Teaching Effective Problem Solving Strategies for Interns
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This qualitative study investigates what problem solving strategies interns learn from their clinical teachers during their internships. Twenty-four interns who completed their internship in the elementary grades shared what problem solving strategies had the greatest impact upon them in learning how to deal with problems during their internship.

The four problem solving strategies that emerged from the qualitative data were modeling, re-play, personal storytelling, and role-play. Select comments are included as well as the demographics of the subjects. This study concludes that clinical teachers have a significant impact upon their interns in terms of teaching them how to deal with problems effectively.

The internship of student teachers is a critical experience toward preparing new teachers to be effective and successful in the classroom. Interns continue to report that the student teaching semester is the most important part of their teacher preparation programs (Rock & Levin, 2002). The overall objective of the internship is to provide interns experiences in the classrooms with clinical teachers providing close supervision and mentoring. While there is little or no argument against the importance of clinical internships, teacher educators should be conducting formative evaluation of internships and how to make the internship experience more beneficial for its students. There is a need to examine the internship in order to enhance every student's chance for greater success (Arnold, 1993; Hedrick & McGee, 2000). Previous studies have revealed that a primary concern of many interns is how to deal effectively with and solve problems they encounter in the classroom (Patterson, Grenny, McMillan, & Switzler, 2002).

Problems solving is an important skill for teacher education students to learn in their internship (Frieser, 1994). Interns report that they are often overwhelmed by the multiplicity of problems they encounter and the many decisions they must make during the school days of their internship. Being able to respond quickly, effectively, and efficiently to problems is a primary goal desired by interns. The clinical teachers serve an important role in helping their interns develop this important skill. This study examines which, if any, problem
solving strategies used by clinical teachers made an impact on their interns.

Method

Qualitative methods through interviews were used in this investigation to collect and study interns’ perceptions of the effectiveness of their clinical teachers’ problem solving strategies. Thirty interns at the end of a semester internship in the elementary grades were randomly invited to participate in the study. Twenty-four interns accepted (18 females and 6 males) and were interviewed. Of the 18 females, 10 were white and 8 were black and of the 6 males, 4 were white and 2 were black. All interns were enrolled in the same southeastern university and went through the same elementary education program. The internships occurred in rural settings.

All interviews were conducted on the university campus and lasted approximately 30 minutes. The investigator conducted all interviews. The investigator probed the subjects for fuller answers. The investigator did not explicitly mention the four strategies during the interview. During the interviews, the investigators asked the interns what to identify what effective problem solving strategies were used with them during their internship by their clinical teachers. The following questions were asked:

- Identify typical problems they had to deal with in their internship?
- Define what problem solving is.
- Identify problem-solving strategies their clinical teachers used with them during their internship.
- What problem solving strategy used by their clinical teacher was most effective and why?

For qualitative analysis, the interns’ most frequent responses that emerged from the interviews were categorized. Further analysis examined the responses according to the demographics of the subjects. Select representative responses are also provided.
Modeling

The modeling strategy was the most frequently cited strategy at 100% used by clinical teachers with their interns. All interns who participated in this study identified modeling as a highly effective approach in helping them learn how to deal with problems concerning their internship. The interns stated, “Seeing is believing!” Interns in this study revealed that when their clinical teachers dealt with problems in a calm and methodical manner, the interns are able to “witness” the positive outcomes. As one intern put it, “I found myself imitating Ms. C. in the classroom especially at the beginning of the internship, but with time I started branching out with my own problem solving approaches. However, I always had Ms. C’s behavior as a point of reference and often resorted back to it when all else failed.” The intern’s statement captures a lot of what many of the interns stated, that they closely followed and modeled the behavior of their clinical teacher. Another intern stated that, “My clinical teacher always took care of classroom problems quickly and would at some point during the day sit down with me and explain why she took certain actions in dealing with the situation.”

The interns stated that they had a sense of safety and security when they modeled their clinical teachers’ behavior in the classroom in regards to problem solving.

Re-play

Re-play is the verbal reconstruction of specific events that occurred during the day by the intern with probing and clarifying questions and feedback from the clinical teacher. Thirty percent of the subjects (seven white females) stated that replay was highly effective problem solving strategy. The re-play approach allows interns to reflect in an interactive manner with their clinical teachers. Interns have the opportunity to talk through with their clinical teachers why they reacted and took certain actions as well as what they outcomes and repercussions of these actions were. In addition, the interns could
discuss what could have been done differently in the future which helped them internalize their teaching experiences to a more meaningful level of understanding. The interns learned that all choices and actions they choose in the classroom have consequences. One intern responded, “Having the opportunity to explain to my clinical teacher why I took a certain approach helped me think through why I did certain things. I found it interesting that many times I responded to a problem in the classroom on an emotional level and not from what I had been taught at the university or learned from my clinical teacher. Being able to verbally reflect with my teacher helped me learn how to better cope and solve problems more effectively and beyond my initial emotional reactions.”

