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Kristen Ferguson

Nipissing University

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The Benefits of Using a Professional Learning Community Simulation in a Pre-Service Education Language Arts Classroom

KRISTEN FERGUSON, Nipissing University

Introduction

In a Professional Learning Community (PLC), teachers, principals, and other education professionals meet and work collaboratively in order to improve student achievement. DuFour (2004) explains that during a PLC, "teachers work in teams, engaging in an ongoing cycle of questions that promote deep team learning. This process, in turn, leads to higher levels of student achievement" (p. 9). The concept of a PLC is familiar to most educators, and the term is now common in education. A quick Google search yields over 76 million hits for "professional learning communities in education," with websites listed from ministries/departments of education and other educational organizations from Canada, the United States, and other countries. Despite their popularity, however, there appear to be no actual numbers published regarding the prevalence of PLCs or how many schools are actually implementing PLCs.

In Ontario, the Professional Learning Communities (PLCs) model is endorsed and encouraged by the Ministry of Education and the Ministry has published various documents and resources for schools to support the implementation of PLCs. PLCs are now a common context for professional development in elementary and secondary schools in Ontario, and Ontario's educators are actively engaging in PLCs. While on practicum, pre-service students in Ontario are likely to observe or participate in a PLC. Although the theory of PLCs can be taught, it is difficult to teach student teachers the collaboration and teamwork that occurs during an actual PLC.

In order to address the topic of PLCs in my undergraduate pre-service elementary Language Arts course, I have integrated a “mock” PLC into my course before a long practicum block. My intention for the simulation was that the students would benefit from the simulated PLCs on placement (and also later in their careers), since they will be familiar with the purpose of PLCs and common PLC activities. I conducted a small research study following up with my pre-service students regarding the PLC simulation to investigate whether the simulation achieved its purpose. Thus, the guiding question of this research is: would a PLC simulation be a learning experience that would benefit pre-service teachers while on placement?

Background on Professional Learning Communities

According to the Literacy and Numeracy Secretariat of Ontario (2007), a PLC:

- represents a collective effort to enhance student learning
- promotes and sustains the learning of all professionals in the school
- builds knowledge through inquiry
- analyzes and uses data for reflection and improvement (p. 1)

A PLC meeting can include (but is not limited to) a variety of collaborative activities such as: planning, analyzing, and revising next steps for teaching and learning; group analysis of assessment practices; reflective inquiry on professional readings; and setting and reviewing achievement targets for individual students.

Teaching-Learning Critical Pathways (TLCPs) are one of the most common activities that occur during PLCs in Ontario's schools. According to the Literacy and Numeracy Secretariat, a TLCP is “is a promising model used to organize actions for teaching and student learning” (Literacy and Numeracy Secretariat, 2008, p. 1). In the first step in the TLCP model, teachers select a focus for instruction and then collaboratively create a pretest and rubric based on the focus area. The pretest is usually one written response to a single question on the focus area. For instance, if teachers decide that the TLCP will focus on inferencing, teachers would select one text to use with all of their classes, and then collaboratively write one question to serve as the pretest that asks students to make an inference based on the text. Teachers also would collaboratively create the rubric used to assess the pretest question. Teachers then conduct the pretest with their classes, and then at a follow up PLC, teachers will collaboratively assess student work together and make plans for student instruction. Teachers will then each teach a unit on the TLCP focus topic to their classes for several weeks. At the end of the unit, the teachers will conduct a posttest on the focus area to assess student achievement. Using the same format as the pretest, the teachers will have collaboratively written both the posttest question and the rubric to mark it. Then at another PLC, the teachers will collaboratively assess the student posttests. The Literacy and Numeracy Secretariat (2008) recommends that the length of a TLCP be approximately six weeks from pretest to posttest.

