

2019

Developing Authentic Problem Solving Skills in School Counselors-in-Training through Problem Based Learning

Phillip L. Waalkes

The University of Missouri Saint Louis, waalkesp@umsl.edu

Daniel A. DeCino

The University of South Dakota, daniel.decino@usd.edu

Follow this and additional works at: <https://repository.wcsu.edu/jcps>



Part of the [Counselor Education Commons](#)

Recommended Citation

Waalkes, P. L., & DeCino, D. A. (2019). Developing Authentic Problem Solving Skills in School Counselors-in-Training through Problem Based Learning. *The Journal of Counselor Preparation and Supervision*, 12(3). Retrieved from <https://repository.wcsu.edu/jcps/vol12/iss3/8>

Developing Authentic Problem Solving Skills in School Counselors-in-Training through Problem Based Learning

Abstract

According to the American School Counseling Association's school counseling competencies and the Council for Accreditation of Counseling and Related Educational Program's standards, school counselors should have skills, abilities, and attitudes to address complex and authentic problems in their practice. Yet, school counselors often do not feel prepared by their preparation programs in being able to address the realities of their practice. Problem Based Learning activities, such as the one proposed in this article, may help school counselors-in-training develop the skills in internship supervision to address complex problems they will face in their future work. Implementation guidelines, a case example, and limitations of this activity are provided.

Keywords

school counseling, problem based learning, counselor preparation, pedagogy

School counselors-in-training should cultivate skills unique to their future work contexts, such as implementing and evaluating comprehensive school counseling programs and advocating for their roles (American School Counseling Association [ASCA], 2012; ASCA, 2014; Council for Accrediting of Counseling and Related Educational Programs [CACREP], 2015). Additionally, they must prepare themselves to face complex and multi-faceted problems in their practice, including addressing achievement gaps and reducing bullying (ASCA, 2012; ASCA, 2014; CACREP, 2015). Counselor educators can help prepare school counselors-in-training to address authentic problems similar to those faced by practicing school counselors with problem based learning (PBL) activities, like the structured school counseling internship group supervision one described in this article.

Discrepancies between School Counselor Preparation and Practice

Many researchers have noted disparities between school counselor preparation and school counseling practice (Bridgeland & Bruce, 2011; Goodman-Scott, 2015; Goodman-Scott, Watkinson, Martin, & Biles, 2016; Pérusse & Goodnough, 2005; Watkinson, Goodman-Scott, Martin, & Biles, 2018). These discrepancies include gaps between the ideals of school counseling discussed in preparation programs and the often less than ideal realities of school counseling practice evident in course content, school counselor roles, and philosophies (Goodman-Scott et al., 2016; Watkinson et al., 2018). School counseling faculty members interviewed in Goodman-Scott and colleagues' (2016) study noted these gaps between their teaching and the practice of school counselor supervisors in their students' practicum and internship sites. Furthermore, practicing school counselors have experienced feeling unprepared by some aspects of their preparation programs in that some of the courses during their master's programs were not relevant to their practice (Pérusse & Goodnough, 2005) and they did not feel prepared to engage in fair share job

activities, such as participating in cafeteria or bus duties (Goodman-Scott, 2015). Akos and Scarborough (2004) argued that the unique and diverse contexts where school counselors work may require a view of clinical training that more closely aligns with on-site expectations during students' practicum and supervision experiences.

Part of this discrepancy may be rooted in counseling faculty members' lack of emphasis on or knowledge of school counseling practice. Some have criticized school counselor preparation programs for focusing more on clinical mental health counseling than on school counseling (Bridgeland & Bruce, 2011; Watkinson et al., 2018). School counseling faculty members interviewed in Watkinson and colleagues' (2018) study felt that their clinical mental health colleagues deprioritized school counseling topics in their teaching by emphasizing topics related to their clinical specialties. Additionally, some school counseling faculty do not have recent school counseling experience and may not address current trends in school counseling in their classes (Pérusse, Goodnough, & Noël, 2001).

Curriculum design is another contributing factor to this discrepancy. School counseling specific CACREP standards (2015) are typically limited to only a handful of courses (Pérusse et al., 2001). Therefore, these courses often require a wide level of breadth to address these standards and many school counselor educators struggle with balancing depth and breadth in their teaching (Watkinson et al., 2018). A lack of depth in the curriculum of school counseling preparation programs may contribute to the discrepancies between preparation and practice.

School counseling courses earlier in preparation programs typically provide students with a wide overview of many important school counseling specific topics (Watkinson et al., 2018), but field experiences courses may provide an opportunity to provide more depth in exploring authentic school counseling issues since students are working in an actual school context. School counseling

faculty can help address discrepancies between preparation and practice by focusing on authentic problem solving in their curriculum and by collaborating with local schools and site supervisors (Péruce et al., 2001; Watkinson et al., 2018).

