger than of men's, men published more research in disciplines as History, Geography, Language, and Computer Science, compared to women who published more in Education.

At the Israeli Educational Research Association's (IERA) Conference held at Tel Aviv University, between October 25-26, 2000, six hundred participants attended and 350 presented papers, round-table presentations, poster presentations and symposiums. The organizing committee summarized the conference in e-mail to all participants, and concluded that from the six hundred participants, 216 came from universities, 268 from colleges, 64 teachers and school principals, and 60 senior educators from the Ministry of Education. From Beit Berl College four men and thirty-two women presented papers, posters or round table sessions. Out of one hundred fifty six committee members that chose the papers for the conference, twelve were from Beit Berl College.

Results from the Questionnaire

Thirty respondents to the questionnaire administered by the author were male and fifty-nine were female, about twice as many females as males, about the same as Kfir and Cohen's (in press) findings from a questionnaire sent to faculty of three Colleges of Education in Israel. While the number of male respondents with M.A. or a Ph.D. degree was almost equal, there are almost twice as many females with an M.A. than with a Ph.D. degree. No difference in the amount of publication of top male and female researchers was found. It correlates with Xie and Shauman (1998) findings that the gender gap in productivity rate has appreciably narrowed over the 24-year period. In 1969, women's productivity rate was only 63 percent that of men's. It increased to 68 percent in 1973, and to 79 percent in 1988. In 1993, the sex ratio in productivity was 76 percent. This finding suggests that sex differences in productivity are not immune to social change. In scientific academia too, (Bentley and Blackburn, 1992; Fox, 1995) the trend is toward equal representation of women among science faculty. The percentage
of women scientists increased from 5 percent in 1969-1973 to 15 percent in 1988 and 24 percent in 1993. Along with increasing representation, the relative status of women science faculty also improved during the study period (Bentley and Blackburn, 1992).

The findings indicate that at the College, there is a large group of female researchers, with an M.A. degree, and a moderate amount of publications, which cannot be ignored. They constitute half of all female researchers and one third of all researchers, and are active participants and presenters at conferences. These female researchers are not in the early stages of their career and do not belong to what Baldwin and Chronister (1996) call non-tenure-track (NTT) faculty. Similar conclusions about the recent feminization of teaching and teacher education in Europe were discussed by Weiner and Kallos (2000), noting that the increase in the proportion of women in education professions is due to: the material opportunities and possibilities for action in the public sphere offered to women by the education professions and the particular commitment of female teachers to educational values and to practice. As a majority among faculty, women can challenge and revise traditional research and teaching methods (Ryan, 1993). They can institutionalize women’s studies courses on gender and communication, serve on college committees, and serve as role models for other women (Foss, 1993).

Issues related to gender will be further discussed in the following section.

**Differences in Men and Women’s Research Activity**

According to findings of this thesis, there are more women researchers than men in the College. Women (78%), compared to men (57%), are more likely to prefer to conduct research in teams and more prepared to receive management’s recommendations about preferred topics.

Participant observation in the yearlong course for beginning researchers and in a conference organized by the gender studies department revealed more about the motivation of men and women researchers. From these studies, it can be concluded, that
men get engaged in research activities mainly to satisfy job security and salary needs, needs of power and influence (Katz, 2000a). As the head of the Research Unit stated:

"It is difficult to attract men to work for the Research Unit. They think that research is hard work and no pay."

One group of about five men, mostly young, who signed up for the course were considering studying for a Ph.D. degree and wanted to upgrade their research skills. Their reasons for signing up for this course were generally fairly unspecific:

"I want to start studying for a Ph.D. I want to update my research skills. (Male, 30s, M.A.)."

"I am employed only part-time at the College. I don’t even know if I am entitled to receive services from the Research Unit. (Male, 30s, M.A.).

Women are more likely to get engaged in research mainly to fulfill growth and self-actualization needs, and also esteem, affiliation and relatedness needs (Katz, 2000a). As the organizer of the Gender Studies Center’s conference, in January 2001, noted in her opening speech:

"The purpose of this conference is to provide opportunities for feminist researchers to present their research findings, to be able to receive feedback, and to debate issues relevant to the participants." (Woman, 50s, Ph.D.)

From the twelve presenters, two were men. Six of the presenters are working on their Ph.D.s; the others have a Ph.D. degree. One presenter reported teaching a feminist methodology course. Another participant reported using reflection in her courses.

In comparison, Creamer and Engstrom (1996) examined the attitudes of women academics in the field of education regarding institutional factors that they associate with their publishing productivity. The three elements of the institution identified as supportive of maintaining a high level of scholarly productivity for women were: the
formal and informal institutional reward structure, work assignment and opportunities for collegial exchange. According to the present research, women at the College participate and present papers at conferences more than men. This may be an indication that their need for social relationships and collegial exchange is fulfilled and they are making use of the new opportunities opened to them.

Men ($\bar{x} = 3.4$) believe, more than women ($\bar{x} = 3.08$) that researchers are appreciated by their colleagues. But women too, are interested in opportunities for collegial exchange. This may support the findings of Shakeshaft (1989) that women are more likely to be lacking in self-confidence than their male colleagues.

**Change in the Research Paradigm**

As an example of male cultural domination, Coleman (1994) mentions the androcentric bias of research methods. Such theories of patriarchy or androcentrism hold that a male-centered culture invests worth in male values and regards female values and experience as less significant. Foster (1999) links the politics of research (issues of race, class and gender) to the history of educational research in general. According to her article, almost all of the first researchers in education were white, protestant, male members at top schools of Education such as Harvard, Stanford, and others. It was during this period that quantitative analyses and psychological approaches came to predominate the educational research community (Langemann, 1997). The field of educational research until the middle of the 20th century, came to be dominated by large-scale surveys, distant hierarchical relationships between researcher and researched, unequal and dominant gender relationships, thus being racist, sexist, and class biased. Women were measured against the male standards (Gilligan, 1982). Concepts of “academic supremacy” such as cultural deprivation, cultural deficit, disadvantaged, were developed.

Since the 1980s, the interpretive, qualitative, ethnographic, feminist, critical approaches
began to gain a foothold in educational research as alternative conceptions. Since the late 1980s, The American Educational Research Journal (AERJ), the official journal of the American Educational Research Association (AERA) began publishing interpretive research on a consistent basis. The number of women on AERA sponsored journals editorial board is reaching today a high of fifty per cent. It may be concluded that with the entrance of women and scholars of color to educational research, there was also a paradigm shift from quantitative to qualitative research (Foster, 1999). How can this theory help to understand the development of the research culture at the College?

The active, influential researchers at the College are all woman. The Research Unit was established by women researchers, and the head of the research committee is also a woman. The head of the Research Unit was appointed, from the beginning of 2001 school-year, also, as head of the Research Unit at Mofet Institute - a national center for research and staff development for teacher education colleges, and she is replacing a male researcher. Schmuck (1986, p. 179) mentions that the existence of male 'gatekeepers' has been identified as a crucial organizational factor limiting the entrance of women to educational management. If the 'gatekeepers' are women, it is easier for other women to be employed at the College, to be included on selection committees, to receive research grants. It is also easier to introduce feminist methodology and overthrow what is considered androcentric traditional research methods and move towards a more intuitive approach, where 'the research process is grounded in the personal politics of the researchers' (Adler et al., 1993, p. 62). There is no evidence that women researchers at the College are engaged only in qualitative research, as these researchers come from universities, where the positivist paradigm was dominant. But at the same time, there are no constraints on the kinds of research women can conduct. It is now easier for women to find female mentors and female role models in educational research (Schmuck, 1986, p. 179). According to papers presented at the Gender Studies
Center conference and also according to Spendiff (1992), the introduction of feminist methodology and women studies may have a positive influence on democratic and supportive teaching methods.

To summarize, it is not clear what came first, the entrance of women researchers into the academy and to the editorial boards of journals (Foster, 1999), or the acceptance of qualitative, feminist research, which enabled more women to become researchers, but it may be concluded, that at this College of Education and hopefully at other Colleges of Education in Israel, as seen from this study, the number of women researchers is higher than the number of men. The publication rate of men and women with a PhD degree is almost the same, although men researchers who belong to disciplines publish more than women, however the entrance of a large number of women with an M.A. degree, few publications, and who are active at conferences, to the circle of researchers, maybe the first sign of the detachment of the historic link between research activity, rank and tenure. Women get engaged in research mainly to fulfill growth and self-actualization, and also esteem, affiliation and relatedness needs, and less to satisfy job security and salary needs, or needs of power and influence.

Kenway and Langmead (1998, p. 30) point out that knowledge today is transformed into a commodity, in order to yield economic returns to the university. In the new ‘masculinist managerialism' culture (Leonard, 1998), decisions based on market forces, performance indicators and efficiency criteria supplant those based on collegiality or equity (Davies and Holloway, 1995). The entrance of women into research at colleges of education in Israel may improve their chances to reach leadership positions, and they may take pleasure in the power they have gained (the 'bad-girl feminist') (Gallop, 1995). An example is the appointment of the head of the Research Unit at the college to lead the Research Unit at Mofet Institute. This is in accord with Eagleton’s (1998) view of women academics’ experiences, that a new understanding needs to be forged that takes
account of the simultaneous experience of pleasure, constraint, passion and control in women's negotiation of their place in educational institutions (Tamboukou, 1999). According to the competition theory (Blalock, 1957, 1967, Bonacich, 1972) once a minority group expands to some threshold level, or as in our case, the female composition of an institution increases, it may impact on the research activity, the kinds of research conducted and teaching methods used.

In conclusion, there are two distinct groups among the researchers. One group of respondents, male and females, with Ph.D.s, have many publications, tenured and employed full-time. The other group of respondents is mature, mostly female, with M.A. degrees and between 1-10 publications, sometimes part-time or untenured. The entrance of women researchers and the introduction of feminist methodology and women studies may have a positive influence on democratic and supportive teaching methods.

Needs that motivate teacher educators' research behavior will be discussed next.
Needs that Motivate Teacher Educators’ Research Behavior

In order to develop the research culture, it is helpful to find out what needs motivate teacher educators’ research behavior. A questionnaire was administered and a range of responses may be related to motivational theories:

**Professional Growth and Self-Actualization**

According to the respondents, the main impact of research is on the following items:

Improvement of professional status ($\bar{x}=3.45$), improving self-confidence ($\bar{x}=3.36$), professional contacts ($\bar{x}=3.35$) and professional growth ($\bar{x}=3.34$).

These responses correspond with the research findings of Middlewood (1999, p. 85), who examined the effects of multiple research projects carried out by practitioners in educational institutions in England. His findings show that 94 percent of the respondents to a questionnaire felt that they had learned new skills, which boosted their professional standing. 52.6 per cent of the respondents linked the research to the advancement of their professional careers, through promotion to a more senior post (ibid., p. 85) and 60 per cent of the respondents reported that research has a powerful positive influence upon the overall ethos of the staff room and school in general. Teacher research has positive effects upon the individuals as reflective practitioners and may facilitate collaborative practice. It has significant effects upon the relationships within the school, on group members and also on teacher-student and teacher-management relationships (ibid., p. 99).

These findings indicate that teacher educators may fulfill esteem, self-actualization needs (Maslow, 1954), and growth needs (Alderfer, 1972) through research. Davis (1977, p. 338) mentions that professional and scientific employees respond favorably to motivational factors such as those proposed by Herzberg *et al.* (1959). Those factors are achievement, recognition, advancement, the work itself, possibility of growth, and
responsibility.

Needs for Power

Despite the importance of research as a criterion for awarding promotion, the respondents rated involvement in research as less effective in contributing to the following items: Research contributes to development of leadership skills (\(\bar{x}=2.053\)), Researchers are engaged in decision making processes at the college (\(\bar{x}=2.204\)). It would therefore appear that teacher educators are not conducting research for the need of power (McClelland, 1971), but that it is more related to fulfilling their need for self-actualization and self-esteem, and need for affiliation. Davis (1977, p. 343) suggests that scientists and professionals do not want to move to management positions. They prefer to advance their competence in their specialty and develop authority through expertise.

Existence Needs and Working Conditions

In relation to the more basic motivational needs, the question asked was: Are researchers working harder than other teachers, and should they get paid more? Significant differences (using analysis of variance) were found between the answers of respondents with different amounts of publications: researchers with more than ten publications believe that researchers are more talented, have to work hard and should earn more than non-researchers. These findings may be interpreted in two ways: They are more likely to be motivated by salary, working conditions and achievement needs (Herzberg et al., 1959) or by esteem needs (Maslow, 1954). Or, it is possible that, researchers with less than ten or no publications, do not believe that teacher researchers work harder or should earn more than non-researchers. It may therefore be that they are less motivated by salary, working conditions and achievement needs, at this stage of their career and more interested in other aspects of the research activity.
Differences (not statistical) were found between teacher educators on the tenure track and those who are non-tenure-track: all respondents who are non-tenure-track faculty are engaged in research. Their answers, compared to teachers on the tenure track, are higher on the following items: teacher researchers work harder, invest more in work and are more talented but not that they should earn more. They hope that the research will help them to get tenure. Probably they are motivated by security (Maslow, 1954) and existence needs (Herzberg et al., 1959), more than are the others. They do not think they should earn more. Probably they are more interested in the tenure than higher pay. It would therefore appear, that non-tenure-track faculty and researchers with more than ten publications are more motivated by existence needs and working conditions than others.

**Esteem Needs**

Evaluations of teaching have been conducted by students, colleagues, administrators and even the faculty members themselves. Whose evaluation or feedback is most valued by teacher educator researchers?

Findings indicate that respondents believe that their research activity is mostly appreciated by colleagues, then by management and least by students. Feedback from colleagues is important to teachers’ sense that they are having an impact. Blasé (1982) states that low levels of work motivation are the result of achieving outcomes with little or no reward for individual effort.

Additional findings indicate that teacher educators believe that they do not receive the recognition that they deserve, and would like to get more feedback from management. Researchers with more than 10 publications believe less that their research is highly regarded by management, and that research is contributing to their chances to reach management positions. They do not see themselves as included in the decision-making process in the College. Another possibility is that teacher educators who are not engaged in research are more likely to believe that having more publications may
contribute to inclusion in decision-making processes and in reaching management positions. These findings point out that teacher educator researchers tend to be motivated particularly by esteem of their colleagues. It is important what their professional peers think of their work, what Davis (1977, p. 338) calls cosmopolitan orientation. There may be a tendency for such professionals to relate first to colleagues in other institutions, and to be more loyal to the profession, than to their own institution. Torrington and Weightman (1989) cited in Riches (1994, p. 290) emphasize the importance of valuing staff. They identified several ways in secondary schools they studied:

feedback - indications of success from colleagues, involving informal as well as formal assessment like evaluation and appraisal;
delegation – giving members of staff responsibility;
consultation and participation – in decision-making and in developing the culture of the school.

Conclusion

It may be concluded that teacher educators’ motivational needs that may be fulfilled through research are (Table 5.1):

<table>
<thead>
<tr>
<th>The Motivational Need</th>
<th>Rank</th>
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<tbody>
<tr>
<td>Growth and Self-actualization Needs</td>
<td>1</td>
</tr>
<tr>
<td>Esteem, Affiliation and Relatedness Needs</td>
<td>2</td>
</tr>
<tr>
<td>Existence, Working Conditions and Salary Needs</td>
<td>3</td>
</tr>
<tr>
<td>Need for Power and Influence</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 5.1 Ranking of Teacher Educator Researchers' Motivational Needs
It therefore appears that researchers are intrinsically motivated, are self disciplined, depending on their own standards as well on the standards of the organization. Because of their strong achievement drives, they require recognition, status, and opportunities for growth. Their task orientation means that they desire involvement, responsibility, and self-actualization (Davis, 1977, p. 336).

Researchers at the College are not a homogeneous group. One group (about 30 of the respondents) tend to view research as an activity that requires talent, hard work and high pay. They look for extrinsic rewards. The introduction of the five academic positions is an extrinsic behavior modification motivator (Newstrom and Davis, 1997, p.133) that appeals to them. It may be seen as a maintenance factor (Herzberg et al., 1959), that acts as a dissatisfier to employees when it is absent but is not an intrinsic motivator (Newstrom and Davis, 1997, p. 125).

Others, (about 40 respondents) tend to view research work as an activity, which may contribute to their professional growth and self-actualization. They look for intrinsic rewards such as esteem, need for affiliation, relatedness and job autonomy.

To conclude, teacher educators and especially researchers may be defined as professional teachers (Coleman, 1994, p. 64) or scientific and professional workers (Davis, 1977, p. 335). They are self-motivated, expect a degree of autonomy and are cosmopolitan in their outlook. Their authority comes from their expertise and they tend to be rather independent within the organization (Davis, 1977, p. 343).

**Managerial Applications of Need Theories**

Need theories have practical implications for management. They suggest specific things that managers may do to help their subordinates to become self-actualized. Because self-actualized employees are likely to work at their maximum creative potential, it makes sense to help people to attain this state by helping them meet their needs (Greenberg and Baron, 1997, p. 147). Feeling responsible, employees discipline
themselves and feel fulfillment, worthwhile contribution, and self-actualization, which is likely to lead to enthusiasm in performance (Davis, 1977, p. 343).

Teacher Educators' Research Preferences

Teacher educators' research preferences and the contradiction between autonomy and accountability will be discussed in relation to their contribution to job enlargement and enrichment.

Skill Variety, Task Identity and Task Significance

Respondents to the questionnaire outlined a variety of existing skills used in order to engage in research work and also skills they would like to develop. In relation to language skills, 70 faculty members reported that they published in Hebrew, sixty published in English and eight in other languages. Seven respondents read literature reviews in French, four in Yiddish, three in Arabic, three in German, and three in French and German. Arabic and French, French Arabic and German, French and Rumanian, French and Russian, French and Spanish was reported by one respondent each, and two reported on Spanish. Hoyle and McCormick's (1976) model of extended professionality mentions that high involvement in professional activities (research) is linked with regular reading of professional literature and professional collaboration.

Twenty-eight respondents reported that they studied in U.S.A., five in U.K., and one person each reported about studies in South Africa, France, Belgium, Canada, and Rumania.

Half of the respondents would like to improve their statistical skills, would like help from the library and help from a secretary. By conducting research, teachers become ongoing learners (Boyer, 1990). Involvement in research fosters openness toward learning, also makes teachers more critical of both university-based research and
standard school practices. They challenge taken-for-granted assumptions about theory and practice (Lytle and Cochran-Smith, 1990, p. 101). The findings of the survey indicate that teacher educators engaged in research use a variety of skills, some of them acquired during their studies, and some of them being improved or learned, like the use of statistics or research tools. How can skill variety’s influence be explained? Apparently the cross-fertilization of ideas reinforces their scientific productivity. Multiple roles tend to increase the variety of a person’s inputs, which should increase creative and decision-making abilities, and to reinforce self-image and ego satisfaction, which should improve motivation (Davis, 1977, p. 338). The relationship between demands and performance – if the demands are too few, it may lead to boredom, and if too many, it may lead to burnout. The most effective performance will occur when those two are balanced (Riches, 1994, p. 238).

Results indicate high preference for conducting research in teams (N=66). About two-thirds (N=58) of the respondents would like to collaborate with researchers from other institutions. They are looking outward, beyond the College. Their frame of reference for judging personal progress is their rank in the professional community (Davis, 1977, p. 338). They are as much interested in what their professional peers think of their work as what the manager thinks of it. Middlewood (1999) also found that the opportunity to work with others is one of the most valuable factors in the success of the research programs (task significance). Seventy-eight per cent of women respondents pointed out that they would like to conduct research with teams from the College and sixty-six per cent with researchers from other institutions. These findings indicate the importance of the motivational functions of affiliation (Maslow, 1954) or relatedness (Alderfer, 1972) of teacher educators that may be fulfilled through research. Most respondents prefer to decide about their research topics and not follow
recommendations from the management. Responsibility is an intrinsic motivator, when individuals are provided with means to achieve their goals (Tomlinson, 2000).

Zeichner (2001) also reports about a variety of incentives provided to P-12 teachers in US for participating in research. They include time away from school to think together with colleges, money, graduate credits and fulfilling degree requirements, and professional advancement credits. Some programs involve teachers in research for a year or less and others enable teachers to continue their involvement for several years.

Seventy-nine respondents are interested in conducting research only part time (task variety). Multiple roles tend to increase the variety of a person’s inputs, which should increase creative and decision-making abilities, and reinforce self-image and ego satisfaction, which should improve motivation (Davis, 1977, p. 338). When teacher educators work on more than one application of their specialty, such as teaching, administration, or research, when they broaden and diversify their activities, they are likely to be more productive (ibid.).

