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## THE IMPACT OF SOCIAL INTERACTION ON STUDENT LEARNING

Dr. Beth Hurst, Dr. Randall Wallace, Dr. Sarah Nixon

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### Abstract

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Due to the lack of student engagement in the common lecture-centered model, we explored a model of instructional delivery where our undergraduate and graduate classes were structured so that students had opportunities for daily interaction with each other. Specifically, we examined how students perceived the value of social interaction on their learning by reflecting on their classroom experiences at the end of each class period. Three literacy teacher preparation courses during a summer session were chosen for this study based on the highly interactive nature of each course. The purpose of the study was not to determine the difference between different models of instruction, but to determine our students' perceptions of the value of the social interaction that was taking place in our classrooms on their learning. The findings reveal that students in all three courses perceived that social interaction improved their learning by enhancing their knowledge of literacy and teaching and their critical thinking and problem-solving skills.

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### **The Impact of Social Interaction on Student Learning**

Today's students have taken to social networking like fish to water; yet, from our perspectives, there is little social interaction taking place in many of today's classrooms from kindergarten through college. The model of discourse in most classrooms is a one-way communication from the teacher to the students. For example, the first thing one kindergartener said to his mother after his first day of school was: "All teachers do is talk, talk, talk." He said the same thing after his first day of high school and his first day of college. His observations are not uncommon. As early as 1984, Goodlad wrote "the data from our observations in more than 1,000 classrooms support the popular image of a teacher standing in front of a class imparting knowledge to a group of students" (p. 105). Smith wrote in 1998 that teachers talk 90% of the time in classrooms. Frey, Fisher, and Allen (2009) observed that "students are expected to sit hour after hour, taking notes, and answering the occasional question with little interaction with peers" (p. 70).

The concept of teachers doing all of the talking in classrooms is in direct contrast to the philosophy that learning is primarily a social activity (Dewey, 1963; Lindeman, 1926) and the idea that the person who is doing the work is the person doing the learning (Hurst, 1998). Teachers expend a lot of energy preparing lectures. They must read various texts and synthesize the information, pick out the most important points and organize them in a cohesive manner, write lecture notes, and then deliver the information to students who sit passively often thinking of everything but what the teacher is saying. Who is doing all of the work in this process? The teacher. The teacher is the one reading, writing, thinking, speaking, and therefore, the one who is learning. Vacca and Vacca (2002) contend that we need to shift "the burden of learning from teachers' shoulders to students" (p. 7). Wilkinson, Soter, and Murphy (2010) agree "there needs to be a gradual release of responsibility for control of the discussion from teacher to students" (p. 156). Probst (2007) states, "it's the student who should be doing most of the work" (p. 43).

One way for students to shoulder the responsibility for learning is for them to be the readers, writers, speakers, listeners, and thinkers in the classroom through active engagement in social interaction with others (Alvermann & Phelps, 2005; Vacca, Vacca, & Mraz, 2011). For the purpose of this study, we define social interaction as meaningful dialogue among learners. Socially interactive learners are engaged learners (Vacca et al., 2011). Routman (2005) contends "students learn more when they are able to talk to one another and be actively involved" (p. 207). In short, social interaction is vital to the learning process.

Years ago, Goodman (1986) stressed that reading, writing, listening, and speaking should be kept whole (as in whole language) instead of teaching each one separately. He promoted that reading, writing, listening, and speaking should be incorporated into everything students do throughout the day. Because reading, writing, and social interaction are part of everyday life in the real world, it does not make sense for classrooms to be social interaction-free zones where the teacher talks while students listen. Gee (2001) contends “reading and writing cannot be separated from speaking, listening, and interacting, on the one hand, or using language to think about and act on the world, on the other” (p. 714).

Kasten (1997) found it “amusing that the teachers of another era spent so much time keeping their classes quiet and then wondered why so many students were terrified of occasional oral reports and even continued into adulthood to be uncomfortable speaking to a group” (p. 100). She stated “teachers and principals of the past who worked hard to keep children quiet (myself included) did not know how critical social interaction and collaboration are in learning” (p. 99). They also may not have known *how* to incorporate social interaction into their classrooms. The problem is not that students are unwilling to talk; many teachers say they spend the better part of their days trying to get their students to stop talking (whether in person or texting). The problem is getting the students to talk about the subject at hand.