PLCs are a current popular form of teacher professional development in Ontario. It has been well documented in the research that the traditional model of professional development, where experts present workshops and teachers then return to their classrooms to implement what they have learned, is ineffective. In fact, Joyce and Showers (1996) report that only ten percent of participants actually implement what they have learned during staff development sessions. Research suggests that this traditional professional development model is ineffective because it is not integrated into the real life teaching context of the classroom (Fullan, 1995) and that teachers need time to discuss, collaborate, and consolidate their learning with colleagues (Darling-Hammond & McLaughlin, 1995). Wildman and Niles (1987) list three conditions that are essential for professional development. Teachers must have autonomy, a sense of control over their
learning, and the opportunity to collaborate with a supportive group. Hawley and Valli (2000) write that effective professional development is school-based, on-going, collaborative, and focused on increasing student achievement.

The coming together of teachers to share, discuss, and collaborate with the goal of increasing student achievement is the ultimate purpose of a PLC. The design of PLCs meets the criteria outlined in the research for effective professional development. Where the traditional form of professional development has teachers as passive participants, during PLCs, teachers are able to break the isolating confines of the classroom and work together to reflect on teaching practices to improve student learning. PLCs are also an on-going and sustained initiative, unlike traditional professional development workshops which are usually a one-time event.

Not only is the design of PLCs supported in the research, the research literature acknowledges PLCs as effective practice. For instance, Hollins, Mcintyre, DeBose, Hollins, and Towner (2004) report that teachers who participated in PLCs over the two-year period of the study demonstrated enthusiasm to share classroom practices, openly engaged in reflection during PLCs, and collaborated to develop new instructional approaches. District-mandated standardized test scores also increased, and Hollins et al. state that the PLCs model has potential for positive learning outcomes for students. In their work with Ontario teachers, Grierson and Woloshyn (2005) researched the PLC model over a span of two years as a method of supporting teachers as teachers adopted a new literacy assessment initiative. The new initiative was successful, and teachers reported that PLCs were pivotal in the implementation of the initiative.

Simulations in Pre-Service Teacher Education

A simulation is an “instructional technique that attempts to recreate certain aspects of reality for the purpose of gaining information, clarifying values, understanding other cultures, or developing a skill” (Cruz & Patterson, 2005, p. 43). Research on simulations in elementary and secondary school classrooms indicates that simulations are not necessarily more effective in increasing student achievement outcomes than other methods of instruction (Cruickshank & Teller, 2001; Randel, Morris, Douglas Wetzel, & Whitehill, 1992). However, a meta analysis of the research literature conducted by Randel et al. (1992) finds that simulations and games result in greater student retention of knowledge and greater student interest than conventional classroom instruction.

Simulations are also used in tertiary education. During simulations, students “learn by doing, feeling, analyzing, and reflecting” and, thus, simulations have the potential to be powerful teaching tool in the pre-service teaching classroom (Cruz & Patterson, 2005). The use of simulations has a long history in some professional training programs such as medicine, yet it is infrequently used in pre-service education programs (Clapper, 2010). Cruickshank (1988) explains that that a number factors impact the use and implementation (or lack thereof) of simulations in pre-service education. First, many pre-service teacher educators are focused on curriculum specific content in their subject specialization and, therefore, may be more focused on specific content knowledge than pedagogy. Cruickshank also notes that many pre-service educators may be unfamiliar with simulations as an instructional technique, and, thus, may not feel comfortable in using them. In addition, Cruickshank points out that most pre-service education classes take place in regular college or university classrooms, and these classrooms may not have the space or technical requirements for simulations; moreover, pre-service educators also “float from classroom to classroom” and this “work lifestyle” likely limits teaching techniques in pre-service education. Finally, Cruickshank states that the quality and cost of some simulations, particularly technology-enhanced simulations or laboratory simulations, may limit the use of simulations in the pre-service classroom. By 1980, Cruickshank notes that microcomputers became the preferred choice for simulations. And, indeed, decades later, technology has introduced the possibilities of using online teaching simulations and education simulation software, and there is now an emerging body of research investigating these types of virtual simulations in the pre-service classroom (Girod & Girod, 2008; McPherson, Tyler-Wood, McEnturff Ellison, & Peak, 2011). Overall, however, the research on using simulations in pre-service education is limited, and very few studies address using simulations in pre-service Language Arts courses.