Teacher Educators’ Job Enlargement and Enrichment through Research

Three core dimensions mentioned by Hackman and Oldham (1980) to contribute to job enrichment are: variety of skills, task identity and task significance used at the job. Involvement in research may contribute to all three dimensions, as discussed earlier. The direct effects, the personal and work outcomes of the core job dimensions are summarized in Table 5.2.

An activity may contribute to job enrichment if it brings to intrinsic work motivation (Hackman and Oldham, 1980). The results from the questionnaire also indicate that teacher educators may fulfill higher order needs such as esteem and self-actualization (Maslow, 1954) through research. In conclusion, job enrichment and enlargement is
generally desirable for both human and performance needs; they help employees and the college, and teacher educators’ professional life may be enriched by involvement in research.

<table>
<thead>
<tr>
<th>Core Job Dimensions</th>
<th>Direct Effects (Psychological states)</th>
<th>Personal and Work Outcomes</th>
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<tbody>
<tr>
<td>Skill variety (Different skills and abilities used)</td>
<td>Perceived meaningfulness</td>
<td>High internal work motivation</td>
</tr>
<tr>
<td>Task identity (Complete piece of work)</td>
<td></td>
<td>Improved work performance</td>
</tr>
<tr>
<td>Task significance (Importance of work)</td>
<td></td>
<td>High satisfaction with the work</td>
</tr>
<tr>
<td>Autonomy (Control over task performance)</td>
<td>Perceived responsibility</td>
<td>Reduced absenteeism and turnover</td>
</tr>
<tr>
<td>Feedback (Information about performance)</td>
<td>Perceived knowledge of results</td>
<td></td>
</tr>
</tbody>
</table>

Table 5.2 How Core Job Characteristics Affect Work Outcomes through Three Psychological States.

Adapted from Hackman and Oldham (1980)

Another emerging theme is the contradiction between professional accountability and autonomy of teacher educator researchers, and will be further discussed next.

**Academic Autonomy of Teacher Educator Researchers**

Professionals, especially researchers, expect a degree of autonomy of operation in view of the extent of their training (Coleman, 1994, p. 62). Autonomy is a dimension of empowerment that relates to teachers’ beliefs that they may control certain aspects of their work life. The hallmark of autonomy is the sense of freedom to make certain decisions (Short, 1994). Autonomy is a necessary prerequisite for a sense of accomplishment. Schools that create environments that support experimentation by teachers also build teachers’ sense of autonomy. Out of ninety-six respondents only thirteen responded that they would like management’s recommendations about preferred topics for research. Most respondents prefer to decide about their research topics and not follow recommendations from the management. Socket (1980, p. 19)
suggests that the teacher should be regarded as an autonomous professional and not as a social technician, within the bureaucratic framework of a school.

Teacher educators with a Ph.D. degree prefer to engage in research alone, as opposed to teacher educators with an M.A. degree who prefer conducting research in teams, need more statistical guidance and management recommendations about preferred topics. Likewise, teacher educators with more than 10 publications prefer to conduct research alone (40%), compared to those with no publications (18%). Respondents with no publications need more statistical guidance, and management recommendations about preferred topics. Results indicate that non-tenure-track faculty, more than tenure-track faculty, would prefer to engage in research in teams and full time. Women, compared to men, would prefer conducting research in teams and receive management’s recommendations about preferred topics. Again, it is possible that women researchers with few publications and non-tenure-track faculty are lacking in confidence (Shakeshaft, 1989).

In conclusion, findings of this thesis indicate that researchers at the College report on receiving maybe not full, but considerable levels of autonomy. Their motivational needs are fulfilled; they are self-disciplined and enthusiastic about their accomplishments. The management is also satisfied that the organization has an active research staff whose motivational needs are fulfilled. The more respondents are engaged in research, and the more educated they are, the more they are likely to expect a degree of autonomy.

Academic freedom and tenure provide important protections to faculty members; they are of special importance to the maintenance of the intellectual vitality and creativity of colleges and universities. Tenure ensures the economic security of the professor and guarantees that the faculty member is not threatened (Olswang and Lee, 1985).

Although employee autonomy is a higher-order need, most success is gained in the broad middle ground of use. When it declines below an appropriate level, or is used
excessively, the organization fails to develop and use the talents of employees. (Newstrom and Davis, 1997, p. 505). Intrinsic factors such as academic autonomy and freedom contribute most to faculty satisfaction, but pressures to regulate time, effort, and behavior force institutions to examine the substantive performance of faculty. Academic accountability will be discussed next.

**Accountability of Teacher Educator Researchers**

Accountability means being required to give an account of events or behavior in a school or college to those who may have a legitimate right to know (Bush, 1994. p. 309). To whom should teacher researchers be accountable? Socket (1980) argues that teachers ought to be accountable to: employers, peers, pupils, the public, and providers of resources. It might be expected that researchers would feel particular accountability to their employers and expect to receive their approval. In this survey, the following results were obtained: the findings indicate that respondents are likely to believe that their research activity is mostly appreciated by colleagues, then by management and least by students. These findings indicate that teacher educator researchers are more interested in what their professional peers think of their work than in the opinion of their manager, an indication of what might be termed professional accountability (Bush, 1994).

Significant differences (using analysis of variance) were found between responses of teacher educators on the tenure track and those who are not on the tenure track. All respondents not on the tenure track reported being engaged in research. They are more likely to believe, compared to respondents on the tenure track, that researchers are highly regarded by management and colleagues. Apparently they place greater emphasis on the impact of research on reputation. Respondents with an M.A. also believe, more than those with a PhD, that researchers are highly regarded by management.

Respondents with more than 10 publications, compared to those with no publications,
believe that researchers are highly regarded by their students and colleagues. Burgess (1992, p. 7) argues that professionals are judged by other professionals: they are accountable to their peers. Men believe, more than women, that research work is appreciated by colleagues.

In conclusion, results indicate that men, respondents engaged in research on a large scale, and the more educated are more likely to believe that research work is more appreciated by colleagues, and less by management. Scott (1989) suggests too, that the accountability of teachers and educational institutions is directed by norms, codes of practice and sets of values that are self imposed. Professional accountability relates to professional self-control. Teachers are judged by peers on the basis of their adherence to professional norms and values. However, Kagan (1986, p. 40) suggests that groups of professionals should establish detailed codes of conduct in relation to each aspect of their work, to protect schools from demands for product-oriented outcomes.

**Accountability or Autonomy**

How can this contradiction between wanting to operate autonomously and required to be an accountable professional within an organizational framework be resolved? (Figure 5.1)

*Figure 5.1 Accountability or Autonomy of Teacher Educator Researchers*

Bush (1994, p. 315) suggests that a measure of autonomy is required for practitioners to be effective while the school remains accountable for their performance. The headteachers are both leading professionals and chief executives by virtue of their background as experienced teachers and their formal position as official leaders of the
school (Hughes, 1988, p. 11). The chief executive is accountable to external stakeholders while the leading professional facilitates a measure of teacher autonomy.

Elliott et al. (1979, p. 8) believe that accountability is more appropriate than responsibility for 'autonomous' professionals. Teachers are entitled to the status of a professional only if they are in a position to accept responsibility for their activities.

People can be held responsible for their activities only if they are free to decide between alternatives. Responsibility can only be ascribed to those who are free to act autonomously. Edwards (1991, p. 30) suggests that accountability leads to control while autonomy fosters the release of human potential. But full autonomy and self-isolation may lead to an attitude that the researcher's work exists for its own sake without any obligation to tie it to the larger organization (Davis, 1977, p. 337). Ball (1987, p. 121) states that it may be that autonomy is a 'privilege granted by the head on certain terms and conditions', and the maintenance of boundaries provides a basis for 'divide and rule'. In any case, care should be taken to assure that teacher educator researchers do not develop into an independent unit whose members mutually judge their own work without effective control and appraisal from the whole organization.

As a result, Olswang and Lee (1985) suggest that faculty should be actively involved in the creation or modification of institutional policies or structures designed to address requirements for accountability. Joint faculty/administrative groups should discuss and resolve issues such as: institutional priorities for academic programming, the parameters of full-time faculty work and the institution's expectations for faculty productivity, the institution's method of overseeing faculty research contracts to prevent conflicts of interest. Additional recommendations include: the regulation of faculty/student interaction and the prevention of instances of sexual harassment, the institution's procedures for responding to an allegation of fraud in research, the institution's stance
regarding research products that have the potential for returning a profit to the patent or copyright holder.

To conclude the section on teacher educators' distinguishing characteristics, findings of the thesis indicate that twenty-five per cent of faculty, at most, is engaged in research. They tend to be older, and many have prior experience in lower schools as teachers. They are self-motivated, expect a degree of autonomy and are cosmopolitan in their outlook. No difference in the amount of publication of top male and female researchers was found, but the entrance of large number of women with an M.A. degree, few publications, active in conferences, to the circle of researchers, has introduced feminist methodology and could have a positive influence on democratic and supportive teaching methods.

Further more, findings indicate that research activity may contribute to teacher educators' job enlargement and enrichment by: involvement in a variety of tasks; usage of a variety of skills; having control and feedback over the task performed. Feedback about one's own performance, having to use valued abilities, control over setting goals and defining the ways to achieve them are high intrinsic motivators. (Tomlinson, 2000).

How the research culture can be developed will be discussed next.
Developing the Research Culture at the College

Summing up the position of teacher research in the United States, Cochran-Smith and Lytle (1998) identify teacher research as linked: to programs of professional development; to re-structuring and organizational change (Cochran-Smith and Lytle, 1998). Hargreaves (1999, p. 48) states that a school leader has three major tasks in relation to changing the school culture – diagnostic, directional and managerial. After diagnosing and deciding on the direction, he or she has to implement the strategy for moving the school’s culture in the chosen direction. In order to up-grade the teaching force, several approaches to change recommended by Hellriegel et al. (1992, pp.763-767) were used by the College’s management:

- structure-focused approaches to change involved redefining positions or roles and relations among positions and redesigning the organization’s structure;
- task-focused approach to change emphasized making deliberate, planned restructurings of the way work is performed, in order to increase employee motivation, involvement, and efficiency – and ultimately improve performance;
- people-focused approaches to change, that may improve individual and group processes such as decision-making, problem identification and solving, and working relations.

Managing and monitoring of the cultural changes requires a full range of human and financial resources. Similar recommendations by Hargreaves, (1999, p. 62) adopted by the College were:

- modification of structure (the development of the Research Unit);
- selection and recruitment of new (or replacement) staff (ibid., p. 60).

Bate (1994) suggests to adopt a leadership style for changing the culture. The style
adopted by the College’s management is mainly the indoctrinative style, re-education through training and development, but also the aggressive style, imposed change by unilateral and autocratic methods, mainly in hiring and firing of employees.

Some basic methods of maintaining and further developing the organization’s culture suggested by Hellriegel et al. (1992, p. 508) that will be discussed in this thesis include:

- change in structure
- role modeling, teaching and coaching
- recruitment, selection, promotion and removal of employees
- allocation of rewards and status

These methods, if applied, may bring to organizational socialization of employees to the new culture. Organizations with strong cultures may be particularly skillful at socializing individuals (Hellriegel et al., 1992, p. 523). Figure 2.3 presents the model developed for this thesis, for analyzing the organizational socialization of employees at the college to the research culture.

**Change in the Organizational Structure**

The organizational structure of the School of Education is what Burns and Stalker (1961) calls ‘mechanistic’ or ‘traditional’, appropriate for stable conditions. In the traditional organizational structure, people perform specialized jobs, many rigid rules are imposed and authority is vested in a few top-ranking officials (Greenberg and Baron, 1997, p. 523). There are tracks of study and fields of study in a closed, solid department. They are well suited for the economic and efficient performance and resource utilization, for monitoring their activities, to be accountable for areas of work undertaken by them (Mullins 1981, p. 73).

The historical evolution of the Research Unit and its connection to the organizational structure of the College influences its status and influence. The Research and Evaluation
unit started its activity by providing the College feedback and evaluation on its programs and activities, and teaching research methods for its students. It was essential to be separated as an autonomous unit. Only later its members began to engage in research in the areas of education and teacher training, in an effort to improve teacher preparation, as well as instruction and learning in the schools. Today, it is an autonomous department with about twenty researchers, used consciously to pursue research activity. Members of the Research Unit asked to be excluded from participation in committees because they want to remain objective.

Structure to Support Research

A committee of three researchers (Shamai et al., 2000) that was appointed in 1997 to investigate the research activity in Colleges of Education in Israel found that out of thirteen colleges that responded to the inquiry in 1998, twelve reported having a research committee and eight having a Research Unit. What are the functions of the research centers or units?

In 1989 the Research Unit at the College was established (Figure 5.2) and their activities are published on the College’s web-site. It has a separate budget, independent from the academic departmental allocations, is directed by an administrator-researcher, operates in a separate office, has full-time staff, a secretary and receives at least some funding from sources external to the College. The academic workforce at the research center differs from departmental researchers. Researchers at the center are researchers who may also teach, whereas faculty in departments are teachers who do research (Friedman and Friedman, 1982). The center director reports to the dean and receives high levels of internal support. Since 1989, the Research Unit has published twenty-two papers in Hebrew, nine in English and fifty internal research reports. The goals of the Research Unit are: to conduct research in the areas of education and teacher training, which will contribute to efforts to improve teacher preparation, as well as instruction
and learning in the schools; to encourage the college's teaching staff to engage in scholarly research; to develop research skills and scientific thinking among instructors and students by providing services needed to conduct research (computer assistance, statistical advice, professional consultation, etc.); and to provide the College with ongoing feedback and evaluation concerning different study programs and activities.

Figure 5.2 Change in Structure for the Establishment of the Research Unit

Compared to academic departments, research centers are a very recent organizational phenomenon in universities even in the USA (Stahler and Tash, 1994). With the influx of major federal funding for research during the past thirty years, centers have emerged as a flexible organizational structure particularly adapted to respond to the needs and requirements of research patrons – particularly federal government and private industry (Geiger, 1990). Research centers or research units have as their primary mission the conduct of research, but vary enormously across a number of dimensions, some of which include: the proportion of faculty versus professional staff researchers, level of separation from academic departments, level of interdisciplinary and multidisciplinary focus and relative emphasis of applied research.

Research centers promote the discovery of new knowledge through research and scholarship, but many argue that for centuries research and scholarship have been successfully conducted within the confines of academic departments, thus competing over recognition and prestige. Stahler and Tash (1994) undertook a survey to better
understand the role of research centers at universities in USA. From a purposeful sample of eighteen universities they concluded that research centers are perceived as an essential element in the expansion of research at these institutions by encouraging interdisciplinary collaboration and increasing research productivity and quality. The findings of this thesis indicate that about half of the respondents to the first questionnaire belong to the department of education, and their research work is related to the Research Unit, and the other half belong to different disciplines. Shamai et al. (2000) investigated 239 research projects from sixteen Colleges of Education in Israel. In their research, too, about half of the research projects are in subjects related to education and the other half are related to different disciplines.

The research committee at the College employs one researcher whose duties include receiving research proposals from staff members and allocating research grants. Conference funding and research funding were made available. For example, for this research, two weekly hours for one year, and one weekly hour for the second year were granted. If not accepted for publication in journals, research findings are published internally by the College and stored in the library. Students are also involved in the research efforts. Several students are employed by the Research Unit. In 2001, for the first time, a conference for students’ research projects was organized. The Third International Conference on Teacher Education, in June 1999, was hosted by the College. One hundred forty faculty members from the College participated, and eighty participants presented one hundred twenty presentations. Twice a year the newsletter “Mazav Hainyanim” is published by the College, where faculty can publish, if their papers are not accepted by other journals.

To further encourage research, the Ministry of Education established the Mofet Institute – a national center for research and staff development for the “academic” and “nonacademic” teacher education colleges. The Institute has a grants committee to
support research efforts, sponsors professional workshops issues publications and a
journal, Dapim, and has sponsored since 1993, every third year, an international
conference on teacher education. In February 2001, Mofet Institute organized their first
Virtual Conference on Teacher Education, where the author and her supervisor
presented a paper (Katz and Coleman, 2001b).

Even though only fifty-five research projects (Shamai et al., 2000) were sponsored by
Mofet, it has a major effect on collaboration between colleges. At the Third
International Conference, 24 inter-college collaborations were presented, nine research
and fifteen scholarly products, all sponsored by Mofet Institute (ibid.). But it should be
also pointed out that the research activity described here is one of the most advanced,
and at other colleges these activities are much more modest (Shamai et al., 2000), and
despite all the effort, and the fact that faculty applying for promotion should
demonstrate involvement in research, only one quarter of the faculty demonstrated
interest in research. The only performance measure that was used to measure the
research activity in this thesis was the number of publications reported by the
researchers and papers presented at conferences. From the participation in the Virtual
Conference, in February 2001, where participants could present papers in Hebrew or
English, it may be concluded that at least half of the researchers (N=9) prefer writing
papers in Hebrew, which may limit their opportunities to be published. Therefore,
research centers’ main task at colleges, compared to those at universities, should be
more induction and mentoring of beginning researchers, and less conducting research.

To summarize, although research units will never replace academic departments in
terms of their teaching function, scholarly activity, generation of new knowledge, and
their organizational primacy within the Colleges of Education in Israel, they represent
an organizational structure for induction and mentoring of beginning researchers
(discussed next), encouraging research and coordinating interdisciplinary collaboration
(Katz and Coleman, 2001c). One of the best examples is the involvement of several researchers from the College in the team that evaluated the academization of teacher education in Israel (Kfir, et al., 1997). It represents the most logical organizational entity for pursuing large-scale, hopefully externally funded, interdisciplinary research, responsive to societal needs. As Gardiner (1985, p. 6) states:

"Research units or centers provide opportunities for a flexible institution with inflexible academic units to adapt to a rapidly changing society, full of people demanding increased responsiveness and greater accountability."

**Structural Sources of Power**

A structural perspective to power is determined by hierarchical relations in organizations and is created by the division of labor and departmentalization, which result in unequal access to information, resources, or decision-making. All structural sources of power are relevant to the research activity and of teacher educators at Colleges of Education. Can teacher educator researchers be labeled as more powerful compared to other groups at the college?

Researchers possess first of all personal or expert power, through knowledge brought to the job or accessed through training. They are also more empowered then other employees. They are more rewarded (reward power) and are promoted to higher positions (legitimate power). In addition, researchers can attain structural sources of power, which include: easier access to information, easier access to resources, more visibility to higher management, and affiliation to networks of power inside and outside of the organization (Hellriegel et al., 1992, p. 541). They have more access to information and support links.

To conclude, the introduction of research, incentives to professional advancement and the establishment of the advancement committee, which determines who is entitled to be promoted, may bring a new form of power and hierarchy inside colleges of education.
in Israel (Hollingsworth, 1997, p. 250). Research Units at Colleges of Education in Israel represent an organizational structure for conducting research and coordinating interdisciplinary collaboration, but their first and main purpose is induction and mentoring of beginning researchers. In the following section induction and mentoring of beginning researchers by the Research Unit will be discussed, as a way to introduce them to the research culture.

**Induction and Mentoring of Novice Researchers**

Aspects of culture may be communicated to employees through training programs, day-to-day coaching on the job and by providing role models (Hellriegel et al., 1992). According to Crandall et al. (1986), the use of technical assistance to achieve the perceived and actual mastery of new skills is often critical in facilitation of change.

**Induction of Beginning Researchers**

To learn more about induction of beginning researchers, a yearlong participatory observation was conducted by the author throughout 1999/2000, on members of the research methods course. Funding for the course was provided by the College. In contrast to the classic mentoring programs, which develop informally on the basis of shared interests, mutual admiration and talent (Perma and Lerner, 1995), this was a centrally organized induction program (Coleman, 1997, p. 158) offered for a group of teacher educators, organized by senior management, the leader being an established senior researcher. Before the beginning of the school year a letter was sent to all teacher educators offering them a course in research methods by a senior researcher at the College. New researchers could choose from a list of topics according to their needs and interests and also had a choice of several time intervals during the week. About thirty-two signed up, and the times that suited the most people were chosen. The course was conducted once in three weeks and in addition, three whole day workshops were
held and covered topics such as: action research, evaluation, research design and methods, writing a research proposal and a research report, qualitative data analysis, awareness to ethical issues. It did not include usage of SPSS or other statistical software, or usage of databases for literature searching. Hall and Hord (1987) state that cognitive orientation is important in both the early and middle phases of change to deal with concerns. According to Lyons and Scroggins (1990) mentors serve three primary functions in the lives of their protégés: transmit formal scientific knowledge and technical skills, introduce the student into the rules, values, and ethics of their discipline and bolster their protégé's confidence in themselves through encouragement and praise.

