Abstract

Producing more teachers to address the current teacher shortage is a quick fix that ignores the deeper issue of teacher retention. Teacher educators and school district staff developers should be developing ways to prepare resilient teachers.

This article explores the use of threaded discussion groups used in two pre-service reading courses to investigate the potential for online discussions to support the development of the attributes of resiliency in both pre- and in-service teachers.
Introduction

When policymakers ask teacher educators to address the current teacher shortage, their typical plea is to “produce more teachers.” Producing more teachers may help in the short run, but the deeper issue is teacher retention. Teacher shortages and high attrition rates of novice teachers are both expected to remain within the range of 30–50% for the near future (Andrew & Schwab, 1995; Arends & Winitzky, 1996; Darling-Hammond, 1994; Mantel-Bromley, Gould, McWhorter, & Whaley, 2000). This situation is exacerbated by the fact that so many experienced teachers choose not to teach. Many teachers simply cannot sustain their initial commitment and enthusiasm in the face of overwhelming classroom and campus challenges (Gonzales, 1995; Lippmann, et al., 1996; Shann, 1998). In light of these realities, perhaps teacher educators and staff developers should be attempting to prepare “resilient” teachers, to make it more likely that teachers will choose to stay in the classroom.

As colleagues in a large teacher education program in a metropolitan area, we are looking for ways to help beginning teachers become resilient—to develop attributes that provide “the strength and fortitude to confront the overwhelming obstacles they are bound to face” (Sagor, 1996, p. 38). The purpose of this article is to explore the use of threaded discussion groups within two pre-service reading courses; more specifically, to investigate the potential for online discussions to support the development of the attributes of resiliency. The work is based on Sagor’s (1996) attributes of competence, belonging, usefulness, potency, and optimism as characteristic of resilient young children and on Bernshausen and Cunningham’s (2000) application of these concepts to teacher preparation.

The following discussion surveys research connecting teacher resiliency, collaborative professional conversation, and online threaded discussions. Two case studies are then described, both of which investigated the use of threaded discussion groups in pre-service teacher education courses. The conclusion summarizes how threaded discussion groups can be used to encourage beginning teachers to develop the attributes of resiliency and suggests directions for further research.

Making Connections: Resiliency and Online Collaborative Conversation

Sagor (1996) coined the acronym “CBUPO” to describe the attributes of resiliency in students: Competence, Belonging, Usefulness, Potency, and Optimism. Sagor’s characteristics of resiliency afford a particularly useful platform for the investigation of teacher resiliency. The following questions guided our investigation of how these beginning teachers used web-based discussions and whether they encouraged attributes associated with resiliency:

Competency. In what ways does the online threaded discussion group build competence related to specific teaching tasks?
Belonging. In what ways does the online threaded discussion group enhance feelings of belonging among the participants?
**Usefulness.** In what ways are participants made to feel useful in developing teaching skills in themselves and others?

**Potency.** How are participants made to feel potent—to know that they have an important role to play and that they have the power to influence student learning and campus decisions?

**Optimism.** How does the threaded discussion group focus its participants on possibilities rather than problems? (Bernshausen & Cunningham, 2000).

Competent, effective teachers have knowledge, skills, and dispositions that help them make competent teaching decisions. They take responsibility for resolving learner difficulties and perceive pedagogy as an ongoing developmental process (Schempp, Tan, Manross, & Fincher, 1998). Blasé and Blasé (1998) describe effective instructional leaders as building a culture of inquiry and collaboration. Resilient teachers also tend to have multiple support systems, and these connections help them avoid feelings of isolation (Fullan, 1999). Thus competence and belonging can contribute to feelings of usefulness, power/potency, and optimism. It is important to note that these are not static attributes; resilient teachers somehow know how to sustain these attributes over time, through unpredictable and potentially overwhelming daily classroom events.