Problem Based Learning

In Problem Based Learning (PBL), students work in groups to develop answers to authentic problems that mimic everyday problems faced by professionals in the field (Kilroy, 2004). Problems are presented in the same way that they would occur in real world contexts and students ask questions, gather information, and carry out tests in realistic ways (Barrows, 1996). Teachers serve as facilitators of the process instead of knowledge experts, providing feedback and actively modeling the clinical reasoning skills and processes necessary for the field (Barrows, 1996; Hung et al., 2014). Throughout the problem solving process, students reflect on their current skills and abilities to better understand and manage the problem by adjusting their approach based on their knowledge, abilities, and limitations (Barrows, 1996; Hung et al., 2014). Within the field of counseling, PBL has been applied to training therapists (Carone, 2017; Kindsvatter & Desmond, 2013; Owen & Lindley, 2010; Pickens, Lancaster, Schaeffgen, James, & Constantine, 2012), structuring school counseling groups (Hall, 2006; Hall, Rushing, & Khurshid, 2011), and designing classroom guidance lessons (Larrier et al., 2016).

PBL is based on American educator and philosopher John Dewey's idea of active inquiry (Dewey, 1903). Dewey believed that humans generate knowledge through observation of problematic situations in their environments. Dewey emphasized that the desire to solve problematic situations is not just cognitive, but also practical and existential. PBL is rooted in Dewey's assumptions about learning: (a) knowledge is socially co-constructed in interaction with the environment; (b) there are multiple perspectives on every phenomenon; (c) meaning and

thinking are tools used within a cultural community; and (d) knowledge is anchored in and organized by relevant contexts (Hung et al., 2014).

Whereas traditional educational methods emphasize student mastery of foundational content before application, PBL uses authentic and ill-structured problems as a starting point for learning (Hung et al., 2014). When anchored in specific contexts (e.g., sociocultural values, professional norms), authentic problems help students construct richer, more meaningful, and more memorable knowledge that is able to accommodate multiple perspectives (Hallinger & Bridges, 2017; Hung et al., 2014). A well-designed problem in PBL presents a neutral description of a realistic scenario, formulated in a clear and concrete manner with room for a great deal of complexity and many different solutions (Hung et al., 2014). Ill-structured problems are presented with incomplete information, cannot be easily answered, and evolve in continuous and ever-changing ways (Kilroy, 2004). Typically presented in the form of written case studies, ill-structured problems direct students towards specific course content and motivate learning by helping students realize the gaps in their knowledge and encouraging them to seek out information to fill those gaps (Barrows, 1996).

Numerous researchers in fields related to school counseling have conducted studies that demonstrate the positive impacts of PBL. Across an analysis of 73 PBL articles written in the field of educational leadership, more than 90% reported a positive student attitude towards PBL after taking part in it (Hallinger & Bridges, 2017). Within the field of social work, Westhues, Barsen, Freymond, and Train (2014) compared students who participated in a PBL pilot project with those who did not and found that both approaches were equally effective in helping students learn social work skills, knowledge, and values. In another study, social work students' self-confidence in working with traumatized young people and their families significantly increased as a result of

PBL (Strand, Abramovitz, Layne, Robinson, & Way, 2014). Students in introductory psychology courses using PBL showed significant improvements in critical thinking and engagement and showed higher levels of critical thinking and engagement compared to students in a non-PBL introductory psychology course (Muehlenkamp, Weiss, & Hansen, 2015). In a study interviewing educators in postgraduate school psychologist training programs using PBL, participants reported that PBL helped their students develop generalizable knowledge, enhanced confidence, collaboration skills, and an integration of theory and practice (Dunsmuir, Frederickson, & Lang, 2017).

PBL in Counselor Education

Multiple researchers have applied PBL techniques in the creation of training models to help counselors-in-training develop their skills and abilities. Kindsvatter and Desmond (2013) developed a problem-based structure for pre-practicum instructors to help students facilitate thinking with more cognitive complexity. Modeled after Bloom's Taxonomy, their approach involved a sequence of three tasks for students that grow in complexity, helping students grow in their skills of applying past knowledge to current problems, perspective taking, and reflective thinking in collaborative inquiry. Stewart (1998) advocated for an intentional PBL developmental course structure for counselor education programs to help student adjust to PBL's flexible and creative nature. In their model of therapist cognitive complexity, Owen and Lindley (2010) explained a process by which instructors present ill-structured problems and facilitate a complex understanding of the problems for students. In this process, the instructor challenges students to define and analyze the problem from different positions and to realize what is uncertain or unknown about the problem. They promote this problem-based learning technique as a way to empower students to move from earlier stages of thinking where they are concerned with

acquisition of knowledge from authorities into later stages of thinking where they are more meta-cognitive and better able to integrate a wide range of knowledge. Pickens et al. (2012) developed a project-based learning course structure in a doctoral group counseling course where students designed and implemented an empirically grounded intervention to address open-ended and ill-structured prompts. Despite the promise of PBL in training counseling students in developing skills to address authentic problems described in these studies and the discrepancy between school counselor preparation and practice, no researchers have applied PBL specifically to training school counseling students to prepare them for the authentic realities of their future practice.