### **Social Interaction among Teachers**

The social constructivist theory is based on the belief that individuals actively construct knowledge and understanding and that constructing understandings of one’s world is an active, mind-engaging process. In other words, information must be mentally acted upon in order to have meaning for the learner (Piaget, 1979; Sigel & Cocking, 1977). According to constructivist views, learning involves building on the background knowledge the learner brings to the situation and restructuring initial knowledge. Since learners have different background knowledge, experience, and interests, they make different connections in building their knowledge over time. Brooks and Brooks (1993) state:

We construct our own understandings of the world in which we live. We search for tools to help us understand our experiences. To do so is human nature.... Each of us makes sense of our world by synthesizing new experiences into what we have previously come to understand. (p. 4)

Within a constructivist framework, the learning of skills and concepts occur within meaningful and integrated contexts not in an isolated and hierarchical manner. Learning is built over time as initial knowledge is revised when new questions arise and old knowledge is challenged. “Deep understanding, not imitative behavior, is the goal...We look not for what students can repeat, but for what they can generate, demonstrate, and exhibit” (Brooks & Brooks, 1993, p. 16).

One way to prepare teachers to incorporate social interaction in their classrooms is to incorporate it into teacher education courses. When social interaction becomes part of the classroom dynamics, classrooms become active places; teachers need to experience this for themselves so they know how to create this type of learning environment in their own classrooms (Darling-Hammond & McLaughlin, 1995).

Students are not the only ones who need to be talking and listening to one another while learning. Teachers are often left to navigate through a maze of complex activities. Teachers are bombarded by problems originating from student need and from various negotiations with students, parents, and administrators. Furthermore, curriculum is multifaceted with instruction relying on assessment, management, and effective presentation. Success depends on teachers having a thorough understanding of a variety of subject areas, learning how to reflect on their efforts, and developing problem-solving skills regarding any number of potential problems.

Encouraging social interaction among teachers is one of the most effective ways for teachers to learn creative methods to solve complex problems (Darling-Hammond & McLaughlin, 1995). Teachers, like students, can effectively improve their learning skills by frequently discussing the dynamics of their classroom with peers experiencing the same challenges. Good teachers are highly motivated to improve the content of their curricula for their students and the quality of their interactions with parents and administrators. They will take the time to communicate with others when they see the value in the communication; they will promptly commit to educational activities they think will help them improve their instruction (Bakkenes, De Brabander, & Imants, 1999).

Two fundamental processes that help teachers improve their skills are reflection and collaboration. Teachers need to use reflection to evaluate and inform their practices and use collaboration to learn to negotiate effective interactions among themselves, the students, parents, and administration (Askill-Williams, Murray-Harvey, & Lawson, 2007). Darling-Hammond and McLaughlin (1995) suggest preservice and inservice courses should focus on developing

teachers who have a deeper understanding of themselves as educators and of the students they educate. These authors state that effective professional development must “be collaborative, involving a sharing of knowledge among educators and a focus on teachers’ communities of practice rather than on individual teachers” (p. 643). Furthermore, they argue:

Teachers learn by doing, reading, and reflecting (just as students do); by collaborating with other teachers. This kind of learning enables teachers to make the leap from theory to accomplished practice. In addition to a powerful base of theoretical knowledge, such learning requires settings that support teacher inquiry and collaboration and strategies grounded in teachers’ questions and concerns. To understand deeply, teachers must learn about, see, and experience learning-centered and learner-centered teaching practices. (pp. 242-243)

A goal of teacher education programs should be to present curriculum in such a way as to teach the necessity of social interaction. Preservice and inservice programs need to model how social interaction encourages collective problem solving and knowledge sharing (Darling-Hammond & McLaughlin, 1995). In this study, instead of the common lecture-centered model, we explored a model of discourse where our undergraduate and graduate students interacted with each other during each class period. The purpose of this study was to determine our students’ perceptions of the impact of social interaction on their learning. We wanted to know: 1) How does social interaction contribute to our students’ learning? 2) What do our students learn about literacy through social interaction in our courses? and 3) Are we preparing our students to utilize social interaction in their future classrooms?

### **Methodology**

Three literacy teacher preparation courses during a summer session were chosen for this study because of the highly interactive nature of each course: (a) an undergraduate content area literacy course (N=15), (b) a graduate content area literacy course (N=17), and (c) a graduate literacy tutoring course (N=13) for a total of 45 students. The last few minutes of each class were devoted to students completing an exit slip where they answered three questions. Exit slips, according to Vacca et al. (2011), are index cards or half sheets of paper where “students react to what they are studying or to what’s happening in class” so teachers can obtain feedback regarding the day’s lesson (p. 292). The exit slips were filled out after

each class period because the lesson content and student experiences were unique and distinctive each day.

The intent of our investigation was to gather information regarding our students' perspectives of our highly interactive and reflective classes. The limitations of our investigation were that: 1) we did not set out to determine the difference between different models of instruction, but to determine our students' perceptions of the value of the social interaction that was taking place in our classrooms on their learning; 2) we did not formally estimate the reliability and validity of the exit slips; and 3) we did not examine the demographics of our sample (e.g., looking for variation between graduate and undergraduate students or between elementary and secondary students).

