Instructors' Stages of Concern and Levels of Use of Active Learning Strategies: The Case of HDP Programs of Three Higher Learning Institutes in Amhara Region

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Abstract: This study aimed at examining the instructors' stages of concern and levels of use of active learning strategies. Seventy-nine instructors who participated in Higher Diploma Program in three higher learning institutes found in the Amhara region were taken as data sources. Questionnaire adapted from SoCQ was employed. In addition, panel and informal discussions with Pedagogical Sciences Department instructors were used as instrument for data collection. Pearson Product Moment Correlation, chi-square tests, t-test and ANOVA were the statistical techniques employed in this study. The results indicated that there is high but negative correlation between SoC and LoU of active learning strategies. In addition, the analysis of t-test and ANOVA has revealed that there is no mean difference as a function of difference in qualification, experience, number of short term trainings and taking education courses. The Chi-square result indicated that instructors are at the non adopter stages of concern. The result also indicated that instructors are not practicing active learning strategies in the actual classroom setting. The panel discussion ascertains that instructors are not interested in some aspects of the program such as provision for information about the concept of active learning, its importance, etc. in the actual teaching learning process. They consider this part of the program boring and time consuming. Finally, conclusions and implications for instructors' professional development are suggested.

Background of the Study

Nowadays achieving the desired educational quality level is the outstanding concern of the nation. This is believed to be realized through the four basic strategies. The strategies, as disclosed in the NETP, include: professional development, curriculum development, school management, and program

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evaluation (NETP, 1994). Of these basic variables, teachers' professional development takes the lion's share in the move towards bringing quality education in this nation (MoE, 2003).

As disclosed in the NETP (1994), education in the nation was highly authoritative; teacher centered, and considered students as mere information receivers. But the main intention of any formal educational practice is to bring long lasting and authentic behavioral change among learners. To realize this intention, it must be learners who should actively participate and lead themselves towards the required end.

However, the educational culture flourished in the previous regimes' education system was believed to prohibit teachers' performance in conformity with the philosophy of considering learners at the center of instruction. This being the case, the NETP has targeted teacher professional development with emphasis to developing the skill of facilitating students' active learning in all instructional situations.

In line with the current policy issues, as a strategy to enhance teacher development, the Ministry of Education has set TESO program that articulates the nature of teacher training at different levels of education. As part of TESO, for tertiary level teacher educators, MOE has developed "Higher Diploma Program (HDP) for Teacher educators. The aim of HDP is "to improve the quality of education in Ethiopia through a licensing program that will develop the skills and professionalism of teacher educators. "(MoE, 2003, p.5). The program aims at helping teachers"--- use active learning and student centered teaching methods" (MOE, 2003, p. 6) in their actual classrooms. This means that one of the major targets of the program is to develop the skill of teachers in using active learning-teaching strategy that promotes students' active participation in the teaching learning process.

Statement of the Problem

Currently, educational institutions are being urged to prepare students to meet the challenges of a changing global economy. This implies that schools are required to respond to these changes by changing the way they have historically operated in designing and implementing innovations for the teaching learning process. The change is presumed to involve the changes from philosophical perspectives from which schools adapted to the changes in the actual practice in the classroom. To realize this core intention of the 21st century, corresponding changes in relation to professional development are highly demanded.

Research suggests that in the history of education there has been little or no recognition of the importance of professional development (Fullan and Hargreaves, 1996). Since the 20th c. on wards, however, several educators have identified the professional development of teachers as a major component of school reform that is necessary to provide students with the best educational practices. Professional development is critical to systemic educational reform and school improvement that is designed to enhance the teaching learning process (Fullan and Hargreaves, 1996). To this point, Guskey (1986) added that the purpose of professional development is to bring about changes in the beliefs, attitudes, and classroom practices of teachers with the ultimate goal being changes in student outcomes.

In addition, the improvement of related professional development has been pinpointed as one of the major targets for school renewal. Supporting this point, Ravitch (1993), and Means, Olson and Singh (1995) have emphasized professional development as a critical component of school reform. However, there is doubt whether the strategies of professional development practiced these days consider the needs and concerns of actual practitioners. For example, little (1993), and Norris (1993) argue that the forms of professional development that have been prevalent in education will not suffice us for the future. Their arguments embrace the idea of taking into consideration the needs and concerns of teachers when planning professional development activities. In view of this, Hall and Hord (1987) suggested that concerns-based professional

development becomes necessary when planning and implementing innovations. They further stated that at the beginning of an innovation teachers will have concerns that can vary in intensity and can be categorized (Fullan, 1982). These categories appear to be sequential in nature; thus, it becomes important to plan professional development based on the intensity and category of expressed concerns.

Therefore, professional development should involve teachers in the identification of what they need to learn and in the development of the learning opportunity and /or the process to be used (Borko and Putnam, 1995). This is due to the fact that, when teachers are denied input in their own professional development, they are likely to become cynical and removed from school improvement efforts (Guskey, 1995 and Hargreaves, 1995). But, the culture in our education system provides little opportunity for the direct beneficiaries of programs designed to bring professional development

Professional development has been only moderately effective in bringing about changes in schools (Lambert, 1988 and Wade, 1989). The reason for the limited impact of professional development is that concerns of teachers have not been taken into consideration when planning professional development programs (Lambert, 1988 and Wade, 1989). There is a growing belief that there is a strong connection between school reform and teachers' professional development (Norris, 1993 and Little, 1993). Too often, however, professional development programs are designed, organized, and delivered based on the skills and knowledge policymakers assume to be teachers' needs, rather than allowing teachers to identify their needs and concerns and designing programs to address those needs.

Further research (Hall and Hord, 1987; Rutherford, Hall and George ,1982; Norris, 1993; Todd, 1993; and Hope,1995) supports the concept of addressing the concerns of teachers when planning professional development activities since successful implementation will depend on the attitudes of the teachers involved in the process. Most often, professional development activities for implementing new programs usually take the form of a one-time workshop, after

which teachers are asked to go back to their respective classrooms and implement the programs. Teachers, therefore, become reluctant to implement because of the lack of adequate training and interest. This shows that the successful adoption of any innovation largely depends on teachers' participation in the process of innovation deliberation (Cunningham, Hillison and Horne, 1985).Their participation will largely depend on the degree to which they are comfortable with the innovation. One method for determining the degree of comfort teachers have with an innovation is to monitor their concerns about the innovation (Hall, George and Rutherford, 1979). Hall et al. (1979) further argue that the stage of concern about the innovation has provided great insights into monitoring the implementation of innovations in educational settings. The monitoring of expressed concerns provides opportunities for feedback to teachers and educators providing professional development. Monitoring also assists administrators with the implementation of the innovation.

