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**Development of Literacy Beliefs and Practices: Preservice  
Teachers with Reading Specializations in a Field-Based Program**

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*This manuscript documents a year-long descriptive case study of preservice teachers specializing in reading. The objectives of this study were to (a) better understand the development of literacy beliefs and change processes in preservice teachers with reading specializations engaged in the final year of their field-based teacher education program, and (b) ascertain factors influencing their change processes during the final year of preparation. The results highlight the shifts these preservice teachers made concerning their beliefs about literacy instruction and the factors that served as catalysts for those changes.*

*"We ought to be interested in the beliefs of preservice teachers not because we wish these future educators to share similar, appropriate conceptions, but because the nature and importance of individuals' beliefs is such that they must be a focus of the dialogue in teacher education if there is to be any hope of budging mental structures long solidified and deeply rooted. And, of course, because we are finding that some beliefs that teachers hold are both a hindrance to their effectiveness in the classroom and damaging to their students."*  
(Pajares, 1993, p. 52)

### Introduction

TEACHER EDUCATION PROGRAMS are being held responsible for public school student achievement (T. Bennett, Head of Teacher Certification State of Texas, personal communication, July 7, 2003), colleges of education cannot be held responsible for beliefs that preservice teachers bring. Instructors in teacher preparation programs need to be aware of the existing belief systems that preservice teachers possess and how to effectively translate existing beliefs about teaching and learning so that preservice teachers leave teacher preparation programs with beliefs in line with current research about the teaching and learning process. Evidence suggests that beliefs have a significant effect on behavior (Pajares, 1992; Rokeach, 1968; Schommer, 1990). For example, psychological research indicates that beliefs influence comprehension, knowledge acquisition, and interpretation (Pajares, 1992). In addition, research on epistemological beliefs provides insight into comprehension (Schommer, 1990) and indicates that beliefs greatly influence human decision-making (Pajares, 1992; Rokeach, 1968).

More specifically, teachers' beliefs concerning what constitutes effective teaching and best practice have a profound impact on their classroom instruction and environment (Konopak & Williams, 1994; Scharer, 1992). Teachers tend to implement instruction that reflects the methodology they encountered when they were students regardless of whether or not it meshes with best practices that they learned during teacher preparation programs or has a research base (Britzman, 1991; Lortie, 1975; Willis & Harris, 1997). Numerous studies describe both

effective teachers (Cunningham & Allington, 1999; Kohl, 1984; Ruddell, 1997; Spencer & Spencer, 1993; Wong & Wong, 1998) and teacher beliefs (Clark & Peterson, 1986; Kagan, 1992; Pajares, 1992; Richardson, Anders, Tidwell, & Lloyd, 1991). While Barr (2001) states that, "Exploration of belief is pivotal," Anders, Hoffman, and Duffy (2000) assert that "we do not know enough about the construct to effect change" (p. 733) and that research is lacking about how to impact beliefs of preservice teachers. To attempt to bring about professional growth, one must understand how the evolution of preservice teachers' beliefs can be facilitated through experiences and informed scholarship (Pajares, 1993). Therefore, it is imperative to investigate the process of change and the factors impacting shifts in the beliefs of preservice teachers.

Research has indicated that in order for reading teachers to become reflective practitioners who intertwine literacy theory and practice, university and public school partnerships that provide hands-on practice in public school classrooms and university experiences must become a priority for preparation programs for reading teachers (Donovan, 1999; Linek, Fleener, Fazio, Raine, & Klakamp, 2003; Linek, Nelson, Sampson, Zeek, Mohr, & Hughes, 1999; Wiseman, 1999; Zeek & Wickstrom, 1999). Factors that emerged as essential to the development of reflective practitioners included modeling of the instructor, course assignments, cognitive dissonance, and reflection. Researchers (Linek, Nelson, Sampson, Zeek, Mohr, & Hughes, 1999; Sampson & Linek, 1994; Smith, Sampson, Linek, & Raine, 2001; Zeek & Wickstrom, 1999) found that participants in a field-based teacher education program experienced more change and identified a greater variety of dissonance factors that impacted their beliefs concerning literacy education. Results of this research indicate that a field-based model of teacher preparation facilitates the development of teachers who have a broader view of literacy instruction.

While the field-based model of teacher preparation has become an accepted and increasingly widespread mode of preservice teacher education, recent research has tended to focus on literacy coursework at the beginning of the teacher preparation program (Linek, Nelson,

Sampson, Zeek, Mohr, & Hughes, 1999; Linek, Raine, & Smith, 2000) and early childhood programs (Martin, Martin & Martin, 1999). Therefore, information is lacking concerning the shift in beliefs for students specializing in reading as they experience their final year of teacher preparation. The researchers in the current study had been informally exploring preservice teachers' beliefs in their own respective literacy methods courses (the fifth and sixth courses in a reading specialization sequence) utilizing self reported data and artifacts produced by the students. Similar trends were perceived to be common across the students and the courses, which were different than described in the previous research about initial literacy methods courses.