These guidelines were used to analyze the reasons for participating in the course.

Three different groups could be identified among the approximately 30 participants. The first group, about ten men and women, mostly young, were considering studying for a Ph.D. degree and wanted to upgrade their research skills. Their reasons for signing up for this course were generally fairly unspecific: intend to study for a Ph.D. and are looking for subjects for research, or to find out what are the services they can receive from the Research Unit.

The second group, at least five teacher educators, like the author of this thesis, had already started their studies for their Ph.D. degrees. Some are studying at universities in foreign countries, others at universities in Israel. They were looking for specific answers to problems they had encountered, and bolster their confidence through encouragement and praise.

"The advice from the researchers from the Research Unit was very helpful. They provide self-confidence for novice researchers. They helped me with the statistics and then read the findings section, and commented on it." (Woman, studying for Ph.D.).
Among the College's staff there are at present, at least twenty doctoral students, who receive various types of individual and/or group induction and mentoring for research competency from the Research Unit. Lyons and Scroggins (1990) suggest that academic mentoring differs from career mentoring. While mentoring can lead to success in business and the professions, having a mentor is seen as absolutely essential for success in graduate school. It may be assumed that students who are mentored gain valuable knowledge, expertise and experience, which contribute toward future professional endeavors. Working with a large sample (N=485), Pierce (1983) found that seventy-eight percent of psychology doctoral students who had completed the degree had had an academic mentor.

In addition, a change in the location of leadership in respect of research was sometimes recognized (Connoly et al., 1998). Not senior management, but the Research Unit was recognized as responsible for all aspects of research and seen as providing assistance that was appropriate and confidential:

"The Research Unit made possible for me to access SPSS. But I learned to use it myself. I cannot afford paying a statistician." (Male, 30s, doctoral student).

"I paid for the services of a private statistician. I don't want anybody to know what I know and what I don't know." (Woman, 50s, doctoral student).

A major issue that was pointed out several times is collaboration, sharing of ideas and expertise. Even the most experienced researchers felt:

"It is important for researchers to work in teams. We always plan the research and discuss the results in teams. Each brings in his expertise, and point of view."

(Woman, Ph.D., experienced researcher)

The third group, was also about fifteen older women, with M.A. degrees, tended to hold important positions at the College. Two are heads of department, one the director of a
learning centre and one the editor of the internal newspaper. They were interested in technical skills, but also to be introduced to rules, values and ethics of research. Typical of their reasons for signing up for the course were:

"I am head of the department. I want the teachers in my department to be involved in research. Next year the whole department will conduct a joint research project. I want to update my research skills." (Woman, 50s, M.A.)

"I am the head of a learning centre, where we organize year-long professional development courses for teachers from schools in this area. I want to suggest next year a course in action research. I want to update my research skills. I am thinking also of studying for a Ph.D. Degree." (Woman, 50s, M.A.)

Successful induction programmes are those that are able to take into account the needs of the individuals concerned (Coleman, 1997, p. 159). The variety of needs expressed by the participants may have made this particularly difficult to achieve. Although the course was scheduled to last for the year, during the course of time, attendance began to reduce. Of the three groups, the first to stop coming were those who had started their Ph.D. One person expressed her reason:

"I prefer handing in drafts of parts of my thesis, to obtain personal advice rather than attending the group sessions. I do not have now the time and patience to listen to other persons' problems." (Woman, doctoral student, 40s)

After that, those who had not started Ph.D. degrees stopped coming. Their needs had not been specific and had not been clarified, and therefore they did not know how to take advantage of the help offered. One person said:

"First I have to be accepted for doctoral studies and decide on the research topic. But it is helpful to know that I have the option for help from the Research Unit.
Definitely I will need assistance from them.” (Male, 30s, M.A.)

A further aspect of the change in attendance was that all the men left the group and only women stayed. Research appears to indicate that for women, having a mentor may be more important than it is for men, and ‘can be very powerful in encouraging a climate of equal opportunities’ (Coleman, 1999, p. 166) particularly in terms of climbing the career ladder. Women find difficulty in rising within an organization, because of the corporate culture of “old boys networks” or other obstacles (Hellriegel et al., 1994, p. 693) and may be substantially helped by having a powerful mentor.

During the second semester, those who remained (all women) decided to choose a research topic and develop it into a research proposal. The topic chosen was promoting reflection in teacher education. Participants read relevant literature, brought ideas to the classroom and research questions were developed. Different methodological issues were discussed and data collection methods were suggested. Although it did not develop into a research team, a transition was made from the induction group being led by an expert (mentor) to the group providing peer support (Hellriegel et al., 1992, p. 695, Bush et al., 1996, p. 137). A peer group provides a relationship that is between equals (Coleman, 1997, p. 162). At the end of the course it was suggested to continue with the peer group meetings, at least a few times a year, thus embedding the existence of the group in a wider context of on-going professional development. The extent to which the group became competent (Tickle, 1994) as a result of the mentoring and induction activities is hard to measure, but research was done and will be done next year.

Participation in the yearlong course in research methods provided means for learning about colleagues who are engaged in research and about the establishment of the research culture. The different groups of participants went through some or all stages of induction. Some were exposed to the research culture, some achieved a level of
competence by writing research proposals and conducting research and some went through a whole socialization process (O’Neill et al., 1994, p. 68), which enables them to function effectively in the research community including the presentation of papers in conferences and for publication. Thus the course provided a practical support framework that helped the participants to absorb some of the research culture (Coleman, 1997, p. 157). At the end of the course several participants expressed that definitely they want to continue to be engaged in research.

The induction process involved mentoring, what Earley and Kinder (1994) call the bi-support model. In addition to the central induction program, it was possible to obtain individual guidance from another officially designated mentor from the Research Unit. The mentor offered guidance throughout the year on all aspects of research, including: the writing of the research proposal, developing questionnaires, statistical analysis of findings, presenting a paper at a conference and reading several versions of the research report.

To summarize, the variety of induction needs indicate that flexibility in the induction process is required if it is to be effective. Earley and Kinder (1994) identify flexibility and add that induction should:

- meet teachers’ training needs;
- be a part of a school-wide approach to supporting all staff;
- be systematic and planned, including feedback to individuals;
- enable staff to become active and valued members who can contribute to the College;
- lay the foundation for a life-long professional career.

The induction and mentoring process included thirty-two participants, although it was offered to all staff members. It is possible that the others are not interested to be engaged in research.
The Mentors

Both mentors were women, experienced researchers, with Ph.D. degrees, in their 50s and were very approachable. They offered their home phone and fax numbers to all participants. According to Newstrom and Davis (1997, p. 96) mentors are usually older, successful themselves, and respected by their peers (influential). They tend to be people with power and status in the organization (Hellriegel et al., 1992, p. 692). Mentors must be willing to commit time and energy to help another person, be able to communicate effectively and share ideas in a non-threatening fashion, and enjoy the one-to-one development of others. Mentors are often not the employee’s direct supervisor, which allows them to be more objective about the protégé’s strengths and weaknesses. The mentor may receive need satisfaction (especially self-esteem and self-actualization) from a sense of accomplishment in helping beginning researchers (Hellriegel et al., 1992, p. 693). According to Carney and Hagger (1996, p. 128) the mentors see mentoring as an opportunity for professional development, ‘an opportunity to reflect on and question their own subconscious practice and to learn about new developments’.

Next year the induction and mentoring of beginning researchers will be done in a different pattern. The researcher will accompany one department for a whole year and cooperate in an action research. Individual guidance will continue to be given as before.

Maynard and Furlong (1994, p. 82) identified three strands of induction:

- The apprenticeship model, emulating the example of an experienced researcher
- The competence based approach, where the mentor becomes a trainer, coaching to research competences
- The reflective model, where the mentor takes on the role of stimulating critical reflection and becomes a ‘co-enquirer’.

The apprenticeship and competency-based models imply a more formal, instructional
and assessing role, whereas the reflective model implies a relationship that is between equals (Coleman, 1997, p. 162). The instructor in the course on research methods and also the head of the research department, who gave advice on research, both served as mentors, and in doing so used all three approaches mentioned above. The mentor took on the role of stimulating critical reflection and became a 'co-enquirer'. At the same time, being experienced researchers, they served as role models (the apprenticeship model, emulating the example of an experienced researcher) and also coaches to research competencies (the competence based approach). Some reports on mentor/mentee relationships were:

“B. read all the papers I wrote. Not only because it is her duty but also because she said she is interested in the subject. It is nice that somebody is interested in what you write. Research is such a lonely activity. Most of the time you sit next to the computer and struggle with words and figures. Seeing her interest in my work gave me hope that others will also be interested in my research.” (Female, 50s, doctoral student)

“The head of the department is like a second supervisor for me. She is involved in research, published a lot in the field, and can advise me on the relevant literature to my doctoral thesis. We already presented several papers at conferences. “(Man, 40s, Doctoral student).

“I was already offered a headteacher post in one of the high schools in the network, after finishing my Ph.D. The management of the network helped me get access to all the information I need for my research. They gave me a letter that 'opened all doors' for me.” (Man, 40s, Doctoral Student).
Mentoring and Career Development

Induction and mentoring are related not only to socialization of beginning researchers but also to their career development. Socialization emphasizes the interests of the organization while career development emphasizes the interests of the individual. The preferred outcome is integration of organizational and individual interests (Gibson et al., 1994, p. 658). Generally conclusive evidence links mentoring to career development, organizational effectiveness and career satisfaction (Kram and Isabella, 1985). Career-related activities include coaching and challenging protégés while also publicizing their accomplishments and protecting them from political difficulties in the workplace.

For example, Perna and Lerner (1995) conclude from empirical research data that despite being older and having more years of education than their counterparts in business or corporate professions, faculty protégés appear to benefit from mentoring both on objective indicators and through subjective perceptions of career success and satisfaction. This finding is consistent with primary theories of career development suggesting that planned exploration and feedback under the guidance of more experienced people is crucial for career development even after formal schooling ended (Super, 1953). As Coleman (2000) found from a survey of all female headteachers in England and Wales (N=470) that: courses (87%), appraisal (69%) and mentoring (66%) were the most often cited means to encourage teachers to develop their careers. Career development will be further discussed later in this chapter.

Conclusion

The induction process involved a central induction program, or it was possible to obtain individual guidance from another officially designated mentor from the Research Unit. Participants went through various the stages of induction: some were exposed to the
research culture, some achieved a level of competence by writing research proposals and conducting research and others went through a whole socialization process (O’Neill et al., 1994, p. 68), which enables them to function effectively in the research community, including the presentation of papers in conferences and for publication. A transition was made from an induction group being led by an expert (mentor) to a group providing peer support (Hellriegel et al., 1992, p. 695, Bush et al., 1996). Thus the course provided a practical support framework that helped the participants absorb some of the institution’s research culture (Coleman, 1997, p. 157). Figure 5.3 presents the different induction and mentoring programs the College provided for beginning researchers to develop research competency:

![Figure 5.3 Induction and Mentoring Programs Provided by the College for Developing Research Competency](image)

The year long participant observation and interviews at a teacher education college in Israel have indicated the importance of the identification of individual needs, and the importance of a practical support network in the induction and mentoring of beginning researchers in the establishment of research culture (Katz and Coleman, 2001c). Induction and mentoring of beginning researchers should incorporate a range of factors to meet teacher educators training needs. It can be systematic and planned, and be part of a school-wide approach to supporting staff, or individually suited to provide feedback, question, share, discuss, challenge, confront and guide one through the research process (Kelly et al., 1992, pp. 173-4), however its’ main purpose should be to enable staff to become active and valued members who can contribute to the College and lay the foundation for a life long professional career (Earley and Kinder, 1994).
addition, the development of research skills through induction and mentoring activities can enhance career development and professional socialization. Socialization is an important and powerful process for transmitting organizational culture (Hebden, 1986) and can be viewed as a means for achieving organizational integration. The socialization process achieves organizational integration by undoing the individual’s previously held goals and creating new ones that come closer to the organization’s goals, in this case the establishment of a research culture amongst faculty.

**Recruitment and Promotion**

Managers evaluate employees and those who are not well matched with or suited in the organizational culture will exit, voluntarily or involuntarily. Figure 5.4 is one part of the model (Figure 2.3), and presents a method for maintaining organizational culture by recruitment of employees who fit the culture and removal of employees who deviate from the culture:

![Recruitment and Removal of Employees and the Organizational Culture](image)

**Figure 5.4 Recruitment and Removal of Employees and the Organizational Culture**


One area that is influenced by the organizational culture is length of employment and organizational fit. Voluntary turnover of individuals is related to culture. People remain employed longer in cultures that stress pleasant interpersonal relationships than those emphasizing hard work. Turnover is also lower among individuals whose personal values more closely match those of the organizations in which they are employed than
those for whom personal and organizational values are less closely matched (Greenberg and Baron, 1997, p. 498). Is engagement in research contributing to recruitment, length of employment and organizational fit of teacher educators?

Interviews indicated that it is possible to be employed by the college with an M.A. degree and without being engaged in research, but it is almost impossible to receive tenure. As one interviewee said:

“This is my third year at the college, and received excellent feedback from students and peers, but they did not want to give me tenure. I can continue working, but is very humiliating. I don’t know what to do.” (Man, 30s, M.A.)

At the beginning of 2000/2001 school year, a new head for the School of Education was appointed, and one of the requirements were previous research activity, and list of publications.

Findings from the questionnaire indicate that well over half of the respondents have more than 20 years of experience in teaching and they also have the highest number of publications. It can be assumed that the personal values of those who are employed over twenty years more likely to match those of the organization. An organization’s culture provides a sense of identity for its members; employees can associate themselves with the organization’s mission and feel a vital part of it (Greenberg and Baron, 1997).

The introduction of the five academic positions required developing criteria for moving up the hierarchy from one position to the next. They are based on evaluation in the following areas: teaching excellence, educational initiatives, development of learning materials, research and scholarship, but it is almost impossible to move up the hierarchy, especially to the higher positions, if not through involvement in research.

Tenure

One of the major trends these days that may have major consequences is that more and
more colleges are relying on part-time or temporary non-tenure-track faculty to teach. Kfir (2001) evaluated the activities of the promotion committee at Beit Berl College, which was appointed in 1997. She found that only 170 faculty members can apply for promotion at the College (less than thirty per cent), and the request of only 124 was approved. Part-time faculty are not unqualified, but they are exploited. Most part-time faculty earn very low ‘per course’ salaries, and few benefits. The nature of their employment (many have a full-time job off campus) often does not enable them to advise students adequately, conduct research or contribute to the academic direction of the institution. As one interviewee pointed out:

“...I teach at the college part-time, but in addition I teach full-time in high school and I work as an inspector in my field of expertise. I have to travel a lot, I am very busy, I cannot devote to much time to my students, although I am expert in my field...” (Woman, 50s, M.A.)

It is hard for demoralized faculty members, to bring into the classroom the confidence and creativity necessary for fine teaching or research. To reach high educational standards, a full-time, experienced faculty, in charge of the academic program and committed to the institution is needed (http://www.nea.org/he/thruth.html). As more colleges world-wide and in Israel rely on part-time, non-tenure-track faculty, it can be assumed that these colleges will encounter difficulties in finding experienced faculty to engage in research activities.

All respondents with no publications are on the tenure track. It is likely that respondents that are not on the tenure track and do not have publications did not respond to the questionnaire. Alternatively, tenure may give individuals security, so that they do not feel obliged to respond to changing demands.

Significant differences (using analysis of variance) were found between the responses of teacher educators on a tenured and on a non-tenure-track on five items. The answers of
the non-tenure-track respondents, but engaged in research, were higher and significantly
different on the following items: they believe that engagement in research contributes to
professional status, researchers are highly regarded by colleagues, researchers are highly
regarded by management, have better chances to reach management positions, are
included in decision making processes at the College. It can be assumed that the non-
tenure-track respondents hope that involvement in research will help them get on the
tenure track.

Allocation of Rewards and Status

The five academic positions introduced to Colleges of Education in Israel constitute a
performance related pay, and to determine who is entitled to receive it, a promotion
committee was established, consisting of staff members from the college. This, in
addition to a 29.70 per cent increment to their salary, that all teachers in Israel can
accumulate automatically, for developing professional skills (one per cent for each 128
hours of study). This way a distinction was made between skills-based pay and
competency-based pay. Skills-based pay links pay and progression with the skills
teachers have acquired, rewarding continuing professional development (Tomlinson,
1998). However teachers may be rewarded for acquiring skills without necessarily using
them. The competency-based pay introduced, link reward to the demonstration of
required behaviors (Walters 1995). But performance appraisal involves identifying
measurement factors against which to evaluate performance, which will be further
discussed in the section about the association between teaching and research.

When asked if researchers are working harder than other teachers, and should they get
paid more, significant differences (using analysis of variance) were found between the
answers of respondents with different amounts of publications: the more the
respondents had published, the more likely they were to consider that researchers are
more talented, put more effort into their work, work harder and should earn more than
non-researchers. Extrinsic rewards of salary appear to be more highly valued by researchers than non-researchers. No significant differences were found between responses of men and women on effort and hard work, contrary to Acker and Feuerverger (1996) suggestion.

**Conclusion**

Research units at colleges are engaged in induction and mentoring of beginning researchers, besides research. The establishment of the Research Unit contributes to the flexibility of the organization and should promote interdisciplinary collaboration. Induction and mentoring for research competency may contribute not only to socialization of beginning researchers but also to their career development. The ways an organization uses to develop, maintain and reinforce the research culture can contribute in refining the criteria for recruitment, selection, promotion of employees at the College, and also improve performance.

Fullan (1991) suggests three stages of change: initiation, implementation and continuation, and the College is already at the implementation - continuation stage. Berman and McLaughlin (1978) emphasize the importance of implementation and not the adoption stage, as they found that many innovations are discontinued quite quickly, and even implemented programs are often radically changed to be less potent, during this stage. Firestone and Corbett (1988) report that schools vary in their willingness/ability to adopt new practices, time between the introduction of a new idea and its spread can take decades, and various interest groups in the organizations are critical determinants of the adoption process and its outcomes. Their report is in agreement with the situation at the college. The Research Unit at the college was established in 1989, and still only twenty-five per cent of faculty is engaged in research. Morrison’s (1998, p. 143) guidelines can be used to identify inhibiting and facilitating factors at the continuation stage of change. Facilitating factors relevant for the college
include: interest shown in research (25% of the college's faculty), change in the organizational culture, availability of resources, and support of local facilitators and trainers (induction and mentoring). Inhibiting factors relevant for the college include: lack of interest in research of part of the staff (75%), lack of support, and lack of funds for research; limited capability for sustained continuous improvement; unsustained change in behavior and values. In the following section the impact of the research culture on the institution and individuals will be explored.
The Impact of the Research Culture

Next, the impact of research on individuals and organizational performance will be discussed. The analysis starts by examining teacher educators' professional and career development, relations between research and teaching, and the influence of research on participation in research and empowerment. It concludes with summarizing the growing importance of research for colleges of education in Israel.

Professional Development through Research

Professional development involves promoting faculty growth and enabling faculty members to obtain and enhance job-related skills, knowledge and awareness. They vary in purpose, but they are commonly designed to enhance personal and professional development, and the organization's responsibility is to create an effective institutional atmosphere in which faculty can improve their competence as teachers and scholars (Gaff, 1975).

As stated earlier teacher educators and especially researchers can be defined as professional teachers (Coleman, 1994, p. 64) or scientific and professional workers (Davis, 1977, p. 335). Their authority comes from their expertise and they tend to be rather independent within the organization (Davis, 1977, p. 343). Does teacher educators' research activity have an affect on their individual development and can it bring about institutional improvement? Personal development efforts involve enhancing interpersonal skills, promote wellness, and assist with career planning (Graff et al., 1992). Curriculum development involves the development of scholarly and teaching competencies, and the development of new communication and organizational patterns (Bergquist and Phillips, 1975; Eble and McKeachie, 1985). Figure 5.5 illustrates the topics that will be discussed in this section:
Individual Development Focus

Findings indicate (on a scale from 1 - do not agree to 4 - agree very much) that respondents believe that involvement in research has a very positive effect on professional growth ($\bar{x}=3.34$). Involvement in research is seen as improving the professional status ($\bar{x}=3.47$) and self-confidence of the teacher ($\bar{x}=3.36$). Teacher researchers are believed to be open to innovations ($\bar{x}=3.47$) and have more professional contacts with colleagues ($\bar{x}=3.35$).

Significant differences (using analysis of variance) were found between responses of teacher educators with M.A. and Ph.D.s. According to respondents with Ph.D. degrees, compared to respondents with M.A. degrees, educators who do research are more open to innovations, have more professional contacts and research improves their self-confidence, but it appears to have less impact on professional growth.

