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A Collaborative Learning Model to Empower Teachers to be Reflective Practitioners

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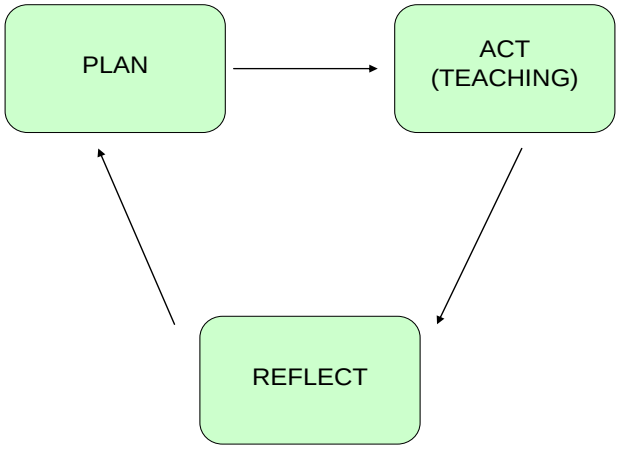
Abstract: This paper introduces The Expanded Reflection Cycle for Transformative Professional Learning as a professional learning model for practicing teachers completing their graduate studies that includes expanded opportunities for peer support and collaborative reflection. Through the model, teachers engage in systematic self and collaborative reflection, questioning their own and each other's beliefs and assumptions. Two cases studies are highlighted that illustrate how both new and veteran teachers entered the process at their own levels of readiness and transformed their teaching practices. This paper also introduces the concept of the zone of reflective capacity. Participants in this new professional learning model transform their own identities as teachers and empowered themselves to control their own learning and professional growth.

Graduate programs in all fields of study have traditionally culminated with students conducting research projects. Following tradition, practitioner-based advanced teacher development masters degree programs have grown to incorporate a culminating research project. Because these graduate students were working teachers, the mode of research most often chosen has been action research, because it is generally accepted that action research can be conducted by a practitioner in a school setting. Traditionally, action researchers follow a cycle of planning, acting, and reflecting on outcomes as illustrated below (Lewin, 1948).

TRADITIONAL ACTION RESEARCH CYCLE

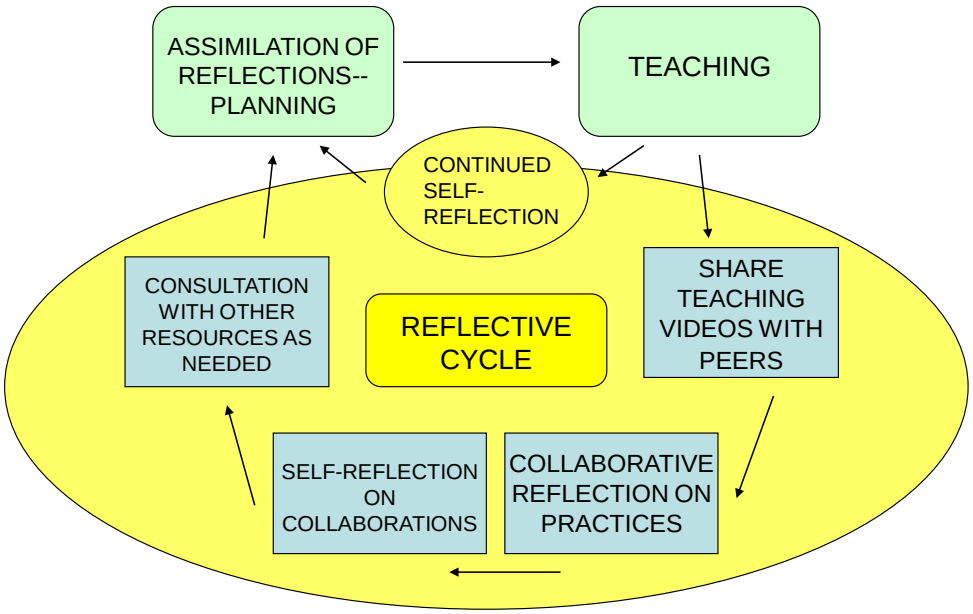


The culminating project of our master's degree program was envisioned as an independent work of action research that would demonstrate a teacher's improved level of performance as a reflective practitioner. However, as teacher educators, we found that the practicing teachers in our graduate program were not achieving

satisfying results through following the traditional action research cycle. They were neither successfully completing meaningful research in their classrooms, nor were they growing in a satisfying way as professionals.