Thus, in the fall semester of 1999 we devised a formal year-long descriptive case study employing qualitative methodology. The bounded system making up the case consisted of a group of preservice teachers specializing in reading. The objectives of this case study were to (a) better understand the development of literacy beliefs and change processes in preservice teachers with reading specializations engaged in the final year of their field-based teacher education program, and (b) ascertain factors influencing their change processes during the final year of preparation. Questions guiding this study were:

1. What are the beliefs of preservice teachers specializing in reading concerning literacy, literacy instruction, and assessment before, during and after their year-long field-based teacher education program?
2. What changes occur in the beliefs of preservice teachers specializing in reading during the year-long field-based teacher education program?
3. What factors influence the change process?

## Method

### *Participants*

The initial group of participants consisted of eleven preservice teachers who had chosen reading as their academic specialization in their

teacher certification program. They were in the final year of their teacher preparation program at a university setting in the rural southwest. Data were collected for these eleven participants during the pre and mid phases of the study. However, for various personal reasons, only eight participants were enrolled at the conclusion of the year-long experience (i.e., pregnancy, death in family, etc.). All preservice teacher participants were white females between the ages of 21 and 37.

Participants were enrolled in the field-based program where each preservice teacher had two field placements ranging from grades one through five and worked with at least two public school teachers (mentors) and one university supervisor (liaison). Each participant had a primary level grade placement of either first or second grade and an intermediate level grade placement of either fourth or fifth grade during their field-based experience, spending half of each of their two semesters in a primary classroom and an intermediate classroom.

Two of the preservice teachers worked in a school of 441 students located in the university town with a population of 10,000 (20,000 when the university is in session). Sixty percent of the students in this school were from economically disadvantaged families. Three of the preservice teachers worked in a school of 428 students in a rural suburb with a population of 3,000. Thirty percent of the students were from economically disadvantaged families. The final three preservice teachers worked in a school of 337 students in a small city of 25,000 in the rural southwest. Seventy-three percent of the students attending this school were from economically disadvantaged families. All of the communities where the preservice teacher participants worked were within a 45 minute drive from each other.

Students seeking elementary certification from the university were required to take three reading courses. While the first two courses each required fifteen hours of lab/observation in public school classrooms, they were not designated as field-based courses but were considered prerequisites. The three courses included:

- Reading & Literacy I introduced the theoretical foundations of reading and literacy with an emphasis on teaching approaches, text genre, writing, listening, speaking, linguistics, cueing systems, phonemic awareness, phonics, word recognition, spelling, and professional resources;
- Reading & Literacy II focused on basal readers, trade books, literature, cognition, reading comprehension, comprehension strategies, and formal and informal assessment strategies; and
- Content Reading Methods for Teacher Candidates in Field-Based Settings (taken during the first semester of the field-based experience) addressed teacher-directed and reader-based strategies to comprehend expository text. Students spent two days per week in the public school setting and fourteen six-hour university seminars that integrated literacy instruction with math, science and social studies.

In addition to the three common reading courses, students with an academic specialization of reading took three additional reading courses. These courses included:

- Word analysis skills (taken prior to field-based experiences) examined word identification within the context of language by focusing on strategies that are useful to readers in the areas of word knowledge and word analysis;
- Planning and organization of Reading Instruction in Field-Based Settings (taken during the first semester of the field-based experience) provided opportunities for the prospective teachers to examine and use literacy strategies, approaches and assessments within the context of six three-hour evening university seminars; and
- Practicum in reading instruction in field-based settings (taken during the second semester of the field-based experience) required students to interact with individual children and groups

by conducting formal and informal assessments while implementing reading instruction supported by six three-hour evening university seminars.

The field-based experience was divided into two distinct focus areas. During their first semester of field-based teacher preparation, preservice teachers were in elementary public school classrooms two days per week and attended fourteen integrated university seminars addressing math, science, content reading, social studies and diversity. The following semester, preservice teachers were in elementary public school classrooms five days per week, with the exception of attendance at eight university based seminars dealing with classroom management, organization, technology, diversity, and inclusion. During both semesters, the university seminars were an integrated six hours of preservice teacher development.

### *Researchers*

The research team comprised two instructors, two external researchers, and an external research assistant. One of the instructors had been involved in the field-based program for five years teaching reading courses and serving as a university liaison. Prior to work in the field-based program, she had taught reading courses for 25 years. The other instructor had recently completed her doctorate and had worked as a reading supervisor in a small rural district. This was her second semester to teach reading coursework at the university level. The semester prior to the initiation of this study, she had served as a university liaison. The external researchers and research assistant had no formal connections to the participants in the study. The two external researchers had been involved in the design and implementation of the field-based program seven years prior to initiating the study. Due to administrative responsibilities their teaching load had shifted to the graduate program and they no longer taught or served as liaisons in the teacher preparation program. The research assistant was a new doctoral student who had public school teaching experience, but had no prior knowledge of the field-based teacher education program.