Research suggests that reflective practice (Osterman & Kottkamp, 1993; Wildman, Magliaro, Niles, & McLaughlin, 1990) and collaborative conversations (Hollingsworth, 1994) support the kind of collaborative, critical thinking that leads to resiliency (Almasi, 1996; Barnes, 1990; Donoahue, VanTassell, & Patterson, 1996; Pierce & Gilles, 1993; Rogoff, 1990; Wells & Chang-Wells, 1992). Resilient teachers take an inquiring stance towards their teaching decisions. In this way, resiliency relates to efficacy (Bandura, 1992, 1997). Their efficacy manifests itself when they are faced with unexpected and puzzling dilemmas to which they respond by using a range of problem-solving strategies (Caine & Caine, 1997). Reflective, self-efficacious teachers have learned to ask good questions, make informed guesses and hypotheses, seek out information from published sources and from colleagues, and document what they are learning about what works with their students. These attributes contribute to teacher effectiveness, and effective teachers are likely to continue in the profession. Resilient teachers can also contribute to the professional development of others as they engage in collaborative conversations (Hollingsworth, 1994; Norlander-Case, Reagan, & Case, 1990) with their colleagues, thus supporting the retention of other teachers.

Common sense suggests that teachers should engage in collaborative conversations early in their preparation so that inquiry-based dialogue becomes integral to their practice from the very beginning. The culminating experiences in our teacher preparation program are field based, and collaborative conversations are an integral part of field experiences. The challenge for us, then, is to shape experiences that encourage professional reflection, personal inquiry, and collaborative conversation as early as possible in the teacher preparation program. We hypothesized that online threaded discussions could help us integrate this kind of rich dialogue and inquiry into early courses, courses taken prior to the year-long field-based internship, the capstone of our elementary undergraduate certification program.

A survey of published research regarding the use of online threaded discussion groups to support professional communities of practice yielded few studies directly relevant to our inquiry.
However, we did find a few emerging principles related to the use of threaded discussion groups and the development of teacher resiliency.

First, research suggests that online discussion groups can contribute to the development of competence. The online discussion (with links to related resources and information) extends and enhances the learning environment of a face-to-face class (Caverly & MacDonald, 2000; Davis, 1997). Individuals can continue discussing issues that remain unresolved at the end of the scheduled class times. Instructors can use class time to follow up on issues that arise in the online discussions. Individuals can access the online discussion and resources according to their specific questions and needs (Russell, 1999). They enjoy more “think time” in asynchronous online discussions. Individuals who tend to be timid or reserved in face-to-face discussions sometimes see online discussions as a lower-risk environment and will contribute more. Caverly and MacDonald (2000) point out that “threaded discussion groups foster higher-level thinking and independence as students collect, evaluate and create their own learning strategies” (p. 36). We see a potential for this kind of learning environment to encourage the development of competence that would lead to teacher resiliency, even in early pre-service courses.

Second, with appropriate support, online discussions can engender a sense of belonging. In a study with undergraduates, Aviv (2000) found that asynchronous threaded discussions, if managed appropriately, could create a group orientation, encourage students to support each other in their goal-oriented work, and create positive interpersonal relationships. Other studies of threaded discussion groups present similar conclusions (Davis, 1997; Russell, 1999).

Third, the research related to online learning communities suggests that these are excellent environments to encourage individuals to help one another—to be useful to their colleagues. The open-space of an online discussion group extends the potential for conversation beyond the constraints inherent in a course syllabus and invites all participants to offer their expertise and their experience as a resource for others.

**Two Online Threaded Discussion Groups**

This article describes two investigations of web-enhanced, inquiry-based discussion groups in courses for pre-service teachers. These inquiries are a part of the authors’ collaborative investigation of a larger question: How can web-based discussions provide opportunities for teachers to develop a sense of professional competence, belonging, usefulness, potency, and optimism? Additional investigations include web-based discussions among teachers in a graduate reading course, teaching interns in their last two semesters of the certification program, and teacher educators who are reflecting on the conditions that influence their own professional resiliency. The focus of this article, however, is the use of threaded discussion groups in campus-based courses taken early in the program. The purpose of this work is to describe the reflective dialogue and inquiry that occurred within these discussion groups and to investigate the extent to which these beginning teachers exhibited the attributes of resilient teachers, as described by Sagor (1996). The following sections provide explanations of each case, described by the professor who initiated the investigation.
Engaging In-service and Pre-service Teachers in ESL C.H.A.T.

“I have initiated a discussion board to encourage dialogue and to foster real-world connections for students studying Literacy for Linguistically Diverse Learners. As the course does not have a required field experience and most of the students have limited exposure to language-diverse populations, I believe it is important that the students have an opportunity to apply the theoretical insights from the course to specific and realistic teacher-student relationships and interactions. To accomplish this, I have developed an array of teaching scenarios to prompt electronic discussions.”