Over the course of the past three years in working with in-service teachers completing our graduate program, we have developed an expanded action research cycle for transformative professional learning that includes opportunities for peer support and collaborative reflection.

EXPANDED REFLECTION CYCLE FOR TRANSFORMATIVE PROFESSIONAL LEARNING



This model has proven to be effective in leading to transformative learning for many teachers in our program, from recently certified teachers to veterans with many years of experience in the classroom. This article explains the theoretical underpinnings of this new professional learning model and illustrates the success of practitioners participating in this model by highlighting two case studies.

Theoretical Framework

This new professional learning model is built upon frameworks established for action research (Carr & Kemmis, 1986), transformative learning (Mezirow, 1991), and sociocultural theory (Vygotsky, 1978).

Action research can be a valuable tool for connecting theoretical frameworks to classroom practice. Johnson (2005) argues that a breakdown occurs between theory put forth by researchers and the practice implemented by teachers. Action research provides opportunities to bridge theory to practice gaps through collecting and analyzing data by practicing teachers in their own classrooms and using the data to inform their own practice. Since action research is about examining one's own practice, reflective practice needs to be an integral part of the action research process (Mertler, 2006). A reflective approach involves teachers observing, assessing, and reflecting systemically on their classroom practices with the goal of greater understanding of practice and the

ability to transform practice when needed (McDonough, 2006). "Systematic reflection in the form of action research can provide the stimulus for changing and improving practice in order to make it appropriate for the unique individuals with whom we work" (Mertler, 2006, p. 14).

Zeichner and Liston (1996) find that good reflective teaching must provide opportunities for teachers to be self critical, able to question the goals, values, and assumptions that guide their work within the context in which they teach. However, solitary self-reflection can lead to deceiving oneself through viewing oneself solely through the lens of one's own self-beliefs and assumptions. In contrast, collaborative reflective practices can provide the organization necessary for teachers' own enlightenment (Carr & Kemmis, 1986). Yet, Carr and Kemmis (1986) find that one of the problems with collaborating in action research is educational stakeholders do not naturally form action research groups.

Transformative learning provides a foundation for building a transformative action research model that promotes collaborative reflective practice that can transform an individual's practice. Adult learning theory describes the conditions that are conducive for transformative learning. Mezirow (1991) suggests that learning through perspective transformation is the most advanced form of adult learning. Perspective transformation requires that an adult become aware, "through reflection and critique, of specific presuppositions upon which a distorted or incomplete meaning perspective is based and then transforming that perspective through a reorganization of meaning" (Mezirow, 1991, p. 94).

Vygotsky's focus on the social situation of development provided a lens for viewing the growth process of teachers over time. Specifically, Vygotsky's concept of the zone of proximal development provides a theoretical construct for analyzing their professional learning process (Vygotsky, 1978). Vygotsky defined this zone as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (1978, p. 86).

Data Sources and Evidence

In the development of these two selected case studies, multiple sources of evidence were collected and analyzed, including videotapes of the participants' teaching, videotapes of peer collaborative reflection groups, participant reflective fieldwork journals, researchers' field notes, and participants' written feedback. All of the data and evidence were compiled over a September-May academic year, with the majority of the material being generated during the January-May winter semester.

Outcomes of Implementing the Model

Our model allows teachers to work with peers from varied backgrounds and amounts of teaching experience. Following our model, teachers engage in systematic self and collaborative reflection. Over time, the teachers question their own and each other's beliefs and assumptions. They approach and sometimes achieve perspective transformation by critiquing and challenging their pre-suppositions with the help of their peers and with added support and guidance from college faculty and professional resources.

Our findings thus far indicate two general principles running through each group following the model. One common finding is that all members of the group appear to benefit from diversity among peers rather than from homogeneity. Multiple perspectives within a group from teachers of different grade levels and subject areas appear to augment the potential for reflection and transformation for all members.