### *Data Sources*

Data sources included responses to the Philosophical Orientation to Literacy Learning (POLL) (Sampson, Linek, Raine, & Smith, 2001) a semi-structured, open-ended questionnaire administered before (pre), midway (mid) and at the conclusion (post) of the preservice teachers' year-long experience. Artifacts collected included liaison field notes, the preservice teachers' lesson plans, and their written reflections after teaching these lessons in the public schools. Formal interviews with the instructors that probed for insight into the categories were conducted and transcribed by the external researchers. In addition, students completed a written summative/comparative reflection at the conclusion of the year-long experience comparing their pre-, mid-, and post-questionnaires by responding to the following prompts:

1. Do you see any differences?
2. If yes, what are they?
3. What factors influenced your beliefs?

### *Data Analysis*

The primary data sources were participant responses to the pre, mid, and post POLL and the summative comparative reflections based on the responses to the pre, mid, and post POLL as these data sources provided a comprehensive overview of student perceptions, growth, change, and factors impacting change. Constant comparison (Glaser & Strauss, 1967; Strauss & Corbin, 1990) occurred in a recursive analysis process to analyze the pre, mid, and post open-ended questionnaire and the summative/comparative reflection. This recursive analysis occurred in several stages in order to (a) identify the preservice reading specialists' beliefs about literacy at the beginning and end of the field-based experience, (b) identify changes in beliefs, and (c) identify factors that influenced changes in beliefs. First, one external researcher analyzed the data to develop initial codes and categories. The first stage of inter rater reliability was initiated when the first and second external researchers collaboratively reanalyzed the data. As the reanalysis proceeded, codes and categories were verified, collapsed, or modified (Bogdan & Biklen, 1992). In order to further enhance reliability and

validity, when these two researchers reached consensus on the categories, the external research assistant reanalyzed all data using the codes which had been developed. Data over which there were disagreements were then collaboratively reanalyzed and discussed by the three researchers until consensus was reached. Next, member checking occurred with the two instructors to corroborate and verify that the categories were congruent with their observations of the preservice teachers both in class and in their field placements. Discussions ensued to reach consensus on some further refinement of terms used to describe the categories.

Then two instructors analyzed multiple secondary data sources to corroborate and verify the categories. Secondary data sources included lesson plans written by the preservice teachers, written preservice teacher reflections on lessons they had taught, and liaison field notes from observations of lessons and discussions with field-based mentor teachers. During discussion and joint recursive analysis (Glaser, 1992; Glaser & Strauss, 1967), these two instructors reached consensus on the categories. Then the categories and supporting data were shared with the entire research team for corroboration.

For triangulation, the entire research team compared and discussed categories across primary and secondary data sources. Through discussion, categories were refined for full consensus. The external researchers then reexamined the data and sorted all primary data source responses into the refined categories. Responses were identified for each student and a frequency count of students was computed for each category. Some students gave answers that fell into more than one category, thus the total frequency count is not reported. This process was followed for each phase of the data analysis.

## Results

Results include the responses of eleven prospective teachers to the open-ended questionnaire before and during the field-based experience. For various personal reasons noted previously, only eight participants were enrolled at the conclusion of the year-long experience.

*Literacy Beliefs Before, During and After Field-Based Experiences*

Results describing literacy beliefs of the preservice teachers with an academic specialization in reading before, during, and after field-based experiences are described below by the prompt on the POLL.

*Prompt: What is a good reader? Why do you say that?* Table 1 summarizes the categories that emerged as the preservice teachers described their beliefs concerning good readers. Prior to field based experiences, only ten categories emerged. However, during the year-long experience the number of categories describing beliefs about good readers more than doubled.

At the beginning of the year, some preservice teachers mentioned the importance of comprehension with statements such as “A good reader is someone who can read a book, selection, etc., and understand basically what he/she just read,” and “A good reader is one that knows the meaning from what he/she reads.” However, the major focus was on the word level of text. For example, one preservice teacher stated, “A good reader can pronounce most words and sound out unfamiliar words.” Another comment was, “A good reader is a child who can look at letters, know they form a word, [and] determine how to say the word.”

At the midpoint, the majority had shifted their beliefs to include comprehension. At this point, they had implemented instruction in public school classrooms for one semester and debriefed with their university liaisons and public school mentors concerning the success of the lessons. Comments included, “A good reader is a reader who can look at words, decode them, use context clues and find meaning,” “Someone who can understand the words he/she reads. Reading is gaining info about something,” and “They must have the comprehension skills to comprehend what they have read.” By the end of the experience, preservice teachers articulated a more “balanced” belief system and those who did not specifically address comprehension utilized terms such as “high self esteem and are not afraid to make mistakes while reading”, “continually progresses” and “enjoys reading.”