Integrating Problem Based Learning into School Counseling Internship Supervision

Rooted in the authentic problem solving of PBL, the semester-long activity proposed in this section can help address the gap between school counseling preparation and practice by encouraging students to grapple with complex issues they are likely to face in practice. In this activity, each student presents data they have collected from multiple sources relevant to an ill-structured problem facing their school. During the presentations, other students help clarify and deepen the problem and brainstorm possible solutions. Following their presentations, each student writes a paper describing a plan action they might take to address the problem if they were the school counselor at their site. However, students do not actually carry out the plan of action themselves. Although it could be adapted for use in individual class periods, this is designed as a semester-long activity.

In designing this activity, we were inspired by the Peeling the Onion Protocol (NSRF, n.d.), which is a structure to help learners develop an appreciation of the complexity of a problem instead of attempting to solve it before it is well defined. Influenced by this protocol and our experiences using PBL in supervision with numerous groups of school counseling interns, we designed this

activity as a structured method for applying PBL to school counseling internship group supervision for master's students. The activity is divided into three phases that take place at different times throughout the semester: (1) introduction, (2) problem solving presentations, and (3) follow up.

Phase One: Introduction

In the first class meeting of the semester, the instructor introduces the purpose and structure of the activity. Instructors should present the activity as a group problem solving process that addresses complex and authentic problems often encountered by school counselors. They should explain how students will collaborate with their peers to brainstorm answers to ill-structured case scenarios (Barrows, 1996). Instructors should emphasize that ill-structured problems do not have easy, simplistic answers (e.g., pervasive anonymous cyberbullying, how white seniors receive proportionately much more scholarship money than their peers of color). Instead, students should approach problems critically, systemically, and creatively (Hallinger & Bridges, 2017; Hung et al., 2014). This requires taking in a wealth of information, developing a variety of solutions, and assessing pros and cons of each solution (Barrows, 1996). To clarify, instructors can provide specific examples of structured and ill-structured problems (e.g., starting a car is a structured problem and designing a fuel-efficient, safe, and marketable car is an ill-structured problem). Additionally, instructors can invite a discussion of the ill-structured problems that school counselors often face. Instructors should also clarify their role as a facilitator and model of the process, not as an expert provider of answers (Barrows, 1996; Hung et al., 2014). They emphasize that they will support students in grappling with complex problems and looking beyond simplistic solutions.

Since discussion of process and metacognition is an important component of helping students develop more complex problem solving skills PBL (McAuliffe & Lovell, 2006; Owen &

Lindley, 2010), instructors should also lead students in a discussion of their process. At multiple points during the process, instructors can ask students to discuss their goals for the process and their process of providing and receiving feedback. To provide an opportunity for self-reflection during the first class meeting, instructors can invite students to write a journal entry or poem, draw a picture, or create a diagram to describe their perceptions of the group dynamic or their past experiences with feedback. Students can then present their works to their peers to facilitate discussion and group cohesion.

During this class session, instructors should have students sign up for dates to present one ill-structured problem facing their internship sites. To prepare for their presentations, students collect relevant data about their chosen ill-structured problem. They should identify the types of data that are relevant to their problem and the best ways of collecting this data from multiple sources. To encourage more depth in defining their ill-structured problems, students may benefit from having a handout with examples of the kinds of information students might gather and suggested methods of collecting information. In their presentations, students might include quantitative data (e.g., Adequate Yearly Process reports, grades, attendance data, counselor to student ratio, suspension rates) and qualitative data (e.g., ASCA standards, information obtained from conversations with teachers, parents, students, site supervisors, administrators, or others, the intern's observations). Student and faculty demographics and the school's historical context are also likely to be relevant. Instructors should allow at least a few weeks before beginning presentations so that students can have time to gather relevant information about their problems and their schools.

Phase Two: Problem Solving Presentations

During problem solving presentations across the rest of the semester, students individually present an ill-structured problem facing their internship site (e.g., how students of color are absent from school more frequently than their white peers, how Latino and Latina students are more likely to be suspended). To allow ample time for discussion, at least one hour should be reserved for each presentation. The instructor should keep time limits for each step to allow adequate time for the entire process. Table 1 presents an overview of the structure of these presentations.