“The discussion board (a component of the WebCT online course structure) features brief scenarios of real students (whose names are changed for the sake of confidentiality). The students featured evidence interesting instructional challenges as they strive to become successful in English and in school. Every few weeks, a new scenario is posted and the college-level students are expected to access the discussion board, read and reflect upon the posted scenario, then read and respond to the scenario and other students’ responses. The students are asked to post two related questions and make a course-related comment about the described situation.

“The students are graded for complying with the expectations: participating in the discussion by accessing and reading the postings, adding two questions of their own, and making a course-related comment. I have chosen to grade appropriate participation only, rather than make qualitative judgements about the students’ comments. My rationale for this stance is that because the intent is to encourage technology-based, course-related inquiry and discussion, valuing participation apart from assessing content qualitatively is justified. Students are also expected to be ready to continue the discussion in class.

“My intent is to also encourage classroom teachers to participate in the discussion, so they can proffer their views and answer questions. Practicing classroom teachers can discuss how they might, or actually do, handle the described situations. The goal for this technological exchange is to engage the participants in ESL C.H.A.T., an acronym for Comprehending ESL students’ circumstances and the challenges they face, Helping to explore ways to connect them to the school program, Accelerating their academic progress via research-based instructional options, and Telling their stories for better understanding and application.

“The following is one scenario that I have posted on the discussion board:

Xi (John) is a 7th grader from China. He arrived in the U.S. with his family over the summer. He is outgoing and motivated to do well in school. His math teacher tries to pronounce his Chinese name, but Xi insists that everyone call him John, as in John Wayne. Xi does well in math computation skills, but as might be expected, he struggles to solve word problems in English.

When he is having difficulty, “John” gets very upset. His fellow students try to calm him down, but he resists their help. Instead, he interrupts the teacher frequently to ask, “Teacher, this is
good, yes?” The teacher wants to support his math progress, but is annoyed by the frequent disruptions that “John” makes, seemingly to get confirmation of his work.

“Despite initial set-up problems, the students have been regular and varied in their responses to the posted scenarios. Initially, the students seemed to comply with only the basic expectations for participation. But, following some clarification of the intent, students began to interact with one another’s questions and comments, rather than only respond to the instructor.

“With encouragement and practice, the students moved from superficial or naïve understandings to more informed and even complex notions about appropriate instructional practices. An analysis of students’ postings evidenced student awareness that I have assigned to the following categories:

- Instructional Strategies (suggesting various teaching methods and activity options)
- Cultural Considerations (making cultural connections or asking questions that seek to relate students’ behaviours to their cultural backgrounds)
- Linguistic Issues (acknowledging that language differences may be augmenting or interfering with students’ progress)
- Managerial Concerns (questioning whether the lesson design or teacher behavior is a factor in student success)
- Social Factors (considering how social interactions might help or hinder students in school settings)
- Professional Collaboration (realizing that there are others who might be able to help problem-solve on behalf of students)

“In order to refine the use of this course discussion board, I have regularly monitored its function and value. I can, at this juncture, make several recommendations for others considering its use. First of all, the instructor should mention the scenarios in class, commenting on them as they relate to content, the text, or topic discussions. This serves to keep course components connected via collaborative dialogue rather than having the discussion board relegated to the status of an outside class assignment.

“Another recommendation is that the instructor highlight provocative comments or questions and praise students for stimulating discussion and making strong connections between theory and practice. This feedback encourages students to be substantive in their questions and comments and increases their understanding of the instructor’s informed perspective. Finally, I have found it helpful to bring some closure to the discussion of each scenario. This can involve determining an end-of-discussion date and then telling more about the student who is featured in the scenario. Discussing in class how the actual student’s situation turned out and what the in-service teacher(s) did to help the student encourages students in the course to consider more options and better understand the complexities of good teaching.

“This new course component has served to extend student interaction beyond the classroom and among more individuals than just selected class chums. Sharing the discussion board allows 38 students from two sections of the course to interact regularly about course material, even though
they may have never met. Discussion of the scenarios has carried over into the classroom and the hallways.