Table 1  
Beliefs About Good Readers

Categories of Beliefs	Frequency		
	Pre n=11	Mid n=11	Post n=8
Focus on Word Level	8	1	4
Focus on Comprehension Level	6	8	6
Know/Utilizes Phonics	5	1	2
Reading At or Above Grade Level	4	5	3
Non-Specific Focus on Affect	4	1	1
Uses Context Clues	4	1	2
Risk Taker/Self-Confidence	2	1	2
Fluency Does Not Mean Comprehension	1	0	1
Concept of Fluency	1	1	2
Has a Large Vocabulary	1	0	0
Growth Equals Success	0	3	1
Ability to Decode Does Not Mean the Child			
Understands	0	3	0
Uses Strategies	0	2	3
Gain Information	0	2	1
Reads for Different Purposes	0	1	2
Reads for Enjoyment	0	1	3
Successful at Accelerated Reader	0	0	1
Builds Schema	0	0	1
Shares Their Reading	0	0	1
Tells Stories	0	0	1
Uses Inductive/Deductive Reasoning	0	0	1
Reading is Situational	0	0	1
Automaticity Does Not Equal Comprehension	0	0	1
Uses Prior Knowledge	0	0	1
Success in Reading Equals Success in All			
Subject/School Areas	0	0	1
Uses Picture Clues	0	0	1

Note. Some students gave answers that fell into more than one category, thus total frequencies are not reported.

*Prompt: What do students need to know about letter/sound relationships? How would you teach that?* The initial emphasis on letter/sound correspondence remained throughout the experience. However, the initial ten categories expanded as the year progressed (see Table 2). At the mid-point, one prospective teacher commented,

“Students need to know that letters represent sounds and those sounds, when put together, make words. The words together then create meaning.” Another stated, “Students need to know that letters are the symbols for the sounds that we use for language.” Responses at the conclusion of the experience included, “Sounds are represented in writing and can then be read,” “Modeling the process of writing what students are saying and then reading it is important. We would then progress with students writing their own responses (stories, poems, etc.) and sharing them,” and “The English language is very complex and it is very easy to overwhelm students with rules and patterns.”

Table 2  
Beliefs About What Beginning Readers Need to Know About the Letter/Sound Relationship

Categories of Beliefs	Frequency		
	Pre n=11	Mid n=11	Post n=8
Letter/Sound Correspondence	10	9	7
Letter has Multiple Phonemes	6	6	3
Blending	3	2	3
Groups of Patterns/Families	2	2	0
Letter Make Words	2	2	0
Diagraph/Diphthong	2	1	2
Letter is a Symbol of Sound	2	1	1
Rules & Exceptions	1	0	2
Recognition of Environmental Print	1	0	1
Letter Identification	1	0	0
Words Make Sentences - Sentences Make			
Meaning	0	2	1
Sounds Make Words	0	1	3
Words Make Meaning	0	1	2
Analytic Phonics	0	0	2
Sight Words	0	0	1
Predict Sounds	0	0	1
Ownership	0	0	1
Relationship Between Reading & Writing	0	0	1

Note. Some students gave answers that fell into more than one category, thus total frequencies are not reported.

*Prompt: Consider children’s initial encounters with print in a school setting. a) What would you do to teach beginning readers to read? b) Why would you do that?* Table 3 shows that prior to the field-based experience, the prospective teachers’ comments indicated beliefs in the importance of activities and strategies that focused on a combination of letter, word and text study. Statements included, “I would read to the children often ...let them play with sounds, constructing their own sentences,” and “I would write the names of objects in the classroom and place them on the objects themselves to encourage recognition of words in the students’ environment. I would also introduce big books so children can follow my finger/pointer as we read together. I would also incorporate predictable pattern books.” During the mid-point of the semester, a few comments surfaced that focused strictly on letter/sound relationships such as “Initially, I would have these students associate pictures with sound [drew picture of a ball is ‘B’]. This reinforces the idea that sounds are represented by letters.” By the conclusion of the experience, the majority of the prospective teachers’ responses indicated beliefs that emphasized the importance of exploring how language works with the context of meaningful whole text.

Table 3  
Beliefs About How To Teach Beginning Readers

Categories of Beliefs	Frequency		
	Pre n=11	Mid n=11	Post n=8
Sound	0	1	0
Letter	4	1	1
Word	3	5	2
Text	4	4	5

*Prompt: What would you use to assess or evaluate student in reading and writing? How will you collect and use what you have assembled?* At the beginning of the field-based experience, only four categories of beliefs emerged from the data (see Table 4). Due to lack of specificity, many responses were categorized as “belief not articulated.” For example, one comment was, “I would have my students do various activities with a reading selection.” At mid-point, running records

(which had been presented in the reading seminar) were noted in many responses along with other specific assessment strategies. Examples included, “[I would use] running records and journals of daily writing,” and “running records, reading strategies, tests, monitoring group or individual activities.” Discussions of formal and informal assessments included comments such as, “Informal assessment can be done by listening to students read and keeping a running record. Formal assessment can be done by giving vocabulary/spelling tests.” Post comments continued to mention specific assessment practices such as “running records, formative and diagnostic assessment,” and “Reading inventories, informal reading by students, writing and creating their own personal stories, reading comprehension assessment (oral and written) and written summaries of reading passages, vocabulary and spelling assessments are valuable. I will use these evaluation methods to create reading groups that are developmentally appropriate and pinpoint where instruction should take place.”

