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ABSTRACT

This study examined changes in novice teachers' feelings of self-efficacy (the belief that he or she can be successful in affecting student performance) and their beliefs about teaching as they completed a clinical experience in their teacher education program. It also attempted to identify factors which influenced these changes and to examine early novice teachers' perceptions of teacher roles and beliefs about teacher routines. Participants included 82 novice teachers, of whom 19 completed 6 hours of clinical placement and 63 completed 32 hours of clinical experience focusing on teaching and on the routine duties of elementary teachers. The findings indicated: (1) students completing an extended field experience showed an increase in their feelings of personal efficacy at the end of their field experience; students who completed shorter clinical visits did not; (2) outcome expectancy efficacy was not affected by the variation in clinical placements; (3) early novice teachers in both groups rated themselves as confident prior to and after the clinical experience; (4) prior to their first clinical placement, early novice teachers in both groups were likely to assume a "student stance" when answering questions about what goes on in schools on a daily basis; and (5) students in both groups showed little change in responses to questions about factors not directly under teacher control and to questions regarding typical lesson settings and the evaluation of student progress. The results suggested that field experiences might be modified in order to make them more effective, and that novice teachers early in the program may not even be aware that they possess pre-existing beliefs about teaching and classroom routines. (Contains 42 references.) (ND)

Novice Teacher Efficacy and Field Placements

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Introduction

A novice's sense of teaching efficacy, that is, the belief that he or she can be successful in affecting student performance, develops with training and experience (Ashton, 1984). Much of the time which early novice teachers have spent in elementary classrooms has been in their roles as students (Bullough, 1989). One logical ramification of this fact is the notion that many duties required of classroom teachers are invisible to novices; in reality, novices' beliefs about teacher roles and routines may acknowledge only those aspects of teaching that are visible to students. These prospective teachers may not have spent time contemplating incidental routines and responsibilities such as planning, materials preparation, and the amounts of time spent in non-teaching activities. The fact that expert teachers exhibit the ability to manage routines efficiently, can reflect on their teaching, and can articulate their thought processes suggests that in teacher education, clinical placements could be structured in such a way as to facilitate awareness about non-teaching duties and management of classroom routines in addition to those processes involved in actively teaching children. Another possible ramification of early novices' experiences as students is the fact that they may hold naive views of teaching and of their own efficacy as teachers.

Field Placements

Much research has been conducted about the ways in which beginning teachers experience and adapt to their first teaching assignment (Bullough, 1989). Research available about the progress of early novice teachers in their initial clinical placements appears to indicate that while many college courses have clinical experience components which place students in elementary classrooms, studies of these field placements have been inconclusive as to their effects on the efficacy, beliefs, and success of early novices (Bischoff, Farris, & Henniger, 1988).

University students completing clinical experiences often find themselves in a unique and complex situation. They are considered "neither fish nor fowl"; that is, they are no longer in the passive role of undergraduate students gleaning information from classes conducted solely by university personnel, nor can they be considered full-fledged teachers ready to independently take on the complexity and rigor of the classroom. The clinical teaching experience is one in which students must strike a balance between what they have been taught and what they are learning in their daily interactions in the classroom. Consequently, a clinical experience is a time of experimentation, successes, and failures, and in most cases, of general anxiety (Anderson, 1987).

Hoy and Woolfolk (1989) analyzed research on university teacher education programs and found that, although colleges of education often assert that their teacher preparatory programs develop reflective practitioners, this is rarely the case. Clinical experiences are regarded as a key component of teacher preparatory programs. However, the effectiveness of such programs has been questioned (Adler, 1984). In many cases, the structure of field experiences rarely allows the student a chance to identify and/or explore the rationale behind his or her educational decisions and practices (Goodman, 1986).

Some research has been conducted concerning the use of preprofessional clinical experiences for early novices. One area which needs to be further investigated, however, is the effect of early clinical experiences on belief systems of early novice teachers. By determining early novices' beliefs about teaching, teacher routines, and self-efficacy, teacher educators might be better able to plan programs which facilitate preservice teachers' progression through developmental stages. Many early novices have no idea what to expect as teachers; allowing them to become comfortable with school climate by mastering classroom routines early in their educational program would seem to familiarize them with some of the non-instructional aspects of teaching and prepare them to handle such routines when they are completing their teacher internships.