Another general finding is that the level of transformation achieved by an individual usually appears to rise in proportion to the number of years of experience the individual has as a teacher. Interestingly, the years of experience do not necessarily make the experienced teacher better or more successful initially in comparison to

peers with fewer years of experience. However, the experience appears to manifest as more profound progress in a shorter amount of time once the process is underway.

Nonetheless, all participants following the model, regardless of years of experience, improve as reflective practitioners. To offer insight into how teachers transform practices and transform as practitioner researchers, two cases of teachers participating in the model are outlined in the following sections. The first case relates the experiences of an alternate route certified second grade teacher with only a few years of experience while the second case relates the experiences of a high school math teacher with over 20 years of experience.

Debbie

Debbie was woman with children in high school who had entered the teaching profession through an alternate route certification program and immediately began graduate study to develop herself as a professional. At the time of her participation in the model she had been teaching for 3 years. She taught 2nd grade in an ethnically diverse middle income public elementary school.

Peers in her group included Carolyn, a kindergarten teacher with three years of experience, Mary, a 3rd grade teacher with five years of experience, and Jan a special education teacher with three years of experience. All taught in relatively similar but different schools. All wanted to become stronger as professionals.

Debbie's field notes indicated that initially she was open to considering any new thoughts regarding her teaching, yet she had no specific direction in mind for improving her practice.

> *As a relatively new teacher...I have come to realize I am always open and willing to lean new ways of teaching in the classroom. I am always looking for new ways to engage students in the learning process.*

In the peer group's first meetings together they talked about their teaching, students, and schools as they viewed videos of each other's teaching practices from an average day in class. After getting over the initial discomfort of watching themselves on video, they began to discuss their teaching practices and ask questions about what appeared to be effective and what appeared to be in need of improvement. Video of the peer group's processes recorded the following discussion on Debbie's teaching video during the group's second meeting:

> *Carolyn:* Your kids are so quiet and well behaved. My kindergarteners can not sit like that for so long.
> *Jan:* My kids have ant in their pants!
> *Debbie:* Well, these are second graders. I think it is good to keep classroom management under control. But they're good kids usually.
> *Mary:* You do have good classroom control, but I like to get my third graders up and active in the lessons. Are the students really engaged in what you're doing, do you think?
> *Debbie:* I'm not sure what you mean. They all look like they're paying attention. I always stop them from talking right away.
> *Mary:* I don't know. Just that some of them did not really seem to be into the lesson to me, especially during the vocabulary part there at the end.

Debbie then backed up the video of her teaching and replayed a few minutes of the lesson. On the video this is what the group saw and heard:

> *(Debbie's second graders sit in straight rows of desks all facing the board. Debbie stands the board with a long pointer. As she points to a vocabulary term, the class says the word aloud. She goes from word to word. She then pauses to call on students individually to say words as she points to them. Some students have their heads down on desks, while others are quiet but appear disengaged.)*
>
> *Debbie:* I thought they were doing well with this. They are reading the words OK.
> *Jan:* I see what Mary is talking about though. See, that kid over there is a million miles away.

Mary: You're not doing anything wrong. I just think that the students need some active learning. Maybe you do that more than we are seeing on the tape.
Debbie: We do vocabulary every day. It leads into the reading lesson.
Carolyn: Do they get to act out plays or something sometimes?
Debbie: I have not really tried that. We have read plays out loud. They get to divide up the parts, you know how that goes. They do seem to like that. Is that what you mean?
Mary: I guess I am talking more about getting up and moving around. I am not used to seeing kids that age sit in their desks for so long at a time. We do centers, group activities, things like that.
Debbie: You are giving me some things to think about here.