Table 4  
Beliefs About the Uses of Assessment

Categories of Beliefs	Frequency		
	Pre n=11	Mid n=11	Post n=8
Beliefs Not Articulated	5	6	1
Track Progress over Time	3	1	2
Exhibit Comprehension	2	0	4
Target Growth Areas for Individual Students	2	0	3
Strengthen Teaching	1	0	0
Create Developmentally Appropriate Groupings	0	4	2
Individualize Instruction	0	1	1
Individualize Assessment	0	1	1
Maintain Files/Folders	0	0	2
Exhibit Writing Skills	0	0	1
Determine “starting point” for instructions	0	0	1

Note. Some students gave answers that fell into more than one category, thus total frequencies are not reported.

*Factors Impacting Shifts in Beliefs at the Midpoint of the Year Long Experience*

After determining the shifts students had made in beliefs during the midpoint of the year long experience, the written reflections students completed after teaching a lesson, artifacts, cued recall instructor interviews, and field notes from liaison observations were examined recursively. Specifically, reflections consisted of students' responses to the following open-ended prompts:

- What went well with the strategy lesson?
- What did not go well with the strategy?
- How did the students benefit from this strategy?
- I wish I had . . . or the next time I will make these changes.
- What did you learn?

During analysis of the reflections the researchers observed that as students discussed what they had learned, they repeatedly referred to experiences that had occurred during instruction that triggered realizations or new learning. During discussion and joint recursive analysis, the researchers reached consensus regarding five categories of experiences and accompanying realizations that emerged from the data. Further recursive analysis of the artifacts verified the five discrete categories and corroborated that experiences lead to realizations. The five discrete categories of experiences and the accompanying realizations for the preservice teachers are described below.

*Experience/Realization: Appropriate match of instructional materials to the developmental level of the children.* Preservice teachers wrote about instructional and teaching experiences leading to the realization that the reading material was inappropriate for the students. They described materials that were "too lengthy" with "too many difficult words." Some explained how they made "adjustments within the lesson" and "modified the material to fit my students and they were all successful."



*Experience/Realization: Time management during a lesson.* “Managing time” during instruction consistently surfaced as an experience that led to adjustment and change. Many comments made by preservice teachers indicated that they “Had to modify the strategy to fit into the allotted time.” Some activities took longer than the prospective teachers thought they would and they noted, “Next time I would adjust the activity/strategy.” One prospective teacher suggested using a timer to help keep the children on task while doing the independent phase of the lesson. Another noted that new strategies take more time, “You should allow extra time when teaching with a new strategy!” One respondent simply stated, “It takes a lot of time to read.”

*Experience/Realization: Behavior management during a lesson.* When preservice teachers were responsible for behavior management during instruction, the need for modification and change became evident. Some comments connected effective behavior management to their own preparation, “Be more organized,” and “Have a better closure.” Other comments focused on gaining skill and insight into working with students in groups such as, “Next time, I will try some partner reading to help encourage more individual effort.”

*Experience/Realization: Self-monitoring focused on value of strategies.* When prospective teachers implemented strategies that had previously encountered in literacy coursework, they experienced surprise at their success resulting in a change in their valuing of strategies in effective classroom instruction. Comments included, “These strategies really work!! I know that might sound dense, but I am truly amazed. For the past year and a half, strategy after strategy has been thrown at me and tested on me,” and “It is hard to understand the concept of a strategy when the materials tested on me are things I already know and understand. To actually use a strategy with students and see the understanding dawn on them is amazing.” Another prospective teacher stated, “Simply reading the chapters in a text will not ensure that actual learning has taken place. Strategies should be used to facilitate real-life learning.”

Other comments reflected success with strategies such as word sorts. One statement noted, “My students gained a study strategy, became aware of spelling patterns in a way they could understand, and were much more aware of sounds as well as patterns. I learned that these students can pick up on spelling patterns and sounds through discussion and seeing and touching their words. A word sort transforms their spelling into more than just words on a page.” Another preservice teacher stated, “Once again, I saw first hand, how having something other than a worksheet in their hands – works! The students really learn better when they can manipulate it [words]!”

*Experience/Realization: Adequacy of the modeling step on the lesson.* The preservice teachers discussed the importance of “modeling for [students] so they can see it and then they can do it.” Typically, this was the result of experiences when effective modeling was not implemented as evidenced by the comments, “I did not demonstrate the sort very well and they had never done those before. I had to help each child.” and “Next time, I will have sorts on overhead transparencies and do the sorts with them as guided practice.”