Methodology

The Simulation

I created a PLC simulation for three of my primary-junior (elementary level) pre-service Language Arts classes. To recreate a PLC, teacher candidates worked in small groups of approximately seven students over the period of a two-hour class. Prior to the PLC, each group was assigned a different chapter based on a comprehension strategy from Miller’s (2002) Reading with Meaning. Once in small groups, students spent approximately 20 minutes discussing the chapter in a literature circle format (Daniels, 1994). After the literature circle, I distributed a picture book to each group. Groups were asked to use the picture book and their comprehension strategy from Miller’s book to create one well-planned higher-level thinking question that asked elementary students to apply the comprehension strategy. The groups were also asked to create a rubric to evaluate the student responses and an anchor chart displaying possible responses. Students had the remainder of the class to work cooperatively to create their question, rubric, and anchor chart. The work produced in groups was to be handed in to me after class for assessment as part of their grade for the course.

The simulation activity was designed to be closely aligned to the current PLC structure being implemented in Ontario schools. Literature circles and professional readings are a common activity during elementary grade PLCs in Ontario. Also, at the time of the simulation, Miller’s Reading with Meaning was a popular text used for professional development in Ontario. Schools often would focus on one of Miller’s comprehension strategies (e.g., schema, inferring, asking questions), with whole schools concentrating on a particular comprehension strategy each month and each teacher teaching the same strategy at the same time.

The second component of the simulated PLC (question and rubric writing and creating anchor charts) was based on the current Teaching-Learning Critical Pathway (TLCP) model.
in Ontario. To reiterate, for a TLCP, educators at a PLC select a focus area and create a student pretest on that area of focus. Teachers then return to their classrooms, give the pretest and teach a unit on the focus area to their students. At another PLC, teachers create a posttest to assess student learning. At the end of the unit, teachers give the posttest to evaluate student work. TLCPs are usually done collaboratively by the teachers in a grade team or a division team. Thus, in the simulation in my pre-service Language Arts class, the pre-service teachers were acting as if they were a grade team or division, setting up for a TCLP focusing on their assigned comprehension strategy. They were creating the pretest question and rubric, as well as an anchor chart to support student learning during the teaching of the unit.

During the PLC simulation, I informally observed groups as they participated in the literature circles and discussed, planned, and collaboratively wrote their question, rubric, and anchor chart. Based on my previous research and knowledge of the PLC model in Ontario schools, the pre-service teachers were able to recreate the reality of teachers working collaboratively during a PLC. All students appeared actively engaged in the simulation activity.

Data Collection and Analysis

The simulation occurred the week before a six-week block of practicum placement. A few weeks after the completed practicum, pre-service teachers were asked to complete a voluntary, anonymous, and confidential open-ended reflection question that asked if the simulation experience was beneficial for them on placement and why or why not. Since I was their professor, and there was a potential for a power imbalance, a faculty member from outside of the Education faculty distributed and collected the student reflections. The faculty member from outside of Education withheld the completed anonymous reflections from me until after the course was completed and the time for student appeals of grades had passed. Ninety-eight out of 113 students completed the reflection.

The responses to the yes or no question, “Did participating in our in-class Professional Learning Community benefit you while on placement?” were tabulated. The student reflections based on the prompt, “Please explain how you benefited from the experience while on placement or why you did not” were typed into Microsoft Word. I read through compiled qualitative data several times, making notes, connections, and identifying themes and patterns that emerged (Bogden & Biklen, 1998). Data were then grouped and sorted into themes using Microsoft Word. During this sorting process, I employed a constant comparative method, continually comparing data and considering different interpretations (Gay & Airasian, 2000).

Results

For a yes or no question that asked pre-service teachers if participating in the in-class PLC benefited students on placement, 78 respondents (80%) responded “yes,” while 20 respondents (20%) responded “no.” However, the qualitative responses presented more complex results than a simple yes or no answer. Of the 20 pre-service teachers who responded there was no benefit to placement, 15 pre-service teachers felt that there might be a potential future benefit from the PLC simulation. As the yes/no quantitative question did not provide a full picture of the feelings and responses of the participants, the results presented in the following section represent the qualitative portion of the student reflection. This section asked the pre-service teachers to “Please explain how you benefited from the experience while on placement or why you did not.” The results are thus organized into three categories: the simulation was beneficial, the simulation will likely be of benefit in the future, and the simulation was not beneficial.