Following that collaborative reflection session, Debbie reached out to another college faculty member for more feedback. They watched the video of her teaching again, and the professor's feedback helped to confirm and shape what Debbie had learned from her peers. In her field notes, Debbie noted the following:

> *My peer group…discussed various strategies that could be incorporated into my lessons and what methods could be implemented to improve my teaching techniques. Their analysis revealed that my students sat too long during the lesson and some type of bodily/kinesthetic/tactile movement needed to be included. I then viewed and discussed the videotape with another professor, and she suggested that certain aspects of brain-based learning be researched and included in my project, especially since it was closely related to the topic of bodily/kinesthetic movement and multiple intelligences.*

Subsequently, Debbie sought resources on the topics suggested by her peers and professor. These resources guided changes to her classroom practices. The opportunity allowed her to become more familiar with the works of Gardner (1999), Jensen (1998), and others, which helped her to build a frame of reference for understanding the difference between an orderly classroom and true student engagement in the learning process.

Debbie noted the following realizations in her final paper:

> *As I thought about the second lesson I wanted to prepare for video-taping, I began to realize that I didn't allow my student to move around the classroom very much. I always felt that if I let them move I would lose control of the students and have a classroom that is in a perpetual, chaotic state.*

Her first attempts to incorporate more movement in her classroom were modest. She had students come to the front to do tasks or demonstrate a skill one at a time. As this seemed to help pique student interests in lessons, she began to have small groups follow the same patterns. As a few weeks passed, her peers noted the increased activity and motivation among her students evident on her videos.

Slowly coming to the realization that she would not lose control in the classroom, Debbie became more ambitious. As part of a science unit on plants, she helped her students to learn a song with movements that act out the parts of a flower. Students also sprouted beans and worked in other active ways to learn about plants in a much more hands-on, bodily/kinesthetic engaging way than Debbie had ever imagined a few weeks before. In her final paper, she noted the learning outcomes as a result of that unit:

> *I was surprised that every single student received a perfect score on the plant parts section, and overall there were only five students who did not receive a score between 90 and 100 with only one of those receiving an 80. Normally that student scores a 50 or lower.*

Debbie began to increase student movement in multiple ways throughout her classroom. Students began doing different jobs and taking on different tasks in the room. She incorporated cooperative learning strategies and used manipulatives in her instructional planning. She also began using music routinely to stimulate student engagement. By the end of the term she had the students turning stories into puppet shows and performing them in groups for the rest of the class. The students became more mentally awake and more engaged in learning. The process led Debbie to a new way of viewing her students, learning, and herself as a professional. Near the end of the semester, Debbie noted:

I have found that the more confident I become in allowing for kinesthetic movement, the more confidence the student gain, and the more cooperatively they work. I taught a math lesson recently where I created several cooperative learning groups which involved playing a dice game, a card game, creating and drawing designs using trapezoids, and using geoboards. Students went to varying places in the room, some were sitting, some were lying on their stomachs, but all were actively engaged in the learning process. I would never feel confident utilizing this form of learning before and would do each activity with the whole class. This lesson went very smoothly and all students were thoroughly engaged in learning....

From the beginning of her participation in the process, Debbie listened to the feedback of her peers and professors. Based on their feedback, she sought out resources to guide her in changing her practices. Collaborative reflection with her peer group provided her support through the process and helped her to confirm in her own mind that the resources were correct. The process helped Debbie to expand her vision of the role of the teacher beyond her initial beliefs. She found new ways of facilitating student learning and recognized that her initial beliefs about teaching and learning changed as a result of the process.

Cliff

Cliff, a seasoned math teacher, had taught high school geometry in an urban school district for twenty years at the time his group began implementing the model. His peer group included Michelle, Jenny, and Fran. Michelle had taught high school English in a suburban school for four years. Jenny was a history teacher with five years of teaching experience in a suburban school, and Fran was an eighth grade writing teacher with eight years experience in a small K-8 community school. These four teachers were at a variety of stages in their careers and taught different subjects at different schools, but they were able to relate well to each other as professionals teaching secondary student populations.

During the group's early meetings, the peers discussed their teaching experiences and tried to define what areas they wanted to improve. They discussed issues they had studied in graduate courses and in other professional development settings. But they needed to see what went on in each other's classrooms before making further plans. In turn, Cliff showed a video of a typical mathematics lesson in his classroom. As his peer group watched the videotape, they noticed that a few individual students were dominating the lesson. Video of their processes recorded the discussion that followed:

Michelle: Why are there only four students answering your questions?

Cliff: I have a wide range of abilities in this class. These four know all the presented material. That's why they dominate the class discussion. I do stop it later on in the lesson. Keep watching. You'll see how I have to deal with them.