“I believe the discussion board has served an important purpose in helping my students become hardier in their professional development. There are no simple answers to the complex challenges of linguistically diverse students, so the goal here is not to solve the problems, but to explore the issues involved and relate course content in a pragmatic fashion. If students have a broader knowledge base and have considered more theory-to-practice applications while regarding real teacher-student situations, they should be better equipped to meet and successfully handle the challenges they will face as educators. The activity is designed to foster a sense of belonging—to the profession, and a relationship with one another as students in the course. Initial analysis also indicates that the students are developing some competency in diagnosing the needs and characteristics of English language learners. Making valid or viable contributions to the discussion also appears to promote students’ sense of usefulness. Continued analysis of data and participation will consider potency and optimism. If the discussion board functions to equip my students to be more successful as classroom teachers, it serves its purpose. If it also contributes to more resiliency in these prospective teachers, the use of a discussion board serves a vital purpose.”

**Online Reflections and Dialogue in a Reading Assessment Course**

In an effort to promote reflective practices in pre-service teachers, written reflections have played a key role in my reading courses. Students have been required to reflect on class discussions, course readings, theories, and teaching experiences in order to demonstrate their understanding. As a result of these assignments, some students have moved beyond the written work to use it as a way to investigate their own questions, concerns, and beliefs about literacy practices. I have gained insight into their learning, but thought the reflections would be more meaningful if the students shared their thoughts with their peers.

Thus, I decided to use a threaded discussion area instead of written work turned into me because it allowed students to reflect on their ideas and experiences with a more authentic audience who might reply in a more timely way. Further, I felt that the students might view the discussion area (forum) as a means to exchange ideas/questions with their peers and then other professionals once they were teaching. In this way the online discussion forum would foster reflection, as well as be a way to promote the idea of collegial conversations (collaboration) once they were teaching. It is my belief that if teachers are collaborative, then there is greater possibility that they will remain in the teaching profession because they are feeling competent and useful while having a sense of belonging (Sagor, 1996).

During the semester, which is the focus of this data analysis, 45 students were enrolled in two reading assessment courses. Of these 45 students only 6 had ever used a computer discussion area. To get started, each student completed a survey. Of the 42 students who responded, most demonstrated a positive attitude about using the discussion area. From the onset their comments
indicated that they thought of the discussion area as a positive tool in their development as a teacher. Initial postings included:

_Terry:_ It [the forum] is a wonderful way to communicate with other students (once I get the hang of it). I think it will be very helpful to us because we can all communicate problems we have, or if we just want to discuss a topic.

_Roy:_ I can get assistance, ideas, and feedback. I like the idea of putting a question or idea out there and getting feedback from others.

After the initial posting, the students were expected to respond to prompts that were announced during class. The topics of these prompts included course goals, the assessment text, problems or success with assessing, and writing experience. Generally, these prompts were limited so that I did not direct their responses. I further explained to the students that they did not need to wait for me to post an idea. From the onset, they were encouraged to start their own topics or to respond to each other’s postings.

During the semester there were 639 postings. Individual students had as few as 2 postings and as many as 62. The average number of postings was 14, or about 1 per week. Of the 45 students, 20 engaged in dialogues beyond my prompts. Fourteen of these students initiated their own ideas. Of the 639 messages, 247 (39%) related to dialogues beyond my prompts. Although the responses to my prompts represent the majority of the postings, the student-initiated dialogue better demonstrates the attributes of resiliency and is, for that reason, the focus of this discussion.

Students initiated dialogue in two ways. One way was to respond to something that one of the other students had written. A second way was to initiate a totally different topic. Such entries included: (1) reactions to newspaper articles related to educational issues; (2) helpful teacher websites; (3) how to get free teacher materials and books; (4) requests from each other for assistance on course assignments; (5) positive feedback and encouragement to other classmates; (6) information related to specific reading difficulties that students were identifying while conducting assessments; and (7) material related to identified reading disabilities.