The Simulation was Beneficial

Seventy-eight pre-service teachers (80%) explained in the qualitative portion of the student reflection that the simulation benefited them while on placement. The three major themes that emerged as benefits of the PLC simulation for practicum were: an understanding of the language and processes of PLCs, being active and confident PLC participants on practicum, and preparing for collaboration with their associate teachers. In addition, an unexpected theme emerged from the data. A significant number of pre-service teachers used the study as an opportunity to reflect on their learning in general, commenting on how the PLC simulation was a valuable class activity.

An understanding of the language and processes of PLCs.

Many pre-service teachers explained how participating in the PLC provided them with the opportunity to acquire a deep understanding of the PLC process. For example, some pre-service teachers felt the simulation made them feel “more prepared for placement” and that the simulation “extended learning and understanding of the concept” or helped them “gain a deep understanding and knowledge of a PLC.” Many pre-service teachers believed that they had a better idea of “what teachers and principals were talking about” and that they understood the education lingo better from participating in the PLC simulation. For instance, one pre-service teacher explained, “I found that the experience helped me to understand and comprehend the buzz words that teachers use while participating in PLCs.” Another pre-service teacher stated, “I feel that participating in the in-class PLC was beneficial as I felt more comfortable with the terms and language while on placement.” By participating in a PLC simulation, pre-service teachers felt more informed and comfortable during PLCs while on placement. As one pre-service teacher stated, “I knew what was happening and what others were talking about, even with the acronyms being used. I felt that I didn’t need to rely on others.” Another pre-service teacher reflected, “Without learning and participating in a PLC in class, I would have felt so lost in the school PLC I was in.” Feeling prepared for placement was important to the pre-service teachers and helped to solidify their identities as teachers. As one pre-service teacher reflected:

I found that it [the simulation] was helpful because often times placement, I think that the staff and our associate teachers do not feel that we really know what is going on in schools. Therefore, when we go into placement and know what a TLCP is, we seem like legitimate teachers.
Active and confident PLC participants on practicum.

Understanding the language, terminology, and processes of PLCs enabled pre-service teachers to actively engage in PLCs while on placement. For instance, one student stated, "It [the simulation] helped me understand the language and process of TLCPs, which allowed me to participate in meaningful ways." Another pre-service teacher reflected, "I participated in a PLC at my school, and it was nice to know and be able to keep up with the meeting participants, and to be able to understand what they were talking about." Confidence and comfort were reoccurring words in the pre-service teachers' reflections and many pre-service teachers cited the simulation as increasing their confidence while on placement. One pre-service teacher shared, "I had several PLCs during my first placement but had no clue what was really going on. At my second placement, after doing the class activity, I felt confident during the PLCs." Another pre-service teacher explained, "It [the PLC simulation], made me feel comfortable doing it with my colleagues before doing it in the schools. I felt comfortable speaking up in front of the experienced teachers in the school." Another student stated:

I was involved in one [a PLC] on placement and it was nice to have some background knowledge going into it. I was able/felt comfortable offering up ideas and sharing opinions at my placement. I felt this task was very useful as a pre-service teacher.

Feeling "confident enough to contribute" was important to the pre-service teachers because as one student wrote, being actively involved in the PLCs "made me feel like I was a part of the staff team."

Collaboration with teachers on practicum.

Pre-service teachers also indicated that the simulation experience helped prepare them for the collaboration and team approach being used in their placement schools. One pre-service teacher stated, "I benefited from the experience while on placement because it prepared me well for collaborating with my associate teachers for literacy approaches and lessons." Working with others to plan literacy units and assessments was viewed as a valuable experience: "It showed me how to work collaboratively. It's not about just what I think." During the simulation, pre-service teachers had to work through the challenges of working collaboratively, just as they would during a real PLC. One pre-service teacher reflected that the simulation "gave all of us the opportunity to see how teachers have differing opinions and how they work through their differences." Using a simulation also helped capture group dynamics in a way perhaps not possible through traditional instruction: "I do not think the discussion/disagreements could be captured in a lecture about PLCs. Experiencing the collaboration of pre-service teachers and obstacles of a PLC prepared me for potentially more discussion/disagreement when I am in a PLC with teachers."