Based on these theoretical framework and research findings, this study was planned to study stages of concern and levels of use of active learning strategies by instructors of three higher learning institutions in Amhara region the teachers that have completed higher diploma program training.

To this end, the following leading questions were formulated.

- What are teachers' stages of concern of active learning strategies?
- What is the extent of teachers' level of using active learning strategies?
- Is there a relationship between instructors' level of use and level of concern?
- Is there a significant difference between the level of concern and level of use of instructors by year of experience, area of specialization, and level of qualification?

Purpose of the Study

The major purpose of this study was to examine instructors' stages of concern and levels of use of active learning strategies. More specifically, this study intended to:

- examine the stages of concern and levels of use of active learning strategies by instructors of three higher learning institutions in Amhara region who participated in HDP;
- indicate the relationship that exists between instructor's level of use and stage of concern; and
- show whether there is a significant difference between the level of concern and level of use of active learning strategies by experience, specialization and qualification.

Significance of the Study

The Higher Diploma Program was developed to meet the identified needs of teacher educators. It was believed to provide teacher educators with a practical experience to implement active learning strategies in their teaching. As indicated in the literature, the successful implementation of any training for teacher educators largely depends on the extent to which it considers their needs and concerns for the kind of training they want to take. Hence, this study is significant in that the results will help MOE and Higher learning Institutions to modify the training for teacher educators based on the identified stages of concern and levels of use. Moreover, the present attempt will serve as a basis for other researchers to do further researcher in this area.

Delimitation

This study would have been more complete had it been made by soliciting data from different sources (students, HDP leaders, parents, instructors) using different methods (such as formal FGD, interview, observation, questionnaire, etc.). But due to time inconvenience and budget constraint, the study was delimited to instructors as the only source of information and questionnaire adapted from SoCQ, panel and informal discussion as the only instruments for collecting data. In addition, due to lack of prior research in focus of SoC and LoU of active learning strategies, the theaoretical framework is not as complete enough. Even though there is little research in this area, the researchers of this

article hope that the study will be one basic source for other researchers to do further research in the area.

Review of Related Literature

Introduction

Several researchers emphasize that a teacher's attitude toward change is dependent on how change affects him/her personally. It is from this background that Hord, et al (1987) assert that it is critical to understand the point of view of those involved in the change effort. Hord and her colleagues also seem to confirm this when they state "A central and major premise of the Concerns Based Adoption Model is that the single most important factor in any change process is the people who will be most affected by the change" (Hord et al., 1987 p. 29). From their studies of change, Hord et al. (1987) identify seven developmental stages of concern related to the introduction of innovations in schools. These stages provide insights into teachers' attitudes that contribute to their willingness to engage in the school improvement effort. The "self" stage of concern occurs during the early stages of the change effort, when teachers are primarily interested in the personal effects the change will have. Individuals progress (assuming that concerns at each level are addressed) through concerns about completing the task, concerns about the innovations' impact on students, and, finally, concerns about finding "even better ways to reach and teach students" (Hord et al, 1987, p. 32).

Stages of Concern

Concern means points of affairs to which instructors provide more attention than others in their teaching (Arends, 1994). Thus, stages of concern refer to seven different reactions that educators experience when they are introduced into a new program (Fullan, 1991).

Just as there are research-based educational innovations, there is also a research-based program for aiding innovation- the Concerns-Based Adoption

Model or CBAM. It offers a way to understand and address educators' common concerns about change (Fullan, 1991).

Most researchers on change and innovation share for that change in school settings to be meaningful; its effectiveness must be proven in terms of the personal and professional growth of all involved (Hall & Hord, 1987). Those involved in school improvement efforts must believe that the needs being addressed are important and that they are meeting those needs (Huberman & Miles, 1984). In this line, it is asserted that having some success, in a tangible way, is a critical incentive during implementation (Fullan, 1991).

CBAM has other components but the most readily and commonly used is "stages of concern." The ideas were developed in the mid 1970s and many staff developers have integrated the concepts into their work over the past 25 years. A tool developed by the CBAM Project, Stages of Concern, enables change facilitators to better understand and measure teachers' concerns "perceptions, feelings, motivations, frustrations and satisfactions" about an innovation (Hall and Loucks, 1978, p. 38). CBAM researchers learned that individuals go through predictable stages in their perceptions and feelings about change, starting with concerns about self, progressing to concerns about the task itself, and eventually moving on to concerns about impact(Hall and Loucks, 1978).

These three stages of concern are further extended to seven stages of concern (Hall and Loucks, 1978). In general, early concerns (Stages 1 and 2) tend to focus on "self," while later concerns (Stage 3) tend to focus on implementation "tasks." Still later concerns (Stages 4-6) relate to program "impact." These stages have major implications for professional development. First, they point out the importance of attending to where people are and addressing the questions they are asking. The kinds and content of professional-development opportunities can be informed by ongoing monitoring of the concerns of teachers. Second, this model suggests the importance of paying attention to implementation for several years, because it takes at least three years for early concerns to be resolved and for the later ones to emerge (Hall and Hord, 1987; Hord, Rutherford, Huling-Austin, and Hall, 1987).

Like any theory relating to developmental stages, the teachers ' developmental stage theory assumes that stages are distinct phases that teachers experience, and are hierarchical in nature. The original research of Fuller (1969) revealed patterns in teacher concerns that correlated with maturity and teaching experience. Of particular importance to this study are findings that show the fact that pre-service and beginning teachers have different concerns to experienced teachers, and that pre-service teacher education courses should take cognizance of the characteristics typical of teachers at an initial stage of development. For beginning teachers the most basic need, she says, is to survive; until this need has been satisfied concerns about tasks or students cannot emerge (Fuller, 1969). Similarly, Hord et al., (1987) asserted that beginning teachers and teachers unfamiliar with the use of an innovation in the classroom might be expected to have high self concerns, moderate task concerns, and low impact concerns.

For example, when teachers first hear about the new program, they might not be concerned because they do not think it will affect them. However, once they realize that they will be the ones implementing it, they may have concerns about how to fit the program into their already busy schedules.

Each of the developmental theories move from the concrete to the abstract, and each of them follow the same characteristics of stages described by Kohlberg (1973). These characteristics include: distinct or qualitative differences in structures that perform the same function at various points in development, different structures that form an invariant sequence in individual development, different and sequential modes of thought that form a structural whole, and hierarchically integrated stages. Kohlberg (1973) proposed that stages incorporate changes in quality, competence, and form as a person moves from one stage to another.