Significant differences (using analysis of variance) were also found between the answers of respondents with different amounts of publications: according to respondents with more than ten publications, compared to respondents with no publications, teacher researchers are more open to innovations. Teacher research has positive effects upon the individuals as reflective practitioners and can facilitate collaborative practice. It has significant effects upon the relationships within the school, on group members and also on teacher-student and teacher-management relationships (Middlewood, 1999, p. 99). As one researcher noted:

"At the Research Unit we always try to interpret research findings in teams. Each person has his unique point of view, which enables getting a fuller picture
of the situation. We collaborate in publishing and presenting papers at conferences too." (Woman, Ph.D., researcher)

To conclude, results indicate that the more the respondent is engaged in research and the higher the level of his/her education, the more it is perceived that research is contributing to his/her professional development. Joyce and Showers (1988) theory of teacher growth can be applied to the contribution of research to teacher educators’ professional development at colleges of education in Israel. The findings of this thesis suggest too, that over time, individuals develop a particular pattern of response and attitude toward personal learning and growth. They can be described as:

- gourmet omnivores, about twenty per cent of their sample, as people who learned to scan and exploit their environment successfully, and who are more likely than others to bring their ideas they gain in their personal lives into the workplace and use them in their teaching;
- passive consumers, about seventy percent of their sample, who do not object to professional development but did not integrate it into their work;
- reticent consumers, about ten percent of their sample, who actually go out of their way to avoid growth and development, in both professional and personal contexts (ibid.).

Institutional Performance Enhancement Focus

The institutional performance enhancement focus in this thesis was determined by the effect of research on teaching. First, findings of the first questionnaire will be presented. According to respondents to the first questionnaire, involvement in research does not necessarily enhance teaching. Findings (on a scale from 1 - do not agree to 4 - agree very much) were: researchers are better teachers ($\bar{x} = 2.375$), research improves teaching techniques ($\bar{x} = 2.553$), teacher researchers are more talented ($\bar{x} = 2.14$). In comparison, Richardson and Parker’s (1992) findings are that there is no evidence that research
detracts from teaching, but there is no evidence that it necessarily enhances classroom performance. There is a prevailing conception among practicing teachers that a person best learns to teach through experience (Lanier and Lyttle, 1986). Practicing teachers rate university graduate and undergraduate courses – the best opportunities they may have for exposure to theory and research – as among their least valuable sources of professional development (Smylie, 1989). Teachers express a need for idiosyncratic knowledge, knowledge that is applicable to a specific classroom context, that relates to a particular teacher’s students, and that addresses a teacher’s instructional needs. For many teachers, new knowledge becomes meaningful only if it complements existing orientations, is consistent with immediate contexts, and carries action potential (Love, 1985, Tilema, 1994).

Statistically significant differences (using analysis of variance) were found between responses of teacher educators with M.A. and Ph.D. degrees. Respondents with Ph.D. degrees (\(\bar{x}=2.81\)), compared to respondents with M.A. degrees (\(\bar{x}=2.34\)) are more likely to believe that research is contributing to improvement of teaching and that researchers are better teachers.

Significant differences (using analysis of variance) were also found between the answers of respondents with different amounts of publications: respondents with more than ten publications compared with those with none, are more likely to believe that research contributes to teaching and that researchers are more talented. Results indicate that the more the respondent is engaged in research and the higher the level of education, the more he or she believes that research is improving his or her teaching.

On the question: How can scholarly work inform and support teachers’ work? The number associating research activity with management activity and presumably career progress is small. Thirty percent of the respondents relate their research activity to
decision-making, change and improvement. The majority (67 per cent) use research to further understand their field of study and to inform their work as teacher educators, thirty-three use research as bibliographical material in their own courses.

McLaughlin and Oberman (1996) described a symbiotic relationship between teacher learning and education reform, a relationship where successful reform relies on continuous teacher learning, and effective teacher learning relies on new approaches to teacher professional development. As one staff member noted:

"I am in teacher education twenty-four years, and I never stopped learning. Now I am completing my studies for a Ph.D. degree, but throughout the years I participated in more than a dozen courses: in using the computer and video, research methods, graphical design and more. And what I could not learn in courses, I learned from reading books." (Woman, 50s, M.A.)

However, for new professional development approaches such as teacher collaboratives, subject matter associations, professional development schools, and teacher networks to reach their full potential, the nexus between learning and work must be thoroughly explored. Wallace (1986, p. 68) also identifies a 'missing link' between training and performance, which indicates that off-the-job training courses suffer from difficulties of transfer of learning to the work situation. He suggests that designers of training and development activities have a responsibility to ensure that the learning activity incorporates strategies for implementing desired changes in school or college practice.

Wallace’s missing link theory can also be applied for transfer of learning from research to the work situation. Hargreaves (1998, p. 54) suggests performing more research that is relevant for teachers. This can ensure its relevance and help teachers make better decisions about what is effective. As teachers become ‘co-producers’ of research, or ‘creators of research knowledge’, the research act in itself is a fundamental form of the professional development of teachers.’ (ibid.). But at the same time, too great a focus on
efficiency can undermine effective change processes. Instead, developing consensus and commitment to change, cooperation, and interpersonal support are essential to enhance the change process to the new culture ((Elmore, 1978, p. 185).

Training or Professional Development

Eraut (1972, p. 1) refers to the distinction between in-service training in which a teacher-employee is told what to do and how to do it, and in-service education in which a teacher-professional is supported in his task to answer the questions for himself. A training perspective is intended to provide externally identified solutions to problems associated with curriculum delivery by teachers as employees. Needs analysis is extrinsic, providing a response to a specific training need. However, an in-service education perspective encourages the analysis of problems and potential solutions by professional teachers themselves. Need analysis is intrinsic, conducted in the context of self-generated priorities. Engagement in research by teacher educators has the potential for intrinsic needs’ analysis and they can provide internally identified solutions to problems associated with curriculum delivery.

<table>
<thead>
<tr>
<th>Term</th>
<th>Target</th>
<th>Needs analysis</th>
<th>Purpose</th>
<th>Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training</td>
<td>Groups or individuals with like needs</td>
<td>Extrinsic</td>
<td>Specific solution to fill gap in provision</td>
<td>Short-term</td>
</tr>
<tr>
<td>Staff development</td>
<td>Whole staff</td>
<td>Intrinsic</td>
<td>Priorities of institution or functional groups</td>
<td>Medium-term</td>
</tr>
<tr>
<td>Professional development</td>
<td>Individuals or groups with like needs</td>
<td>Intrinsic or extrinsic</td>
<td>Career-oriented personal needs</td>
<td>Longer-term</td>
</tr>
</tbody>
</table>

Table 5.3 Definitions of Professional Development
(Adapted from O’Neill, 1994c, p. 287)

Jones et al. (1989, p. 5) distinguish between staff development which ‘provides the means for teachers to experience continuing education as part of a team of
professionals', within a given institution, and professional development, which describes the career and personal development of the individual (Table 5.3).

To conclude, professional development encompasses the concepts of: Meeting the needs of professional role responsibilities at various career stages and improving professional performance and capability. Professional development through research can be seen as a process, whereby the teacher continues to develop the knowledge and skills required for effective professional practice, as circumstances change at different stages of career, and are given meaningful context by the teacher’s experiences. (Hoyle, 1982, p. 164). It appears that involvement in research can fulfill many teacher educators career oriented personal needs (discussed next), and promote development of staff, but it is perceived as bringing relatively small measurable outcomes in relation to curriculum delivery or enhancement of student learning.

Conclusion

According to findings, teacher research is contributing to the professional capability of the individual practitioner. It is seen to be bringing relatively small measurable outcomes in relation to curriculum delivery or enhancement of student learning. Teacher educators appear to see the evaluation of peers as important; an indication of their accountability as professionals to other professionals. Similarly, they also expect a degree of autonomy of operation, in view of their expertise and training. More effort and coordination from the management may be needed to help keep researchers focused on organizational objectives, as across schools, teachers described leadership as a factor that influenced access to, and the nature of learning opportunities. Observational data by Scribner (1999) suggest that each principal approached in-service days differently. Some principals’ desire to direct organizational change and the learning needs of individual teachers, others allowed autonomy over professional learning decisions. He
proposes creating school cultures and school environments that support informal and formal professional learning activities, recognizing and rewarding less traditional, but important, teacher learning activities, such as collaboration and inquiry. Zeichner's (2001) suggestions, relevant to teacher education in Israel too, are that the key questions to be asked with regard to research as a professional development activity should be concerned with the degree to which teachers feel respected, intellectually challenged as well as supported, and the degree to which they have control over their own research both in terms of its substantive focus and the methods used to carry it out. Next, findings from the second questionnaire will be presented.

**Relation between Student-evaluation of Teaching and Research**

**Professional Information about Student-teacher Supervisors**

To investigate the relation between involvement in research and student-evaluation of teaching, answers to a questionnaire were obtained from thirty-three teacher student supervisors, in addition to their teaching evaluations by their students. One quarter of the respondents were male and three quarters were females a ratio of 1:3, compared to a ratio 1:2 among respondents the first questionnaire. Less than seven per cent of the supervisors are under forty, and more than three quarters are above fifty years of age. The number of supervisors with an M.A. degree is twice as many as with a Ph.D. degree (60%/27%), which means a ratio of 2:1, compared to a ratio of 1.2:1 among respondents to the first questionnaire (53%/45%). From the School of Education's 1999/2000 Directory it was found the number of faculty members with a PhD degree at this year at the college was thirty-seven per cent. Therefore, it can be stated that faculty with Ph.D. degrees are well represented among student teacher supervisors. Also, all student teacher supervisors with a Ph.D. degree were women. It should be pointed out that the research was conducted among thirty-three student teacher supervisors who belong to
fifteen fields of study for junior high and higher education, but did not include student teacher supervisors who belong to the lower tracks: kindergarten, elementary and special education. Among those who belong to the lower tracks, nobody has a Ph.D. degree and all are women.

Three quarters of the supervisors are on the tenure track, the same as among respondents to the first questionnaire, and about ninety per cent possess a teaching certificate. About one quarter of the supervisors have more than thirty years of teaching experience. About half of the respondents are ten years or less at the College, and more than ninety-five per cent of the respondents are less than twenty years at the College. One quarter of the respondents have been in teacher education at least twenty years. One third of the respondents have been more than thirty years in teacher education. To summarize, there are more women and more with an M.A. degree among student teacher supervisors. These findings are in agreement with findings reported by Ducharme and Ducharme in the USA (1996) that nearly eighty per cent of elementary and secondary faculty had several prior years of work in schools. Ziv et al, (1995, p. 66) found that few student-teacher supervisors in Israel have a Ph.D. degree but many have extensive teaching experience, and this can damage their professional status. They recommend for student-teacher supervisors to continue their studies for a Ph.D. degree and get involved in research.

**Student-teacher Supervisors’ Involvement in Research**

More than half of the supervisors reported involvement in some kind of research activity. About forty per cent of the supervisors had between 1-10 publication in Hebrew and in English, but only six percent had more than ten publications in English compared to eighteen per cent having more than ten publications in Hebrew. About a quarter of the supervisors had written an article for the College’s newspaper ‘Mazav Hainyanim’. About half of the supervisors reported that they had published a textbook,
and almost seventy per cent had published a workbook. Almost all supervisors reported participation in conferences. In comparison, Ducharme and Kluender’s (1990) findings indicate that more than fifty per cent of faculty at bachelor’s level institutions do not have publications in well known journals, compared to seven per cent in doctoral-level institutions.

**Student Evaluation of Teaching Scores**

The student assessment of teaching of the supervisors was measured by four ratings and a summative rating of all twenty-two questions. The scores were as follows (Table 5.4):

<table>
<thead>
<tr>
<th>Students’ assessment of teaching scores</th>
<th>A. Teaching and relevance to practice in the courses related to pedagogic supervision</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. Difficulty of the assignments and load</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>C. Giving instructions</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>D. Interpersonal communication</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>E. General score of 22 statements</td>
<td>High</td>
<td></td>
</tr>
</tbody>
</table>

The teaching evaluation scores of their supervisors on three out of four items (A, C and D) were high and very similar to the general score (E) of the twenty-two statements ($\bar{x}=7.1$). Only on (B) ‘Difficulty of the assignments and load’ (meaning how difficult the assignments in the course were and if the load of assignments were to heavy) the score is inversely related ($\bar{x}=4.65$). Hativa and Raviv (1993) from Israel found that a single evaluation can replace several evaluation ratings. They investigated forty-five faculty members from Tel Aviv University and found high consistency over time in student evaluations. Improvement in teaching occurred only when faculty was involved in special training for teaching improvement (Hativa and Raviv, 1994).
In the following section means, standard deviations and correlation of variables were calculated to identify significant differences within student evaluations. Variances were examined by education, gender, number of publications and tenure. Although there is a widespread belief in the possibility of 'bias' in the evaluation of students' rating scores, McKeachie (1973) states that correlation of students ratings with particular background factors, such as those examined here, are not necessarily interpreted as a result of bias. Some may be genuinely causal. According to Feldman (1988) students and faculty generally agree on what are the components of effective teaching and their relative importance. A counter view of Marsh and Dunkin (1992, p. 181) is that students cannot accurately evaluate teaching because students and faculty cannot agree on what constitutes good teaching. Ramsden (1991) suggests that differences among disciplines are large, and comparisons in student ratings should not be made across disciplines. Here too, student-teacher supervisors come from several disciplines, and can be that differences among disciplines are large.

Table 5.5 Variables Causing Significant Differences in the Overall Student Reported Evaluation

<table>
<thead>
<tr>
<th></th>
<th>E. Overall student reported evaluation of teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Men rated higher than women</td>
</tr>
<tr>
<td>Publication</td>
<td>Those who wrote a workbook, a scientific book or for the College’s newspaper rated higher than those who did not</td>
</tr>
<tr>
<td></td>
<td>Those who published in Hebrew and English more than ten publications rated higher than those who did not publish or publish less.</td>
</tr>
<tr>
<td>Conferences</td>
<td>Those who presented more than ten papers in conferences in foreign rated higher than those who presented less or none</td>
</tr>
</tbody>
</table>

The overall student-evaluation of teaching (E) of males (\(\bar{x}=7.63\)), and those who
published more in Hebrew (\(\bar{x} = 8.22\)) and English (\(\bar{x} = 8.25\)) and presented papers in conferences in foreign countries is higher than of females (\(\bar{x} = 7.08\)) and those who do not have publications in Hebrew (\(\bar{x} = 6.68\)) and in English (\(\bar{x} = 6.57\)) (Table 5.5).

Another purpose of the study was to investigate the relationship between various types of research or scholarly activity and evaluations of teaching. Richardson and Parker (1992) mention “lower status” scholarly activities, which are case studies and articles written for practitioner and trade journals. Only three respondents (10%) reported writing for ‘Mazav Hainyanim’, but they rated higher (\(\bar{x} = 7.96\)) than those who did not (\(\bar{x} = 6.67\)).

| A. Teaching and relevance to practice in the courses related to pedagogic supervision |
|---------------------------------|------------------------------------------------------------------------------------------------|
| Gender                          | Men rated higher than women                                                                   |
| Publication                     | Those who wrote a scientific book or for the College’s newspaper rated higher than those who did not |
|                                 | Those who published in Hebrew and English more than ten publications rated higher than those who did publish or publish less. |
| Conferences                     | Those who presented more than ten papers in conferences rated higher than those who presented less or none |

Table 5.6 Variables Causing Significant Differences in Student-evaluation of Teaching and Relevance to Practice

Results in Table 5.6 indicate that student-evaluation of teaching of males (\(\bar{x} = 7.82\)) and those who participated in professional conferences (\(\bar{x} = 7.48\)), published in Hebrew (\(\bar{x} = 8.2\)) and in English (\(\bar{x} = 7.9\)) and in the College’s newspaper (\(\bar{x} = 8.0\)) was higher than student-evaluation of teaching of females (\(\bar{x} = 7.07\)) or those who did not publish (\(\bar{x} = 6.65\)). According to Richardson and Parker (1992), if the main goal behind emphasizing more research is to ‘energize’ the faculty, enhance the intellectual environment, and improve student instruction, it might be more useful to encourage and
foster lower status scholarly activities rather than exclusively emphasizing books and refereed journal articles. Many institutions may seek a blend of all these outcomes and may encourage all kinds of scholarly activity. Administrators may want to recognize this and construct reward systems and formal procedures that encourage faculty to engage in activities that achieve the organization’s goals.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Men rated higher than women</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B. Difficulty of the assignments and load</strong></td>
<td></td>
</tr>
</tbody>
</table>

Students of male supervisors rated more ‘difficulty of assignments and more workload’ ($\bar{x}=5.46$) than of female supervisors ($\bar{x}=4.37$) (Table 5.7). Marsh (1987, p. 316) cites studies, which have found a positive correlation between ‘workload/difficulty’ and student ratings (more difficult courses were rated more favorably), and on that basis rejects this factor as a possible bias for ratings. Also, difficulty and workload are not entirely the same thing. Franklin et al. (1991) treated difficulty and workload as distinct variables. They found that difficulty, but not workload, had a slight positive correlation with instructor ratings. Students’ perceptions of workload and pace may differ markedly from one department to another.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Men rated higher than women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publication</td>
<td>Those who wrote for the College’s newspaper rated higher than those who did not</td>
</tr>
<tr>
<td></td>
<td>Those who published English more than ten publications rated higher than those who did publish or publish less.</td>
</tr>
<tr>
<td><strong>C. Giving instructions</strong></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.7 Variables Affecting Student-reported Difficulty of the Assignments and Load

Table 5.8 Variables Affecting Student-reported Ability for Giving Instructions
Students rated male supervisors ($\bar{x}=7.9$), those who publish in English ($\bar{x}=9.0$) and write articles for the College’s newspaper ($\bar{x}=7.9$) higher in giving instructions than female supervisors ($\bar{x}=7.18$) or those who don’t write articles for the College’s newspaper ($\bar{x}=6.65$) (Table 5.8). An increase in confidence has been identified as the major contribution of participation in the research process – confidence ‘in my own abilities as a teacher’, ‘to say and act on what I believe to be right’ (Vulliamy and Webb, 1991). The research was also claimed to have the potential to raise the school’s collective self-confidence. Studies of the culture of teaching confirm the importance of confidence in enabling teachers to maximize their professional role (Nias, 1989, p.191).

As one student-teacher supervisor said:

“Since I am studying for my Ph.D. and engaged in research, I have more confidence presenting papers in conferences.” (Woman, Ph.D. student)

<table>
<thead>
<tr>
<th>D. Interpersonal Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education Gender Involvement in research</td>
</tr>
<tr>
<td>Publication</td>
</tr>
<tr>
<td>Conferences</td>
</tr>
</tbody>
</table>

| Those that participated in professional conferences more than ten times and in conferences in foreign countries rated higher than those who did not participate |

Table 5.9 Variables Causing Significant Differences on Student-reported Ability of Interpersonal Communication Skills
Males (\(x=8.06\)), women with a Ph.D. degree (\(x=8.21\)), respondents that were engaged in research, published in Hebrew and English, participated in conferences were rated higher in their ability of interpersonal communication skills, compared to respondents with an M.A. degree (\(x=7.37\)), females (\(x=7.5\)) and those who were not engaged in research, did not publish and did not participate in conferences (Table 5.9).

In discussions with colleagues on how research work might be contributing to teaching, many expressed their interest in the author's research about the connection between teaching and research. A conflict in values between teaching and research often emerged. Opposing views were expressed. Some recognized the contribution of research to the professional growth of teacher educators; others linked research to employment and saw no relationship between research and teaching:

"Researchers are not good teachers. A person engaged in research, does not become automatically a good teacher." (Woman, M.A.)

"Research is very important for lecturers at college or university level. It keeps you updated on the latest literature in your area of interest." (Woman with Ph.D.)

"If you are engaged in research and publish, the management cares less if you are not such a good teacher." (Woman, M.A.)

**Conclusion**

It can be concluded, although from a limited sample (N=33), that student teacher supervisors, engaged in research activities, in publication of papers, and participation in conferences, males and women with a Ph.D. degree were rated higher on student-evaluation of teaching, higher interpersonal communication skills and ability to give instructions, and more difficulty related to assignments and workload. This confirms
Altbach and Lewis' (1995) view that research has a positive influence on teaching, and the pressure to publish does not reduce the quality of teaching. It can be assumed, that involvement in research has a positive effect on student-teacher supervisors’ teaching, and the factors stated having an effect are likely to be not a result of bias, but genuinely causal (McKeachie, 1973). At the same time, according to findings, thirty-three per cent of the student-teacher supervisors do not have any publications, eighteen per cent have more than ten publications in Hebrew, and only six per cent have more than ten publications in English. It seems that although student-teacher supervisors reported being engaged in research, this activity is very limited. Kfir et al. (1997) reported too, that although sixty-eight per cent of teacher educators in Israel report involvement in research, this research activity is related mainly to respondents’ studies towards M.A. or Ph.D. degrees, or to their additional employer.