When the group watched the video of how Cliff stopped one student's persistent answering, they asked him to stop the tape and replay the segment. On the video, this is what the group saw and heard:

(Cliff is standing at the board questioning a group of 20 students. Student chatter can be heard in the background. Some students appear disengaged while some are focused on the teacher. One student is obviously dominating the lesson by answering each question correctly before Cliff can ask for a response.)

Cliff: Keisha, don't answer any questions for the next five minutes. You understand? Five minutes!

(Keisha shifts in her seat and attempts to remain silent.)

Cliff: For a negative value, am I going to go above or below this axis?

Keisha: Below.

Cliff: Five minutes, Keisha? Has it been five minutes yet?!

(Keisha places her head down on the desk and writes something on her paper. She keeps her head on the desk for the rest of the class period.)

After the video replay of the interaction between Cliff and Keisha, Michelle was the first to speak.

Michelle: Cliff, you were really limiting Keisha's learning. She completely shut down after you got onto her.

Jenny: Michelle's right, Cliff. She responds to your directive to be quiet by putting her head down. Even after her five minutes have passed, she doesn't reengage in the lesson.

Fran: Keisha isn't the only one not engaged. That student isn't getting it at all. Look at her. *(Fran points at another student in the video paused on the screen.)*

Cliff started to explain how he manages student behavior and how this student is always dominating, but then he stopped talking, rewound the video tape, and watched himself and the student again. Nobody said anything for several moments. Michelle was the first to speak again.

Michelle: I think you need to find a way to meet the needs of more of the students in your class.

Cliff: With all of the content I have to get through it is hard to teach to all of the different levels of students in this class.

Michelle: Cliff, Keisha would be an ideal candidate for the content process of compacting.

Cliff: I don't know what compacting is.

Jenny: Compacting is a strategy for differentiating the instruction. I learned about it in a class last semester.

Michelle and Jenny continued the dialogue, explaining key concepts and terminology related to differentiating instruction and how it could be done with high school students. While Cliff initially saw the issue as a behavior management problem, the peer group helped him to focus on improving student learning. The collaborative process that occurred both during and following the sharing of the first video became the impetus for Cliff's research project. He decided to focus upon meeting the needs of all of his geometry students through differentiating instruction. The plan Cliff chose to follow would never have emerged had he been left on his own to develop an action research plan. His peers helped him to broaden his own perspective for defining his own path.

He proceeded into his planning process by reading research available on the subject. He recorded the following notes in his field notes:

I spent the entire day reading both books that the professor gave me to read. I think the element that interests me the most is the process aspect. For my research, I will focus some of my observations on how students go about making sense of ideas and information as well as employing readiness assessment and "compacting-out" eager students.

As Cliff read about differentiating instruction, he learned how implementing a different instructional model could provide greater opportunities for learning in his classroom. He continued recording his thoughts in his field notes:

The design of implementing differentiated instruction in this setting requires the classroom teacher to plan instruction that includes small flexible grouping, individual exploration, as well as whole-class instruction. This approach may foster an instructional planning challenge, but it has the potential of providing meaningful activities for multiple intelligences and promoting an environment that affirms an appreciation of varied learning styles.

Following research into his new area of interest, he composed a list of guiding questions that developed into a new conceptual framework for designing instruction in his classroom. His peer group played an integral role in his development process and in his subsequent design of differentiated lesson plans for his classroom. Collaborative reflection led to further self-reflection. Feedback led to research which further informed his self-reflective planning processes. In his field notes, Cliff wrote about preparing to implement differentiated instruction in his classroom:

Today I began to plan lessons that will include elements of differentiation. The current unit in which we will work is right triangles. So, I need to plan a group project. I haven't pin-pointed the particular skills, but I need something that will be hands-on, computational, and maybe a few other things. This is a challenge—but it is an exciting one. I really want to see what is going to happen.

Cliff's excitement in anticipation of trying new things after 20 years of teaching fueled his transformation. The dialogue between Cliff and his peers provided support and reassurance for the actions he was taking in his classroom. Through analyzing the situation with his peers, Cliff was encouraged that the changes in his classroom were positive. He gained confidence to continue to try new instructional strategies in his classroom.