Stages describing the development of teachers have been created at the pre-service and in-service levels. One of the most well-known models for pre-service teacher development is that of Fuller and Bown (1975). Fuller and Bown's model identified sequences of concern which begin with the pre-teaching stage, in

which pre-service teachers continued to identify with the pupils in the observed class rather than themselves as a teacher. The second stage addressed an early concern about survival, where they lost their idealistic fantasy of the teaching role and became concerned about their own survival as teachers. The third stage included limitations of the teaching context, where pre-service teachers were concerned about their own teaching performance, but not yet about whether the pupils were learning. In the final stage, the teachers became concerned about pupil learning, and began to see pupils as individuals with individual needs (Fuller and Bown 1975).

Other researchers have identified models focusing on pre-service teacher's development stages. These models are similar to Fuller and Bown's, also moving from the concrete to the abstract, using specific stages to describe teachers as they move through this continuum (Fuller and Bown 1975). However, there exist a few research findings that trigger educators in the area to critically consider and challenge the long standing research findings. That is, teachers also may have concerns in more than one stage at a time or may skip some of the stages. For example, they might have concerns about the "how to's" of managing the implementation (Stage 3) as well as how it will affect their students (Stage 4) (Hall and Hord, 1987).

In their attempts to validate this assertion, Wendt and Brain, for example, used teacher concern of 45 students who had completed teaching practice and 45 teachers who had less than ten years experience. Results showed that student concern was the highest concern for both groups, followed by self concerns than task concerns (Wendt and Brain, cited in Hall and Hord, 1987). On a similar basis, another research conducted by Betines cited in Hall and Hord, 1987 administered to 100 final year students undertaking teaching practice; at the beginning of teaching practice; when changing schools, and at the end of teaching practice. The mean score was found to be highest for student concerns. Therefore, contradicting with the above ideas (stages) which believe that unless the beginning teachers overcome their survival stage, they are not preoccupied with student as well as task concern. This study revealed an

outcome in which teachers never very much concerned with pupils than self and task.

In general, as most innovation researchers agree, early questions are more self-oriented: what is it? and how will it affect me? When these questions are resolved, questions emerge that are more task-oriented: how do I do it? How can I use these materials efficiently? How can I organize myself? And why is it taking so much time? Finally, when self- and task concerns are largely resolved, the individual can focus on impact. Educators ask: Is this change working for students? And is there something that will work even better? (Hall and Hord, 1987; Hord, Rutherford, Huling-Austin, and Hall, 1987).

Levels of Use

Levels of use refer to behaviors educators develop as they become more familiar with and more skilled in using an innovation or adopting a change (Hord et al., 1987). Developed by the CBAM Project at the University of Texas in the 1970s, Levels of Use looks at what teachers are actually doing with a new program or practice (Hall and Locks, 1977). From field work in the late 1960s and early 1970's, Hall and Hord identified, verified, and operationally defined eight different levels of use of a new innovation as part of the CBAM project (Hall & Hord, 1987). These levels of use are an important feature of their Concerns-Based Adoption Model (CBAM). When learning to use an innovation, users move along a spectrum that ranges from no use to full use (Hall & Hord, 1987).

The success of an innovation depends not only on convincing people to adopt it but also on how the adoption works. Therefore, the levels of use developed by researchers in the concerns Based Adoption Model project can provide important insights for curriculum leaders (Hord et al., 1987). Levels of use are important because judgments of an innovation‘s worth tend to assume that it has been implemented as designed. One research suggests a reality that is quite different. Even though individuals have been provided with identical information and similar training teachers tend to modify the innovation to meet

their own needs. Furthermore, some individuals will be able to take full advantage of an innovation's potential, while others will go mechanically through the steps minimally necessary to be incompliance with an administrative mandate to follow the new program (Hord, Rutherford, Huling-Austin, and Hall, 1987).

One important study that looked at behaviors of a large number of teachers found that fully one-fifth of those who were supposed to be using an innovation were nonusers (Hall and Loucks, 1977). In a related study, 63 percent of teachers who had not been introduced to an innovation featuring individualized instruction were, in fact, using individualized instruction in their class rooms (Hall and Locks, 1977).

This information points out some difficulties associated with examining the real impact of educational innovations. To provide a fair assessment, it is imperative that teacher educators have some information about how an innovation is being implemented. Furthermore, if a comparison is to be made between users and nonusers, there must be some assurance that those labeled nonusers are not incorporating many features of the innovation in their own instruction (Hord, Rutherford, Huling-Austin, and Hall, 1987).

Information on levels of use of an innovation by instructors suggests the nature of professional development strategy appropriate to this group. In this line, Armstrong attest the fact that for teachers' levels of use have been found to vary so much, little is to be gained by forcing all of them to go through the same staff development program. Differentiated program planning keyed to individual's particular levels of use makes good sense (Hall and Hord, 1987*).*

In any change implementation process, one should consider the fact that change requires ongoing support and resources and it takes time. Sometimes we get discouraged when we don't see immediate results. It is important to have realistic expectations about the time it will take to see significant progress. According to CBAM researchers Hall and Hord, "Most changes in education

take three to five years to be implemented at a high level" (Hall and Hord, 2001, p 28).

Research on teachers' levels of use of innovations has further revealed that levels change over time. There is a tendency for teachers to move beyond level 3, mechanical use, to higher levels over a period of years. An important implication of this finding is that innovations take time to take root. Teacher educators need to work with administrators and others to give teachers adequate time to become familiar and comfortable with an innovation. If there is an attempt to assess the value of an innovation too soon, the results may not provide a fair measure of its worth (Hall and Loucks, 1977).

Successful implementation of an innovation may also partly be affected by the practitioners' skill and nature of training. In this line, Hall and Hord, (1987) suggest that change should be thought of as skill-building and training as part of the change process. They believe that even if people understand and accept a change, a major impediment to successful change is lack of the skills and ability to carry out the new plan. "In school improvement efforts, leaders must take the time to help people in schools, particularly teachers, genuinely understand the importance of adopting a new program, attending in-service training, and implementing a particular program (Hall and Hord, 1987). Teachers need to know whether there is sufficient knowledge available to make smaller changes that fall short of a complete redesign…and what, if any, common markers characterize those schools, programs and classrooms that are successfully serving at-risk students (Hall and Hord, 1987).

Methods of the Study

Subjects of the Study

The target population for this study included teachers who participate in a Higher Deploma training sessions from the three tertiary level institutes in the Amhara region. Of these teachers, seventy-nine teachers were selected using purposive sampling technique. That is, all instructors who had an opportunity for

the HDP training were members the sample population. Specifically speaking, 29 instructors from Faculty of Education of Bahir Dar University, and 25 instructors each from Gonder College of Teacher Education and Debre Markos College of Teacher Education were subjects of this study.