*Verification and Corroboration of the Five Initial Factors at the Midpoint of the Year Long Experience*

Further recursive analysis of the liaison field notes and instructor interviews verified the five categories and corroborated that experiences lead to realizations. Although the five categories emerging from the preservice teacher data were verified by the instructors, the data from the interviews revealed that the instructors did not perceive these categories as discrete. Rather, they saw them as intertwined and discussed them as such in the interviews. This intertwining is evidenced by the supporting data from the interviews that follows.

The instructors/liasons observed that initially in the process of teaching, the preservice teachers typically engaged in two scenarios. Either they recognized the mismatch and “shifted reading lessons to listening lessons” or they ignored the mismatch and....[found that] managing off task or misbehavior commanded more attention. If there

was not a match between the instructional level of the child and the level of the materials, then the strategy could not be executed and modification was required. But they didn't understand that until they experienced it....as a result, in future lessons they paid more attention to creating lessons at the appropriate level and became more aware of the importance of assessment.

The instructors/liaisons also noted that the preservice teachers often, "Didn't know what their children knew....[but eventually the preservice teachers] began to more closely observe students and/or ask their mentor teacher about what skills the kids had. They started to be able to analyze the strategy as to what the prerequisite skills were so that kids can be successful." For example, a preservice teacher was observed "Trying to have students use dictionaries in the process of implementing the strategy Question My Word Knowledge (Linek, Raine, & Smith, 2000). She had realized that they didn't know how to use a dictionary, so she stopped the planned lesson and taught them the dictionary skills they needed. In the future, this intern gave thought to what prior skills were needed to perform that lesson."

The instructors also said that preservice teachers realized that "They had to be confident and competent in their own preparation so that their inner talk was not, 'What do I do next?' but 'How are the children performing/responding?' If they were not sure what they were going to do, the lesson didn't flow and they had to keep thinking, 'Oh my gosh, what am I going to do now?' This lead to the children getting off task and misbehaving while the teacher was trying to collect herself. If they [preservice teachers] were very well rehearsed, they could spend more time focusing on the kids and think on their feet much better."

The data from these interviews also supported the intertwining of effective time management, behavior management, self-monitoring, and modeling. For example, one liaison noted that it was important for preservice teachers to realize that they had to have "transitions worked out ahead of time." She saw a preservice teacher "Who had worked through the lesson cycle perfectly with second graders, but when she shifted to independent practice---all hands went up for individual help.

She was so focused on lesson cycle that she didn't make sure that the students were learning during...modeling...and directed practice. The next time she modeled, she gave children clear instructions to stay focused on learning during the instructional time and observed/monitored to see if they were paying attention by directing questions to them. That time when she finished, most students understood and were ready to transition to independent practice. I think it had previously never occurred to her that the children should be learning during the modeling stage and that she should have their full attention, she was focused on content. If there had not been children there, she had a perfect lesson. But, the kids had learned that they didn't have to listen to the modeling stage and that they could get the teachers individual attention for help later----so in a room with 20 kids with hands in the air, she was going one by one and 19 others were waiting. During initial lessons she had their attention, but day by day slippage occurred [as students realized that they didn't have to] pay attention.”

The above observations and comments reveal that the instructors did not view the five categories as discrete, but rather saw them as interrelated. However, their comments still provide support for the five categories:

- Appropriate match of instructional materials to the developmental level of the children;
- Time management during a lesson;
- Behavior management during a lesson;
- Self-monitoring focused on value of strategies, and
- Adequacy of the modeling step on the lesson.

*Factors Impacting Shifts in Beliefs at the End of the Year Long Experience*

At the conclusion of the year-long field experience, students were asked to complete summative reflections. Reflections consisted of students' responses to the following open-ended prompts:

You have completed your internship and residency. Now you have an opportunity for "reflection." Please be thorough. Compare and contrast your "PrePOLL" that you completed 1/25/00 and your "PostPOLL" (completed on 11/27/00). Do you see any differences? What are they? What factors have influenced your beliefs?

Researchers analyzed the summative reflections and post-polls to determine factors that impacted beliefs during the year long experience. Just as with the midpoint analysis, researchers observed student references to realizations or new learnings based on experiences they had encountered. The researcher team reached consensus on three categories that emerged from the end of year data during discussion and joint recursive analysis.

*Experience/Realization: Recognition of effective/ineffective practices.* Preservice teachers reflected on experiences leading to a realization of their rights and responsibilities to make choices concerning future teaching ideas/practices. With the responsibility of such choices, the preservice teachers became focused on observing and/or implementing classroom practices that would result in a positive impact on the students. Their comments included remarks such as, "I have seen them [strategies and practices] used and they seem to be very effective," and "I don't think I'll use [specific materials]...they are boring," and "I don't think I'll use the leveled readers that are with the classroom reading book. They are too odd." Another preservice teacher commented that she had "seen their faces when the teacher tells them just to 'read a book.' How awful this must be for those who can't read...[don't know what to do]." Another preservice teacher noted "I must experiment and choose the [assessment] best suited for me."