At the end of the fifteen week project, he and his group recognized the change in his practice.

Michelle: There is such a difference in the level of engagement of your students now.

Fran: Keisha is now challenged. What a difference from the first lesson where she disengaged from the lesson.

Cliff's own reflective practices demonstrated the cyclical nature of the action research process. His final entries in his field notes showed the organic developmental possibilities of the collaborative action research process:

The impact of this study will foster innovative instructional practices and lead to more in-depth research about differentiated instruction. Although differentiating instruction has proven to be tedious at times, I will share the academic benefits of employing such practices with colleagues in order to aid in the instruction of culturally and linguistically diverse students.

Cliff recognized that collaboration was the key to unlocking the action research project that was right for him:

It was a pleasure to have non-math educators evaluate my teaching process. So often we only ask for council and guidance from within our own discipline. Having the others in my group watch my video taped lessons and my delivery forced me to gear my lessons to those who may not have a mathematical propensity. Their advice has been forthright and appreciated. It showed also through my students.

Over a fifteen week period Cliff also eased away from needing a high degree of peer support and guidance in adjusting his own practices. Cliff was becoming a self-actualizing and self-directed practitioner researcher in his classroom. His zone of proximal development had expanded, and he recognized that the expansion was due in part to reflective collaboration with peers.

Conclusion

While Cliff and Debbie are the examples we chose to focus on in this paper, it is important to note that the other members of both groups also developed and implemented research plans that were significantly shaped by the

input of their peer groups. Through collaborative reflection, all members of the peer groups focused on communally agreed upon goals, which led to cognitive development. The foundation for this development was formed by the collective knowledge and experiences of the group. Their knowledge and experiences were rich, diverse, and well informed by semesters of graduate education courses. As the peers shared their insights, feedback, analyses, and evaluations, the potential for powerful reflection expanded.

The rapid targeted growth we documented among these teachers occurred within a specific portion of the zone of proximal development—which we identify as the zone of reflective capacity (Tinsley & Lebak, 2009). This zone shares the theoretical attributes of the zone of proximal development, but is a more specifically defined construct helpful in describing and understanding the phenomena we have documented.

Wells (1999) states, "Learning in the zpd involves all aspects of the learner—acting, thinking, and feeling; it not only changes the possibilities for participation but also transforms the learners identity" (p. 331). Similarly, the capacity to reflect occurs concurrently in the cognitive, affective, and psychomotor domains when individuals are engaged together in a zone of heightened reflective capacity. Like the zone of proximal development, reflective capacity is constructed in the interaction between participants engaged in a common activity and expands when it is mediated by positive interactions with other participants (Wells, 1999). The zone of reflective capacity further expanded as trust and mutual understanding among the peers grew. As this process unfolded, the minds of the teachers to the possibilities for transforming their practices in ways they could not have imagined as independent researchers. Collectively their potential for reflection was expanded, and cognitive development expanded similarly.

It is important to note, each member of the group entered the action research process at their own level of readiness and worked toward improving on areas of need identified and clarified in the peer collaboration process. Although all participants in the process demonstrated increased levels of reflective capacity, we found differences in individual participants' levels of reflective capacity based upon years of experience. Through our observations we have found teachers with fewer years experience, such as Debbie, rely heavily on outside resources and experts such as faculty members. Individuals with greater experience, such as Cliff, utilize peer feedback for framing the process and continually incorporate peer input. They rely less on outside resources and more on their own self-reflections. At the end of the process, teachers with more experience demonstrate greater self-reflective independence than newer teachers as a result of their experiences in this model.

Through participation in The Expanded Reflection Cycle for Transformative Professional Learning, we have found that teachers can move from being graduate students to practitioner researchers in their own classrooms and transform their own teaching practices. The case studies shared in this article stand as a powerful testament of what both new and veteran teachers can accomplish when they work independently, interdependently, and reflectively to improve their professional practices. Through infusing peer collaboration into the action research process, these teachers entered the process at their own levels of readiness and eventually transformed their own identities as teachers and empowered themselves to control their own learning and professional growth.

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