The institutes are Faculty of Education of Bahir Dar University, Gonder College of Teacher Education, and Debre Markos College of Teacher Education.

Bio data for Subjects of the Research

Area of Speciation				Teaching Experience at tertiary level			Qualification			Position		
Social Science	Natural Science	Pedagogical Science	Language	1-5 Years	6-10 years	Above 10 Years	First Degree	M.Sc. M.A.	Ph.D	Grad. Assistant to Assi. Lecturer	Lecturer	Assi. Prof. & Above
19	10	19	5	35	8	10	32	21	0	31	22	0

Data Collection Instruments

Two sets of standardized questionnaires, one to measure the stages of concern and the other to measure the level of use, that are adapted from the SoCQ were used to collect relevant data. The Stages of Concern Questionnaire (Hall, Wallace and Dossett, 1973) was the primary tool of data collection. The SoCQ is a fifty-one item questionnaire designed to measure the stages of concern about the practices of Active Learning Strategies. It yields data on the seven stages of concern about an innovation on a Likert scale with values ranging from 1 to 5 according to how the respondent perceives the items as a description of the concern felt at the time. The instrument has a high internal reliability with estimates of internal consistency (alpha coefficients) ranging from 0.64 to 0.83. LoU of questionnaire, which entertains the seven levels was also employed. In addition, the researchers solicited data through panel and informal discussions

with pedagogical sciences department staff members who passed through the HDP training sessions.

Data Analysis Procedures

The data collected through the questionnaire was sorted out based on the nature of basic questions. Moreover, the results of the questionnaire were sorted based on instructors' level of qualification, years of experience, and area of specialization. All instructors were grouped into three areas of specialization, namely, social sciences, natural sciences, and pedagogical sciences. Similarly, three categories of years of experiences were used. That is, instructors with 1-5 years of experience were taken as group one. Instructors with 6-10 years of experience were group two and more than 10 years experience were group three. The third category is based on their qualification. From graduate assistant up to assistant lecturers were grouped together. Lecturers were the second group and assistant professors and above were group three. Data was computer scored to obtain group raw scores that specifically represent concerns that are prominent at a specific level of concern.

Based on the nature of basic questions, different statistical methods were employed. To assess the relationship between instructors' stages of concern and levels of use of active learning strategies, Pearson Product Moment coefficient of correlation was employed. ANOVA was carried out to measure the level of significance of mean differences among instructors across their areas of specialization, years of teaching experience, their level of training in education courses.

Furthermore, t-test was employed to examine the mean difference between instructors' stages of concern and levels of use of active learning strategies vise-a-vise their qualification and training in education courses.

Data Presentation and Discussion

Data Presentation

Table 1: Relationship Analysis of Instructors SoC and LoU of Active Learning Strategies

C1	1.00											
C2	.76	1.00										
C3	.53	.58	1.00									
C4	.57	.65	.76	1.00								
C5	.57	.65	.64	.83	1.00							
C6	.45	.60	.59	.85	.92	1.00						
C7	.47	.54	.63	.77	.87	.89	1.00					
U1	-.28	-.24	-.03	-.09	-.16	-.03	-.08	1.00				
U2	-.53	-.71	-.38	-.46	-.55	-.54	-.58	.38	1.00			
U3	-.35	-.57	-.45	-.52	-.50	-.56	-.55	.28	.74	1.00		
U4	-.45	-.56	-.51	-.56	-.54	-.54	-.62	.33	.58	.74	1.00	
U5	-.49	-.47	-.59	-.57	-.54	-.56	-.65	.19	.46	.60	.72	1.00
U6	-.43	-.44	-.54	-.60	-.54	-.57	-.68	.07	.53	.65	.67	.78
U7	-.55	-.63	-.62	-.62	-.60	-.64	-.67	.15	.63	.73	.67	.77
	C1	C2	C3	c4	C5	C6	C7	LU1	LU2	LU3	LU4	LU5

An attempt was made to see the state of relationship that exists between instructors SoC and LoU of active learning strategies. As disclosed in Table 1, instructors SoC of active learning instructional strategies are significant but negatively related to their LoU of active learning strategies. That is, as instructors concerns (i.e., perceptions, feelings, motivations frustrations and satisfactions) about an innovation increase at the non adopter stages of concern, their LoU of the innovation comfortably in actual classrooms gets decreased. As has been purported in the literature, to see an improved practice of the strategy higher learning institutes must focus on trainings that could minimize practitioners concerns about active learning strategies that are disclosed at the non adopter stages of concern.

Table 2: Instructors Stages of Concern and Levels of Use of Active Learning Strategies vis-à-vis Areas of Specialization

S o C	Area of Specialization						d/f	F	Sg.
	Social Science		Natural Science		Ped. Science				
	Mean	St.D	Mean	St.D	Mean	St.D	2	2.28	.11
Sc_1	34.15	4.55	31.20	4.94	31.11	6.11	2	4.29	.02
Sc_2	31.81	5.46	28.10	6.06	26.72	6.36	2	.68	.51
Sc_3	34.00	7.79	32.00	6.07	31.67	6.28	2	.83	.44
Sc_4	30.04	6.59	26.70	6.34	28.94	7.75	2	.43	.66
Sc_5	26.24	7.14	24.10	7.48	25.06	7.39	2	.32	.73
Sc_6	29.10	7.33	27.40	7.62	29.61	6.40	2	1.31	.28
Sc_7	29.19	8.40	24.70	8.25	29.17	6.87	2		
L o U LU_1	10.27	1.97	10.70	2.91	10.72	1.36	2	.33	.72
LU_2	8.92	2.00	10.40	3.24	9.78	2.39	2	1.59	.22
LU_3	10.62	2.43	12.20	3.58	10.94	2.65	2	1.22	.31
LU_4	8.88	2.10	10.40	2.88	8.94	2.51	2	1.58	.21
LU_5	9.85	2.48	10.20	2.78	9.61	2.43	2	.18	.84
LU_6	9.85	2.01	11.00	2.26	9.56	2.33	2	1.50	.23
LU_7	16.15	3.12	17.50	3.47	16.35	3.79	2	.58	.57

After having ascertained the relationship analysis between teachers' stages of concern and levels of use (in Table1), ANOVA was carried out to see if there is statistically significant difference among the means of instructors in different areas of specialization. The results depict that except in stage two of concern there is no statistical significant difference. This implies that area of specialization brings insignificant change in instructors' stages of concern and levels of use of active learning strategies in their actual classrooms. However, in stage two of instructors concern the mean of instructors in Pedagogical Science department is less than the mean of instructors in Natural Science and Social Science. The difference is significant.