Reflection on learning.

Pre-service teachers took the reflection opportunity to explain not only if and how the simulation experience benefited them on placement, but also how it benefited them as learners. Many reflected that they learned more with the simulation than they would have through other pedagogical styles. These pre-service teachers commented on how the simulation was "hands on" and they learned and retained more using this style of teaching and learning than they would have through a lecture. For instance, one pre-service teacher reflected, "I find that through lecture style, teaching with new terms, they go over my head. Actually moving through the motions of a PLC was very good." Another pre-service teacher stated, "Actually doing rather than just listening was much more beneficial and allowed me to understand and grasp what was involved when teaching." This type of hands-on learning made an impression for one student:

The activity we did in class did benefit me in my placement. Going through the process in class made it a lot easier to understand instead of just talking about it. I made the experience really stick, and when it came up in placement, I knew what I was doing. I feel I completely understand the entire process and was able to use it on placement.

A number of pre-service teachers also used the reflection to inform me of the value of the activity to the course. They stated it was "a very worthwhile assignment, “and “very valuable.” A few pre-service teachers urged me to continue the activity in future years. For instance, one pre-service teacher wrote, “Please continue to do such things in the future as it does provide good insight and a higher degree of understanding.”

The Simulation Will Likely Be of Benefit in the Future

Fifteen students indicated that they did not participate in a PLC on placement and, therefore, the simulation was not a direct benefit to the practicum experience. However, these 15 pre-service students thought the simulation experience would likely benefit them in the future. For example, one pre-service teacher stated:

I didn’t have an opportunity to see a PLC taking place, so it wasn’t relevant to this placement. However, I did appreciate taking part in it because in the future it will prove to be beneficial. I found it a valuable way to explore PLCs and helped me better understand all that is involved.

Another student explained, "I wish it did [benefit me]! I’m sure the experience from the in-class lesson will eventually be beneficial but I unfortunately did not see any PLCs while on placement." Other students wrote more general statements about the future benefits of the simulation, such as "the potential future benefit is very large" and "I am more informed and it will help me later on."

The Simulation Was Not Beneficial

The qualitative results indicate that five pre-service teachers found no benefit to the PLC simulation. Two students explained they did not benefit because the PLCs they participated in while on placement differed procedurally from the in-class simulation activity. One of these students explained, “The meetings I attended on practicum were not like the one we did in class at all.” The third student who indicated no benefit to the PLC simulation explained that he/she was already familiar with the PLC format from a previous practicum experience. The fourth student who did not find
any benefit for the simulation simply stated that he/she did not see or participate in a PLC on placement. Finally the fifth student who indicated no benefit from the PLC simulation wrote that he/she did not realize that the activity was a mock PLC and thought it was only an in-class activity.

Discussion and Implications

The in-class simulation had an immediate benefit for 80% of the pre-service education students in the study, indicating that participation in the simulated PLC enhanced their practicum experience and their learning. Pre-service teachers believed that the simulation gave them the required knowledge of the structure and language of PLCs, helped them be active and confident during PLCs on placement, and prepared them for collaborating with teachers while on practicum. The simulation also had the unexpected benefit of providing students with a chance to reflect on their own learning during their pre-service teacher education program. To this end, the simulation was successful in that the students learned by “by doing, feeling, analyzing, and reflecting” (Cruz & Patterson, 2005, p. 43). The simulation also successfully recreated the reality of a PLC, and students were able to gain information, clarify values, understand other cultures, or develop a skill (Cruz & Patterson, 2005). In addition, the PLC simulation had a potential future benefit for an additional 15% of pre-service teachers in the study. While these pre-service teachers did not benefit from the simulation on their next placement, they believed that there would be a future benefit later in their careers resulting from the in-class simulation experience. Therefore, overall, 95% of the pre-service teachers felt the PLC simulation was a benefit or that they likely to benefit from the experience in the future.