In order to answer research question one regarding students' perceptions of how social interaction contributed to their learning, we asked the following two questions: How did collaborating with colleagues during today's class help you when thinking about your students and future lesson plans (student interest, engagement, and self-direction)? and What did you learn about the concept of collaboration from working with others in class today? Both exit slip questions were analyzed together to answer question one. In order to answer research question two concerning what our students learned about literacy through social interaction, we asked: What did you learn about literacy from collaborating with colleagues today? In order to answer research question three regarding our students' opinions on how prepared they feel to incorporate social interaction in their future classrooms, students completed an additional exit slip on the final day of class. They were asked to rate on a scale of 1-10 how prepared they feel to incorporate social interaction in their future classrooms. At the end of data collection, we each analyzed our own set of data, and then we combined the data to look for patterns of responses among the three sets of student responses.

### **Individual Class Data Analysis**

What follows is a description of each of the three courses, along with each instructor's individual analysis of the students' responses to the exit slips throughout the course.

### **Undergraduate Content Area Literacy Course (Hurst)**

The purpose of the undergraduate content area literacy course at our university is to teach future middle and high school teachers from every content area how to incorporate reading strategies into their daily lessons. In my classes, I define a reading strategy as something that provides students with the impetus to

actually read and interact with a text and with others. An example of the reading strategies modeled includes K-W-L (Ogle, 1986), List-Group-Label (Taba, 1967), Directed Reading-Thinking Activity (Stauffer, 1969), Semantic Feature Analysis (Baumann, Kame'enui, & Ash, 2003), Vocabulary Self-Collection Strategy (Haggard, 1982), Jigsaw (Aronson, 1978), Guided Reading Procedure (Manzo, 1975), Found Poems (Hobgood, 1998), and Memory Game (Robinson & Hurst, 2007). The ideal reading strategy, in my opinion, is one that naturally incorporates reading, writing, and social interaction. I also espouse Glasser's (1993) idea that one of the basic human needs is to have fun, and I find reading strategies show students learning can be fun and enjoyable. For the reading strategies, the reading can be any type of text; writing can be any form from freewriting to brainstorming lists to reflective writing; and social interaction can be anything from whole group discussions to turning to a neighbor to discuss to grouping students in any number of ways.

To provide an example of a reading strategy, one of the strategies I model in my class is the use of a combination of written and verbal learning logs (Hurst, 2005). Students are asked to read the text, not for what they think will be on a test, but for what they find interesting or for something that draws their attention. On a piece of paper with a line drawn vertically down the center, students jot down on the left side what it was that piqued their interest (writing the page number in the left margin), and then on the right side they explain why they found it interesting. Students are asked to write about at least three things of interest. The reading and writing for this activity is completed independently. The social interaction occurs the following class period when students take turns sharing with the class one thing from their learning log. By the time each student has shared something of interest from the text, and with me embedding points in the discussion that I want covered, we have had a fairly thorough discussion of the text. Through this strategy, students read the text, interact with the text through writing, and interact with others about the text.

Since the purpose of the course is to provide future teachers with a repertoire of reading strategies and a mindset for how to incorporate them into their daily teaching, my class is structured so that every class period, instead of me lecturing about the importance of utilizing reading strategies, I model the strategies using various types of texts. Additionally, one of the requirements for the class is for each preservice teacher to choose a reading strategy to model for the class using a text from the student's content area, so each class period includes the modeling of one or two strategies by me and one strategy modeled by a student.



Since social interaction is one element of each reading strategy, it is inherent in the structure of the class.

During this summer session, there were 15 undergraduate preservice teachers in the class from the following subject areas: math, English, science, history, physical education, family and consumer science, art, agriculture, and business. The two credit hour class met two days a week for three hours for five weeks. Exit slips were completed at the end of each class period to answer the three research questions.

### **Research question one: How did social interaction contribute to our students' learning?**

To analyze the students' 180 responses on the exit slips regarding how social interaction impacted their learning, the number of times each response was given was tabulated. Four themes accounted for 57% of the responses. Students believe social interaction: (a) helps students learn from others (23%), (b) makes learning fun (16%), (c) gets students interested and engaged (10%), and (d) allows students a chance to talk in the classroom (8%). The four themes did not surprise me, but the sheer number of different responses did. In addition to the four themes, the remaining 43% of the responses included 25 different topics: it improves comprehension, makes the classroom a learning environment, helps students become comfortable and confident, prepares students for the real world, teaches students how to work together, makes students want to come to class, helps students develop social skills, helps students improve their communication skills, makes it so students are the ones working in the classroom, helps teachers get to know students better, provides for more ownership of learning, prepares well-rounded students, helps time pass and breaks monotony, builds group mentality, and promotes self-assigned roles in groups.