Stage 2 of concern deals with securing information related to the innovation or the suggested change. Instructors from Pedagogical Sciences department might have got information about active learning methods in one of the education

courses. This seems to cause detriment of concern about securing information about active learning strategies. In support of this point, one of the staff members in this department asserted that "I know active learning before though I did not internalize it. The training has given me nothing new things" (information obtained from the informal discussions with Pedagogical Sciences department staff member).

Table 3: Instructors Stages of Concern and Levels of Use of Active Learning Strategies as a function of their level of Teaching Experience

S o C	Teaching Experience						d/f	F	Sg.
	1-5 yrs		10 Yrs		Above 10 Yrs				
	Mean	St.D	Mean	St.D	Mean	St.D			
Sc_1	32.58	4.85	31.63	6.16	33.40	6.57	1	1.34	.25
Sc_2	28.92	6.19	30.13	7.49	30.70	5.74	1	1.13	.29
Sc_3	32.64	6.97	34.00	8.32	32.70	6.57	1	.65	.42
Sc_4	28.56	7.12	28.25	8.10	31.50	5.21	1	.01	.91
Sc_5	25.03	7.61	25.63	8.12	27.30	4.99	1	.05	.83
Sc_6	28.28	7.14	29.63	6.55	30.80	7.11	1	.24	.63
Sc_7	27.83	7.77	31.00	7.35	28.10	9.34	1	.10	.75
L oU LU_1	10.44	1.86	11.13	2.23	10.20	2.30	2	.52	.60
LU_2	9.47	2.26	8.88	2.36	10.00	3.09	2	.47	.63
LU_3	11.08	2.49	10.38	2.97	11.30	3.62	2	.27	.76
LU_4	9.11	2.25	9.25	2.31	9.40	3.24	2	.06	.95
LU_5	9.83	2.38	9.50	2.45	10.10	3.04	2	.13	.88
LU_6	10.028	2.077	9.75	2.05	9.90	2.85	2	.06	.95
LU_7	16.83	3.43	16.25	3.20	15.40	3.47	2	.71	.50

T- test was employed to determine if there is statistical difference between the means of instructors who have different levels of teaching experience The results in table 3 indicate that the mean differences are not statistically significant. This show those instructors' years of teaching experience has little or no impact on both stages of concern and levels of use of active learning

strategies. This is perhaps due to the fact that experienced teachers usually employ direct instructional strategies at the cost of active learning methods. This is due to the fact that teachers teach the way they were taught.

Table 4: Instructors Stages of Concern and Levels of Use of Active Learning Strategies vis-à-vis their level of Qualification

S o C	Qualification				d/f	F	Sg.
	First Degree		M.A				
	Mean	St.D	Mean	St.D			
Sc_1	33.24	4.61	31.50	6.30	1	1.21	.28
Sc_2	30.12	6.07	28.25	6.50	1	.74	.40
Sc_3	33.44	7.01	31.85	7.00	1	2.56	.12
Sc_4	28.98	7.46	29.20	6.13	1	.001	.98
Sc_5	25.71	7.35	25.25	7.14	1	.02	.89
Sc_6	28.59	7.31	29.55	6.55	1	.41	.53
Sc_7	28.09	8.63	28.80	6.80	1	.05	.83
L o U LU_1	10.38	2.03	10.70	1.95	1	.32	.57
LU_2	9.12	2.27	10.10	2.59	1	2.13	.15
LU_3	10.94	2.61	11.15	3.03	1	.07	.79
LU_4	9.00	2.27	9.50	2.69	1	.53	.47
LU_5	9.97	2.42	9.60	2.62	1	.28	.60
LU_6	9.71	2.29	9.95	2.06	1	.001	.97
LU_7	16.56	3.54	16.32	3.16	1	06	.81

To see whether there exists statistically significant mean difference between instructors of different educational qualification (BA &MA), t-test was employed. The results in Table 4 reveal that the mean difference in both stages of concern and levels of use of active learning strategies by instructors of different educational qualification are found to be insignificant. This implies that instructor's educational level has little or no effect on stages of concern and levels of use of active learning strategies. In support of this point, there is this assertion: "teachers [instructors] teach the way they were taught", i.e, at whatever educational level it may be, "talk" and "chalk" or lecturing is the instructional style of most Ethiopian teachers. It may be due to this reason that

that variation in educational qualification of instructors brings little effect on SoC and LoU of active learning strategies. But still it requires further research in this area.

Table 5: Instructors Stages of Concern and Levels of Use of Active Learning Strategies along the Status of Short Term Training

So C	Short Term Trainings						Above 10		Not at all	DF	F	Sisig
	1-3 yrs		4-6 Yrs		7-10 times							
	Mean	St.D	Mean	St.D	Mean	St.D	Mean	St.D	Mean	St.D		
Sc_1	29.52	6.74	32.50	6.50	28.50	6.36	30.15	4.18	26.40	5.44		4.27
Sc_2	32.56	4.99	33.63	7.46	33.00	4.24	34.86	5.24	30.20	4.37		3.26
Sc_3	34.00	6.54	32.25	9.56	35.50	1344	31.57	6.88	30.60	5.34		2.81
Sc_4	28.80	7.59	33.25	4.13	28.00	16.97	28.29	4.11	26.90	6.23		2.35
Sc_5	25.63	7.59	29.50	4.05	26.50	12.02	25.00	3.37	27.30	8.77		1.63
Sc_6	28.89	7.32	34.38	4.31	26.50	13.44	28.43	4.12	25.60	6.88		.06
Sc_7	28.07	8.66	32.63	5.53	28.50	13.43	27.43	5.13	26.30	8.47		.30
L o U LU_1	10.48	2.03	10.00	1.51	11.00	2.83	10.00	1.91	11.20	2.25	4	.57
LU_2	9.41	2.48	8.63	2.07	10.50	4.95	9.00	2.45	10.50	2.07	4	.85
LU_3	10.85	2.88	8.63	1.06	12.00	5.66	11.43	1.72	12.90	2.18	4	3.30
LU_4	9.07	2.27	7.13	.35	10.50	4.95	9.29	2.50	10.80	2.35	4	3.18
LU_5	9.96	2.44	8.63	2.13	10.50	4.95	9.29	2.43	10.70	2.50	4	.92
LU_6	9.85	2.01	8.75	1.83	10.50	4.95	9.86	1.87	11.20	2.39	4	1.52
LU_7	16.30	3.05	14.57	3.31	16.50	7.78	16.14	2.41	18.50	3.71	4	1.55

Table 5 indicates that the number of short term trainings that instructors took concerning curriculum development, evaluation, instructional leadership, teaching methods, etc. has no effect on their stages of concern and levels of use of active learning strategies. The mean of instructors who did not take any short term training is less than the mean of instructors who took short term training of any level. This difference was found to be insignificant. But if it is seen with respect to specific stages/levels the same table shows a real effect of LoU& SoC of active learning strategies as a result of short term provision. This shows that the training instructors took concerning components of education have raised instructors' stages of concern at stage 1.