Brew and Boud (1995) warn us, that correlational studies on the relationship between teaching and research have tended to reduce teaching and research to objective measures of outputs such as publication counts, citation counts, student ratings, which are measures of products. Nevertheless, not only the product is important, also the processes through which it has been carried out are of interest. Where learning and research are both conceptualized as processes of constructing knowledge, the processes of research, scholarship, critical inquiry and learning can be conceptualized as similar (Brew, 1999).

To conclude, in order to energize the faculty, enhance the intellectual environment, and improve student instruction, it might be also useful to encourage and foster “lower status”, in addition to “higher status” scholarly activities, rather than exclusively emphasizing books and refereed journal articles, and to use self-evaluation of teaching, besides student evaluation. Many institutions may seek a blend of all these outcomes.
and may encourage all kinds of scholarly activities and evaluations of performance. Administrators may want to recognize this and construct reward systems and formal procedures that motivate faculty to engage in activities that achieve all the organization’s goals (Richardson and Parker, 1992).

**Student Evaluation of Teaching and Academic Freedom**

It is important to add that many consider faculty assessment through student evaluation of faculty procedures as an infringement on academic freedom (Haskell, 1998). It is often used as an instrument of intimidation forcing conformity to politically correct standards (Young, 1993), to create pressure for a self-policed lowered teaching standard (Bonetti, 1994), and is responsible for a considerable amount of grade inflation (Greenwald, 1996). When used for promotions, salary raises or continued employment, student evaluation of faculty becomes a potent means of manipulating the behavior of faculty (Stone, 1995). Finally, it would seem that student evaluation of faculty creates an educational conflict of interest between faculty and students impacting on the quality of instruction. Given that student evaluations of faculty teaching are so problematic, it is preferable to use evaluations of research activity for tenure and promotion decisions.
The Influence of Research on Career Development

Working Life Career Stages

The impact of research on the culture of the college might be expected to affect individuals at all stages of their career, and it is likely that this will be in different ways. According to Hall’s (1976) Working Life Career Stages Model (Figure 2.11), individuals typically move through four distinct career stages during their working lives: establishment, advancement, maintenance, and withdrawal. Findings relating to researchers’ teaching experience and number of publications were used to determine at which stage respondents are located. Sixty percent of the respondents (N=59) have more than twenty years of experience, are likely to be at the maintenance or withdrawal stage of their career. The others, about forty per cent of the respondents (N=36) have between 0-20 years of experience. They are therefore likely to be either in the establishment or advancement stage of their career, and hope that involvement in research will lead them to greater job challenges, experience, and visibility to upper management leading to promotion (Hellriegel et al., 1992, p. 694). Twenty per cent (N=18) have more than ten publications and more than twenty years of experience, and could be seen to be at the maintenance stage of their career, and forty per cent (N=41) have more than twenty years of experience and between 1-10 publications. They are at the withdrawal stage and may be expecting that involvement in research will enable them to be solid citizens instead of decliners (Hall, 1976).

Differences were found among respondents with different amount of publications, which again can be attributed to their current career stage. Researchers with more than ten publications (N=30) believe that researchers are more talented, have to work hard and earn more than non-researchers. They are at their advancement career stage, they want to be promoted, and believe that research is contributing to their efforts.
Researchers with less than ten or no publications (N=63) do not believe that teacher researchers work harder or earn more than non-researchers. Many of them (N=40) with more than twenty years of experience and with 10 or less publications are in the withdrawal stage of their career, and involvement in research is enabling them to remain in the solid citizens stage instead of becoming decliners (Hall, 1976).

Significant differences (using analysis of variance) were found between teacher educators on the tenure track and those who are not on the tenure track: all respondents who are not on tenure track (N=20) reported being involved in research. It can be stated that they are at the establishment stage of their career. Their answers, compared to teachers on the tenure track, are higher on the following items: teacher researchers work harder, invest more in work and are more talented but not that they have to earn more. They hope that the research will help them to get tenure. They do not think they have to earn more. Probably they are more interested in the tenure than higher pay.

Extent of employment was also considered: about half of the respondents (N=47) are employed half to full time, and about a third (N=28) are employed more than full time (full time is 16 weekly hours). The assumption is that involvement in research can enlarge teacher educators' jobs, and management is willing to add hours to do research.

To summarize: about 20% of the respondents are at their establishment stage, 35% at their advancement or maintenance stage and 45% at the withdrawal stage of their career.

It appears that the research productivity of teacher educators varies over different career periods (Bayer and Dutton, 1977, Pelz and Andrews, 1976, Baldwin and Blackburn, 1981) and there are certainly stages in a person's working-life career. According to Schein (1978), career development involves matching organizational and individual needs.

**Career Development**

Career development is a relatively new concept. With the workplace in a constant state
of transition, today’s workers are realizing that the only source of employment security is the security they create for themselves, by becoming self-reliant and career resilient (Brown, 1996). Continued employment is tied to lifelong learning and ongoing skill development, practices that enhance career growth and the potential for career advancement and mobility. Workers are recognizing the need to ensure their marketability to employers, and employers are facing increased pressure to make their organizations attractive to workers. Employment contracts, which are designed to satisfy the needs of both employers and employees, provide opportunities, tools, and support to help employees develop their skills and maintain their employability. The employees have the responsibility of managing their careers by taking advantage of the opportunities they are given (Reich, 1998). Career awareness is not a pre-employment activity, but rather one that must be ongoing throughout employment. Workers must continually search for new ways to learn skills that will facilitate their continued employability, e.g., “versatility, flexibility, creativity, self-direction, interpersonal and communication skills, facility with computer and information technology, ability to learn continuously, and ability to manage work, time, and money” (Kerka, 1997, p. 1).

Career planning has some negative effects. It may lead to greater employee demand for career development resources. Participants rely on the company for training, education assistance (tuition reimbursement) and staff counseling. Raised expectations may increase employees’ anxiety. Unfulfilled expectations can lead to employees’ disappointment and reduce employee commitment. Some employees may become less motivated to perform well or seek work elsewhere. How does engagement in research help in the matching process, at various stages of the working-life career?

**Matching Organizational and Individual Needs**

Organizations consist of employers, which are sources of careers and individuals, who
are career choosers or employees. Effective career development requires a long-term fit between individual and organizational needs. If the matching process is done well, both organization and employee benefit. The organization is more effective and productive, and the individual is more satisfied, happy, and successful (Hellriegel et al., 1992, p. 706). Interviews were used to find out how research can contribute to matching organizational and individual issues of career planning, at each of the working-life career stages of teacher educators, and extracts from the interviews illuminate the ways in which research can contribute to the matching of organizational and individual needs at the different stages.

Table 5.10 Matching Organizational and Individual Issues in the Establishment Stage.
Source: Schein, (1978)

<table>
<thead>
<tr>
<th>Organizational Issues</th>
<th>Matching Processes</th>
<th>Individual Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizations are employers, sources of careers</td>
<td>Establishment</td>
<td>Individuals are career choosers, employees</td>
</tr>
<tr>
<td>Planning for staffing</td>
<td>Research</td>
<td>Career choice</td>
</tr>
<tr>
<td></td>
<td>Recruitment, selections, job placement, training</td>
<td></td>
</tr>
</tbody>
</table>

The matching process in the establishment stage (Table 5.10) involves recruitment, selection, job placement and training issues, and involvement in research can be a valuable asset for all processes. The importance of research activity in respect of recruitment and granting of tenure was certainly recognized:

"I am sure that my involvement in research contributed to my employment by the college. When I applied for the job I had to send a copy of my publications".

(Woman, Ph.D., recently hired)

"After I worked for three years at the college they did not want to give me tenure, even though they were satisfied with my work. I am sure that if I had a Ph.D. they would treat me differently. (Man, 30s, M.A.)
The matching process at the advancement stage (Table 5.11) involves job rotation, performance appraisal, developmental training and here too, engagement in research can be a valuable asset for teacher educators.

Table 5.11 Matching Organizational and Individual Issues in the Advancement Stage.
Source: Schein, (1978)

<table>
<thead>
<tr>
<th>Organizational Issues</th>
<th>Matching Processes</th>
<th>Individual Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning for growth and development</td>
<td>Research ← Advancement Stage →</td>
<td>Early career issue: how to establish an area of contribution</td>
</tr>
<tr>
<td></td>
<td>Job rotation, performance appraisal, developmental training</td>
<td></td>
</tr>
</tbody>
</table>

At this stage, there was a clear understanding of the need for research and publications if promotion were to be a real possibility:

"I want to apply for promotion, I need research publications". (Woman, Ph.D.)

"I am not involved in research, I applied for promotion and was turned down.” (Man, M.A. 50s)

"I was head of a department and had to resign because I only had an M.A. degree. The last five years I completed my studies for a Ph.D. and now I want to do more research. (Woman, Ph.D., 50s).

The matching process at the maintenance stage (Table 5.12) involves continuing education, job redesign or rotation, part-time work, creative assignment, counselling, or retirement. Some of these processes, as the ones in the advancement stage of career involve horizontal or vertical movement in the organization. Responses of interviewees indicated the flexibility that is allowed at this stage, particularly where research outcomes are involved:
"I am now teaching two weekly hours less, because I am over 50 years of age. In addition, I received two hours from the college for conducting research, so I am teaching only twelve hours a week, three times a week. This way I can allocate time to work on my Ph.D. thesis." (Woman, 50s, Ph.D. student)

Table 5.12 Matching Organizational and Individual Issues in the Maintenance Stage.
Source: Schein, (1978)

<table>
<thead>
<tr>
<th>Organizational Issues</th>
<th>Matching Processes</th>
<th>Individual Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning for leveling off and disengagement</td>
<td>Research ← Maintenance Stage</td>
<td>Mid-career issues: locating career anchors</td>
</tr>
<tr>
<td></td>
<td>Continuing education, job redesign or rotation, part-time work, creative assignment, counseling</td>
<td></td>
</tr>
</tbody>
</table>

It is becoming more common for people to think in terms of ‘career portfolios’, interrelated sets of work experiences that may be combined to provide career evidence for a range of jobs (Thomson and Mabey, 1994, p.123). The responses also show the integration of personal and organizational objectives in relation to the development of research:

"I am head of the department. I want the teachers in my department to be involved in research. Next year the whole department will conduct a joint research project. I want to update my research skills." (Woman, 50s, M.A.)

"I am the head of a learning center, where we organize year-long professional development courses for teachers from schools in this area. I want to suggest next year a course in action research. I want to update my research skills. I am thinking also of studying for a Ph.D. Degree." (Woman, 50s, M.A.)

The matching process at the withdrawal stage (Table 5.13) involves mentoring, using experience and wisdom, letting go and retiring, and research can be useful at this stage.
to become a ‘star’ instead of a ‘decliner’.

“I retired part time, and I am doing a research project with the Research Unit. I have extensive experience and connections with several schools, so they make use of my experience and wisdom.” (Woman, 60s, M.A.)

Table 5.13 Matching Organizational and Individual Issues in the Withdrawal Stage.
Source: Schein, (1978)

<table>
<thead>
<tr>
<th>Organizational Issues</th>
<th>Matching Processes</th>
<th>Individual Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning for replacement and re-staffing</td>
<td>Research ←→ Withdrawal Stage</td>
<td>Late career issues</td>
</tr>
<tr>
<td></td>
<td>Mentoring, using experience and wisdom, letting go and retirement</td>
<td></td>
</tr>
</tbody>
</table>

“I am approaching retirement. I never had the time to be involved in research, but now I am ready. I am interested in conducting some action research in my classroom.” (Woman, 50s, M.A.).

To summarize, career development requires matching organizational and individual needs, and involvement in research can contribute at each stage of teacher educators’ working-life career. It appears that it will be easier for teacher educators with research experience to find a job and be hired. In mid-career, research experience can contribute to improved performance appraisal and job rotation. When planning for retirement, involvement in research can enable part time work, mentoring or counseling.

Career Movement Within the Organization

Participation in research is a direct route to increased expertise (Atkin, 1989), and it does appear that research can contribute to the horizontal and vertical movement in an organization, as pointed out in the interviews. If research activity is an important factor in promotion, it might be expected that direct links would be perceived between
research activity and increased inclusion in decision-making processes at the College. Despite the importance of research for increased expertise, respondents rated involvement in research as less effective in contributing to the following items: development of leadership skills \((\bar{x}=2.053)\) and involvement in decision making processes at the college \((\bar{x}=2.204)\) (on a scale from 1 - do not agree to 4 - agree very much). Significant or near significant differences (using analysis of variance) were found between the answers of respondents with no publications, respondents with one to ten publications and respondents with more than ten publications. Researchers with more than 10 publications are less likely to believe that their research is highly regarded by management, and that research is contributing to their chances to reach management positions. They do not perceive themselves as included in decision-making process in the College \((\bar{x}=1.86)\). However, teacher educators who are not involved in research are more likely to believe that having more publications can contribute to inclusion in decision-making processes and in reaching management positions.

Similar differences were found when comparing respondents on the basis of their academic degree. Respondents with Ph.D. degrees are less likely to believe in the contribution of their research to inclusion in decision-making processes \((\bar{x}=2.19)\), and to their chances to reach management positions \((\bar{x}=2.8)\). It can be concluded that researchers with many publications believe that involvement in research does not contribute to the inclusion career movement (Schein, 1971) of teacher educators at the College, in contrast to researchers with few publications (Figure 2.10). It also supports the argument that teacher educators are not conducting research for the need of power, but to fulfill their need for self-actualization and self-esteem, and need for affiliation. They want to become more ‘central’ to the organization and want to be ‘included’ in important activities and decisions (Hellriegel et al., 1992, p. 690).
Conclusion

Teacher educator researchers can be sorted to several groups and scattered over a continuum, according to the working-life career stages model (Hall, 1976). The young and ambitious (35%) are involved in research for extrinsic rewards: additional pay, Ph.D. or promotion. They are at their advancement or maintenance stage of their career, and use research to advance their careers, but do not believe that research is contributing to the inclusion movement in the organization. They would like to be more included in decision-making processes at the College (Katz and Coleman, 2002).

Teacher educators, towards the end of their career (45%), view research work as an activity that can contribute to their professional growth and self-actualization. They are at the withdrawal stage, use research to remain solid citizens (Hall, 1976), and to slow down their decline. About 20% of the respondents are not tenured, probably are at the establishment stage of their career, and hope that engagement in research will improve their chances to tenure.

To conclude, career development requires matching organizational and individual needs (Schein, 1978), and there are stages in teacher educators' working-life career, therefore according to findings research can contribute to the matching process in each stage. In addition, research can contribute to teacher educator researchers' horizontal and vertical movement in the organization, but less in their inclusion in decision-making processes.

As organizations are restructuring to reflect differing employment patterns and economic uncertainty, it is inevitable that any attempt to diverge from historical patterns of employment will create tensions and uncertainties (O’Neill, 1994, p. 209). Handy (1990) suggests to move away from large cores of full-time permanent contract staff, which severely constrain the ability of managers to respond to different levels of activity within the organization and in the external environment. In order to respond effectively, institutions need to be able to achieve a productive balance between the
need to attract and retain high quality staff and at the same time a flexible workforce, employed on a part-time or temporary contract basis (Handy, 1990). Knight (1983) distinguishes between primary and secondary areas of activity. Primary activities in educational organizations are those directly associated with the teaching and learning process. Secondary activities are those concerned with the administrative and managerial support mechanisms, which contribute only indirectly to the quality of the learning. Colleges need to make decisions whether research, is a primary or secondary activity, and whether researchers merit lengthy, semi-permanent contracts. With the greater uncertainty and the need for more adaptability, career development is more likely to be horizontal and requires self-direction and self-investment (Blaxter et al., 1998).

Teacher Educators’ Empowerment through Research

How can participation in research activities contribute to teacher educators’ empowerment? Newstrom and Davis (1997, p. 227) suggest five approaches, that if applied, can bring to teacher educators’ empowerment through research:

- helping employees achieve job mastery through training, coaching and guided experience that will result in initial successes
- allowing more control, giving them discretion over job performance and then holding them accountable for outcomes
- providing successful role models, observe peers who already perform successfully the job
- using social reinforcement and persuasion, giving praise, encouragement and verbal feedback designed to raise self-confidence
- giving emotional support, by providing reduction of stress and anxiety through better role definition, task assistance and honest caring

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As discussed earlier, management at the College is providing training and coaching to achieve job mastery, it provides role models that already perform successfully on the job, and uses reinforcement and persuasion to increase participation in research.

But responses to the first questionnaire indicate that not all teacher educators are engaged in research and those who are, do not perceive themselves as being included in decision-making processes. In this thesis, sources of power deriving from research and the perceived and actual participation of teacher educator researchers in decision-making processes at the College was investigated (Figure 5.6).

What sources of power are deriving from research? Researchers possess first of all personal or expert power, through knowledge brought to the job or accessed through training. They are also more empowered than other employees. They are more rewarded (reward power) and are promoted to higher positions (legitimate power). In addition, researchers can attain structural and situational sources of power, which include: easier access to information, easier access to resources, more visibility to higher management, and affiliation to networks of power inside and outside of the organization (Hellriegel et al., 1992, p. 535).

Figure 5.6 The Process of Empowerment in Organizations
Based on Hellriegel et al. (1992, p. 535)
et. al., 1992, p. 541). They have more access to information and support links. Inclusion in decision-making processes creates additional structural or situational power among groups and individuals (Gibson et al., 1994). But are teacher educator researchers included in decision-making processes?

**Perceived Involvement in Decision-making Processes at the College**

The rationale for extensive faculty inclusion in institutional decision-making rests on reasons that it will bring to employee job satisfaction, improve teaching and learning and can create new forms of leadership. Liontos (1994) emphasizes that having a practical understanding of classroom complexities, teacher researchers will focus on programs that improve achievement. Teachers are pleased when their views influence school decisions, leading them to feel both respected and empowered. Collaborative efforts are often taken seriously, and decisions are more likely to be supported (Weiss, 1993). Inclusion in decision-making can create ownership, commitment and a sense of empowerment; it can promote equity and can make school a more democratic workplace (Blase et al., 1995). It can create new forms of leadership, principals using strategies based on facilitation and trust rather than hierarchical authority (Liontos, 1994). But even with principals committed to teacher inclusion in decision-making, they still have other issues that make it difficult to be consistently facilitative. Inclusion in decision-making is a long-term process, requiring considerable training, development of effective decision making skills and structures (Peterson et al., 1995). Faculty historically, have the broadest role and greatest influence on matters of curriculum and faculty personnel (especially tenure and promotion). Floyd (1986) suggests however, that these patterns may be difficult to maintain unless faculty are willing to address issues of general education, staffing flexibility, and some aspects of faculty conduct from a broader perspective. The resolution of these issues is central to faculty credibility.
and institutional viability.

Findings of this thesis indicate that there is agreement among teacher educators that research work does not contribute to the development of leadership skills ($\bar{x}=2.053$) and research does not seem to contribute to increased inclusion in the decision-making processes at the College ($\bar{x}=2.204$), although teacher educators are partially ranked through their research activity.

Some views expressed:

"As a head you have to solve concrete problems, and supposed to come up with solutions to problems, not research them. Researchers are only interested in what research methods to use and the sample size." (Male, 50s, M.A.).

Some of the negative opinions about research indicate how far the College has to go in establishing a research culture:

"I like to be involved in more practical issues, for me research is too academic." (Man, in his 50s, with M.A.)

"Research cannot solve problems. Nobody reads the findings anyway." (Woman, in her 50s, with M.A.)

Some views were related to existence needs, working conditions and salary:

"It is difficult to be engaged in research when you work full time or more. You are not compensated for the time you have to devote to research." (Man, 30s, M.A.).

In comparison, research by Denham and Michael (1981) indicates too, that teachers frequently believe that they are not competent to have an integral part in shared governance, and that they have not been trained to make managerial decisions. Hoy and
Woolfolk (1993) report about a general sense of powerlessness and helplessness in many of today's educators. Teachers report feeling deprived of the opportunity to participate in decision-making activities (Bacharach et al., 1990). But without the belief that they can affect a difference, either from a personal standpoint, or from an organizational stance, meaningful change cannot occur. Role ambiguity and lack of goal congruence (Enderlin-Lampe, 1997) reconfirm the perceived inadequacy and sense of lack of control and efficacy.