One student wrote, "*social interaction encourages students to think, read, conclude, summarize, question, etc.*" Another student's comment closely matches Vacca et al.'s (2011) views: "*We were able to achieve more, faster, and more accurately when we worked in groups*" (Student); Vacca et al. asserted when students work together in cooperative groups they "produce more ideas, participate more, and take greater intellectual risks" (p. 152). Another student used the term "*a hive mind*" to describe how that particular group worked together, while another student referred to "*the whole being greater than the sum of the parts.*" Several students mentioned that learning with others is more effective than learning on their own.

**Research question two: What did our students learn about literacy through social interaction in our courses?**

In analyzing 180 the responses to what students learned about literacy, the four most often given responses were: they learned that (a) reading can be fun (25%), (b) reading strategies help get students to actually read (22%), (c) reading strategies help students learn a lot of material (15%), and (d) other students' interpretations of a text can help all students better understand the text (10%). In addition to these four responses, the remaining 18% was divided into 32 additional responses that were mentioned more than once including: always give students a reason to read, the importance of prior knowledge, the best way to become a better reader is to read, there will be many different reading levels in our classrooms, reading can be made enjoyable by adding diversity to teaching methods, reading and sharing make for more learning to take place, the classroom does not have to be quiet, how to determine the grade level of a text, interest plays an important role in comprehension, many things students can do when they come to a word they do not know, phrasing and fluency play an important role in reading, the importance of teaching how to read between the lines, discussion increases comprehension, discussion makes self-initiated information-seeking more likely, everyone gets something different out of a text, and how to get students in English classes to actually read literature.

**Research question three: Did we prepare our students to utilize social interaction in their future classrooms?**

When students were asked on the last day of class to rate on a scale of 1-10 how prepared they feel to incorporate social interaction in their future classrooms (10 meaning the most prepared), 12 out of 15 (80%) students responded with a score from 8-10. The remaining three (20%) responded with scores from 5-7. Further research would be helpful to determine if these students actually incorporate social interaction in their future classrooms as often as they intended.

In conclusion, based on the responses to the questions on the exit slips in this one summer course, it appears the preservice teachers found social interaction contributed to their learning, they learned about literacy through social interaction, and they plan to carry on the practice in their future classrooms. One student wrote:

*I learn best by being in an active learning environment. As a future teacher, I envision my classroom as being very interactive. Students will always be engaged in group learning, small projects, group discussions, debate, etc. I feel this type of environment*

*makes learning fun and engages the students like me who struggle in a lecture environment.*

### **Graduate Content Area Literacy Course (Nixon)**

Our graduate content area literacy course is designed to provide a framework for teachers to help students with literacy in the content areas, metacognition, study skills, and critical thinking skills. Course competencies focus on increasing relevant knowledge, pedagogical and professional practice, and professional attributes related to content area literacy. The majority of the students who take this course are working on graduate degrees in Masters of Science in Education-Reading (MSED-RDG) and Masters in the Art of Teaching (MAT). A smaller number of students are pursuing degrees in MSED-Elementary Education or more specific discipline-based graduate degrees in MSED-Secondary Education or Masters of Art (MA).

My summer course consisted of 17 graduate students: a total of eight MAT students representing agriculture, biology, business, English, family & consumer science, and Spanish; four MSED-RDG students; a total three MSED-Secondary Education students representing Chemistry, Educational Administration, and English; one MSED-Elementary Education; and one MA-Theater student. Eleven of these students (65%) had no formal teaching experience; however, all of them had completed at least one practicum and student teaching, and several had worked as substitute teachers. Six students (35%) had one to three years of formal teaching experience; two were elementary teachers, three taught high school, and one taught at the college level. The three credit hour class met for five weeks, twice a week for four hours and 30 minutes for a total of 45 contact hours.

I define a literacy strategy as a purposeful activity that actively engages students in reading, writing, and discussion. During each class, I use demonstration lessons to model numerous literacy strategies, such as Anticipation Guides (Vacca et al., 2011), ReQuest (Manzo, 1969), Reciprocal Teaching (Brown & Palincsar, 1984), Questioning the Author (Beck et al., 1997), Discussion Webs (Alvermann, 1991), Word Sorts (Gillet & Kita, 1979), Concept Circles (Vacca et al., 2011), Point of View Guides (Wood, 1988), Unsent Letters (Smith, 2002), and RAFT writing (Holston & Santa, 1985). Each lesson is structured around one short piece of text using various topics (to cover the range of disciplines) and types of texts (textbook excerpts; primary documents; short story; poetry; articles from magazines, newspapers, and the internet; art work; music lyrics). These demonstration lessons are taught in a 45-55 minute block—the same timeframe the teachers in class have