Further analysis of table 5 indicates interesting finding, i.e., instructors' levels of use of active learning strategies is affected by short term trainings at levels 3&4 (State in which the user is preparing for the first use of active learning strategy and State in which the user focuses most effort on the short-term, day-to-day use of active learning strategy with little time for reflection, respectively.)

Table 6: Instructors Stages of Concern and Levels of Use of Active Learning Strategies with regard to Educational Courses Taken

So C	Education Courses				d/f	F	Sg.
	Education Courses taken		Not Taken				
	Mean	St.D	Mean	St.D			
Sc_1	32.74	5.18	30.75	7.37	2	.24	.79
Sc_2	29.54	6.09	28.00	8.83	2	.37	.69
Sc_3	33.24	6.99	28.00	5.89	2	.12	.89
Sc_4	29.22	6.89	27.00	8.29	2	.76	.47
Sc_5	25.72	6.96	23.25	10.87	2	.38	.69
Sc_6	28.94	7.01	29.00	7.87	2	.54	.58
Sc_7	28.50	7.93	26.50	9.04	2	.52	.60
Lo U LU_1	10.40	1.87	11.75	3.10	2	1.56	.22
LU_2	9.40	2.34	10.50	3.51	2	2.71	.11
LU_3	10.84	2.68	13.25	3.10	2	.003	.96
LU_4	9.12	2.38	10.00	3.16	2	.69	.41
LU_5	9.68	2.45	11.75	2.22	2	.21	.65
LU_6	9.80	2.17	12.00	1.41	2	1.19	.28
LU_7	16.22	3.36	19.50	2.08	2	1.46	.23

The comparison between instructors who took education courses and those who did not take was made. The result in Table 6 indicates that the mean differences of instructors who took education courses and those who did not was found to be insignificant in both stages of concern and levels of use. This implies that education courses given at undergraduate and post graduate programs have little or no effect on instructors' stages of concern and level of use of active learning strategies.

Table 7: Instructors Stages of Concern and Levels of Use of Active Learning Strategies in respect of HDP Training Accomplishment

S o C Sc1	X-square Values		d/f	F	Sg.
	Actual Values	Critical Values			
	16.14	7.82	2	1.23	.31
Sc_2	9.8	7.82	2	.80	.50
Sc_3	18	7.82	2	.35	.79
Sc_4	8.6	7.82	2	.44	.73
Sc_5	2.3	7.82	2	1.00	.40
Sc_6	5.34	7.82	2	1.24	.31
Sc_7	6.85	7.82	2	.79	.51
L o U					
LU_1	.01	7.82	2	2.33	.13
LU_2	.29	7.82	2	.22	.64
LU_3	.25	7.82	2	.04	.85
LU_4	.48	7.82	2	.10	.75
LU_5	.13	7.82	2	.02	.90
LU_6	.15	7.82	2	1.59	.21
LU_7	.24	7.82	2	.001	.98

The Chi-Square analysis has identified the stages of concern and the levels of use instructors regarding active learning strategies. The results in Table 7 indicate that there existed significant mean difference between the actual and the expected means of instructors up to the fourth stages of concern (non adopter stages). The result further indicates that in the remaining stages of concern and in all levels of use the mean differences between the actual and the expected mean are insignificant. This implies that instructors are at stage four of concern. That is, the stages from one up to four deal with:

a) awareness- teachers have little concern or involvement with innovation; b) informational- teachers have a general interest in the innovation and they could be to know more about it; c) personal- teachers question how the innovations will affect them; and d) management –teachers learn the processes and tasks of innovation Generally, the first four stages are termed to be non adopter stages (Hall and Hord, 1987).

Discussion of the Findings

Relationship Analysis of Instructors SoC and LoU of Active Learning Strategies

The findings in this study show the inverse relationship that exists between instructors' concerns (i.e., perceptions, feelings, motivations, frustrations) about an innovation and their level of use of active learning strategy in actual classroom. That is, as instructors' concerns about active learning strategy increases their competence to implement the particular aspects of the strategy gets decreased. Research indicates that expressed concerns permit the identification of degree of acceptance or adoption of the innovation on the part of teachers. As concerns at the four sequential, non-adopter stages of Awareness, Informational, Personal, and Management are reduced, users begin to express higher concerns at the three adopter stages of Consequence, Collaboration, and Refocusing. If teachers do not have their concerns first reduced at the non-adopter stages, they will not move on to the adopter stages (Hall and Hord, 1987). For Successful implementation of an innovation, teachers should reach the adoption stages of concern. This has been substantiated by the results to be discussed later.

Instructors' Stages of Concern and Levels of Use of Active Learning Strategies across the State of Consultation about the Kind of Training

Findings of this study discloses the fact that consulting instructors about the kind of professional training has not brought any significant effect on their personal concern and competency in implementing active learning strategies in all stages of concern except stage 2 and all levels of use. But the literature consistently confirmed the positive contribution of consulting practitioners on the nature of their professional training before their actual engagement into the kind of professional development program. Researchers suggest that Professional development should involve teachers in the identification of what they need to learn and in the development of the learning opportunity and /or the process to be used (Borko and Putman, 1995). This is due to the fact that, when teachers

are denied input in their own professional development, they are likely to become cynical and removed from school improvement efforts (Guskey and Hargreaves, 1995). Further research (Hall and Hord, 1987; Rutherford, Hall& George 1982; Norris, 1993; and Todd, 1993) support the concept of addressing the concerns of teachers when planning professional development activities since successful implementation will depend on the attitudes of the teachers involved in the process. But, the culture in our education system provides little opportunity for the direct beneficiaries of programs designed to bring professional development (Seyoum, 1996).

Therefore, the non-significant effect of consulting instructors' about the kind of training on their personal concern and competency in implementing active learning strategies may be due to different reasons. For one thing, teacher consultations and areas of emphasis in professional development programs may diverge from one another. In support of this point, it has been discussed in the literature that practical changes are those that address salient needs, which fit well with the teachers' situation, that are focused, and that include concrete how-to-do-it possibilities (Fullan, 1991). For the other, the consultation given may not be made an integral part of the professional development process, i.e., it may be considered as an add-on element. In this line, Norris, (1993) assert that professional development programs are designed, organized, and delivered based on the skills and knowledge policymakers assume to be teachers need, rather than allowing teachers to identify their needs and concerns. These two possible reasons trigger us to suggest further research in this aspect of the problem.