The re-play problem solving approach encouraged interns to develop personal reflecting in regards to their actions and behaviors in the classroom. Reflections is an important process of professional development and it has great value when a mentoring teacher can ask clarifying questions while an intern is thinking out loud.

**Personal Storytelling**

The storytelling approach allows clinical teachers to share with their intern’s examples of their own classroom experience in a context for the prescription. Eight-four percent (10 white females, 5 black females; 3 white males, 2 black males) responded that personal storytelling was beneficial to their development as a teacher. Clinical teachers often have a deep and rich repertoire of professional personal stories and experiences to share with their interns. Many of these stories are relevant to the situations that the interns are dealing with. When clinical teachers shared personal stories that relate to the problems of the interns, it allows the interns to understand that similar problems have occurred before and there are effective ways to deal with it. As one intern stated, “I guess that I was so egocentric in my internship I thought I was the only person to experience this type of problem, but when Ms. S shared some of her personal experiences that dealt with the very same problems, I realized that, wow, things like this do happen to others and you learn to deal with it. As my clinical teacher told me many times, the purpose of problems is learn from them, put them behind once that are dealt with, and move on with your teaching! Life really does go on in the classroom and the world doesn’t come to an end!” Interns responded that personal storytelling of their clinical teachers is a positive approach in helping them learn how to deal with problems effectively during their internship.

**Role-play**

Role-play is a problem solving strategy where the clinical
teacher and intern assume certain roles and deal with real case scenarios. Thirty-four percent (six black females and two black males) responded that they enjoyed role-playing with their clinical teacher in learning how to deal with problems. One male intern stated “One of the best things about role-playing is that it helped me see the situation from another point of view. Let’s just say it increased my level of understanding and sensitivity to the situation. As a matter of fact, I will use this technique with my own students in teaching them how to deal with conflict and how to get along!” The role-play problem solving technique allow interns to take an active role in understanding why they took certain actions in confronting problems in the classroom. This technique appear to help interns understand themselves better, for example, one intern stated “Role-playing with my cooperating teacher helped me realize that I used sarcasm with my students too much. My teacher would point it out during the role-play. I realized that I needed to back off from using so much sarcasm and use a more positive approach. It truly made a difference. I mean, I noticed the change in my students attitude immediately.” The problem solving technique allows interns to make personal decisions in shaping their professional development.

Discussion

The internship is an opportunity for interns to learn through close supervision how to teach more effectively and successfully. There are many skills that interns are expected to learn during their internship with problem solving being among them. After completing their internships, interns were interviewed and asked specific questions concerning problem-solving techniques of their clinical teachers. The data that emerged is that clinical teachers are using a variety of approaches in helping their interns learn how to problem solve in the classroom. This study found that most of the problem solving approaches used by clinical teacher fall into one of four categories.

Modeling was the most popular, along with re-play, storytelling, and role-play. It is interesting to note that all interns in this study cited modeling as being beneficial. This finding supports the belief that students learn significantly from observing their clinical teacher in action. The certainly appears to be true with interns who participated in this study. All intern, female and male as well as black and white stated they learned how to problem solve from modeling their clinical teachers' behavior.

Another highly rated strategy was storytelling. Eighty-four of the subjects of this study stated that they gained knowledge on how to become effective problem solvers through hearing their clinical teacher
shared personal stories and experience on how they dealt with similar problems in the past. Personal storytelling helped students to understand and anticipate the probable outcomes of specific approaches. A significant number from all demographics of the subjects in this study included personal storytelling as beneficial.

It is interesting to note that only white females cited the problem solving strategy of re-play as beneficial strategy. Re-play is an opportunity for interns to reflect out loud with their clinical teacher asking probing and clarifying questions. Interns stated that this provided them an opportunity to think out loud which allowed them process and understand the event and problem at a deeper level. Interns stated that by having a greater understanding of the problems allowed them to think through the best approaches to solving their problems. Interns who used this type of problem solving strategy stated that they are used to “talking through” the problems with their friends and mothers. So, the interns possibly used the re-play strategy frequently because it is similar to “talking through” they are used to in their everyday life.

The final problem solving strategy to emerge in the study is role-play. What is interesting about this finding is that all the subjects who responded to this as being beneficial approach to problem solving at 34% are African Americans. The subjects stated that this approach allowed them to view the problem from different angles that allowed them to achieve a greater understanding of the situation. When asked why this type of problem solving was effective for them, the interns stated that they want to make sure their clinical teachers got the “whole picture” of the event and situation.

Conclusion
New teachers are leaving the profession in high numbers each year. Thirty percent of beginning teachers are leaving the profession after the first two years; with seven years as many as half have left the classroom. Beginning teachers frequently state that they cannot deal effectively with all the problems related to teaching, that they are overwhelmed. Clinical teachers can play an important role in reversing this trend by helping interns develop the skills of being effective problem solvers. Promoting the professional skills such as problem solving during their internship greatly improves the likelihood that interns will remain in the teaching profession (Standsbury & Zimmerman, 2001).

References
thinking skills through collaborative research. *Teacher education quarterly*, 20, 97-105.