Table 1
The Problem Solving Presentation Format

Step	Timeline	Primary Task(s)
1. Problem Presentation	10-15 minutes	The presenter provides a wide variety of information about the ill-structured problem at their internship site.
2. Clarifying Questions	3-5 minutes	Students ask informational clarifying questions of the presenter.
3. “What I heard is . . .”	3-5 minutes	In turn, each student completes the sentence stem. The presenter is silent.
4. “One assumption that seems to be part of the problem is . . .”	3-5 minutes	In turn, each student completes the sentence stem. The presenter is silent.
5. Missing Information	5 minutes	Students discuss important information that is missing and questions they have. The presenter is silent.
6. Solution Brainstorming	20 minutes	Without critiquing, the group brainstorms multiple solutions to the problem framed in terms of what the presenter can accomplish that semester. The presenter is silent.
7. Presenter Processing	10 minutes	The instructor invites the presenter to share their reactions and learning.

First, in a ten to fifteen minute overview, presenters should share information collected from multiple sources relating to their schools’ problem. A variety of information helps paint an authentic, well-rounded, and complex picture of the ill-structured problem (Hung et al., 2014). The purpose of these overviews is to define the problem in an ill-structured way with a wide variety of information. Presenters can provide this information orally. Alternatively, in the interest of time,

instructors may require presenters to provide typed paper copies of the information for students to read.

Second, for about three to five minutes, the group asks clarifying questions of the presenter. These questions allow students to elucidate information that is unclear or missing. However, students should not ask questions with the intent of suggesting solutions to the problem (e.g., have you thought of developing a dropout prevention program?). After answering the clarifying questions, the presenter does not talk for most of the rest of the activity. Instead, they listen and take notes. The third step involves other students completing the following sentence in turn: “What I heard [the presenter say] is . . .” In completing this sentence stem, students summarize the problem they heard the presenter describe. Fourth, students in turn complete the following sentence: “One assumption that seems to be part of the problem is . . .” Completing these sentence stems can illuminate the presenter’s underlying assumptions about the problem and may help uncover broader systemic issues related to the problem. Depending on the number of students, the process of completing sentence stems in steps three and four takes about five to ten minutes. Inviting every student to speak in completing the sentence stems helps encourage participation and allows presenters to hear from a variety of perspectives. As needed, the instructor should remind students not to give advice in completing these sentence stems. Fifth, in popcorn fashion (i.e., students calling out without a set order) for about five minutes, students discuss important information that is missing from the presentation of the problem and their remaining questions. This step encourages presenters to consider additional information they could seek out related to the problem.

Sixth, for about 20 minutes, the students other than the presenter brainstorm a variety of solutions to the problem. These solutions could include group counseling interventions,

schoolwide programs, targeted parent nights, establishment of school teams addressing the issue, or other options. Since the purpose of the sixth step is to provide a wide variety of solutions for that a practicing school counselor could choose from in addressing the problem and to help students think creatively and analytically (Hallinger & Bridges, 2017; Hung et al., 2014), students should brainstorm solutions without critiquing them. Instructors can write all of the solutions on the board or in a place where students can see them. During this process, presenters take notes and think about the option that might fit best for their school site. The instructor monitors the process, keeps track of time, and models how to approach presenting solutions without critiquing them. Finally, the instructor may also facilitate the group in discussing ways a school counselor could gain buy in with stakeholders in carry out some of the solutions.

In the seventh step, presenters have an opportunity to respond to their peers for the final 10 minutes of the activity. The instructor asks the presenters to share reactions to their peers' conversation and how it changed their thinking about the problem. Presenters also can discuss their emerging thoughts and reactions to the solutions and which solution they might pursue if they were the school counselor at their site. At the conclusion of the session, the instructor should collect and shred all paper copies of this information to maintain confidentiality.

Phase Three: Follow Up

As students may have difficulty developing and carrying out a realistic plan to a complex problem over the course of the remainder of their internships, instructors would not expect them to implement a solution to the problem. Instead, students have two weeks after their presentations to turn in a written description about a plan of action they might use to address the problem if they were a school counselor at their sites. This plan should include specific goals, how to discuss or market the plan to important stakeholders, and a method of collecting accountability data to assess

the effectiveness of their plan. Since implementation of a solution to a complex problem often cannot realistically be completed within a short time and is typically outside of the purview of an internship, students are not required to implementing their solutions at their sites.