Additional findings to the questionnaire in this thesis indicate significant differences (using analysis of variance) between the answers of respondents with no publications, respondents with one to ten publications and respondents with more than ten publications on the following items: Researchers with more than 10 publications believe less that their research is highly regarded by management ($\bar{x}=2.4$), and that research is contributing to their chances to reach management positions ($\bar{x}=2.1$). They do not think that they are included in decision-making processes at the College ($\bar{x}=1.9$). Another possibility is that teacher educators who are not engaged in research are more likely to believe that having more publications can contribute to inclusion in decision-making processes and in reaching management positions.

A number of interviewees, especially those who are involved in research, were frustrated by the lack of interest in their research results. When conferences were held, few colleagues attended:

"Researchers are more interested presenting papers in conferences than listening to what others have to say. After their own presentation they leave the room. There is no meaningful dialogue among researchers." (Woman, M.A. 40s).

As an alternative to research, several of the faculty at the College are engaged in other activities, like writing books, making films, developing Internet sites:
"I just finished making a film on the status of women officers in the Israeli army. It will be broadcasted on Independence Day (2001) on national TV". (Woman, 50s, Ph.D.)

Similar differences were found in the answers of respondents with M.A. and Ph.D. degrees: Respondents with Ph.D. degrees believe less in the contribution of their research to inclusion in decision-making processes ($\bar{x}=1.98$), and to their chances to reach management positions ($\bar{x}=2.33$). As a group researchers are not much more satisfied than other employees, although they receive more rewards than the typical employee (Davis, 1977, p. 340). As one woman stated:

"Ten faculty members from the college are presenting papers at the Earli conference in Switzerland (August, 2001), and the college pays their travel expenses" (Woman, 50s, studying for Ph.D.)

Teacher educators on the tenure track believe less in the contribution of research to inclusion in decision-making processes ($\bar{x}=2.147$) and for reaching management positions than teacher educators not on the tenure track ($\bar{x}=2.6$). Women believe ($\bar{x}=3.03$), more than men ($\bar{x}=2.5$), that researchers have better chances to research management positions.

Findings on the question "How you use your research findings?" indicate that only one-third (N=29) of the respondents use research findings for decision-making, change and improvement, and as bibliographical material in their own courses. It seems that researchers are motivated by the opportunity to contribute the advancement of knowledge. They respond to internal recognition, but also to the opportunity to make a professional speech or do research that will result in a professional paper (Davis, 1977, p. 338). According to Ranson, (1998, p. 50) the field appears to be 'split between those
wanting research to be relevant directly to practice and those wanting to make a theoretical and empirical contribution to knowledge'. While some colleagues define their vocation in terms of understanding and supporting the professional practice of teachers, others are committed to furthering knowledge of education within the social sciences:

"I am interested developing a theoretical framework and also concepts appropriate for my field of interest (informal education)". (Woman, Ph.D. presented a paper in a conference).

"I am retiring next year. I never was interested to be involved in research, but now a researcher from the Research Unit suggested to cooperate and conduct research in a team. We are going to make use of my experience and connections in the field." (Woman, 60s, M.A.).

It can be concluded that teacher educators who are not engaged to a great extent in research, such as those with less than 10 publications, with M.A. degrees, untenured and women, perceive researchers as being included in participatory decision-making. In contrast, those who are engaged to a large extent in research do not perceive researchers as being included in participatory decision-making. It seems that both groups have false perceptions about inclusion in decision-making, which are not synonymous with the actual situation (Denton and Zeitinoglu, 1993). What is the actual participation of researchers in decision-making processes at the College?

**Actual Participation in Decision-Making**

In order to find out the actual participation of research active staff in decision-making processes at the College, the list of role holders in the academic board (N=66), teaching committee (N=18), heads of departments (N=22) and heads of teaching centers (N=15) was obtained. Several hold more than one role. Then each participant’s publications
were verified through the main library’s catalog, and also their participation in the Third International Conference on Teacher Education, in June 1999, held at Beit Berl College in Israel.

From the sixty-six academic board members, forty-eight (72%) have a Ph.D. degree, thirty-five (53%) are men, compared to the respondents to the questionnaire of whom 45% have a Ph.D. degree and 30% are men. Among role holders there are more men and more with a Ph.D. degree than among the respondents to the questionnaire. Twenty-six of the role holders (40%) presented papers at the conference at Beit Berl, and an additional eighteen (27%) wrote at least a workbook or a handout and their name appeared in the main’s library catalog. Some have seven, eight, or even nine publications. It was not possible to find information about ten (15%) Arab teacher educators but it is possible that they published in Arabic. Thus, at least two-thirds of the academic board members are engaged in research or publication of books. Almost all heads of departments are engaged in research, and also members of the teaching committee. Members of the Research Unit asked to be excluded from participation in committees because they want to remain objective. As one senior researcher stated:

“It is not ethical to be involved in decision-making processes and then research them.” (Woman, Ph.D.)

It appears that many role holders at the College are engaged in research. Then how can this discrepancy between researchers’ beliefs that they are not competent to have an integral part in shared governance, and the supposed empowerment deriving from research be explained? Hughes (1988, p. 11) postulates a dual role model for educational leadership. Educational leaders have managerial responsibilities but also maintain a role as professionals in education. Despite the division of the two tasks, a substantial inter-penetration of the two sub-roles exists. Researchers, who have acquired professional knowledge, skills and attitudes, may believe that their technical expertise
should increase their position in the formal hierarchy. But they also tend to be less willing to accept traditional authority (Coleman, 1994, p. 63). Some interviewees expressed views:

"Some of the research projects I am involved in are ordered by the head of the College, especially evaluations of special programs. Usually I am invited to key meetings, when the head of the College wants his decisions to be backed up with research findings. But I also want to be involved in research projects that interest me. The findings of these projects are less appreciated by management."

(Woman, senior researcher, Ph.D.)

Second, decision making models by Vroom and Yetton (1973), Tannenbaum and Schmidt (1957), Hersey and Blanchard (1972) and Fiedler (1967) all imply a contingent style of management, such that some situations call for subordinate participation while some do not. According to these models, managers should consider such factors as employee maturity, skill level, willingness to be engaged, leader personality and the type of problem when using participatory decision-making (PDM) techniques (Jones, 1997). Some employees desire more participation than others, especially educated and higher-level workers, such as teacher educator researchers, because they feel more prepared to make useful contributions (Newstrom and Davis, 1997, p. 237). But not every employee is trained to make managerial decisions (Denham and Michael, 1981), and probably the management is not involving every employee in every problem.

"Usually the same persons are appointed for management positions, and generally for very long periods of time. There is no rotation. You even have to fight to be appointed for the library committee."

(Man, M.A.)

In addition, according to Husen (1997), and also according to the findings of this recent study, opposing purposes exist between researchers and policy-makers, caused by
constraints under which policy is shaped and implemented. Researchers in education, who perform their tasks at teacher training institutions or at universities, use paradigms to which they have become socialized during their graduate studies, are anxious to preserve their academic autonomy (Althbach and Lewis, 1995), critical and independent attitude. They place high premium on reports that can enhance their academic reputation, want to contribute to fundamental knowledge, and seek recognition among peers (Davis 1977, p. 338). Research can take many years to complete, there are difficulties to prove its usefulness and results can be interpreted as counterevidence, not conclusive.

Policy-makers, on the other hand, are interested in applied or decision-oriented findings, demand “relevant facts” of a simple, straightforward nature to solve problems, or regard research as an instrument for achieving a certain policy and want to use research in order to support or legitimize a prefabricated position (Husen, 1997). It seems as the two sub-roles, of managerial responsibilities and professional researchers in education did not inter-penetrate, as suggested by Hughes (1988, p. 11). It may be assumed, that educational leaders do not use research findings for decision-making situations (Husen and Kogan, 1984). As one interviewee noted:

"Research findings can be manipulated according to the researcher’s views; they are not representing the real situation. Real life is much more complex than research.” (Man, in his 50s, with M.A.).

Gibson et al. (1994, p. 369) suggest that power sharing requires time to develop within an organization’s culture. Time is needed to develop better lines of communication, more trust, and openness between the power sharers managers and teacher educator researchers. It is possible that since the introduction of research is very recent phenomenon, it will take time for teacher educators to feel more included in decision-
Levacic and Glatter (2001) suggest a shift in terminology from 'evidence-based' to 'evidence-informed policy and practice'. It may be simplistic to assume that the main contribution of research to policy is problem solving, by straightforwardly providing 'data for decisions' or clear evidence on 'what works'. Its more significant functions may be to illuminate and formulate problems and define alternatives (ibid.). A model for evidence-informed policy and practice is presented in Figure 5.7.

Next, a model that best describes the research utilization at Colleges of Education in Israel will be presented and how is research work influencing others.

**Influence of the Research Work over Others**

The conclusion from analyses of the relationships between research and policymaking at Colleges of Education in Israel, using Weiss' (1979) model of research utilization is that research contributes to widening the horizon for the debate of certain issues and has an influence in the long run but not in the short term. The impact of research is
exercised by the total body of information and the conceptualization of issues, that research produces. Research percolates into the policy-making process and can contribute to the enlightenment of those who prepare decisions but is not used directly in a pending decision-making situation (Husen and Kogan, 1984). As two lecturers noted:

"We do research on induction and mentoring of student-teachers. We presented our findings at a conference and the management was present and showed great interest. But we are not experts on other subjects." (Two women researchers)

For meaningful change to occur, an ongoing conversation between researchers and management, and involvement of researchers in decision-making processes at the College are needed to reconfirm teacher-researchers' sense of control and efficacy (Enderlin-Lampe, 1997). Role confidence and goal congruence may lead to a more effective organization and staff morale (Jones, 1997). Gibson et al. (1994) refer to power that can also be exercised up the organization. Management can take advantage of researchers' expertise, access to information and professional networks to advance organizational goals.

**Collegial Management Style**

Teacher educators and especially researchers can be defined as ‘professional teachers’ (Coleman, 1994, p. 64) or ‘scientific and professional workers’ (S&P) (Davis, 1977, p. 335). Their authority comes from their expertise and they are rather independent within the organization (Davis, 1977, p. 343). Managers and professional employees, whose physiological and security needs are well met, seek higher-order needs (Davis, 1977, p. 47). At colleges of education teacher educators are the main human resource. If an organization employs many scientific and professional workers, and if they are a major group in an organization, then it needs to make some adaptations in its way of life in order to integrate them effectively (Davis, 1977, p. 342).
The collegial model of organizational behavior (Davis, 1977, p. 343) is most suitable
for conditions of unprogrammed work, intellectual environment, relative job autonomy,
and other variables found in scientific and professionals' work. Feeling responsible,
employees discipline themselves and feel fulfillment, worthwhile contribution, and self-
actualization, which lead to enthusiasm in performance.

The collegial model depends on management's building a feeling of partnership, of
mutual contribution, among participants in the organization. Each employee feels a
sense of contribution to the organization and feels needed. Managers are seen as joint
contributors, rather than bosses. Management's task is to provide support services such
as libraries, consultants, sponsoring membership in professional organizations, support
employees in their professional growth, in the belief that in the long run the
organization and the community will benefit.

Scientific and professional employees' interests and collegial practices are producing a
sort of organizational pluralism. It means that within the organization there are many
groups that operate independently according to their internal standards, all working
toward common organization objectives. Professional groups with their self-
government, cosmopolitan orientation, and authority through expertise do develop into
independent units within the organization. Management's job is to integrate these
diverse units, because it cannot wholly command them in the traditional hierarchical
sense.

Organizational pluralism leads to a wider distribution of power within an organization.
Much status is acquired through one's profession regardless of one's rank in the
organizational hierarchy. But it makes the coordination among groups more difficult.
Decisions depend on consensus, rather than on unilateral decision-making.
Organizational pluralism fractionates an organization somewhat, making coordination
and integration more important functions in order to achieve the wholeness that all
organizations need. It is not something that management should actively seek, but it is something for management to deal with scientific and professional employees (ibid., p. 344). Adaptations made to better integrate scientific and professional employees are matrix organization, venture teams, unstructured groups, recognition, better protection from organizational uncertainty and a more professional environment (ibid., p. 249).

To summarize, Beit Berl’s management is providing support services for those who are interested in conducting research. It encourages research, provides funds for workshops, participation in Conferences, and also hosted the International Teacher Conference, in 1999.

Second, Beit Berl’s management is enabling organizational pluralism. There are many parallel research and other projects done at the college, people have multiple roles, even there are some venture teams who try out new approaches and techniques in education and research. Staff members are involved in action research, qualitative and quantitative research methods, in education and in different subject matters. Researchers come from nineteen different departments, sometimes only one respondent in a department. Researchers receive maybe not full, but considerable levels of autonomy. Their motivational needs are fulfilled; they are self-disciplined and enthusiastic about their accomplishments.

The question is if they are not self-isolated and do they have any obligation to tie them to the larger objectives of the organization? Does the management help keep the researchers focused on the organizational objectives? Are the research projects coordinated and do they have any impact on the decision-making processes at the College?

The research findings and also Davis’ (1977, p. 340) theoretic framework suggest that teacher educator researchers’ need for power is not very strong, and many researchers
do not necessarily want to move into management. They are not concerned by the fact that they are not engaged in decision-making processes at the college, and they prefer to advance their competence in their specialty. The management is also likely to be satisfied that the organization has an active research staff whose motivational needs are fulfilled. As Ball (1987, p. 121) states, it may be that autonomy is a ‘privilege granted by the head on certain terms and conditions’, and the maintenance of boundaries provides a basis for ‘divide and rule ‘.

Care should be taken to assure that teacher educator researchers do not develop into an independent unit whose members mutually judge their own work without effective control and appraisal from the whole organization. Full autonomy and self-isolation may lead to an attitude that that the researcher’s work exists for its own sake without any obligation to tie it to the larger organization (Davis, 1977, p. 337). In conclusion, more effort and coordination from the management may be needed to help keep researchers focused on organizational objectives.

The Growing Importance of Research at Academic Colleges of Education in Israel

According to findings of this thesis, there is agreement among teacher educators at this College of Education in Israel that research work can contribute to their professional growth and the improvement of their professional status. Researchers are thought to be open to innovations, have more professional contacts and to be more self-confident. But, there is also agreement that research work is not seen to be contributing to development of leadership skills and although encouraged to undertake research as a criterion for promotion, researchers are not included in decision-making processes at the college (Katz and Coleman, 2001a).

However, there are also differences between the responses. Researchers at the College are not a homogeneous group. One group (about 30 of the respondents) are more likely
to rate research as an activity that reveals talent, requires hard work and deserves high pay. They are those who are most likely to have published extensively and who would benefit from an adoption of these views. They are also most likely to be cynical about the chances of research and publication being recognized by the management of the college. The others (about 60 respondents) view research work as mainly contributing to their professional growth and self-actualization. At this stage of academization, they tend to be more optimistic about the impact of research on their career prospects than the more experienced group.

Teacher educators' needs are fulfilled through organizational activities including research, job satisfaction and natural motivation are encouraged. It certainly appears that the teacher educator participating in research is likely to perform better, have more job satisfaction, and be more self-actualized and thus be able to participate in all potential roles more effectively. The institution benefits from a more effectively functioning person as well as more effective job performance. In this way the organization is also likely to benefit in reaching its goals (Davis, 1977, p. 236).

The introduction of the four academic positions since 1997, and a fifth professor position, since 2001 (Ben Shabbat and Abbas, 2001), and the notion that the criteria for moving from one position to the next are based on evaluation of activities including research has not yet penetrated the entire faculty. Faculty members that apply for promotion are usually turned down if they cannot demonstrate some kind of research activity. The interest in research is therefore likely to increase in the following years as teacher educators look for promotion in addition to internal satisfaction derived from the research activity. As teachers' research increases in this College and other colleges as well, it will require more collaboration in forming of research communities, organizing their research as social and collaborative processes and disseminating their
findings through oral and written presentations (Lytle et al., 1993). In terms of the management of research activity within an individual college, the support of a Research Unit providing tailored help would appear to be valued by the respondents. However, management may need to consider the rather ambiguous view held by the most experienced respondents, of the relationship between their research and publication activity and having an integral part in shared governance. Thought needs to be given to the reasons for the encouragement of research amongst teacher educators and to the most appropriate ways of taking advantage of their expertise (Katz and Coleman, 2001a).
CHAPTER 6 : FINAL CONCLUSIONS

Significance of the Thesis

There is a global trend toward academization (Lafferty and Fleming, 2000) and the redesignation of various colleges and institutes of technology as universities. The emergence of academic community colleges and colleges of education in Israel, and in other countries as well, raises the debate of being teacher-oriented or research-oriented, and who should be engaged in research and to what extent: only universities or colleges too. Universities have historically devoted considerable effort to the generation of knowledge, almost 90 percent of the respondents at research-oriented universities replied that they are actively engaged in research which they expect to lead to publication (Pellino et al, 1984), but only twenty-two per cent of the respondents at community colleges gave an affirmative response. Findings of this thesis validate that no more than twenty-five per cent of the college’s faculty is engaged in research.

The significance of this present thesis is that although it explored the development of the research culture, as a response to the academization process, in one college of education in Israel, this being a global trend, many institutions all over the world struggle with similar problems. The conclusions drawn here may be applicable as a blueprint for other colleges, who want to extend their research culture. In addition, the thesis investigated what benefits can be derived from the growing involvement in research, and how it can impact on the institution and the individuals within it, from an educational management perspective. The thesis uses key concepts from human resource management to provide an understanding of what goes on at academic institutions and especially in teacher education. This final chapter presents the main findings of the thesis, limitations and some recommendations.
Limitations of the Study

Limitations of the Research Methods

The present thesis examined the change in the research culture as a response to the academization process in one college of education in Israel. Focusing on one college as a case study can produce more in depth information to analyze the complexities of the research culture. An alternative approach to the research questions might have been to conduct a survey of the twenty-one colleges of education in Israel who have undergone academization, or a sample of them. It can be assumed that the research activity at this college is one of the most advanced, compared to the other colleges of education in Israel, since it was one of the first four colleges chosen for the introduction of the academization process (Ziv, 1995), and this inquiry can illuminate processes that have only recently started at other colleges. However, future research across a larger sample, or the whole population of colleges will be necessary to endorse the experience of this "pioneer" in the field of academization.

A second consideration is whether the overall research design should reflect the quantitative (positivist or normative) or the qualitative (relativist or interpretive) paradigm. The normative approach is based on the causes of behavior, which are rooted in the past, whereas the interpretive approach has a focus on action and shared experience. Blending and integrating quantitative and qualitative research can help researchers and managers to better understand, cope with and modify organizational behavior (Gibson et al, 1994, p. 739). In this thesis, a range of research methods were used, side by side to enable confirmation of each other, via triangulation, and to provide richer detail and fresh insight, and to develop a theoretical framework for introducing the research culture. The questionnaire findings, with limited response rate, were further deepened and tested with qualitative work.
In addition, the researcher was a participant observer of her own, and her colleagues’ experiences, a practice that may be criticized because it does not match the survey approach in terms of generalization. However, a person’s interpretations and sense making of their own experiences in a given context constitute today an appropriate and legitimate focus for social inquiry, especially if the case study data are in harmony with the reader’s own experience, and thus provide a ‘natural’ basis for generalization (Adelman et al, 1984, p. 101). Understanding meaning is not a matter of manipulation and control, but rather a question of openness and dialogue (Smith, 1989, p. 137).

Burgess’s (1982, p. 45) view is that the main instrument of data collection in participant observation is the researcher, who has to maintain a balance between ‘insider’ and ‘outsider’ status; to identify with the people under study and get close to them, but maintaining a professional distance which permits adequate observation and data collection.

**Limitations in Approaches to Measuring**

Limitation derives also from the measuring used in this thesis of student ratings of teacher instruction and faculty publication productivity.

Student ratings of instruction are widely used as a basis for personnel decisions and faculty development recommendations in post-secondary education today. Student ratings form an essential part of the data for the evaluation of courses, workshops, degree programs, etc., but they cannot carry the entire burden. It is essential to look at the data relating to other dimensions of merit and estimate their relative importance. Scriven (1995) states that student ratings must be considered very carefully in the context in which they are given. Haskell (1998) suggests that faculty assessment through student evaluation of faculty procedures can be considered an infringement on academic freedom. It is often used as an instrument of intimidation forcing conformity
to politically correct standards (Young, 1993), to create pressure for a self-policed lowered teaching standard (Bonetti, 1994), and are responsible for a considerable amount of grade inflation (Greenwald, 1996). When used for promotions, salary raises or continued employment, student evaluation of faculty becomes a potent means of manipulating the behavior of faculty (Stone, 1995). Finally, it would seem that student evaluation of faculty creates an educational conflict of interest between faculty and students impacting on the quality of instruction.