to work with in their own classrooms. After the lesson is taught, we unpack it, discussing each strategy from various aspects such as: theory and pedagogical features, strengths and benefits, skill-building aspects, as well as any possible drawbacks to using it. Each demonstration lesson utilizes various strategies from the course text, *Content Area Reading* (Vacca et al., 2011), and is structured around the ERR instructional framework, a “working instructional guide” (Steele, 2001, p. 7) consisting of three stages: Evocation, Realization of Meaning, and Reflection. According to Steele, the ERR framework “provides a model for understanding teaching processes and serves as a mechanism for organizing instruction that corresponds to what is known about how students learn best” (p. 8). The ERR framework is similar to the before reading, during reading, and after reading (B-D-A) lesson structure (Vacca et al.). Vacca et al. state, “What a teacher does *before reading*, *during reading*, and *after reading* (B-D-A) is crucial to active and purposeful reading” (p. 131). They describe the B-D-A lesson structure as “a generic framework for planning content literacy lessons. How teachers adapt the B-D-A lesson depends on the students in the class, the text that they are studying, and the kinds of activities that will be reflected in the lesson” (p. 138).

During the summer semester, I require all students to present two lessons: one 15-minute mini-lesson that utilizes one literacy strategy from the text and incorporates discussion in pairs, small groups, and/or whole class; and a longer, more in-depth 35-40 minute presentation that employs the ERR framework and utilizes multiple strategies for each stage of the lesson as well as various types of collaborative discussions (i.e., pair shares, small group, whole class). At the completion of each class meeting, students filled out an exit slip requesting their thoughts and perspectives on the role of collaboration and social interaction that occurred in class that day. Comments on the exit slips might address my demonstration lesson, students’ mini-lessons, or their longer, more in-depth lesson presentations. Exit slips were then analyzed using the constant comparative method (Glaser & Strauss, 1967) by examining students’ comments for emerging themes and placing data into interrelated categories. Once categories were formed, I asked a qualified colleague to review the categories for integrity and conclusiveness (Merriam, 1992).

### **Research question one: How did social interaction contribute to our students’ learning?**

Students were asked to comment on what they learned about the concept of collaboration from working with others in class. After examination of 170 exit

slips, analysis of data revealed that students found social interaction: (a) encouraged different perspectives (24%); (b) created an effective working environment (22%); (c) enhanced critical thinking (21%); (d) expanded comprehension and retention by activating prior knowledge, making connections, and consolidating new ideas (18%); (e) demonstrated application and modifications of various literacy strategies and collaborative learning (8%); and (f) promoted ownership of one's own education by actively engaging and motivating students (7%). One student commented, "It [social interaction] made me think in different ways." Another student noted, "I love 'doing!' It helps me think deeper and remember longer!" Additionally, one student wrote, "social interaction activates learning beyond the topic."

### **Research question two: What did our students learn about literacy through social interaction in our courses?**

Students were invited to ponder what they learned about literacy when collaborating with others. Analysis of data revealed the extent of the depth of students' collaborative literacy experiences. Through social interaction, they realized: (a) an increase of knowledge regarding the act of reading (25%); (b) the ERR framework is vital organization tool (24%); (c) there are different ways to approach reading tasks (18%); (d) each reader interprets texts differently (11%); (e) the importance of activating students' prior knowledge before reading (9%); (f) the clarification and consolidation of new information through reflective discussion (8%); and (g) why students need to monitor their own comprehension while reading (5%).

One student thoughtfully remarked,

*All students need opportunities to talk about what we're reading. By doing this, I learned that reading is not just an individual action—it should not just be an individual act— but also a community action that helps us to connect to the text and clarify ideas.*

### **Research question three: Did we prepare our students to utilize social interaction in their future classrooms?**

On the final day of class, students were asked to rate on a scale of 1-10 how prepared they felt they were to incorporate social interaction in their future classrooms. Eight students (47%) gave themselves a 10, the highest rating, while 7 students (41%) rated their level of preparedness a 9. Two students (12%) marked 8. Many students commented they would implement social interaction strategies in

their future classes because they believed this method helped strengthen their own comprehension and retention of knowledge, and they personally found it to be an effective teaching tool.

In conclusion, students in this summer graduate content literacy course discovered that social interaction with their colleagues offered a myriad of benefits: enhanced critical thinking, a variety of perspectives, an effective working environment, ownership of one's learning, deeper comprehension, and an opportunity to apply the instructional strategies. Additionally, through social interaction these graduate students expanded their knowledge of literacy: they experienced different ways to approach various literacy tasks; they learned each reader interprets text in unique and different ways; and they discovered the importance of activating prior knowledge, monitoring comprehension, and consolidating knowledge through active, robust discussion. In summary, as teachers, they recognized and appreciated the importance of social interaction in the acquisition of content area knowledge.