I believe that one of the reasons this simulation was successful was due to the fact that possible barriers to simulations in the pre-service classroom as outlined by Cruickshank (1988) were mitigated. First, I was familiar and comfortable with simulations as a teaching strategy. The simulation was also content focused in Language Arts and specific to the Ontario Language Arts curriculum and, thus, I perceived and still perceive the simulation as valuable component to my course. The simulation was also easy to implement, required no special equipment, technology, or classroom space, and it cost nothing.

Based on the results of the study, I offer to professors of literacy education the following suggestions when implementing simulations in the pre-service education literacy classroom.

Suggestion #1: The Simulation Should Be Context Specific, Authentic, and Timely

I believe that the perceived success and benefits of the PLC simulation hinged on the fact that pre-service teachers saw a direct application between the in-class activity and their placement experience. Pre-service teachers were able to make clear connections between their teacher education and the real teaching world. In order for this to occur, I suggest that simulations be carefully planned to be context specific, authentic, and timely.

First, simulations need to be context specific to suit the literacy initiatives that are being implemented in the locale where students are on practicum. For instance, this simulation on PLCs was specific to the Ontario context and initiatives being mandated by the Ontario Ministry of Education. This simulation would likely need to be adapted to match local initiatives if implemented by other professors of literacy education in different states or provinces.

Second, simulations need to be as authentic as possible. What is being simulated in pre-service literacy education classes needs to be a close representation to what is being currently done in school settings. While each school within a board or district may have variations with the implementation of literacy initiatives, the simulation should broadly represent what pre-service teachers can expect while on placement.

Finally, simulations will likely need to change every year or so and eventually some simulations may become obsolete. When I conducted this simulation, TLCPs and Miller’s (2002) comprehension strategies were common topics for PLCs in Ontario’s schools. As time goes on and literacy initiatives and trends in education change, simulations need to change as well.

Suggestion #2: Debrief After the Simulation

A debriefing session after a practicum placement will allow the students to share with their classmates, and with you, their reflections on the simulation and their teaching placement. Some of the pre-service teachers in my study who felt that the simulation did not benefit them commented that the PLC they participated in on placement was different from the one simulated in class. This was perhaps a lost teachable moment. A class debriefing might have helped pre-service teachers make connections between the simulated PLC and the PLC they saw on placement. As Cruz and Patterson (2005) state, a debrief is “crucial so that misunderstandings are avoided and specific concepts can be clarified” (p. 43). A class debrief or discussion would have also informed me as an instructor of the variations and evolution of the PLCs in various settings, and thus I could possibly make changes and improvements to the simulation for the following year.

Concluding Thoughts

This study is limited by the fact that the pre-service teachers were students in my Language Arts classes and they were a convenience sample. The pre-service teachers also handed in their PLC outputs (i.e., a question, rubric, and anchor chart) for assessment as an assignment for my course, and this may have impacted how they participated in the simulation. Data for the study are limited in that the study relies on a one-time self-report of pre-service teachers. No other qualitative or quantitative data regarding students participating PLCs on placement were collected.

There is still additional research needed pertaining to the use of simulations in pre-service education. Possible future studies could observe pre-service teachers while on practicum to research whether students transfer knowledge, skills, and attitudes from simulation experiences to the practicum classroom. Further, more research about quality literacy-based simulations that are inexpensive and easy to implement and examples thereof would assist professors of
literacy education in integrating simulations into their classes.

As a professor of pre-service literacy education, it is my personal goal to guide pre-service teachers in becoming prepared, knowledgeable, collaborative, and reflective literacy educators. It is, therefore, rewarding to hear that not only did students appreciate the simulation, but also that the simulation helped increase their confidence and knowledge on placement, allowed them to be active participants in collaborative professional development, and that the simulation directly related to what the students experienced in the “real world” on placement. I believe that the simulation experience taught my pre-service Language Arts students in ways that lectures, class discussion, and demonstrations could not.

In sum, this research provides insight into the benefits of using simulations in pre-service literacy education as well as practical suggestions for those literacy education professors looking to implement simulations into their classes. With the vast majority of participants in this study indicating that the simulation was a beneficial experience or that it will likely be of benefit in the future, using simulations is clearly a pedagogical technique that deserves more attention and use in pre-service teacher education programs.

References