Definition of Teacher Efficacy

Teaching efficacy refers to a teacher's belief that he or she can successfully affect student achievement in a positive manner (Ashton, 1984). Two different dimensions of teacher efficacy have been identified: personal teaching efficacy and teaching (outcome expectancy) efficacy (Tracz & Gibson, 1986). Personal teaching efficacy deals with the degree to which teachers believe that they will be effective as teachers. It is possible to have personal teaching efficacy without outcome expectancy efficacy; for example, teachers who have a high degree of confidence in their own abilities may believe, for instance, that no matter how hard they try or how good at teaching they are, there are certain students who, for one reason or another, will be unsuccessful at learning. Outcome expectancy or teaching efficacy, on the other hand, deals with the degree to which students can be successfully taught regardless of external factors such as SES or family background. Again, a teacher can have outcome efficacy without personal teaching efficacy; teachers who believe that all children can learn regardless of external factors or circumstances could have such limited confidence in their own abilities that they are ineffective in their efforts as teachers (Tracz & Gibson, 1986). Additionally, efficacy has been linked to attitudinal variables. People who perceive themselves as ineffective at a task (such as teaching) may develop negative attitudes about it (Riggs, 1991).

Characteristics of Efficacious Teachers

Self-efficacy, which involves describing what one perceives as successful and how one reaches that goal (Bandura, 1977, 1982), may be linked to teacher effectiveness (Volkman, Scheffler, & Dana, 1992). According to Brophy and Evertson (1976), feelings of efficacy discriminate between more and less effective teachers.

Measures of efficacy are based on the construct of locus of control initially generated by Rotter (1966). Externally controlled teachers tend to blame outside factors for poor student achievement. Such factors might be related to student background, teaching situation, or other environmental influences. Teachers with more internalized locus of control believe in their ability to cause positive change in student achievement and modify their activities and behaviors in keeping with this belief. There is a positive, although not necessarily causal, relationship among self-concept and feelings of teacher efficacy (Thomson & Handley, 1990).

Berman, McLaughlin, Bass, Pauly, and Zellman (1977) concluded that the most important teacher effectiveness characteristic in change-agent projects was teacher efficacy. Teacher change is often indicated by efficacy beliefs. Stein and Wang (1988) found that those teachers who were more likely to implement novel teaching strategies were those who had higher efficacy. Guskey (1988) found efficacy measures to be related to the implementation of mastery learning. Teachers' beliefs in their ability to influence learning and achievement on the parts of their students are related to their consequent effectiveness (Brookover, Beady, Flood, Schweitzer, & Wisenbaker, 1979).

Effects of Efficacy

Efficacy is related to factors such as student achievement (Armor, Conry-Osequera, Cox, Kin, McDonnel, Pascal, Pauly, & Zellman, 1976), student motivation (Midgely, Feldlaufer, & Eccles, 1989), and teachers' adoption of innovation (Guskey, 1988). Midgely, Feldlaufer, & Eccles (1989) studied students in transition between elementary and junior high schools. They found that students who moved from a high-efficacy teacher to a low efficacy teacher demonstrated lower perceptions of expectations for their performance, lower perceptions of performance, and higher expectations of difficulty than did students who moved from one low efficacy teacher to another. Anderson, Greene, and Loewen (1988) found that teachers' beliefs about personal teaching efficacy was a significant factor in student achievement and in student feelings of efficacy. Additionally, teacher efficacy and program effectiveness was the subject of two studies conducted by the Rand Corporation (Armor et al., 1976; Berman et al., 1977). These studies led

researchers to conclude that teacher efficacy is a practical predictor of student achievement (Benz, Bradley, Alderman, & Flowers, 1992).

Research on teacher use of time and direct instruction may link efficacy and student learning. Teachers with high levels of efficacy appear to spend more time on the teaching of academics. These teachers exhibit many behaviors associated with effective teaching; in addition to exhibiting extensive content coverage and feedback to students, efficacious teachers are more willing to persevere when faced with a challenging student learning situation (Gibson & Dembo, 1984).