The current study portrayed that instructor's have not exhibited even the lower levels of use. This seems to be the effect of not consulting instructor's about the kind of training they need.

Instructors' Stages of Concern and Levels of Use of Active Learning Strategies as a function of their level of teaching Experience

In this study, the mean differences between instructors' teaching experience and their concerns and levels of use are not statistically significant. A review made into the related literature depicted that one cannot assume that an instructor's years of experience are directly related to their developmental stage, as individual teachers move through these stages at different rates. It is also extremely important to recognize that teachers do not pass through these stages independently of the other conditions of their lives. Depending upon changing personal and professional factors, it is likely that the teachers will fluctuate among the stages. For example, if a teacher goes through a major life crisis, such as the death of a parent, it is likely that he or she will drop to a lower developmental stage while coping with this traumatic event. Also, if an experienced teacher moves to a new school district, he or she is likely to begin the first year at a survival stage of development. This stage may pass quickly as the teacher draws on past knowledge to begin to function within the new context. However, it is important to recognize that this is likely to occur. A change from a suburban to an urban setting may also result in an experienced teacher moving to a lower stage of development, and as such, s/he may need assistance with strategies that will help her/him become successful in this new context (Fullan and Hargreaves, 1996).

There exists, however, a stock of research findings in the literature which contradict the current finding. Marso and Pigge (1994) cited Fullan and Hargreaves, (1996), for example, surveyed approximately 300 pre-service and in-service teachers in various stages of their career. Four career periods were identified: pre-service teachers, teachers with 5-19 years of experience, teachers with 20-29 years of experience, and teachers with 30+ years of teaching. Lower levels of concerns about the task of teaching were reported by pre-service teachers compared to the in-service teachers, though in-service teacher groups were not significantly different from one another. Late-career teachers did, however, report lower concerns about self-survival than did mid-career teachers. Pre-service teachers also reported significantly lower levels of

concern for impact on pupils than in-service teachers, and again the in-service teacher groups were not significantly different from one another. Similar, the original research by Fuller (1969) revealed patterns in teacher concerns that correlated with maturity and teaching experience. Of particular importance to this study are findings that show pre-service and beginning teachers have different concerns from experienced teachers, and that pre-service teacher education courses should take cognizance of the characteristics typical of teachers at an initial stage of development.

Even though the available literature on the correlation between stages of concern and levels of use with teaching experience uncovered significant positive relationship, the results in this study, however, revealed little relationship. That is, the mean difference among teachers with different ranges of teaching experience is found to be non-significant. This can be attributed to the fact that years of teaching experience can have an impact on the implementation of an innovation if it is supported by continuous and relevant training in the area. However, the informal discussion with a large number of instructors indicates that the HDP was boring, tiresome, time consuming, and irrelevant to the actual gaps which participants would like to be filled-through the program.

Instructors' Stages of Concern and Levels of Use of Active Learning Strategies along the Status of Short Term Training

The findings in this paper indicate that short term trainings that instructors took concerning curriculum development, evaluation, instructional leadership, teaching methods, etc. have no effect on their stages of concern and levels of use of active learning strategies. To the researchers' best knowledge, this may be due to the fact that the of short term trainings had an add- on and one shot characteristics. The professional development activities for implementing new programs usually take the form of a one-time workshop, and teachers are asked to go back to their respective classrooms and successfully implement the programs. Teachers, therefore, become reluctant to implement because of the lack of training and interest. This shows that the successful adoption of any

innovation largely depends on teachers' participation in the process of change (Cunningham, Hillison and Home, 1985). In a similar way, Deal and Kennedy (1982) cited in Fullan and Hargreaves (1996), suggest that change should be thought of as skill-building and training as part of the change process. They believe that even if people understand and accept a change, a major impediment to successful change is lack of the skills and ability to carry out the new plan. As a result it is strongly asserted that, "In school improvement efforts, leaders must take the time to help people in schools, particularly teachers, genuinely understand the importance of adopting a new program, attending in-service training, and implementing a particular program" (Krueger and Parish, 1982:136 cited Hord et al., 1987). Moreover, "Teachers need to know whether there is sufficient knowledge available to make smaller changes that fall short of a complete redesign…and what, if any, common markers characterize those schools, programs and classrooms that are successfully serving at-risk students" (Cuban, 1989 p 799 cited in Fullan, 1991).

Another possible reason may be the nature of training. That is, the nature of short term training might have not treated active learning approach as its basic component. However, parts of the results obtained from Table 5 indicates that the variable that brings some difference on instructors' stage 1 of concern and levels 3 and 4 of use is the difference which exists as a result of short term trainings instructors took. The implication from this result is that teacher professional developments should be given in short term training forms.

Instructors' Stages of Concern and Levels of Use of Active Learning Strategies in respect of HDP Training Accomplishment

It has now been three years since the higher diploma program has began in the three higher institutes under study. In Hall and Hord's (1987), opinion, it takes at least three years for early concerns to be resolved and later ones to emerge. Thus, the results of this study are in conformity with the above contention. This is, the majority of the instructors in the three higher institutions are at the early stages of concern (non adopter stages). This implies that though it has now

been three years since HDP has began, it is too early to comment upon the low level of instructors concerns towards active learning strategies.

There is scarce research in the area; however, the current finding has shown that instructors are not fully implementing active learning strategies. One can raise several reasons for this. The low stage of concern instructors have may be one of the major factor. In connection with this Fullan, (1991) purported the fact that to observe full-fledged involvement in the implementation of the innovation or change, practitioners should reduce their concerns in the low stages of concern (non adopter stages) and proceed to the higher ones (adopter stages). Besides the attitudes of the instructors, the low level of implementation of active learning might be attributed to the unfavorable attitude towards the program.

Conclusion

The current study portrayed the fact that instructors' stages of concern and levels of use are negatively correlated as indicted in the literature. But there is no significant difference between and among instructors' stages of concern and levels of use along the variables, such as qualification, experience, number of short term trainings or no short term training at all, and the kind and nature of courses taken. In addition, instructors are at the non adopter stages of concern. As a result they are not practicing active learning methods to the desired level in their actual classroom settings. In the end, some instructors disclose their resentment towards HDP believing that it is boring, redundant, irrelevant to current needs of instructors, and mere time consuming practice.

Recommendations

Based on the above concluding remarks, the following points are suggested:

- Change agents of the HDP (leaders, tutors, focal persons of the university) ought to work harder than before in initiating the possible users of the program to wholeheartedly accept the change and thereby use suggested innovative strategies indicated through the program in their actual instructional settings.