### **Graduate Literacy Tutoring Course (Wallace)**

During the summer session, I taught two combined literacy courses required for a Masters of Science in Education-Reading (MSED-RDG) and required by the State of Missouri for Special Reading Teacher Certification. The graduate students taking these two courses, Assessment of Reading Problems and Remediation of Reading Problems, are teachers in a practicum-based project called the Summer Reading Academy. The first week of instruction is devoted to learning and reviewing different assessment instruments, discussing ways assessment results should drive instruction, and reviewing the components of effective lesson plans. Over the next seven weeks, the graduate students work with struggling grade-school readers in a rather unique, teacher-collaborative setting. This was the third time I had taught these reading courses and directed the Summer Reading Academy. I frequently state at the beginning of these courses that the graduate students would learn more from each other than they would from my instruction. The questions on the exit slips permitted an examination of this idea.

This summer, the Summer Reading Academy consisted of 12 graduate students enrolled in the Graduate Reading Program who were currently teaching in the public schools and one not currently teaching, but who had prior teaching experience. These 13 teachers worked with 32 grade-school struggling readers ranging in age from 5 to 12 years with skill levels ranging from pre-primer to grade six. The Summer Reading Academy was housed in four classrooms. Three

classrooms had three teachers each and one classroom had a group of four teachers. Some of the teachers were assigned to work with two struggling readers and some with three struggling readers. Readers were placed in one of the four rooms based upon age and estimated reading skill. The teachers were to provide at least 45 minutes of individual instruction to students assigned as their primary responsibility. While some teachers were working individually with their students, other teachers were working in small group activities such as writer's workshop, shared reading, and word work. The teachers worked together to create a classroom milieu that met the literacy needs of all students in their room by developing a classroom theme and a schedule of literacy activities with \$250 to purchase necessary instructional materials.

Throughout the semester, the teachers created a portfolio containing their assessment results, lesson plans, and pre- and post-tutoring reports; in addition, each week the teachers sent home a portfolio of student artifacts along with notes to parents. The portfolio was returned every Monday morning with a parent signature indicating they had reviewed his or her child's work.

The teachers met with students every morning for seven weeks, Monday through Thursday, from 8:30 to 11:30. From 7:30 to 8:00, we met as a whole class for instruction, then from 8:00 to 8:30, teachers met to collaborate about classroom planning and schedule coordination. The last 20 minutes of the day was specifically set aside for personal reflection and to complete the exit slips.

To analyze the exit slips, I read through all responses several times to identify themes. After I identified what I thought were logical themes, I went back through the statements and color-coded each theme with a different colored highlighter. Then I tabulated the percentages of responses that corresponded to each theme.

### **Research question one: How did social interaction contribute to our students' learning?**

The focus of this question was to ask our students (teachers) to reflect on what was learned about teaching. After examining 535 responses, four themes were identified. First, 42% of the responses suggested that collaboration helped teachers learn new reading strategies and improve their lesson planning (both short- and long-term plans). Second, 24% of the responses suggested that collaboration, through discussion and observation of others' teaching, culminated in the sharing ideas and resources. Third, 22% of the responses suggested that collaboration helped teachers in various problem-solving situations involving individual students,

parents, curriculum, and procedures. And fourth, 12% of the responses delineated the characteristics for successful collaboration and benefits of collaboration. The bases for successful collaboration were cooperation, positive attitude, give and take personalities, friendship, trust, open communication, and being good listeners. The benefits included multiple insights, different perspectives and talents, inspiration, confidence building, and personal validation.

### **Research question two: What did our students learn about literacy through social interaction in our courses?**

The focus of this question was to ask our students (teachers) to reflect upon what was learned about the subject of literacy. After examining 282 responses, two themes were identified. First, 49% of the responses specifically mentioned they had learned more about a specific reading foundation. The two foundational reading skills most frequently mentioned were phonics (word-based skills) and comprehension. Second, 51% of the responses delineated a pedagogical consideration centered on program delivery such as interest, engagement, high-quality books, appropriate reading level, cooperative learning, differentiation, assessment, strategy building, and modeling.