Studies Dealing with Preservice Teachers' Efficacy

Some studies have addressed the issue of efficacy among student teachers. Evans and Tribble (1986) studied the efficacy of student teachers. Results of this study indicated that female student teachers scored higher on the Gibson Teacher Efficacy Scale (Gibson & Dembo, 1984) than did male student teachers; additionally, prospective elementary teachers scored higher than did their secondary counterparts. A significant correlation was found between efficacy scores and commitment to teaching (Housego, 1992).

Housego (1992) studied student teacher perceptions of their preparedness to teach as well as their personal and teaching efficacy. He found that teaching efficacy scores decreased as the field placement progressed; however, personal efficacy scores increased significantly during the first term of the placement.

Teacher efficacy was one of the factors considered in a study by Guyton, Fox, and Sisk (1991), which sought to determine how alternative (fifth-year) certification programs compared to traditional programs. Research seemed to bear out the conclusion that non-traditional programs featuring condensed pedagogical preparation and supervised clinical placements are a viable alternative to traditional teacher education programs. No significant differences in efficacy were found between the groups as measured by the Teacher Efficacy Scale.

Kalian and Freeman (1987) reported that novice teachers with higher levels of efficacy were more likely to charge teachers with the responsibility for assuring student success. Alderman and Benz (1985) reported that secondary students begin their clinical placements with lower efficacy scores than do elementary students; however, they make larger gains after beginning their first year of teaching.

In a study by Benz, Bradley, Alderman, and Flowers (1992), differences were explored between measures of personal teaching efficacy for three different groups of teachers and prospective teachers. Teacher education students at three levels, entry, middle, and internship were studied. Practicing teachers, teacher education faculty, and non-college-faculty student teaching supervisors also participated. Results showed that student teachers may have an inflated sense of efficacy due to

their preconceptions about the motivation and socialization of students.

Efficacy Beliefs of Early Novices

Efficacy is closely related to teacher beliefs (Woolfolk & Hoy, 1990). Nearly all beginning teachers enter their programs with strong feelings of efficacy. As they progress further into their teacher education programs, however, these beliefs may deteriorate into negative and helpless attitudes about their teaching abilities.

Lanier and Little (1986) purport that unlike members entering training programs for other professions, prospective teachers hold strong beliefs that they are already prepared to function in their professional capacity. Clark (1988) discussed the "implicit theories" which teacher education students harbor; such theories may lead to misconceptions due to their erroneous nature. Therefore, the theories held by early novice teachers may be limited in their value. Some research suggests that teacher education students' senses of efficacy may decrease as they progress in their program. Do declining efficacy scores indicate a move from a non-teaching fantasy world to one of realistic view of teaching? Further research into this area of beliefs might serve to identify means which facilitate the development of such realistic beliefs (Housego, 1992).

Field Placements

Teacher training has evolved over time and the question of the role and effect of field placement remains one of constant study. Initially, teacher training consisted solely of field experience; teachers served as apprentices in classrooms and gained their "education" in this manner. However, as time has passed and the American educational system has evolved, field placements have been both lauded and criticized for their role in the preparation of prospective teachers (Adler, 1984).

Realizing that scheduling student teaching as the final event in a teacher education program fails to provide prospective teachers with adequate classroom experience, many teacher education programs have begun to provide field placements earlier in their teacher training programs. In these placements, novice teachers spend varying amounts of time in classrooms; they may observe, assist the teacher, or prepare and teach actual lessons. Such field placements introduce prospective teachers to the myriad tasks that teachers must do and to the skills which teachers must have in order to successfully complete even one day of teaching; early clinical experiences also help prospective teachers see the relationships between the theoretical knowledge with which they are presented in college courses and the practical application of such theories in school settings. Early field experiences can also provide novice teachers with the opportunity to recognize and alter any misconceptions which they

might have about teaching as well as to evaluate early on their choice of career (Anderson, 1987).