- Change agents of the HDP should consider the fact that different instructors have different needs in terms of using an innovation indicated in the program. This being the case, the kind of training given to these instructors need to be designed in a way that bridges the gap observed in each and every instructor expected to pass through the HDP training. In its actual practice, it requires rearranging similar needs together and entertaining them on that basis.
- The HDP trainers are advanced learners. Therefore, the HDP training guide should be free of repetitions of content and learning experiences.

References

Adams, R. D., & Martray, C. (1981). *Teacher Development: A study of Factors Related to Teacher Concerns for pre, Beginning, and Experienced Teachers*. Paper presented at the annual meeting of the American Educational Research Association, Los Angeles, CA.

Arends, R. (1994). **Learning to Teach.** USA: McGraw-Hill, Inc.

Borko, H., & Putnam, R. T. (1995). *Expanding a Teacher's Knowledge base: A cognitive Psychological Perspective on Professional Development*. In T. R. Guskey & M. Huberman (Eds.), **Professional development in education: New paradigms and practices** (pp. 35-66). New York: Teachers College Press.

Cunningham, D.L., Hillison, J., & Horne, R. (1985). *Adoption of an Innovation: Monitoring the Concerns of Vocational Teachers*. **Journal of Vocational Education Research***, 10*(1), 15-28.

Demarte, P. J. & Mahood, R. W. (1981). *The Concerns of Teachers in Rural, Urban, and Suburban School Settings.* Paper presented at the annual meeting of the American Educational Research Association, Los Angeles, CA.

Fullan, M., & Hargreaves, A. (1996). **What's Worth Fighting for in your Schools?** New York: Teachers College Press.

Fuller, F.F. and Bown, O.H. (1975). *Becoming a Teacher.* In K. Ryan (ed.), **Teacher Education.** (74th yearbook of the National Society for the study of Edu., part II, pp. 25-52). Chicago: University of Chicago press.

Fuller, F. F. (1996). *Concerns of Teachers: A Developmental Concephalization.* **American Educational Research Journal**. 6(2), 207-226.

Guskey, T. R. (1986). *Staff Development and the Process of Teacher Change*. **Educational Researcher***, 15*(5), 5-12.

Guskey, T. R. (1995). *Professional Development in Education: In Search of the Optimal mix*. In T. R. Guskey & M. Huberman (Eds.), **Professional Development in Education: New Paradigms and Practices** (pp. 114-132). New York. Teachers College Press.

Hall, G.E., & Hord, S. M. (1987). **Change in Schools Facilitating the Process.** New York: State University of New York Press.

Hall, G. E., George, A. A., & Rutherford, W. L. (1979). *Measuring Stages of Concerns about the Innovation: A Manual for Use of the SoC Questionnaire*. Austin, TX: The University of Texas at Austin, The Research and Development Center for Teacher Education. (ERIC Document Reproduction No. ED 147 342).

Hall, G., & Loucks, S. (1979). *Implementing Innovations in Schools: A conserve based approaches*. Austim, TX: Research and Development center for Teacher Education University of Texas.

Hall, G. E., Wallace, R. C., & Dossett, W. A. (1973). *A Developmental Conceptualization of the Adoption Process within Educational Institutions* (Rep. No. 3006). Austin, Texas: The University of Texas at Austin, The Research and Development Center for Teacher Education. (ERIC Document Reproduction No. ED 095 126).

Hargreaves, A. (1995). *Development and Desire: A Postmodern Perspective.* In T. R. Guskey & M. Huberman (Eds.), **Professional Development in Education: New Paradigms and Practices** (pp.9-34). New York: Teachers College Press.

Hargreaves, A. and Fullan, M.G. (1992). **Understanding Teacher Development.** New York: teachers Collage press.

Hope, W. C. (1995). *Micro Computer Technology: Its Impact on Teachers in Elementary School*. Dissertation, Florida State University. (ERIC Document Reproduction No. ED 384 336).

Hubermarn and Miles. (1994). **The Lives of Teachers**. New Yourk. Teachers College press.

Kohlbery, L. (1973). **The Measurement of More Judgment: Vol. 1. Theoretical Foundations and Research Undulation.** Landon: Cabridge University

Lambert, L. (1988). *Staff Development Redesigned.* **Educational Leadership***, 45*(8), 665-668.

Little, J. (1993). *Teachers' Professional Development in a Climate of Educational Reform.* **Education Evaluation and Policy Analysis***. 15*(2), 129-159.

Marso, R. N. & Pigge, F. L. (1994). *Concerns about Teaching at Four Different Stages of Career Development.* Paper presented at the Annual Conference of the Association of Teacher Educators, Atlanta, GA.

Means, B., Olson, K., & Singh, R. (1995). *Beyond the Classroom: Restructuring Schools with Technology*. **Phi Delta Kappan***, 77*(1), 69-72.

Norris, C. (1993). *Assessing and Evaluating Teacher Concerns*. **Computing Teacher,** *20*, 27-29.

Office of Technology Assessment. (1995). **Teachers and Technology: Making the Connection.** U. S. Congress, Washington, D C.

Ohio Department of Education (1993). **Ohio's Commitment to School Renewal.** Columbus, OH: Author.

Ravitch, D. (1993). *The Promise of Technology*. **Electronic Learning***, 12* (4), 50.

Rutherford, W.L. Hall, G. E., & George, A. S. (1982). *An instrument for Measuring the Concerns Change Facilitators have about their Role in Guiding Change*. The University of Texas at Austin, Research and Development Center for Teacher Education. (ERIC Document Reproduction No. ED 221 600).

Sparks, D. M., & Loucks-Horsley, S. (1989). *Five Models of Staff Development for Teachers.* **Journal of Staff Development,** *10*(4), 40-57.

Seyoum Tefera (1996). *Attempts at Educational Reform in Ethiopia: A Top-down or a Bottom-up Reform?* **The Ethiopian Journal & Education**, XVI(1).

Todd, N. I. (1993). *Faculty Concerns as Gateways to Teacher Competency with Computer Technology*. Paper presented at the Convention of the Association for Educational Communications and Technology, New Orleans, Louisiana. (ERIC Document Reproduction No. ED 362 209).

United States Department of Education. (1994). *National Goals Report: Building a Nation of Learners*. Report by the National Educational Goals Panel, Washington, D. C.

Van Manen, M. (1990). **Researching Lived Experiences. Human Science for an Action Sensitive Pedagogy**. London, Ontario, Canada: Sunny.

Wade, R. K. (1989). *What Makes a difference in In-service Education? A meta-analysis of Research.* **Educational Leadership***, 43*(4), 48-54.