When students responded to each other, the tone was conversational. The student comments demonstrated knowledge and conveyed confidence. The postings ranged from text of a few words to lengthy postings that were more than a single-spaced page. For example, in a general question to everyone, Terry requested assistance with her goals. Maria replied in a competent manner that was not only timely, but also supportive and optimistic:

_Terry:_ I read your response to your goals and would like to offer a few words of encouragement. First of all, you will be ready when it comes time to teach. Like myself, I have faith that all the hours, lectures, information, and materials will come together in the end or should I say the beginning of our careers. I have no doubt I will be looking back at my notes and handouts for ideas and information. Go back through your notes and write out any lesson plan ideas. There are many ideas in the book, too. If you do not have this information, let me know and I would be happy to make a copy … Please respond if you would like and if there is anything I can do, let me know. See you Monday! Maria
Believing in the usefulness and capabilities of her peers, Kitty posed this problem that arose while she was assessing her elementary student:

As you might remember from class discussion, I have an ESL student. He is in the fifth grade, but his independent level is third-grade level. I’m worried because his textbooks are at the sixth-grade level, making it nearly impossible to comprehend what needs to be learned. The only progress I have made with him is allowing him to read text that he is interested in like soccer or baseball. His writing ability is also very low. Does anybody know anything that I can do to help him improve his grade level of reading? I really don’t want to just get the information that I need for my case study, and leave him high and dry without helping him. I only have one hour a day, twice a week to spend time with him at his school. ANY suggestions are GREATLY appreciated.

When presented with a real problem, her peers were able to respond with answers that demonstrated their evolving competence. Three students came to Kitty’s assistance. Two of the students provided specific book titles for her to use and authors that she might investigate. A third student suggested that Kitty might work with her student on writing about topics related to subject matter, thereby creating his own text. These students provided peer assistance as well as demonstrated that they could apply what they were learning about linking instruction to assessment in a real circumstance.

Self-selected topics about issues that they might encounter once they were teaching provided the context for several conversation-producing prompts. These prompts included a newspaper article about a third grader who was suspended from school because he had drawn a picture of a soldier with a gun. Another student shared information about her daughter’s reading disability that required her daughter to use tinted glasses while doing her work. A third student shared information on attention deficit disorder. Last, the story of a 16 year-old who committed suicide at school was posted. All of these postings led to extended responses. Edgar, who had verbally indicated to me that he was concerned about his shorter, less reflective responses to my prompts, posted several longer and more reflective postings in response to the suspended child.

Clearly, these novice teachers used the forum as a means to reflect on various aspects of the course. Although responses to my prompts were often succinct and bookish, the student-initiated exchanges became less formal and more conversational. They shared information, feelings, and concerns, which suggests a certain level of mutual trust. They asked questions and posed solutions, which demonstrates that they could apply their knowledge of literacy assessment. For the students who engaged in this part of the dialogue, there was more meaningful discussion of real tasks. Thus, the discussion board may have contributed to their emerging feelings of competence, belonging, and usefulness.

**An Addendum**

The following semester I had 12 of the students who participated in the student-initiated dialogue in another teacher education course. One of the students immediately set up a discussion site for the students to use this semester. I have not posed any questions, but rather have “eavesdropped” on their conversations. Although the participation in the site is limited to about 7 of the students,
it still has proven to be helpful for them. They have shared a variety of concerns and ideas including: (1) suggestions about classroom management, (2) content related information, (3) assignment clarifications, and (4) student-related problems. This has given them a way to verbalize their concerns, to share their expertise, and to move through the rough spots.

**Conclusions**

Teacher resiliency is an important programmatic goal, although it is seldom acknowledged in program standards or in course objectives. We hypothesized that the earlier we engage our teacher candidates in collaborative conversation (Hollingsworth, 1994) about authentic teaching issues, the more likely they will be to develop the attributes that Sagor (1996) listed in connection with resiliency and that others have associated with self-efficacy (Bandura, 1992; Caine & Caine, 1997). Given the difficulties of providing authentic field experiences early in the program, we explored the potential for web-based discussion groups to encourage that kind of dialogue and inquiry in university campus-based courses. Table 1 delineates how the themes and topics from each of the studies relate to the attributes of resiliency.

Table 1. Themes and topics from the online discussions correlated with attributes of teacher resiliency.