### **Research question three: Did we prepare our students to utilize social interaction in their future classrooms?**

On the last day of class a concluding exit slip was given to the students (teachers) that asked them to rate from 1 (low) to 10 (high) how prepared they felt they were to incorporate social interaction in their future classrooms. Ten of the graduate students responded “10,” one “9.5,” one “9,” and one “8.” The mean response was “9.7.” One unsolicited response was: *“I love interaction with colleagues and I am always asking questions and looking for opinions on more effective methods.”*

In conclusion, social interaction among the graduate students during the Summer Reading Academy focused on learning new content-related information, sharing ideas and resources about teaching, problem solving about situations that arose during their teaching, and providing insights into the qualities and dynamics of a successful literacy program. First, the teachers in each classroom came from different grade levels, fields of study, areas of expertise (e.g., special education), and school districts. The social interaction among this diverse set of individuals became an authoritative resource. The advice or modeling by one teacher was often “new” to the others in the class. There was the “Egbert Lesson,” poetry lessons, graphic organizers, Depth of Knowledge questions on a beach ball,



different ideas to improve writing, and many other ideas that others professed they would incorporate in their upcoming school-year curriculum. Second, the use of multiple teachers created invaluable sharing opportunities. Colleagues helped each other with planning, assessment, “bouncing” writing activities around for Writer’s Workshop, guided reading lessons, classroom management techniques, and ways to build student confidence and motivate students. Third, social interaction was useful in solving various problems encountered during their teaching. Many times the graduate students commented: “*Two heads are better than one.*” The problems, where support and insight were needed, included discussing a child’s progress with his or her parent, motivating particular students, and ways to help individual students become successful. And finally, social interaction, itself, was analyzed by the graduate students. They saw social interaction as successful when they became good listeners, felt trusted, and were comfortable offering different perspectives to a problem. The social interaction experience triggered many new ideas, was comforting and confidence building, and created friends or as one of them referred to the others as “their closest allies.”

By synthesizing these four themes, an even greater reason for the importance of social interaction in the classroom setting can be seen. Social interaction assisted these graduate students (teachers) to grow multi-dimensionally. Their teaching skills improved with respect to curriculum, problem-solving skills, and student learning, and, most importantly, they improved by better understanding themselves as both teachers and learners.

### **Findings and Discussion**

Our study sought to answer three research questions. First, we wanted to know how social interaction contributed to our students’ learning. Analysis of data revealed three findings: (a) students learned from others, thus enhancing comprehension and retention by activating prior knowledge, making connections, and consolidating new ideas; (b) social interaction created a positive working environment; and (c) social interaction provided a means for our students to view topics from multiple perspectives and enhance their critical thinking and problem solving skills. Our findings indicate that students in all three courses recognized a strong connection between social interaction in the classroom and their learning. They perceived that interacting with their classmates contributed greatly to their learning in the class. This concept is strongly supported in the literature (Bromley, 2008; Dewey, 1963; Kasten, 1997; Smith, 1998; Vacca et al., 2011; Wilkinson et al., 2010). Ketch (2005) contends, “Conversation helps individuals make sense of their

world. It helps to build empathy, understanding, respect for different opinions, and ownership of the learning process” (p. 8). Almasi and Gambrell (1997) believe “participation in peer discussions improves students’ ability to monitor their understanding of text, to verbalize their thoughts, to consider alternative perspectives, and to assume responsibility for their own learning” (p. 152).

Furthermore, students in our study noted that social interaction enhanced their critical thinking and problem-solving skills. In 1926, Lindeman wrote about the importance of discussions as a method of instruction for developing thinking skills. He advocated that all students should be taught a set of analytical skills that could be applied to a range of situations, beyond curriculum, and he believed the best way to teach and hone these skills was through small group discussions. Eight decades later, many researchers still concur. For example, Roberts and Billings (2008) believe that thinking is a “fundamental literacy skill” (p. 33). They state, “There is no question that reading, writing, speaking, and listening are interconnected skills that develop synergistically. They are also the key to teaching thinking” (p. 33). Additionally, Wilkinson et al. (2010) contend “talk offers students a means to combine their intellectual resources to collectively make sense of experience and to solve problems” (p. 143). One of our students stated: “*Social interaction is important in the classroom because it gets students to communication with each other. When there is talking, learning is talking place.*”

Second, we wanted to know what our students learned about literacy through social interaction in our courses. As a result of data analysis, findings revealed that participants of this study expanded their pedagogical knowledge of program delivery. However, the majority (60%) of the students in this study did not have any formal teaching experience and were studying to be secondary content teachers rather than literacy teachers; consequently, findings noted that these preservice teachers increased their general knowledge regarding the act of reading. On the other hand, 40% of the teachers in this study were practicing elementary teachers; thus, findings indicated that they learned more about specific reading skills such as phonics, comprehension, activation of prior knowledge, and retention. Teachers must become lifelong learners who continue to develop and hone their craft by observing students, working with other teachers, and reflecting on their own teaching. This type of learning process, based on social interaction, ultimately helps teachers take the theoretical aspects of teaching and translate it into useful classroom practice (Darling-Hammond & McLaughlin, 1995). Bean (2004) contends “when teachers are involved in an activity that is especially meaningful to them, they will become more engaged in the process and are

generally more willing to apply what they are learning to their classroom practices” (p. 91).