Instead of developing plans of action, instructors may require students to write a reflection paper summarizing how this process has influenced their learning and development as a school counselor and reflecting on their experience presenting. In the assignment instructions, instructors can ask students broad questions that facilitate self-reflection such as, “what have you learned from your peers in this experience?,” “how will this experience change your future work as a school counselor?,” or “how has your thinking about problems faced by school counselors changed since the beginning of the semester?”

Case Example

The following is a fictional example of implementing this activity into school counseling internship group supervision based on our experiences using PBL activities with school counseling students. This scenario provides an example of phase two of the process to illustrate the problem solving presentation format. The scenario illustrates roles and procedures for the presenter, other students, and the instructor.

First, Gustavo, the presenter for the day’s class, discusses the ill-structured problem facing his internship site, a large high school in a suburban area. He discusses how all four school counselors at his site feel tasked with many responsibilities which distract them from the delivery of school counseling services, including serving as testing coordinator, managing clerical records and data entry, and filling in for absent teachers. All four counselors have less than three years in the field and have a vision for how they could better help their students by following the ASCA national model (ASCA, 2012). Gustavo shares relevant data he collected from use of time

assessments; interviews with the school counselors, administrators, and teachers; and pre and post test data from counseling interventions conducted by the school counselors. In his presentation, Gustavo shows that there are starkly different views on the role of school counselors among stakeholders at his site.

Second, students ask Gustavo a few clarifying questions about his presentation. Before starting, the instructor reminds students that their questions should clarify information without offering solutions in the form of a question. At first the students have difficulty thinking of a question, so the instructor models by asking Gustavo about the relationship the school counselors have with the school's administrators. Then a student asks about tasks previous school counselors have performed at the school given that all of the current school counselors started within the last few years. Finally, another student asks about the ways the school counselors have advocated for their role with administrators so far. Gustavo answers each of these questions. Then, the instructor asks him to silently take notes for the next few steps of the process.

Third, in turn, students complete the "What I heard is . . ." sentence stem. One student says, "What I heard is the school counselors believe they could better serve students but all of these other tasks get in the way." Another student says, "What I heard is that the administrators at your site have not bought into counseling and view the school counselors from a traditional guidance counseling model." A final student says, "What I heard is that the school counselors are frustrated with their roles, especially when they see so many students in need of their services." Fourth, students complete the "one assumption that seems to be part of the problem . . ." sentence stem. One student states, "One assumption that seems to be part of the problem is that the school counselors are afraid to advocate for their role with the administrators because they are pre-tenure and want to be team players." Another student says, "One assumption that seems to be part of the

problem is that the school counselors view that the administrators will not be receptive to their advocacy efforts.” A different student says, “One assumption that seems to be part of the problem is that the school counselors have a lot of passion for conducting counseling services but feel like other stakeholders don’t know that.”

Fifth, students discuss information they view as missing from the presentation while Gustavo continues to silently listen. One student wonders what specific school problems the school counselors feel like they could help address if they had more time. Another student wonders what issues the administration believes are most important. Another student asks how familiar the administration is with the ASCA national model. Finally, a student asks about some of the success stories the school counselors have had working with students and how aware administrators are of those stories.

Sixth, the students brainstorm solutions to the problem as if the presenter was a school counselor at their site. The instructor writes the group’s ideas on the dry erase board. Before they begin brainstorming, the instructor emphasizes that there are no wrong answers and that students should generate a variety of ideas. One student remarks that Gustavo might consider doing a presentation about the role of the school counselor based on the ASCA national model at a faculty meeting. Another student comments that such a presentation could be more appropriate to give to just school counselors and administrators. Someone else comments that Gustavo could also help create a parent night, school counselor newsletter, or video series to share information about the role of the school counselor and the ASCA national model. Another student says he could share the use of time data at some of these meetings. Students then talk about forming an advisory council for the counseling program, but wonder if this might be more of a long term goal as it would be important to have a lot of buy-in in forming this council. The instructor reminds students

that they are not currently critiquing the brainstormed solutions since that is up to Gustavo. Finally, one student suggests that Gustavo could create a one-page data sheet that discusses the school counselors' use of time and compares it to the recommendations of the ASCA national model for use across a variety of advocacy efforts. Another student mentions that the data sheet could frame the information in terms of how the school counselors could help address some of the important problems facing students in a way that is persuasive for the school administrators.