Another source of limitation derives from the measurement of faculty publishing productivity, and relates to the research question: how does the research activity of teacher educators contribute to their evaluation?

Faculty publishing productivity is often used as an index of departmental and institutional prestige and is strongly associated with an individual faculty member's reputation, visibility, and advancement in the academic reward structure, particularly at research institutions (Creamer, 1998). It is an additional way to faculty socialization. In this thesis respondents were asked to report on the number of their publications in Hebrew and English, if they presented papers at conferences in Israel and in other countries, if they wrote a book or a workbook, or an article for the College's newspaper. However, the research activity reported was often related to respondents' studies towards M.A. or Ph.D. degrees, and not to his present participation in research (Kfir et al., 1997). There are others who are involved in making films or developing courses for distance learning, and they were not asked to report about that. The problem is that commonly accepted definitions of research and scholarship have been developed by university-based scholars for whom publishable research is by far the most significant, and is valued not for its ability to contribute to teaching, but for its ability to contribute to the advancement of a research area, to the solution of an empirical or theoretical
puzzle, or to the development of a discipline. Consequently, university scholarship is often evaluated on the degree to which it is cited in subsequently published research (Oromaner, 1981). However, citation analysis is not the only measure of the value of scholarship conducted at colleges of education in Israel. Although teacher training college professors may contribute to their disciplines, and such contributions should be evaluated on the same criteria, as are the contributions of others, these evaluations are not of primary concern to the teacher training colleges. What is of concern here is the contribution of research to the work of teaching. Concepts of research and scholarship must be clearly differentiated and definitions of scholarship that are appropriate to teacher training colleges can be broadened. Criteria for tenure and promotion evaluations should include, as one element, the demonstration of scholarly activity and its relationship to teaching. The institutionalization of scholarship should provide an opportunity for teacher training colleges to revitalize the teaching role.

It is recommended to recognize a broad range of scholarly activities as making a contribution to the production and communication of knowledge and diversify the criteria used to judge performance, this way diversifying the faculty in Teacher Training Colleges. Traditional measures of impact or utility of publications, such as citations, must be expanded to recognize that academics are just one of many communities that are impacted by the production of new knowledge.

An example, suggested by Tomlinson, (2000) is based on a model developed at Douglas County, Colorado, for schools, and can be accessed through a PowerPoint presentation at http://www.aft.org/research/models/dougco/show. According to this model, teachers are currently being paid: (1) base pay; (2) knowledge-based pay for taking courses in specific subjects; (3) performance pay, based primarily on experience, although a satisfactory evaluation is required to receive the increment; (4) outstanding teacher
award; (5) skills blocks in information and communications technology (6) group incentive pay; and (7) site-based responsibility pay. Similar models, that take into account a range of performance criteria can be developed for Teacher Training Colleges.

**Teacher Educator Researchers’ Characteristics**

One research question asked was what are the characteristics of teacher educators who are also researchers? Generally, it appears that researchers are intrinsically motivated, are self disciplined, depending on their own standards as well on the standards of the organization. Because of their strong achievement drives, they require recognition, status, and opportunities for growth. Their task orientation means that they desire involvement, responsibility, and self-actualization (Davis, 1977, p. 336). But after further investigation differences were found among them, and the main findings will be presented here.

**Senior, Tenured, Untenured and Part Time Faculty**

Findings indicate that many researchers at the college can be categorized as tenured and senior faculty, with prior experience in lower schools. Through involvement in research, they can perceive their careers in new ways, expand and diversify their roles in their institutions (job enlargement and enrichment). Institutions can enhance faculty members' productivity by establishing clear, coordinated goals and emphasizing core faculty functions (research and teaching).

Some view tenure as one of the potential weaknesses that tradition-bound institutions like colleges and universities must overcome. The increased use of part-time faculty and devices for limiting the number of tenured faculty indicate attempts to create more flexibility in academic staffing (Mortimer et al., 1986). Instead of eliminating tenure, as some institutions are doing, creating and implementing development strategies that
enable faculty to improve and feel appreciated is a more viable choice. Tenured, senior and also part-timers and untenured faculty members, should participate in faculty development programs, and the institution can require a development component as part of a tenure or post-tenure review system.

For some faculty members, however, reasonable efforts at bringing renewal will not be successful. Establishment of a formal post-tenure review process can accomplish the proper weeding or termination of nondeveloping faculty. Another alternative is an early retirement or phased-retirement policy. This strategy, in combination with effective administrative leadership that points out other consequences for remaining full time and nonproductive, can help motivate some faculty to make the proper choice.

To conclude, faculty development strategies will continue to grow and change as higher education systems are transformed by new technology, new types of students, and new approaches to college teaching, scholarship, and service. Institutions with effective faculty development strategies will be better able to compete and thrive than those that do not assist their faculty to continually develop and meet new challenges. In addition to the issue of seniority, a further characteristic of teacher educator researchers is the high proportion of women among them.

**Feminization of the Research Faculty**

Subtle, indirect obstacles as a result of labeling or stereotyping place stumbling blocks in the career paths of many women. Examples in higher education, such as tenure-track standards, pedagogical practices, marginalizing of certain studies and scholarship, apparently preserve "appropriate" and different spheres for men and women in academe (Chliwniak, 1997).

Findings of this thesis indicate that the active, influential researchers at the College are all women and women are not excluded, marginal or unequal members of the academy. The Research Unit was established by women researchers, and the head of the research
committee is also a woman. Among teacher educators, the number of female researchers is larger than the number of male researchers. Men in disciplines publish more, women publish more in Education. There is an equal number of researchers from both genders, with a Ph.D. degree and a large number of publications. Half of the women researchers have an M.A. degree, moderate amount of publications, are active at conferences, and are not young or untenured.

It can be assumed that the entrance of women researchers and the introduction of feminist methodology and women studies can have a positive influence on democratic and supportive teaching methods. According to the competition theory (Blalock, 1957, 1967, Bonacich, 1972) once a minority group expands to some threshold level, or as in our case, the female composition of an institution increases, it can impact the research activity, the kinds of research conducted and teaching methods used.

**Student-Teacher Supervisors’ Involvement in Research**

A significant section of this thesis was devoted to student teacher supervisors, and if they should be engaged in research activity. From a questionnaire administered to thirty-three student-teacher supervisors and a student evaluation form administered to their students at one College of Education in Israel, it was found that more than half of the supervisors reported involvement in some kind of research activity. About sixty-five per cent report having publications in Hebrew and forty-five per cent in English, about a quarter wrote an article for the College’s newspaper ‘Mazav Hainyanim’, about half reported that they had published a textbook, and almost seventy per cent published a workbook. Almost all supervisors reported participation in conferences. However, some reports relate to previous participation in research (Kfir et al., 1997). It can be concluded that student-teacher supervisors in Israel are partially engaged in research activities, and it has a positive effect on their teaching.
Barriers to Scholarly Activity at Colleges

Despite all efforts, why is participation in research limited to only twenty-five percent of faculty? What are the barriers to scholarly activity?

Teacher Educators’ Feeling that they are Inferior

According to Freiberg and Waxman (1990) research production among teacher educators is low relative to other education faculty and faculty in other departments. Also, teacher education faculty is often not well connected to the work of other education faculty or to a faculty in related disciplines who do produce original theory and research of potential utility. There are several explanations for this. First, many teacher educators are not researchers (Lanier and Lyttle, 1986). Many are former teachers or other school personnel who have not been trained to conduct research and are not socialized according to higher education’s norms of scholarship. Furthermore, teacher educators’ workload and responsibilities are rarely conducive to research production. Many are required to spend substantial amounts of time and energy engaged in teaching and advising their pre-service students, supervising them in the field, and developing working relationships with schools and veteran teachers.

In addition, teacher education programs, like most other professional preparation programs, assume a low-status position in many higher education institutions, particularly research universities (Lanier and Lyttle, 1986, Shon, 1983). The status distinction may carry lower expectations for research production, which in turn, may reinforce the lack of connection between teacher educators and those university faculties who are actively developing the research knowledge base.

Another barrier to scholarly activity is the unwillingness among college faculty to invade upon the territory of the university. They see scholarship as a university responsibility that is not consistent with the teaching emphasis or resources of colleges,
as indicated by the low response rate and unwillingness to answer questionnaires related to research. Vaughan (1991) states that "college professionals must get over the feeling that they are inferior to other members of the higher education community." If colleges support scholarship efforts of their faculty, instructors will gain the experience needed to incorporate scholarship into their daily activities. The incorporation of scholarship as an expectation for tenure and promotion in colleges of education in Israel, validates the efforts of its faculty outside the classroom (Vaughan, 1989).

One research question asked what motivates teacher educators to conduct research? The introduction of the five academic positions to promote faculty scholarship is a reward system or persuasive tactics. Though financial incentives and release time are two of the most requested rewards, college professionals also desire recognition for their efforts by their peers and leaders (Lord, 1988). Many faculty members publish for intrinsic rewards such as esteem, need for affiliation, relatedness and job autonomy. Teacher educators, towards the end of their career, may be more concerned with passing on their life experience through research, and look for professional affiliation and relatedness. Sutherland (1989) finds this particularly true of "high functional" instructors, who also tend to be rated by their students as better teachers. A supportive academic culture, participative governance, frequent communication, sufficient and accessible resources, a critical mass of faculty who have been together for a while and bring different perspectives, adequate and fair salaries and other rewards, targeted recruitment and selection, can actively provide opportunities for growth (Bland and Bergquist, 1997).

Access to Data

Many researchers, including the author of this thesis encounter difficulties accessing data relevant to their research. In any organization, those who possess information typically exercise a degree of power or control over those who don't. How information
is to be used will affect how data-collection initiatives are perceived and then implemented. Usually, data are endemic in educational settings, as Wallace (1996) reports: "School districts usually gather much more data than they can effectively use." The challenge is to make better use of existing or archival data (Calhoun, 1994, McLean, 1995). These data include statistics on attendance, grades, referrals, retentions, and standardized-test results. When compiled and reported on a regular basis, archival data provide a baseline of school operations and can be used to make comparisons among similar schools. Data can be used to judge people's performance and take punitive action against underachievers, or it can be used to diagnose problems and determine the efficacy of solutions. Principals' "willingness to provide opportunities for information acquisition...may be tempered by their competitive notions of power which only impede the empowerment of teachers" (Kirby and Bogotch, 1989). Calhoun (1994) stresses the concept of continuous improvement. Data-collection cycle and its results should not be thought of as an activity with a grade...it should be thought of as information on the progress being made toward attaining the collective goal and to assist all members of the organization as they make decisions for current and future action. Choosing a specific area of focus is also crucial. Through consultation with other staff members, whether formally or informally, the researcher needs to select a well-defined set of objectives. The data-collection cycle and subsequent action steps should be designed to address these needs. When goals of the improvement effort are clearly defined, teachers, staff, and the community will be more likely to understand and support the initiative.

**Technological Literacy**

As for the future, linked to economic and labor force pressures is the need for students and faculty to gain technological literacy. Technological advances have the potential to change forever the ways in which research is designed, executed, analyzed and
reviewed to a wide variety of contributors and audiences (Pea et al, 1999). Areas that will change dramatically include the communication, sharing, reflecting and disseminating of research. One example is the development of the first virtual conference for teacher educators in Israel, where the author of the thesis and her supervisor presented a paper, without leaving their home (Katz and Coleman, 2001b). Colleges that are flexible enough to incorporate the latest technological developments (Community College League of California, 1993, p. 5) will be better equipped to stimulate new ways of thinking about educational research. How can the research culture be developed will be discussed next.

**Faculty Socialization to the Research Culture**

The academization of Colleges of Education in Israel and the reform introduced in 1997 to “upgrade” the role of teacher educators through incentives of professional advancement, (Ariav et al, 1993) started a change process, that brought a need for creating and developing conditions for educational research. How is the research culture developed? To answer this research question, a theoretical/conceptual framework was developed (Figure 6.1), and was used to analyze the change process required to introduce the research culture and its impact on the college.

The following stages were identified:

1. Change in the organizational structure – the establishment of the Research and Evaluation Unit, an organizational structure for conducting research and coordinating interdisciplinary collaboration, but also induction and mentoring of novice researchers.
2. Induction and mentoring of beginning researchers, as means to achieve research competency, professional and career development, and in addition, to change beliefs, attitudes, values and behavior.

3. Improving the college's image and providing role models: by hosting and organizing conferences; by providing funding for researchers to participate in conferences; and by publishing research reports and newsletters.

4. Changing people in the organization by recruitment and removal of employees who do not fit the research culture, and by changing employees' position in the organization by promotion.
5. Usage of extrinsic and intrinsic rewards to motivate employees to exert effort for improved performance. Extrinsic rewards include promotion and tenure; intrinsic rewards fulfill teacher educators' needs such as: self-esteem, need of affiliation, relatedness, professional growth, self-actualization, job autonomy.

Given that developing the research culture is a complex process, faculty socialization should take place within the parameters of clearly articulated organizational goals and objectives (Tierney and Rhoads, 1994). Various individuals or groups in an organization will interpret culture in different ways; messages can get confused and misinterpreted. Organizational messages related to succeeding as a faculty member—achieving tenure, for example—need to be clearly spelled out so that all organizational members have similar information from which to make decisions.

In addition to being ongoing, socialization is bi-directional. Not only do people adapt to organizations, but also organizations continually must adapt to their members. Viewing faculty socialization as bi-directional is crucial in creating diverse academic communities, in Israel and worldwide too. While professors change to meet the demands of their academic institutions, colleges and universities must modify their structures to meet the needs of their diverse members. This means that promotion and tenure rituals, as well as faculty development programs, must be continually reviewed.
The Impact of the Research Activity

One of the research questions asked about the impact of research on managing people and organizational performance. The main issues arising from the thesis: the impact of research on professional development, organizational careers, empowering the faculty through mentoring and participation in management activities will be presented here.

Empowering the Faculty through Mentoring

Two associated research questions asked: How are induction and mentoring of beginning researchers done, and how it can affect individuals and the institution?

Mentoring is an useful and powerful tool in understanding and advancing organizational culture, providing access to informal and formal networks of communication, and offering professional stimulation to both junior and senior faculty members. Mentoring is a continuation of one’s development as defined by life cycle and human development theorists in terms of life sequences or stages, personality development, and the concept and value of care. (Erikson, 1963, Levinson et al., 1978).

Mentoring supports professional growth and renewal, which in turn empowers faculty as individuals and colleagues (Boice, 1992). Teaching and research improve, job satisfaction and organization socialization is greater, when junior faculty are paired with mentors. Not only do protégés become empowered through the assistance of a mentor, but mentors themselves also feel renewed through the sharing of power and the advocacy of collegiality. Empowering the faculty through mentoring requires careful planning so that the educational institution's needs are incorporated. Although mentoring programs have similar steps, purposes, and activities, programs need to be customized to meet the goals of the protégés, the mentors, and the community college or university.

The induction process described in this thesis involved a central induction program, or it was possible to obtain individual guidance from another officially designated mentor
from the Research Unit. The different groups of participants went through some of the stages of induction. Some were exposed to the research culture, some achieved a level of competence by writing research proposals and conducting research and some went through a whole socialization process, which enables them to function effectively in the research community, including the presentation of papers in conferences and for publication. A transition was made from an induction group being led by an expert (mentor) to a group providing peer support. Thus the course provided a practical support framework that helped the participants absorb some of the institution’s research culture.

Recommendations include raising campus awareness about the importance of mentoring, establishing a mentoring program with faculty assistance and input, providing recognition to those who participate, and providing support through institutional resources. Planned mentoring programs include establishing purpose and goals, assessing organization’s policies, identifying and training participants (both protégés and mentors), and evaluating and modifying the program.

Research on the specific benefits of mentoring programs for female and minority faculty members at both the community college and university levels needs to be conducted (Luna and Cullen, 1995). Faculty involved in mentoring are more likely to have opportunities to develop not only professionally (career orientation) but also personally (psycho-social needs) over the span of their careers (Kram, 1986).

**Educational Research and Academic Careers**

How can involvement in research promote the career development of teacher educators? The nature of careers of academic staff has changed in the past decade, and this has impacted on academic work (Blaxter et al., 1998). Employers have come under pressure to downsize, outsource, become more efficient, adopt flatter structures and use flexible
workforces, if they are to survive in a more competitive and increasingly global market (Morgan, 1993). These organizational imperatives have altered the patterns of individual careers. It is largely an out-of-date concept that a career will be stable over time. It is becoming more common for people to think in terms of 'career portfolios', interrelated sets of work experiences that may be combined to provide career evidence for a range of jobs (Thomson and Mabey, 1994, p. 123).

The linear, male model of career, where men entered an organization or occupation on leaving education, with the expectations of a job for life and occasional promotion, is now considered outmoded. The opportunities for those entering academic employment today tend to be less linear, secure and straightforward. A large proportion of the workforce, in higher education as elsewhere, is now employed on part-time and/or short-term contracts (Husbands, 1998). Lawn (1996, p. 122) argues 'mercerization' of Higher Education will bring the need for individual teachers to exercise competence, flexibility and skill, driven on by personal and financial incentives awarded on the basis of performance. Career ladder and merit pay programs introduced in Colleges of Education in Israel reflect a significant reform theme: a differentiated teacher corps can contribute to effective schooling and attainment of professional rewards and status for teachers (Goodlad, 1984). Findings indicate that involvement in research can enlarge teacher educators' jobs, contribute to their professional development, ensure their marketability and their continued employability. The actual skill as a researcher (the process), linked with the extensive additional knowledge generated by the research (outcome) can contribute for advancing teacher educators' professional careers. As Colleges need to be able to achieve a productive balance between the need to attract and retain high quality staff and at the same time a flexible workforce, employed on a part-time or temporary contract basis, there is a need to consider whether researchers merit lengthy, semi-permanent contracts. At the same time, the introduction of research,
incentives to professional advancement and the establishment of the advancement committee, which determines who is entitled to be promoted, can bring a new form of power and hierarchy inside colleges of education in Israel (Hollingsworth, 1997, p. 250).

Professional Development and Research

The related research question asked: How can research activity advance the professional development of teacher educator researchers?

Faculty development is a phrase that has both a broad and a narrow definition. Broadly, it covers a wide range of activities that have as their overall goal the improvement of student learning (Alstete, 2000). More narrowly, the phrase is aimed at helping faculty members improve their competence as teachers and scholars (Eble and McKeachie, 1985). It appears that involvement in research can fulfill many teacher educators career oriented personal needs, and promote development of staff, but it is perceived as bringing relatively small measurable outcomes in relation to curriculum delivery or enhancement of student learning. Although educational inquiry does not replace traditional staff development methods, it requires participants to interact in nontraditional ways with knowledge, resources, colleagues and programs (Drennon, 1993). But fitting inquiry into "existing" staff development structures is problematic. Educational work environments will have to be redesigned to provide conditions that an inquiry approach demands. Further, the culture of the education workplace must adopt a stance that legitimizes practitioners as both researchers and reformers. In short, successful implementation within systems requires commitment on the part of all stakeholders to a set of values and beliefs honoring the vitality of practitioners as knowledge makers within the system. Similarly, there should be a shift in staff development, from a deficit model of emphasizing remediation, to a developmental model, emphasizing growth, based on the nature of adult learning and developmental
stages (Hall, 1986). Professional development organized according to this approach will, in Smylie and Conyers' (1991) view, shift teachers away from dependency on external sources for the solution to their problems and toward professional growth and self-reliance in instructional decision-making.

**Research and Participation in Management Activities**

To acquire professional status, teachers must have the professional autonomy, discretion, and authority characteristic of other professions; including the right to make key decisions about the services they render (Carnegie Corp., 1986). And indeed, it was found that most respondents prefer to decide about their research topics and not follow recommendations from the management.

Teacher isolation has been identified as another deterrent to purposeful change in schooling (Zimpher and Reiger, 1988). Joyce and Calhoun (1996) argues that significant reform is "nearly impossible" in a typical school workplace; at best, people will move forward as individual 'points of light,' but they will be unable to form a learning community. Findings indicate that sixty-seven per cent of respondents would like to engage in research in teams, and sixty per cent with researchers from other institutions. Classroom structure, limited time for non-instructional activities, and top-down decision making contribute to conditions that make it difficult for teachers to work collaboratively with other teachers and staff (Goodlad, 1984).