Finally, we sought to find out if we had prepared our students to utilize social interaction in their future classrooms. The overall mean response from the three classes to this question was 9.21 out of a 10 point scale. Table 1 shows the percentages for each class.

Table 1: Student Responses to Utilizing Social Interaction in Future Classrooms

Rating	Undergraduate content reading class (n=15) % of responses	Graduate content reading class (n=17) % of responses	Graduate practicum-based class (n=13) % of responses
10	33	47	76
9.5	-	41	8
9	26	-	8
8	20	12	8
7.5	7	-	-
7	7	-	-
6	-	-	-
5	7	-	-

One study participant noted:

*“I want to use social interaction in my future classroom because it is more fun, it allows students to learn from classmates, allows teachers to teach, and allows teachers to learn more about the students’ personalities and interests.” Another student wrote: “It makes the classroom more of a learning environment by encouraging students to think, read, conclude, summarize, question, etc.”*

In addition to students’ responses on a Likert scale about if they plan to incorporate social interaction in their future classrooms, they also communicated through their daily responses that they plan to do so because they reported that talking was an important part of their learning process in that it enhanced their comprehension and retention of new information about literacy. According to Routman (2003), “Talking with others about what we read increases our understanding. Collaborative talk is a powerful way to make meaning” (p. 126). Raphael, Brock, and Wallace (1997) believe “it is through talk that children make

sense of their world, and through talk that teachers and students construct meaning” (p. 178).

For over a century, researchers and scholars have been writing about the importance of actively engaging students in their own learning process. Dewey (1963) believed in active engagement in the learning process because it is through this active involvement that knowledge is constructed and, therefore, owned by the learner.

### **Implications**

Social interaction among preservice and inservice teachers enhances and improves their skills as teachers and learners. Preservice teachers benefit from working with other students who model how to teach and reflect on one’s experiences, and inservice teachers learn to refine their craft of teaching from collaborating with other teachers—teachers at the same grade-level, at different grade-levels, and specialists. For students, the typical lecture, note-taking, and exam format does not model the process we ultimately want to see in the classroom. We want school classrooms active and engaging. To teach our preservice teachers how to do this, we want to model a socially-interactive process that teaches our students to become active learners.

For teachers, the traditional workshop format does not follow what we know to be good teaching practice (Borko, 2004). Harwell (2003) states professional development is “not an event, it’s a process” (p. 1). The professional development paradigm in education, where a specialist presents a workshop to a group of teachers, often does not translate into improved teaching in the classroom. This format usually requires the teacher to work in isolation or in a group on activities outside the context of a classroom of students. A more successful manner of teacher development should consider how teachers develop insights into the craft of teaching and how they change their behavior to improve their instructional techniques or strategies.

Page (2010) suggests learning is individualized, constructed, interactive, emotional, and social. These characteristics are similar among all types of learners. In short, teachers learn in the same manner as their students. According to Buchler (2003),

Teachers need time and support to re-examine, redefine, and reabsorb what it means today to be a student who is responsible, who takes charge, and who self-regulates in the context of today’s changing learning environment. This rethinking process may help

teachers both foster lifelong learning in their students as well as realize the goal themselves. (p. 1)

The components for successful teacher development need to include open conversation and dialogue, collaboration, and knowledge of subject. Teachers, like students, learn best when motivated to learn and are actively engaged in the learning process. Teachers need to commit to become independent learners, self-motivated to improve their teaching, and to test their ideas in real-life contexts.

To improve their instructional behavior, teachers should self-analyze and reflect when evaluating their teaching. They must be open to the comments and ideas offered from observing teachers and be willing share their ideas and evaluations when observing other teachers.

Learning is a constructive process where teachers try out specified activities in the classroom with students and then debrief the results with other teachers in the same classroom (Borko, 2004). Teachers must be able to converse honestly and address issues such as what are the best ways to teach a child, group of children, or class. Teachers are generally eager to talk about teaching with others; but, rarely do teachers share their thoughts and ideas about teaching and practice ways to improve their skills in a context of classroom students and other teachers (Borko, 2004).

### **Final Thoughts**

Students in our classes this summer noted that social interaction positively impacted their learning and they plan to carry on the tradition in their future classrooms. Li (2006) states “Teachers need to create a safe and nonthreatening learning community in which students feel comfortable participating and in which students develop confidence that they can learn and achieve high academic standards” (p. 39). According to Bromley (2008), active engagement helps create “a positive classroom environment and establish a community of learners who support each other” (p. 111). When we model this type of environment in our college classes for teachers, our hope as teacher educators is that the teachers will implement social interaction in their own classrooms.



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