Using a Flipped Classroom Approach to Teach Research: Case Examples From a BSW and a MSW Course

Beverly A. Wagner
Sharon Bowland

Abstract: Challenges abound in assisting social work students to comprehend the value of scientific inquiry and to use research to inform their practice. Student research anxiety and low levels of research confidence are often at the heart of this reluctance. This article offers a conceptual rationale and strategies for developing a flipped classroom approach in teaching research. Kolb’s experiential learning cycle provides a theoretical lens to understand the importance of hands-on experiences for student learning and how these experiences can assist student development of research-related competencies. The authors propose a conceptual model and application of Kolb’s cycle through case examples at both the BSW and MSW levels. The authors recommend application of a flipped classroom approach to increase opportunities for self-paced learning and as a useful strategy for students who are second language learners.

Keywords: Social work research, experiential learning, flipped classroom approach, evidence-based practice, second language learners

Despite the Council on Social Work Education (CSWE) mandate on research competency, assisting social work students to use research to inform their practice and to draw from practice to inform empirical inquiry remains an ongoing challenge for social work educators (Maschi et al., 2013; Vinjamuri et al., 2017). Common struggles are lack of interest in social work research and research-related anxiety (Natland et al., 2016). Student anxiety that presents upon beginning a research methods course can be detrimental to student-learning (Maschi et al., 2013). While students from other disciplines also experience this phenomenon, some studies point to higher levels of research-related anxiety among social work students based on students’ low confidence in their research abilities (Maschi et al., 2013; Natland et al., 2016). Low confidence and high anxiety often result in the marginalization of research as merely an academic exercise as opposed to a critical practice competency. This suggests the importance of effective teaching strategies that lower anxiety and increase engagement.

Research courses do appear to positively impact student research competencies, but teaching strategies are needed to enhance student confidence (Unrau & Grinnell, 2005; Venema et al., 2015). Strategies that deliver hands-on experiences may help reduce student anxiety by providing opportunities for real-world exposure. Kolb’s theory of experiential learning emphasizes the importance of hands-on learning or experience that are “translated through reflection into concepts, which in turn are used as guides for active experimentation” (Healey & Jenkins, 2000, p. 186). A flipped classroom approach offers a structure to implement Kolb’s experiential learning cycle, which can assist students in understanding, using, and ultimately conducting research.
A flipped classroom or inverted approach is a pedagogical strategy where traditional content taught in the class, often through lecture, is moved outside the classroom and delivered online (Bergmann & Sams, 2012). In a flipped classroom, students are able to engage in self-paced and autonomous learning prior to coming to class and then apply this learning in class through active learning techniques. This frees synchronous online or face-to-face class time to be used for collaborative group work and other application activities. While the flipped classroom approach has consistently been a popular pedagogical approach within education and STEM courses, less is written about its use in social work and more specifically in social work research courses (Bishop & Vergler, 2013; Holmes et al., 2015).

In this paper, two social work educators share case examples of using a flipped classroom model at both the BSW and MSW levels. Differences and similarities in how Kolb’s learning cycle approach was adapted are offered, as well as recommendations and implications for social work research education.

**Literature Review**

**Students’ Experiences in Traditional Research Courses**

As students enter both social work undergraduate and graduate education, there is evidence that requirements to complete a research course generates anxiety and distress (Adam et al., 2004; Green et al., 2001; Maschi et al., 2013; Whipple et al., 2015). Anxiety includes student experiences of fear, anxiety, and avoidance related to learning research methods (Maschi et al., 2013). Green et al. (2001) found that compared with other disciplines, social work students exhibited more anxiety about research and ascribed a lower value to research knowledge for the profession. This included anxiety upon reading a research text or interpreting study results.