Seventh, the instructor invites Gustavo to share his responses to hearing his peers discuss the problem and how might consider moving forward with a plan of action. Gustavo remarks that he had not considered how the school counselors might feel reluctant to advocate for their role with the administrators. He also states that the conversation opened up his mind to the ways that advocacy for the school counselor role does not have to be adversarial. Gustavo says he might consider doing a presentation to the administration about the role of the school counselor according to the ASCA national model. To encourage reflection on the process (Barrows, 1996; Hung et al., 2014), the instructor then asks Gustavo how his thinking about the problem is different now than it was at the beginning of his presentation. Gustavo responds that it helped him think with more flexibility by presenting him with a variety of perspectives on how to approach the problem as opposed to his initial, narrower view of the administration as frustrating barriers. He now views a plan of action in terms of collaborative effort and small steps toward a larger goal.

Considerations for Implementation

Instructors using this activity should approach their role with intentionality in remaining facilitators of the process instead of purveyors of knowledge (Barrows, 1996; Hung et al., 2014). Instructors should focus on asking processing questions, modeling thought processes and perspective taking, and encouraging students not to settle for easy answers (McAuliffe & Lovell,

2006; Owen & Lindley, 2010). For many, this can mean stepping back from the role of an expert who provides students with information and answers. Additionally, instructors should consider incorporating methods of evaluate the effectiveness of this activity. For example, assessing students' understanding of problems faced by school counselors and authentic problem solving skills at the beginning and end of school counseling internship group supervision could help illuminate the impact of this PBL activity.

Instructors should also remain aware of students' developmental levels as well as providing them with multiple opportunities to reflect upon their development. Understanding one's self is an essential step for school counselors to take more meaningful action to address the needs of students (ASCA, 2012). So, instructors should give explicit attention to students' development of skills (e.g., metacognition, perspective taking) and attitudes (e.g., risk taking, openness to uncertainty) in addressing authentic problems as opposed to focusing on only developing solutions in the process (McAuliffe & Lovell, 2006; Owen & Lindley, 2010). For example, instructors could ask students to reflect upon their past problem solving patterns and set goals for ways they can improve their problem-solving process. Instructors can provide space for students to reflect individually and with peers. To scaffold the process for students, instructors should also consider their students' developmental levels in deciding how to structure this activity. For example, instructors should think about where this activity fits into the structure of a school counseling curriculum (e.g., earlier or later in the program, during the 1st or 2nd semester of internship). Although traditional PBL instructors do not emphasize foundational knowledge before undertaking PBL activities (Hung et al., 2014), students could benefit from having a strong foundation in counseling microskills and should have participated in case presentations before taking part in this PBL activity. By encouraging students to view problems in systemic and multifaceted ways in a specific school

counseling context, this approach could add layers of complexity to the skills students have developed in earlier classes. If this activity is used earlier in a school counseling program of study, instructors should adapt it to meet students' development levels.

In this activity, students learn from one another and build collaboration and consultation skills necessary for their future work as school counselors (ASCA, 2012). Practicing school counselors often work in teams that are tasked with developing solutions to ill-structured problems (e.g., program advisory councils, multi-tier systems of support, student support teams). This activity can help school counselors-in-training prepare to contribute more depth to those teams and even suggest using PBL techniques as a tool for structuring meetings. With the development of these skills in mind, this activity is best used in smaller group internship class sizes (up to a maximum of 12 students). Instructors should foster supportive group dynamics with room for students to challenge one another (Kindsvatter & Desmond, 2013). Inviting students to develop their own group norms early on (e.g., setting group rules, discussing individual needs and goals, icebreaker activities) can empower them to take ownership over their role in the process. A foundation of group cohesion with regular check-ins can allow students to feel more comfortable taking risks to think creatively about difficult problems and offer meaningful feedback to their peers. Instructors can use immediacy to frame group conflict as ill-structured problems that can be discussed as a learning opportunity. With processing and space, confrontation of group conflict can allow students to develop their abilities in dealing with potential resistance to their future efforts as school counselors.

Although the activity described above involves only school counselors-in-training in the problem solving phase, including site supervisors or other practicing school counselors could enhance the problem solving process. Although it could be challenging for practicing school

counselors to find time for this, instructors could have students invite their site supervisors to co-present their ill-structured problems. Inviting school counselors to participate in the discussion of their schools' problems may help provide them with innovative ideas on how to approach the problem. They also would have the opportunity to reflect on their work with the help of outsider perspectives and find support in their challenges. Since they have worked at their school longer than their interns, school counselors often can provide more comprehensive information and a wider variety of perspectives on the problem in the group discussion. However, incorporating school counselors into the activity could also distract from students developing solutions on their own without the help of the more experienced school counselors.

Finally, instructors could adapt this activity for use with groups of practicing school counselors or for the training of professionals in related fields (Owen & Lindley, 2010). Counselor educators could develop professional development sessions or site supervisor training to teach school counselors how to incorporate PBL techniques into their work. They also could join meetings of school teams working on solving ill-structured problems to serve as facilitators using PBL. School counselor educators utilizing PBL activities in their programs may also benefit from conducting PBL trainings for instructors and doctoral students so that they understand the structure of this activity and can implement PBL activities effectively.