Early clinical experiences have come to be considered integral parts of preservice teachers' preparation programs. In a survey by Kay and Ishler in 1980, 99 percent of the institutions studied included early field experiences in their teacher education programs. These experiences are designed to bridge the gap between theory and practice as teacher education students approach their goals of becoming teachers; however, field placements are typically received with mixed feelings by novice teachers. In fact, the number of institutions requiring early field placements may be dwindling. A study by Farris, Henniger, and Bischoff (1991) reveals that many teacher education programs have recently revised the field placement components of their curricula; however, as many as one-third of the responding institutions provided no clinical experience prior to student teaching. Additionally, many of the newly adopted early clinical placement regimes have characteristics which might indeed make them ineffective in providing quality experiences to novices. Lack of supervision, extended and unnecessary focus on observation, and the lack of consensus of research about what should be included in early field experiences tend to cause confusion in the implementation of such programs.

Teacher preparation programs, state boards of certification, and preservice teachers all believe that clinical placements are critical to the education and development of prospective teachers (Bischoff, Farris, & Henniger, 1988). Advocates of field experiences purport that such clinical placements aid in the making of career decisions, in refining teaching skills (Henry, 1983), in socializing prospective teachers for their future classroom roles (Dueck, Altmann, Haslett, & Latimer, 1984), and in linking theory to practice in education (Krustchinsky & Moore, 1981). Field experiences have been criticized for encouraging novice teachers to simply model the behaviors of their cooperating teachers rather than to cultivate and experiment with their own ideas. Another shortcoming noted about field experiences is that cooperating teachers differ in their expertise and in their ability to provide quality field experience modeling and supervision. Some classrooms are more favorable than others as settings for clinical placements (Zeichner, 1990). Research, however, has been inconclusive in determining whether or not field experiences are truly beneficial (Bischoff, Farris, & Henniger, 1988).

Methodology

This study was conducted in an effort to gauge changes in early novice teachers' feelings of self-efficacy and beliefs about teaching as they completed a clinical experience in their teacher education program; it also attempted to identify factors which influence changes in beliefs and feelings of self-efficacy among early novice teachers.

The study also sought to examine early novice teachers' perceptions of teacher roles and beliefs about teacher routines. Novice teachers provided information via questionnaires and interviews as to their beliefs about teacher routines and roles. Responses were analyzed for changes and trends in early novice teacher beliefs.

This study sought to answer the following questions.

1. How do early novices perceive their own self-efficacy prior to and after their initial clinical experience?

2. What effect does duration of field experience have on the self-efficacy of early novice teachers?

3. What are early novices' initial perceptions of a teacher's daily routine (non-instructional as well as teaching duties) and how do these ideas change after field placements?

Question One was tested by administering a modified version of the Science Teaching Efficacy Beliefs Instrument (STEBI-B) (Enochs & Riggs, 1990a, 1990b) prior to and after the field placement. This 23-item Likert Scale assesses respondents' feelings of efficacy on two subscales, Personal Teaching Efficacy and Outcome Expectancy Efficacy.

Question Two was tested by running a one between, one within ANOVA on the subscale scores from the STEBI-B.

Question Three was tested through the analysis of questionnaires and narrative interviews completed by participants prior to and after the clinical experience. Responses were examined and emergent themes were coded. These themes were used to draw conclusions regarding early novice teacher beliefs systems.

Participants

Eighty-two early novice teachers participated in the study. Nineteen of these participants completed six hours of clinical placement, consisting of three hours of teaching and three hours of unstructured observation. The remaining sixty-three participants completed thirty-two hours of clinical experience which focused not only on teaching but also on the completion of routine duties faced by elementary teachers.

Data Collection

All participants completed a modified version of the 23-item Science Teaching Efficacy Beliefs Instrument (Enochs & Riggs, 1990) prior to and after their clinical experience. They also self-reported their levels of confidence prior to and after the clinical experience and rated their reflective ability using the Framework for Reflective Pedagogical Thinking (Sparks-Langer et al., 1990). Additionally, students participating in the study completed a 10-item open-ended questionnaire regarding their beliefs about teachers and teachers' daily routines. Six participants were selected to be interviewed as to their beliefs about teachers and teaching; the questionnaire protocol was used to guide the interviews.