In addition, traditionally structured schools are perceived to underutilize experienced teachers (Carnegie Corp., 1986). Partial blame can be assigned to the "industrial/hierarchical management philosophy in education" (Tuthill et al., 1987). Within such a framework, teachers are not typically partners in decision making about non-instructional aspects of school life. Utilization of teacher expertise in decision-making has implications beyond democratizing the school environment. Therefore, one
research question was: Are teacher educator researchers included in decision-making processes at the college?

Effective participation on site-based decision-making councils requires expertise of all members (Fueyo and Koorland, 1997). Participation in research is a direct route to increased expertise and it is a way for teachers to improve their self-confidence as professionals (Henson, 1996, p. 61). Findings of this thesis indicate that teacher educator researchers are more empowered compared to other groups at the college. They possess personal or expert power, through knowledge brought to the job or accessed through training, are more rewarded (reward power) and are promoted to higher positions (legitimate power). In addition, researchers can attain structural sources of power, which include: easier access to information, easier access to resources, more visibility to higher management, and affiliation to networks of power inside and outside of the organization (Hellriegel et al., 1992, p. 541). Therefore, the introduction of research and incentives to professional advancement may bring a new form of power and hierarchy inside colleges of education in Israel.

Although research contributes to widening the horizon for debate of certain issues in education, it is not used directly in pending decision-making situations, and researchers do not perceive themselves as involved in decision-making.

For meaningful change to occur, an ongoing conversation between researchers and management, and involvement of researchers in decision-making processes at the College are needed to reconfirm teacher-researchers’ sense of control and efficacy. Joyce and Calhoun (1996) advocate the formation of 'Responsible Parties' to lead the school community in improvement efforts. These groups, composed of administrators, teachers, parents, and community members, would not be traditional parliamentary decision-making groups, but would act as champions for extended inquiry.
Evaluation of the Change Process to the Research Culture

Using the three types of variables suggested by Likert (1967) can help to understand the organizational change processes introduced at the college. Causal variables, which the management can change most directly include: organizational structure, policies, training, and leadership behaviors. Most of these changes were institutionalized. The establishment of the Research Unit at Colleges of Education was found to enhance scholarly activity and generation of new knowledge. Their organizational primacy within the College can add to encouraging research and coordinating interdisciplinary collaboration.

Intervening variables, which are immediately affected by the causal variables include: employee attitudes, perceptions, motivation, and skilled behaviors, as well as teamwork and inter-group relations are also occurring. The findings of this thesis indicate that teacher educator researchers are intrinsically motivated, are self disciplined, depending on their own standards as well on the standards of the organization. But they encompass only twenty-five per cent of faculty. More effort is needed to change the attitudes of the remaining seventy-five per cent of faculty, who are not involved in research and did not answer the questionnaire.

In addition, involvement in research did not apparently contribute to end-result variables that represent management objectives such as: improved productivity, increased sales, lower costs, more loyal costumers, and higher earnings. According to the head of the college, although colleges of teacher education improved their academic programs, they did not manage to recruit the student elite, and today less students with lower qualifications want to become teachers (Seidenterg, 2001).
Research in Teacher Education

Characteristics of educational research intersect with other adult education concepts such as self-directed learning, reflective practice, learner-centeredness, and action research, and have significant positive benefits that make it worthwhile to take on the challenges it poses. Therefore, a central research question in this thesis was: Does research enhance or inhibit teaching and should teacher educators at colleges be engaged in research?

Historically, teacher-training institutions in Israel were not preoccupied with research, and their main strength has been their commitment to student development. This commitment is evident in the amount of resources devoted to counseling and tutoring, and in the emphasis on teaching as the primary faculty responsibility. Unfortunately, this emphasis has frequently caused classroom teaching to be divorced from scholarship. But recent developments, such as the academization process, the introduction of four academic positions in 1997, and a fifth professor position since 2001 (Ben Shabbat and Abbas, 2001), have made the case for scholarship particularly compelling, as a means of enhancing "both our performance and our image as professionals" (Vaughan, 1986), and as a mechanism to prevent boredom and burnout (Oromaner, 1986). Findings of this thesis indicate, that in order to energize the faculty, enhance the intellectual environment, and improve student instruction, it might be also useful to encourage and foster "lower status", in addition to "higher status" scholarly activities, rather than exclusively emphasizing books and refereed journal articles, and to use self-evaluation of teaching, besides student evaluation. Many institutions may seek a blend of all these outcomes and may encourage all kinds of scholarly activities and evaluations of performance. Administrators may want to recognize this and
construct reward systems and formal procedures that motivate faculty to engage in activities that achieve all the organization’s goals (Richardson and Parker, 1992).

When teacher educators conduct research their teaching is transformed in important ways: they become theorists—articulating their intentions, testing their assumptions, and connecting theory with practice. They increase their use of resources, form networks, and become more active professionally. They become rich resources for the profession by providing information not previously available. They become critical, responsive readers and users of current research, less apt to accept uncritically others' theories, less vulnerable to fads, and more authoritative in their assessment of curricula, methods, and materials (Goswami and Stillman, 1987).

**Bringing Research Knowledge to Practice through Teacher Education**

Two research questions asked what benefits can be derived from involvement of teacher educators in research and how can scholarly work inform and support the education and work of teacher educators? The limited practical significance of social science research is widely acknowledged in social and educational policy development (Weiss, 1980, Lindbom and Cohen, 1979). Researchers themselves often disagree about the meaning of findings and how they may inform practice. One explanation is that educational research is more imprecise, methodologically weaker, and less consistent in its results than research in the natural sciences. In education, as well as in other social and psychological phenomena, there are complexities, and ambiguities that make it extremely difficult to derive predictable rules of practice.

Some strategies on how can teacher education bring research knowledge to practice and facilitate the incorporation of research findings in pre-service teacher preparation programs will be presented. For example, engagement in research for teacher education, at both pre-service and in-service levels, teacher-researcher collaboratives and networks
(Lieberman and Miller, 1991); action research and teacher research (Cochran-Smith and Lytle, 1993, Noffke and Stevenson, 1995); multipartisan practitioner-scholar research consortia (Serbring and Birk, 1993); and professional development schools (Darling-Hammond, 1994). These strategies seek to direct researchers to issues of interest and relevance to teachers. They involve teachers in the research enterprise with hopes of developing new understanding, appreciation, and use of the findings of inquiry (Zeuli, 1992). They provide opportunities of a dialogue of inquiry and problem solving for the improvement of practice (Richardson, 1990).

Another initiative can be the development of policy forums. Policy-makers and practitioners often complain that research in education is irrelevant to their concerns. More could be done to bring the various parties together. If the energies of these groups could be enlisted in the tasks of establishing research priorities then they would be less likely to dismiss the outcomes.

A further possibility has been given shape by certain UK developments. Research is a cumulative process, and only a handful of studies in any one year are of sufficient importance to stand on their own. Reviews of Current Knowledge, commissioned by the ESRC (Economic and Social Research Council), provide a useful strategy for identifying and shaping research agendas. Gray (1998, pp. 43-45) suggests two or three small-scale consultancies supported each year on topics in education that are of public interest, which could be written up for wide dissemination in an accessible style. The National Education Research Forum, first proposed by Hargreaves (1996) and endorsed by Hillage et al. (1998), and which the Department for Education and Employment is now promoting in the UK, suggests as well greater coordination to attain less fragmentation.

Consideration for the Future

Should teacher educators at Colleges of Education in Israel be engaged in research?
Today, teacher education is talked of as a lifelong experience that extends from program admission to retirement (Dilworth and Imig, 1995), and should provide foundation for effective teaching, teacher empowerment, and development of professional status for teaching (Abdal-Haqq, 1995). Therefore, academic values underlying teaching and learning need to be critically examined (Yee, 1998). New pedagogies for teaching students how to manage changing environments successfully (Lorenzo and LeCroy, 1994) are shifting the learning paradigm from being behaviorally oriented to being developmentally oriented (Shipley, 1995). Smylie and Conyers (1991) too, suggest recasting in-service teacher education programs to reflect paradigm shifts from deficit-based to competency-based approaches, in which teachers' knowledge, skills, and experiences are considered as assets. The goal is to move students from accomplishing discrete tasks to knowing how to accomplish those tasks. The former implies memorizing and practice; the latter implies synthesis and analysis, two critical components of lifelong learning. Teachers should examine and reflect upon their own practice, as a basis for personal and professional growth, and at the same time, because of the fluidity of technological change, should commit themselves to lifelong learning to adapt better to social and economic changes (Travis, 1995).

For that reason, Fueyo and Koorland (1997) suggest that teacher as researcher is a synonym for professionalism, and knowledge production and teacher preparation should be connected. Teaching in schools and teaching in teacher education in colleges and universities are interrelated and teacher educators should form a ‘living bridge’ between university and practice. Connecting inquiry, grounded theory and methodology for reflection provides the basis for learning to teach, inseparable from learning to inquire (Cochran-Smith and Lytle, 1993). The concept of teacher as researcher can be a cornerstone of the teacher preparation curriculum, a foundation for its knowledge base, a bridge between scholarship and practice, and support for the professional behavior of
teacher education graduates. For educators to be professionals, they must maintain autonomy with respect to determining the relevant knowledge, skills, and norms of the profession. Through development and promotion, teacher educator researchers, politically aware and grounded in research, may become active participants and agenda setters in education (Goodlad, 1990, p. 70-71).
Appendix A

The first Questionnaire (1999): Teacher Educators' Perceptions and Attitudes toward Research

(Translated from Hebrew)
June 10, 1999
Dear colleague,

I am conducting a research project about teacher educators’ perceptions about the research activity in Colleges of Education in Israel. Please answer the following questionnaire and return to mail box 195.

Thank you for your cooperation
Eva Katz, Beit Berl College of Education

Perceptions about teacher educators’ research activity

To what extent you agree with the following sentences about teacher educators as researchers compared to other teacher educators:

<table>
<thead>
<tr>
<th>Question</th>
<th>Do not agree</th>
<th>Slightly agree</th>
<th>Agree</th>
<th>Agree very much</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Researchers invest more in their work</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. Are better teachers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. Teacher researchers work harder</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. Have to earn more</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. Have more professional contacts</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. Are highly regarded by the management</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. Are highly regarded by their students</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. Are highly regarded by their colleagues</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. Have better chances to reach management positions</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10. Teacher researchers are more talented</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
To what extent, in your opinion, teacher educators' research activity can contribute to the following areas:

<table>
<thead>
<tr>
<th></th>
<th>Do not agree</th>
<th>Slightly agree</th>
<th>Agree</th>
<th>Agree very much</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Improving self confidence</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12. Involvement in decision making processes in the college</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>13. Improvement of teaching techniques</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>14. Developing leadership skills</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>15. Improvement of professional status</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>16. Openness to innovations</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>17. Professional growth</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Preferences and expectations from the research activity

If you could choose, how would you prefer to conduct research? (Mark your preferences with an x)

20. □ Alone 21. □ In a team 22. □ With researchers from other institutions
23. □ Full time job 24. □ Part time job 25. □ Not at all

What kind of help for conducting research would you like to get from the college? (Mark your preferences with an x)

31. □ Research Grant 32. □ Teaching less classes 33. □ Statistics
34. □ Help from the library 35. □ Institutional courses in conducting research
36. □ Management's recommendations about preferred topics 37. □ Secretarial help
38. □ Other ________________________________________________________________
General Background of the Respondents

Mark x in the corresponding answers:

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>40. Academic Degree</td>
<td>□ B.A □ M.A. □ Ph.D.</td>
</tr>
<tr>
<td>41. Gender</td>
<td>□ Male □ Female</td>
</tr>
<tr>
<td>42. Teaching experience</td>
<td>□ Less than 10 years □ 10-19 years □ 20 years and more</td>
</tr>
<tr>
<td>43. Years in this institution</td>
<td></td>
</tr>
<tr>
<td>44. Belong to department</td>
<td></td>
</tr>
<tr>
<td>45. Extent of employment</td>
<td>□ Half time or less □ Half to full time □ More than full time</td>
</tr>
<tr>
<td>46. Tenure</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>47. Did you study abroad?</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>48. If yes, in which country</td>
<td></td>
</tr>
<tr>
<td>49. Towards what degree</td>
<td></td>
</tr>
<tr>
<td>50. In what languages you read research publications?</td>
<td>□ Hebrew □ English □ Other _______</td>
</tr>
<tr>
<td>51. Have been engaged in research activity in the past</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>52. I am engaged in research activity today</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>53. Number of publications</td>
<td>□ None □ 1-10 □ More than 10</td>
</tr>
<tr>
<td>54. In what language?</td>
<td>□ Hebrew □ English □ Other _______</td>
</tr>
<tr>
<td>55. How were your research findings utilized: (mark x to the corresponding answers) :</td>
<td></td>
</tr>
<tr>
<td>56. In providing comprehension about teacher education</td>
<td>□</td>
</tr>
<tr>
<td>57. As bibliographical material to courses you teach</td>
<td>□</td>
</tr>
<tr>
<td>58. In decision-making, change and improvement</td>
<td>□</td>
</tr>
<tr>
<td>59. In providing comprehension in your field of interest</td>
<td>□</td>
</tr>
<tr>
<td>60. Other</td>
<td></td>
</tr>
</tbody>
</table>
Appendix B

The second Questionnaire (June, 2000): Involvement in Research of Student-Teacher Supervisors and Student-evaluation of Teaching

(Translated from Hebrew)
Questionnaire to the Student-Teacher Supervisor

Envision of Students’ Evaluations

Dear student-teacher supervisor,
At this moment your students are filling in the evaluation questionnaire to your pedagogic course (at the College)
You received the same questionnaire. We ask you to try to envision, for each item, how your students will evaluate your course. Envisioning students’ evaluation is a way to self-evaluation of the lecturer. Comparing your students’ evaluation to your own can provide additional understanding of your work. If you have any questions when you answer the questionnaire, write them next to the problematic item.

Thank you for your cooperation

Read the items that appear in the questionnaire and indicate to what extent each one describes your course. For each item circle only one option.
Even if you are not sure you understood the item, try to answer it. If the item is not relevant to your course – circle possibility A.

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To the Evaluation Unit at Beit Berl College
To all lecturers: Please fill in or circle the appropriate items:

The track your pedagogic course belongs to: ______________________________

(early childhood, special education, elementary, 7-10 grades)

Your work at Beit Berl College:
The number of years you teach at the College _______ years
Are you on the tenure track yes/no

Your teaching experience:
Total _______ years
Total _______ years at colleges for teacher training
Total _______ years at institutions for higher education
Total _______ years in the education system (k-12)
Teaching certificate yes / no
Teaching permit yes / no
Academic degree First / second / third / other ________
Sex M/F
Year of Birth ________

Your work in research:
Are you engaged in research? yes / no
The number of publications in Hebrew you have: no publications / 1-10 publications / more than publications
The number of publications in English you have: no publications / 1-10 publications / more than publications
Did you write a textbook? yes / no
Did you write a scientific book? yes / no
Did you write a workbook or reader book? yes / no
Did you write an article for the College’s newspaper Mazav Hainyanim? yes/no
In how many professional conferences did you participate?
none / between 1-10 / more than 10
In how many professional conferences at foreign countries did you present a paper?
none / between 1-10 / more than 10

Thank you for your cooperation
<table>
<thead>
<tr>
<th>The items</th>
<th>Do not Agree</th>
<th>Not relevant</th>
</tr>
</thead>
<tbody>
<tr>
<td>5  The course is challenging for me</td>
<td>1 2 3 4 5 6 7 8 9 A</td>
<td></td>
</tr>
<tr>
<td>6  The knowledge I gained in this course can contribute to my practice</td>
<td>1 2 3 4 5 6 7 8 9 A</td>
<td></td>
</tr>
<tr>
<td>7  The st-t supervisor defined clearly what is expected from the students</td>
<td>1 2 3 4 5 6 7 8 9 A</td>
<td></td>
</tr>
<tr>
<td>8  The conversations during the course contribute to the understanding of the subjects taught</td>
<td>1 2 3 4 5 6 7 8 9 A</td>
<td></td>
</tr>
<tr>
<td>9  The course assignments are too difficult</td>
<td>1 2 3 4 5 6 7 8 9 A</td>
<td></td>
</tr>
<tr>
<td>10 The st-t supervisor is giving clear directions for all assignments in the class and at home</td>
<td>1 2 3 4 5 6 7 8 9 A</td>
<td></td>
</tr>
<tr>
<td>11 The course can contribute to my future work</td>
<td>1 2 3 4 5 6 7 8 9 A</td>
<td></td>
</tr>
<tr>
<td>12 The st-t supervisor’s comments helped me to understand the essence of teaching</td>
<td>1 2 3 4 5 6 7 8 9 A</td>
<td></td>
</tr>
<tr>
<td>13 The st-t supervisor creates a pleasant atmosphere in the course</td>
<td>1 2 3 4 5 6 7 8 9 A</td>
<td></td>
</tr>
<tr>
<td>14 In this course I am practicing teaching methods that I will be able to use in my future work</td>
<td>1 2 3 4 5 6 7 8 9 A</td>
<td></td>
</tr>
<tr>
<td>15 The st-t supervisor expresses openness to ideas different than his/hers</td>
<td>1 2 3 4 5 6 7 8 9 A</td>
<td></td>
</tr>
<tr>
<td>16 The st-t supervisor is listening to matters raised by students</td>
<td>1 2 3 4 5 6 7 8 9 A</td>
<td></td>
</tr>
<tr>
<td>17 The st-t supervisor as linking practice to theory</td>
<td>1 2 3 4 5 6 7 8 9 A</td>
<td></td>
</tr>
<tr>
<td>18 The amount of assignments in the course are too many</td>
<td>1 2 3 4 5 6 7 8 9 A</td>
<td></td>
</tr>
<tr>
<td>19 The st-t supervisor expresses his/her ideas clearly</td>
<td>1 2 3 4 5 6 7 8 9 A</td>
<td></td>
</tr>
<tr>
<td>20 Compared to other pedagogic courses, this course is very good</td>
<td>1 2 3 4 5 6 7 8 9 A</td>
<td></td>
</tr>
<tr>
<td>The items</td>
<td>Do not agree</td>
<td>Agree</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>--------------</td>
<td>-------</td>
</tr>
<tr>
<td>21 The st-t supervisor is helping to integrate the final assignment in the course</td>
<td>1 2 3 4 5 6 7 8 9 A</td>
<td></td>
</tr>
<tr>
<td>22 The st-t supervisor is helping in the planning of the theoretical part of the assignment in the course</td>
<td>1 2 3 4 5 6 7 8 9 A</td>
<td></td>
</tr>
<tr>
<td>23 The st-t supervisor is helping in the planning of the teaching assignments of the final assignment in the course</td>
<td>1 2 3 4 5 6 7 8 9 A</td>
<td></td>
</tr>
<tr>
<td>24 Clarification of the evaluation criteria of the final assignment helps me preparing it</td>
<td>1 2 3 4 5 6 7 8 9 A</td>
<td></td>
</tr>
<tr>
<td>25 The feedback received from the st-t supervisor during the preparation of the final assignment helps me to produce a better product</td>
<td>1 2 3 4 5 6 7 8 9 A</td>
<td></td>
</tr>
<tr>
<td>26 In conversations on students assignments in the course, the st-t supervisor focuses on essential matters related to teaching</td>
<td>1 2 3 4 5 6 7 8 9 A</td>
<td></td>
</tr>
</tbody>
</table>

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To the Evaluation Unit at Beit Berl College
Appendix C

Individual Interview Schedules

Preamble:
Thank you for agreeing to be interviewed. I would like to make it perfectly clear from the outset that your comments will be treated in the strictest confidence, and the published information will be anonymous.

Explanation Regarding the Interview’s Purpose:
The purpose of the study is to learn more about how the research culture at the college is developed and how is it affecting the institution and the individuals within it.
The purpose of the interviews is to obtain more detailed information than was possible through the questionnaire: to survey more fully the opinions and attitudes of teachers regarding various aspects of the research culture at the college.

Questions:
Are you involved in research? Did you publish any papers? In what language?
If yes, did you get help from the Research Unit? What kind of help?
How do you expect to benefit from your involvement in research?
Do you believe that teacher educators at colleges should be involved in research?
Do you believe that teacher educators’ research activity has an effect on their teaching?
Did you apply for promotion? Was it approved?
Do you study for a Ph.D. degree? Where? For how long?
What are the main reasons for studying for the Ph.D.? What are your expectations from the degree?
Conclusion:

Are there any more comments you would like to make which are relevant to this study?
If so, please feel free to make them.

N.B. Interviews were unstructured in format and the questions listed above are those covered with all interviewees. In many cases the questions were not asked, the answers emerged from conversations with colleagues.
REFERENCES


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