Limitations

Despite the benefits of PBL, there are limitations. Instructors and students can experience PBL as a major transition from traditional methods of learning (Hung et al., 2014). Although previous experiences in case presentations may help, students may feel intimidated or confused by the self-directed, open-ended nature of PBL (Hallinger & Bridges, 2017). Additionally, students may have difficulty breaking out of their typical learning patterns and redefining their roles as

learners (Hallinger & Bridges, 2017). Along these lines, students have expressed a desire for professors to provide more structure and clearly stated goals (Hallinger & Bridges, 2017). To help students adjust to this activity, instructors should adequately introduce its purpose, structure, and evaluation methods, address questions and concerns, and invite students to process the experience.

Similarly, instructors can struggle with relearning their roles as facilitators of learning instead of context experts and figuring out how to provide coaching and feedback (Hallinger & Bridges, 2017). For example, instructors may fall back into old patterns of lecture or providing students with answers based on their knowledge in ways that undercut the purpose of PBL. To design experiences using PBL instructors need deep content knowledge and a deep understanding of their role as facilitators (Hung et al., 2014).

Authentic problem solving skills can vary among students, instructors, and site supervisors. Some students may need more support in developing basic counseling skills than this activity provides. Some students may struggle adapting to the ambiguity of this activity. Such students may need support in seeing examples of the process of this activity. Early on, instructors should intentionally model and reinforce behaviors that demonstrate authentic problem solving to help structure expectations for the semester. Additionally, instructors may choose to supplement this activity with other learning activities that will help meet the needs of students struggling with counseling microskills. Site supervisors and instructors without strong abilities in addressing ill-structured problems could also undercut the effectiveness of PBL activities.

Finally, we have not collected data to evaluate this activity. Therefore, there is limited evidence regarding the impact of this activity on students. Further research is needed to determine if this activity helps prepare school counselors to address authentic problems in their schools.

Recommendations for Future Research

To evaluate the impact of this activity, researchers could collect data from a variety of sources. End of the semester student feedback about this activity could be valuable in understanding students' experiences and learning in this activity. Likewise, a pre-test and post-test of students' abilities to understand and develop solutions to authentic ill-structured problems could illuminate what students learn from this activity. Additionally, collecting data from practicing school counselors who completed this activity during their internship could help identify its long term impact on their authentic problem solving.

Conclusion

From achievement gaps to bullying to issues of school counselors' role in the school, problems facing schools are complex and ill-structured. Yet, school counselors often do not feel adequately prepared by their preparation programs in being able to address the realities of their practice. School counselors-in-training must learn to apply their counseling abilities to unique school counseling contexts. Practicing school counselors must think about problems in systemic ways that require identifying a variety of pertinent data and perspectives. PBL activities can help school counselors-in-training develop these skills and practice using them in real world contexts. Instructors can use PBL activities like this one to help school counselors-in-training develop the confidence to brainstorm and implement solutions to complex, ill-structured problems. In turn, in their future work, school counselors-in-training may help develop more lasting and meaningful solutions to difficult problems facing their schools.