Data Analysis

The modified version of the STEBI-B yielded results for each participant that assessed their feelings about their own ability to teach students (Personal Teaching Efficacy) and about the ability of all students to learn (Outcome Expectancy). The instrument yields two separate subscales in order to assess these different areas of efficacy. Subscale results from pre- and post-clinical experiences for both groups were analyzed using a one between, one within analysis of variance. The resulting interaction was analyzed for simple effects.

Qualitative data were analyzed by coding emergent themes among participant responses to the questionnaires. Interviews were tape-recorded and then transcribed verbatim. They, too, were then analyzed for emergent themes and trends.

Discussion

The first two research questions asked were, "How do early novices perceive their own self-efficacy prior to and after their initial clinical experience?" and "What effect does duration of field experience have on the self-efficacy of early novice teachers?" Results from the modified version of the STEBI-B indicate the following conclusions:

1. Students completing an extended field experience showed an increase in their feelings of personal efficacy after at the end of the field experience; students who completed shorter clinical visits did not. Personal efficacy scores for the experimental group increased after the field experiences; personal efficacy scores for the control group decreased after the field experience. One possible explanation for this difference is that those students with the extended visits to the classroom became familiar enough with the school culture to feel a part of the classroom and of the school; these feelings might contribute to a sense of security, thus enhancing students' feelings of personal efficacy. Those students with the shorter field placement may be overwhelmed during their brief visits by the multiple happenings in an elementary classroom; the thought that they, as early novice teachers, are forced to face all of these happenings "cold turkey" may cause them to doubt their own abilities to successfully teach a class of elementary school students.

It is important to point out here that the practical significance of the interaction within the Personal Teaching Efficacy subscale is very low (R^2=0.05). The changes between groups were strong enough to produce a statistically significant interaction, but the distance between group means on the pre- and post-tests was not very large. A possible explanation for the lack of variation in the scores is that early novice teachers may hold naive views of their own efficacy. These views may be inaccurate simply because of their naivete. Early novice teachers may not have much variation in their perceptions of

self-efficacy because they have little experience upon which to base their conclusions; they may be responding in a way that reflects how they hope to be able to answer rather than in a way that is truly accurate.

2. Outcome expectancy efficacy was not affected by the variation in clinical placements. Prospective teachers seem to come into their teacher education programs with firmly held beliefs about who can and who cannot learn, and these beliefs appear to change little as the result of field placements. A possible explanation for this lack of change is that outcome expectancy beliefs involve projection about learning of individuals other than self. Novice teachers, in a preteaching stage of development (Fuller & Brown, 1975) may not think about this subject enough for any change to be affected.

3. Early novice teachers in both groups rated themselves as confident prior to and after the clinical experience. The level of confidence appeared to increase, however, as post-clinical responses in each group alluded to the possibility that pre-clinical answers were not entirely accurate in the evaluation of early novices' self-confidence. Both groups indicated that the clinical experience was a positive one for them.

4. Students in the control group rated themselves higher on the reflectivity scale than did those students in the experimental group. This assessment, completed in the middle of the clinical placement, indicates that students in the control group believe themselves to be more reflective than those students in the other group. A possible explanation for this is that novices in the control group, through naivete and lack of experience, rated themselves as more reflective than they actually are; those students in the experimental group, having spent more time in the classroom, may realize that personal preference and tradition drive their decisions more than do principles or theories.

The third research question asked, "What are early novices' initial perceptions of a teacher's daily routine (non-instructional as well as instructional duties) and how do these ideas change after field placements? Based on the results from the questionnaires and the interviews, the following conclusions are supported by the data:

1. Prior to their first clinical placement, early novice teachers in both groups were likely to assume a "student stance" when answering questions about what goes on in schools on a daily basis. In other words, early novices answering questions on the pre-clinical questionnaire may hold naive teaching beliefs more grounded in their experiences as students than in their knowledge of teaching and teachers. After field placements, however, students in the experimental group showed increased scope, accuracy, and description in their answers to questions about teacher goals, non-instructional duties completed by teachers, time spent in active teaching, and management strategies. The refinement of these answers may indicate that completing extended field experiences focusing on teacher routines and tasks serve to

heighten students' shift from a "student stance" to a "teacher stance."