*Experience/Realization: Responsibility to self-monitor and adjust based on student performance/needs.* The preservice teachers cited

experiences in the classroom that changed their perspective concerning their responsibility to implement child-centered instruction. The preservice teachers made comments such as, "I now realize the results I get back after each evaluation will help me to help each student in the areas in which they are lacking." Other preservice teachers mentioned terms such as "pinpointing" instructional needs, "individualizing instruction," and teaching students "on their own level." one preservice teacher noted, "I have an obligation to teach every child" Another shared a personal challenge of a child she was working with and the impact the encounter had on her beliefs about her role as an educator. She realized that it was up to her to "somehow make a difference to a child."

*Experience/Realization: Valuing what was learned at the university.* The field-based experience contributed to the realization of the importance of university coursework on preservice teacher development. By the end of the experience, most preservice teachers noted the importance of information sources they had access to during their teacher preparation program such as seminars, college courses, interactions with university faculty, and professional journals. For example, one preservice teacher noted, "I have applied a lot of things that I have learned in the [university] classroom to the field," while another stated, "I love....all the practical strategies I learned from Dr.\_\_\_\_."

*Verification and Corroboration of the Final Three Factors at the End of the Year Long Experience*

Further recursive analysis of the liaison field notes and instructor interviews verified the three categories and corroborated that experiences lead to realizations. The three categories emerging from the preservice teacher data were verified by the instructors. Once again, data from the interviews revealed that instructors saw the categories as intertwined rather than discrete. This intertwining is evidenced by the following excerpts from the interviews.

In an instance where the instructor was discussing the factor of preservice teachers recognizing effective/ineffective practices, there was

no separation from the factor of responsibility to self-monitor and adjust based on student performance/needs. The instructor remarked that the preservice teachers began to realize that,

“It comes back to the responsible party and accountability---if they are accountable to themselves and the district for the progress of children, it will influence decisions that they make, the instruction that they give, and how they view the children’s responses. Initially, child centered meant letting the kids do what they wanted, enjoying the kids and having a happy time with them. However, when they became in charge, then they realized that they were responsible---and structured lessons to foster and advance the children’s learning. Child-centered took on the meaning of getting productive learning growth in the children. They began to focus on not what is nice at the moment, but how it fit into the complete scope of what the children needed to be learning. For example, initially, during Sustained Silent Reading (SSR), kids had free choice and it didn’t matter if the kids really looked at it [the books] or not during SSR---later, child centered meant guiding the children into proper selections at independent reading levels so that they were really practicing and adding to their reading ability.

Although formal data were not collected at the beginning of the study about predictions of what would impact their learning the most during the year-long experience, the instructors noted unsolicited comments by preservice teachers indicated a belief that liking children and experience working in the field would have the most value in their gaining of knowledge about teaching. However, as the semester went on an instructor noted,

They realized that often the mentor teachers, although experts in child management, did not always have an in depth understanding of strategies and learning processes, were often not current, and were frequently unable to answer their questions about ‘why’ something did or didn’t work. The mentors seemed limited to speaking from experience about what had worked for

them in their classrooms. The university classes, university seminars, and support from university liaisons in the field gave them information about new researched based strategies, answers to their “why” questions, and feedback on appropriate implementation based on research about learners. They began to appreciate previously gained information, asked for reminders, and requested support/feedback as they struggled with teaching fulltime during their second semester.

In addition, another instructor said,

What we’ve helped them to develop is reflecting on what works and why it worked and why it didn’t work so that you know how to amend it the next time the strategy is used. I had this question on their reflection response sheet. It was a prompt that they had to respond to on the reflection sheet that they had to complete after completing a lesson. They had to reflect on what worked, why it worked, what didn’t work, why didn’t it work, and how they would adjust it next time. It pushed their reflection beyond just, it did work or it didn’t work. Sometimes the students think that they’ll learn these strategies and then they’ll know how to teach and just use them again and again. When they begin to use the strategies, they begin to realize that there have to be adjustments made with the strategies for the situation, the materials, or the students----then the reflections on why it did or didn’t work results in the mentor teacher learning. Then our preservice teachers begin to realize that teaching isn’t something that we learn how to do and then put it into practice and continue through the years to do it. It is when we teach that we really learn more about how to teach and hone our skills--- therefore being a teacher implies always learning. The result is that teaching is never really comfortable; perhaps if it [teaching] ever got comfortable we would cease being effective. Dissonance is a lifetime teacher process.

Further, one instructor stated,



The preservice teachers would say, because the strategies were effective, they would continue to use them even though it wasn't a course requirement. So after the students were no longer under our authority, they continued to use it [the strategies]. This demonstrates the true value of the coursework. While they are taking the courses they just have to trust us that it is worth their time. After they are in the role of being the teacher, they learn to value the skills and strategies they learned during their coursework in light of how useful they are for them....they were no longer doing strategies because they were required; they were using them because they found it made their teaching better. So it [using the strategies] became their personal requirement.

These instructor comments once again verify the categories and corroborate their overlap.