References

- Akos, P., & Scarborough, J. L. (2004). An examination of the clinical preparation of school counselors. *Counselor Education & Supervision, 44*, 96-107. doi:10.1002/j.1556-6978.2004.tb01863.x
- American School Counselor Association. (2012). ASCA school counselor competencies. Alexandria, VA: Author.
- American School Counselor Association. (2012). The ASCA national model: A framework for school counseling programs (3rd ed.). Alexandria, VA: Author.
- Barrows, H. S. (1996). Problem-based learning in medicine and beyond: A brief overview. *New Directions for Teaching and Learning, 68*, 3–12. doi:10.1002/tl.37219966804
- Bridgeland, J., & Bruce, M. (2011). *2011 National survey of school counselors: Counseling at a crossroads*. Washington, DC: College Board Advocacy & Policy Center.
- Carone, S. (2017). A problem-based learning case study in rehabilitation counselor education. *The Journal of Counselor Preparation and Supervision, 10*, 1-22.
- Council for Accreditation of Counseling and Related Educational Programs (2015). *CACREP accreditation standards and procedures manual*. Alexandria, VA: Author.
- Dewey, J. (1903). *Studies in logical theory*. Chicago, IL: The University of Chicago Press.
- Dunsmuir, S., Frederickson, N., & Lang, J. (2017). Meeting current challenges in school psychology training: The role of problem-based learning. *School Psychology Review, 46*, 395-407. doi:10.17105/SPR-2016-0017.V46-4
- Goodman-Scott, E. (2015). School counselors' perceptions of their academic preparedness and job activities. *Counselor Education & Supervision, 54*, 57-67. doi:10.1002/j.1556-6978.2015.00070.x
- Goodman-Scott, E., Watkinson, J. S., Martin, I., & Biles, K. (2016). School counseling faculty perceptions and experiences preparing elementary school counselors. *The Professional Counselor, 6*, 303-317. doi:10.15241/egs.6.6.303
- Hall, K. R. (2006). Solving problems together: A psychoeducational group model for victims of bullies. *The Journal for Specialists in Group Work, 31*, 201-217. doi:10.1080/01933920600777790
- Hall, K. R., Rushing, J. L., & Khurshid, A. (2011). Using the solving problems together psychoeducational group counseling model as an intervention for negative peer pressure. *The Journal for Specialists in Group Work, 36*, 97-110. doi:10.1080/01933922.2011.562344
- Hallinger, P., & Bridges, E. M. (2017). A systematic review of research on the use of problem-based learning in the preparation and development of school leaders. *Educational Administration Quarterly, 53*, 255-288. doi:10.1177/0013161X16659347
- Hung, W., Jonassen D. H., & Liu, R. (2014). Problem-based learning. In Spector, M., Merrill, D., van Merriënboer, M., & Driscoll, M. (Eds.). *Handbook of Research on Educational Communications and Technology* (4th ed., pp. 485-506). New York, NY: Springer.
- Kilroy, D. A. (2004). Problem based learning. *Emergency Medicine Journal, 21*, 411-413. doi:10.1136/emj.2003.012435
- Kindsvatter, A., & Desmond, K. J. (2013). A problem-based approach to skill acquisition and cognitive complexity with pre-practicum supervisees. *The Clinical Supervisor, 32*, 212-223. doi:10.1080/07325223.2013.846759

- Larrier, Y. I., Hall, K., Linton, J. M., Bakerson, M., Larrier, I. M., & Shirley, T. S. (2016). Problem based learning: A viable school counseling intervention to promote student engagement with at-risk high school students. *National Teacher Education Journal*, 9, 11-19.
- McAuliffe, G., & Lovell, C. (2006). The influence of counselor epistemology on the helping interview: A qualitative study. *Journal of Counseling & Development*, 84, 308-317. doi:10.1002/j.1556-6678.2006.tb00410.x
- Muehlenkamp, J. J., Weiss, N., & Hansen, M. (2015). Problem-based learning for introductory psychology: Preliminary supporting evidence. *Scholarship of Teaching and Learning in Psychology*, 1, 125-136. doi:10.1037/stl0000027
- National School Reform Faculty. (n.d.) *Peeling the onion: Developing a problem protocol*. Retrieved from https://www.nsrffharmony.org/system/files/protocols/peeling_onion_0.pdf
- Owen, J., & Lindley, L. D. (2010). Therapists' cognitive complexity: Review of theoretical models and development of an integrated approach for training. *Training and Education in Professional Psychology*, 4, 128-137. doi:10.1037/a0017697
- Pérusse, R., & Goodnough, G. E. (2005). Elementary and secondary school counselors' perceptions of graduate preparation programs: A national study. *Counselor Education & Supervision*, 45, 109-118.
- Pérusse, R., Goodnough, G. E., & Noël, C. J. (2001). A national survey of school counselor preparation programs: Screening methods, faculty experiences, curricular content, and fieldwork requirements. *Counselor Education & Supervision*, 40, 252-262. doi:10.1002/j.1556-6978.2001.tb01258.x
- Pickens, B. C., Lancaster, C., Schaeffgen, B., James, R. K., & Constantine, D. (2012). Project based learning: Enriching counselor education through real world learning. *In ideas and research you can use: VISTAS 2012*. Retrieved from <http://www.counseling.org/knowledge-center/vistas>
- Strand, V. C., Abramovitz, R., Layne, C. M., Robinson, H., & Way, I. (2014). Meeting the critical need for trauma education in social work: A problem-based learning approach. *Journal of Social Work Education*, 50, 120-135. doi:10.1080/10437797.2014.856235
- Watkinson, J. S., Goodman-Scott, E. C., Martin, I., & Biles, K. (2018). Counselor educators' experiences of preparing preservice school counselors: A phenomenological study. *Counselor Education & Supervision*, 57, 178-193. doi:10.1002/ceas.12109
- Westhues, A., Barsen, C., Freymond, N., & Train, P. (2014). An outcome evaluation of a problem-based learning approach with MSW students. *Journal of Social Work Education*, 50, 472-489. doi:10.1080/10437797.2014.917897