2. Students in both groups showed little change in responses to questions about factors not directly under teacher control. For example, students in both groups gave similar pre- and post-clinical answers to questions regarding effects of socioeconomic status on learning, degrees of parental involvement, and teacher-peer interaction.

3. Students in both groups also showed little change in response to questions regarding typical lesson settings and the evaluation of student progress. Most students could be said to maintain a "student stance" on these topics, sharing information from their own personal experience as students in addition to events occurring in their clinical placements. A possible explanation for this reliance on past experience might be that early novice teachers are not given much freedom to make decisions about topics such as evaluation or lesson format; thus, they may not realize that decisions about these issues are also made by elementary teachers.

Implications of these results for teacher education programs focus on the nature and duration of field experiences which might be offered to prospective teachers. The following implications could be considered important:

1. University teacher preparation programs often have as their goals helping prospective teachers become reflective decision makers. In order to achieve this goal, university program coordinators must examine the clinical experience components of their programs in relation to early novices' senses of self-efficacy. Positive feelings of self-efficacy, or the belief that one can be successful at a given task, is critical if early novices are to become reflective teachers in practice. Prospective teachers need to examine their feelings of efficacy and determine whether these are reflective of a "student stance" toward their teaching career or if they have begun to develop a "teacher stance." Establishing clinical programs which will facilitate early novices' progression through developmental stages toward self-actualization as teachers should be a key goal of teacher education programs.

2. Field experiences, largely thought to be ineffective in preparing teacher education candidates for the "real world" of teaching, might be modified in order to make them more effective. Results of this study indicate that increasing the duration of the field experience to allow early novice teachers to become a part of their host school's culture may increase feelings of personal efficacy. Additionally, the belief systems of early novices engaged in extended, routines-focused field experiences may become more refined and show greater scope and accuracy than those of early novices in shorter, less-focused field experiences. With assessment of these beliefs, university personnel might be able to structure programs which provide more meaningful, reflective experiences for early novice teachers which allow them to examine and develop their belief systems.

3. Because early novice teachers are still in a survival stage of development (Fuller & Brown, 1975), they may not even be aware that they possess pre-existing beliefs about teaching and classroom routines. Instructional programs strive to make prospective teachers aware of changes occurring in the field of elementary education; likewise, they should strive to make early novices aware of their own personal beliefs and of changes occurring in those belief systems.

Limitations

As a function of its design, this study has several limitations which must be considered before making generalizations about its results. These limitations are:

1. Because the data used in this study was self-reported, the study is subject to the risks inherent in the use of this type of data. The validity of these data may be limited.
2. The participants in this study may not be representative of any population other than that of students enrolled in the College of Education at the University of Alabama in the Fall 1993 semester. Generalizing of results to other populations should be limited.
3. The researcher in this study served in capacities which may have affected the responses given by students. The researcher was the instructor for the two experimental course sections; the rapport developed between the researcher and the novice teachers may have caused students in the experimental sections of the course to respond more enthusiastically. Additionally, personal bias and background of the researcher may have influenced the results of the study.

Recommendations

Based on the results of this study, the following recommendations for further research are made:

1. Both the groups participating in this study completed field experiences; these experiences differed in type and duration. One possible consideration for further research would be to establish a control situation in which only one independent variable (duration or nature of field experience) is manipulated. For instance, having all students complete a 32 hour field placement differing only in nature might serve as the basis for further research.
2. Another recommendation for further research would be following this group of students in a longitudinal study to determine what type of changes, if any, occur in their feelings of efficacy as they complete subsequent field experiences in other university courses. Identifying those participants who eventually drop out of the teacher education program and following up on their reasons for doing so would further extend this study.

3. The results of the study indicated that one group showed increased feelings of personal efficacy while the other group's feelings of personal efficacy showed a decline. Conducting interviews or other qualitative research to determine what factors might be responsible for the change is indicated.

4. This study made no effort to investigate differences attributable to gender, age, or race of participant. Completing further research which strives to investigate what role, if any, these factors play in feelings of efficacy and in early novices' beliefs might be warranted.

5. The effects of the different schools at which the participants completed their clinical experiences were not assessed as part of this study. Investigation into whether the school setting influences feelings of efficacy and/or changes in teacher beliefs is a topic for possible study.

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