*Themes In Factors Influencing The Change In Preservice Teacher Beliefs*

During the analysis of the data, researchers noted that as the preservice teachers discussed experiences leading to realizations, they often referred to specific trends related to changes in their beliefs. Therefore, the researchers reexamined the open-ended questionnaires given at the mid-point and conclusion of the field-based experience and the summative reflections in order to determine overarching themes that served as factors impacting change. Three overarching themes emerged. Table 5 summarizes that analysis.

Table 5  
Overarching Themes of Factors Influencing Change in Beliefs

Overarching Themes	Frequency	
	Mid n=11	Post n=8
Combination of University and Field Experience	9	5
Field Experience	1	3
University seminar Experience	1	0

## Discussion

The results of this descriptive case study highlight the shifts these preservice teachers made in their beliefs concerning literacy instruction during their final year of field-based teacher preparation and identify overarching themes as well as categories of factors that served as catalysts for those changes. Factors occurred in the form of experiences leading to realizations that impacted beliefs concerning literacy instruction.

As preservice teachers focused on how to make reading/language learning relevant and effective for students in the classroom, they experienced various types and levels of dissonance consistent with previous findings (Linek, Nelson, Sampson, Mohr, Zeek, & Hughes, 1999). Although the focus of the current study was not on identifying specific types of dissonance, both cognitive and experiential dissonance are obvious in preservice teacher comments and essential to confronting one's beliefs and acknowledging the necessity of modification for instructional effectiveness (Anderson, 1994; Azjen, 1988; Dressman, Graves, & Webster, 1999; Kagan, 1992; Risko, Roskos, & Veukelich, 1999; Wolf, Hill, & Ballentine, 1999). Initially, dissonance occurred primarily while they were implementing instruction. However, at the conclusion of the year-long experience comments indicated they were also engaged in critical reflection and decision making concerning the effectiveness of the teaching they observed or implemented. Both at the midpoint and the conclusion of the experience, the preservice teachers were more specific in their planning and teaching of appropriate instructional goals. In addition, responses showed a strong focus on the importance of making literacy instruction meaningful at the midpoint of their year-long experience. This focus remained consistent at the conclusion of the year long experience.

While some of the realizations emerged as students experienced dissonance during the implementation of instruction, for others the catalyst seemed to be encountering success with a concept and/or strategy they had previously observed/learned. Prior to observing the implementation or personally engaging in implementation in a classroom

setting with children, they had not realized it would actually “work.” However, dissonance provided by experiences remained the “trigger” for the realization, for although they had known about the practice/strategy they were not “comfortable” that it was valid until they had the opportunity to experience it in a field setting. Therefore, the results of this study further support the findings of Wildman and Niles (1987) noting that it is necessary for teachers and preservice teachers to undergo a state of “disequilibrium” in order to acquire new understandings.

While many of preservice teachers still cited combining university seminar instruction with actual implementation of literacy lessons in public school classrooms as a factor in shaping their beliefs at the conclusion of the study, the frequency was less. However, this was not surprising since the number of university seminars declined by 40 percent during their final semester while teaching responsibilities shifted to full time. The opportunity for reflection upon actual teaching experiences appeared to serve as an “anchor” for the shifts in beliefs. Upitis (1999) noted that in order to talk about effective teaching practices, one had to have actual teaching experiences to reflect upon while Vygotsky’s (1986) theory of Zone of Proximal Development (ZPD) purports that learning can be scaffolded through a learner’s collaboration with a more knowledgeable person. Thus, scaffolding occurred as opportunities to reflect and discuss with knowledgeable others were provided in the university seminar and in the public schools. These findings support the identification of the field-based model of teacher education that retains the university/public school connection throughout the experience as critical in the effective preparation of teachers (Goodlad, 1991; Holmes Group, 1990 & 1995).

Pajares (1993) stated, "Teachers' beliefs can be understood in the context of teaching practices and student outcomes, but as these are not in evidence during the preservice experience, the beliefs of teacher candidates have few reference points against which to be compared" (p. 50). Pajares’ statement, the results of this study, and Vygotsky’s (1978) theory that learning can be scaffolded through a learner’s collaboration with a more knowledgeable person support the need for field-based teacher preparation that intertwines public school and university

experiences. This information is critical as the teacher shortages increase, reading preparation programs are attacked (Moats, 1999) and field based teacher preparation programs undergo examination.

If children are to become successful readers, it is essential that their teachers implement effective instruction that utilizes best practices (Cunningham & Allington, 1999; USDOE, 1987). However, if teachers are not cognizant of the beliefs that they hold concerning the teaching of reading, they do not possess the power to monitor and self regulate their instructional practices. In order to experience growth, teacher educators should provide experiences that lead to realizations concerning student learning that challenge personal beliefs in order to encourage the reflection and self-directed inquiry that is necessary for professional growth. Therefore, as stated by Pajares (1993), "Self-reflection and belief exploration should be a focal point of teacher education and an important part of a program's curricular foundation" (p. 48).

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