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<thead>
<tr>
<th>Attributes of Teacher Resiliency</th>
<th>ESL Discussions</th>
<th>Literacy Assessment Discussions</th>
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<tbody>
<tr>
<td>Competency</td>
<td>Instructional strategies</td>
<td>Reactions to newspaper articles related to educational issues information</td>
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<td></td>
<td>Cultural considerations</td>
<td>Comments related to specific reading difficulties and information</td>
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<td></td>
<td>Linguistic issues</td>
<td>Information related to identified reading disabilities</td>
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<td>Managerial concerns</td>
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<td>Social factors</td>
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<td>Belonging</td>
<td>Professional collaboration</td>
<td>Positive feedback and encouragement to other classmates</td>
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<tr>
<td>Usefulness</td>
<td><strong>Generating diagnostic questions</strong></td>
<td>Suggestions of helpful teacher websites</td>
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<td><strong>Connecting theory to practice</strong></td>
<td>Information about how to get free teacher materials and books</td>
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<td>Suggesting instructional options</td>
<td>Requests from each other for</td>
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The two cases described in this article support findings from growing numbers of studies of online learning communities and the use of threaded discussion groups. These findings taught us that web-based discussions differ from our in-class teaching/learning experiences in several important ways, all of which hold potential relevance for enhancing resiliency in teachers. In these two instances, these online discussions seemed to provide:

- an opportunity for people who feel somewhat inhibited by face-to-face discussions to participate more fully;
- extended time for discussion, beyond limited class time;
- access to discussants who are not class members—practicing teachers, students in K-12 classrooms, and other teacher candidates;
- a more democratic discussion forum, with the professor taking a less central role in the online discussion than is likely in face-to-face discussions;
- an opportunity for teacher candidates to explore the “messiness” of teaching decisions—the ambiguities, the complexities, and the unanswered questions that are not always revealed during class discussions;
- a low-risk public forum for participants’ private questions, hypotheses, and wonderings, where they could introduce topics and share information they had found;
- a place for affirming one another and for commiserating about shared questions or frustrations;
- an opportunity for an ongoing discussion, after the course or the semester finishes.

One of the researchers summarized her conclusions this way: “[The threaded discussion group] allowed for me to muddy the waters and let them play around with that in a way I didn’t have time to do in class.” Given the fact that real teaching/learning situations are not going to be easily resolved, we think it is important for us to give pre-service teachers a chance to play in these muddy waters. We are convinced that these collaborative conversations do allow beginning teachers to “play around” with the messy complexities of teaching and learning in ways that help prepare them for the ambiguities, the contradictions, and the unpredictability inherent in teaching. That is what resilient teachers deal with every day.

Several significant questions remain for us as teachers and as researchers. We are exploring how best to evaluate students’ participation in the discussions. Our initial experiences suggest that our evaluation and grading should be designed to encourage risk-taking and open-ended contributions. Connected to that are our questions about how we can best participate in the discussions. Generally, we are finding that participation in the online discussions should be viewed as a primary component of the course and that the discussions should be referenced in our face-to-face discussions, so that the discussions do not seem a separate and disjointed assignment. We also are learning to listen to the students’ online discussions, to take a role in the
background so that participants will begin to take ownership, to start new topics, and to share resources and questions that are unique to their concerns.

As researchers, we are searching for more efficient and more informative ways to analyze the structure and the content of students’ contributions. This analysis also leads to questions about Sagor’s (1996) characteristics of resiliency—how and whether they describe teacher resiliency in a compelling and useful way. For instance, it is relatively easy to identify evidence of competency, belonging, and usefulness. It is more challenging to determine whether threaded discussions can contribute to potency and optimism in pre-service teachers. At the same time, we look forward to learning more about the complexities of teacher resiliency—what it takes to help teachers sustain their professional enthusiasm and commitment in the face of inevitable and potentially daunting challenges. We may, in fact, identify other characteristics that further describe resilient teachers, characteristics that can be addressed early in their professional development.

This project has enlightened us about threaded discussion groups as a potential tool for collaborative reflection among pre-service teachers. The project also suggests that threaded discussion groups can serve as a tool for building teacher resiliency. Ongoing research will explore both the characteristics of teacher resiliency and ways to encourage the resiliency-building process in pre-service teachers. In the meantime, pre-service teachers in our program will continue to participate in collaborative reflection in multiple formats—face to face and online, in campus-based courses, and in field experiences. Our goal is to prepare resilient teachers—teachers who will be effective and who will choose to stay in the classroom for a long time. That is one answer to the teacher shortage.

**References**


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