Other investigators traced the historical roots of student reticence to embrace research to the development of the profession itself (Adam et al., 2004). Critics of social work have repeatedly challenged that social work cannot be a profession without a commitment to draw from a theory base, use systematic methods in their work with clients, employ research evidence, and evaluate their practice (Adam et al., 2004). However, this recognized need for an empirical research base may have unintentionally created situations where educators dogmatically embraced the value of research and left out the inherent tensions between research and practice. Adam et al. (2004) suggested that traditionally there has been a lack of attention to embracing student skepticism and anxiety as valid, and factoring this into the teaching process. Indeed, teaching the evidence-based practice process (EBPP) is more recently viewed as a correction for an overly rigid embrace of the value of research without considering practice wisdom and client preferences (Okypych & Yu, 2014).

Maschi et al. (2007) reported using an array of activities in the classroom, including discussing student anxiety (emotion-focused strategies), relating research to students’ current lives (cognitive-focused activities), and having the students complete several hands-on assignments (action-focused strategies). Using a different approach, Whipple et
al. (2015) completed focus groups with students in their school who chose to complete a student research project. Students reported that they struggled more with the uncertainty of what would be required of them and did better when they had clear tasks and steps to accomplish. Students in the Whipple et al. study felt strongest in their abilities when they were completing focus groups or data analysis tasks with clear outcomes, rather than literature reviews, where they struggled to develop a bigger picture perspective on the research area. Multiple studies confirm that students learn the most about research and have the best attitudes about it when their learning is enriched by hands-on experiences (Green et al., 2001; Maschi et al., 2007; Whipple et al., 2015).

**Employing a Flipped Classroom Approach**

Even as technology applications and the use of novel pedagogical approaches such as a flipped classroom have rapidly increased in higher education, there is a dearth of literature on the use of a flipped model within social work research courses (Robbins et al., 2016). One of the only examples of using a flipped classroom within an undergraduate social work research course was Matich-Maroney and Moore’s (2016) exploratory qualitative study that included research teams and readings plus short videos viewed outside of class. The investigators emphasized that empowering students to apply readings during class time assisted them in building research knowledge and skills. Within research courses in other disciplines, Van der Zwan and Afonso (2019) noted that the outcome of their blended flipped research course was improved assessment scores. Use of active learning techniques and opportunities for feedback provided a structured flexibility during face-to-face and synchronous learning that they found positively benefited student learning (Van der Zwan & Afonso, 2019). This finding was similar to Doi (2016) who noted that the flipped approach worked particularly well for “addressing aspects of creativity and hands-on learning” (p. 116) in a music research methods course. In contrast, Nouri (2016) found that it was actually the video lectures and the opportunity for students to rewind and review lectures that provided students, particularly low achieving students, with the opportunity to succeed. Self-pacing was identified as the most positive aspect of a flipped classroom in this study. Finally, Blazquez et al. (2019) found that social work students enrolled in a randomized trial had higher academic achievement in a group work course when compared with a traditional lecture course.

**Theoretical Framework**

Kolb’s (1984) theory of experiential learning emphasizes the importance of experiences and active engagement in learning. Moreover, it also highlights the diversity of the learner through emphasizing the importance of their personal and unique involvement and experiences in the learning process (Healey & Jenkins, 2000; Svinicki & Dixon, 1987). Experiential learning in social work research methods courses increases success in making connections between theory and practice. In courses that are concept dense such as research, Venema et al. (2015) argued, “to successfully bridge the knowledge learned in the classroom to research practice—a key goal in competency-based
education—it is important to understand the effectiveness of a more hands-on approach” (p. 475).

In Kolb’s four-stage model, learners first engage in a variety of experiential learning methods such as problem-based learning, project-based learning, learning by doing, service learning, and/or collaborative learning (Healey & Jenkins, 2000). The first stage, concrete experimentation, often happens during synchronous or face-to-face class time (Thuente & Batteson, 2016). Learners are then asked to reflect on their learning, so they can assess and examine their experiences. The second stage, reflection, may begin during class and can include instructor feedback and group discussions, but could extend to the digital environment with the use of thought questions. A key to reflection is encouraging its continuous use (Cheung & Delavega, 2014). From these initial experiences and reflections, learners draw conclusions that build on or contradict their previous experiences. Abstract conceptualizations or explanations of learning can be further formulated through video lectures outside of class, readings, and reporting and/or processing group activities during class. During this phase, the learner makes links between abstract knowledge and practice (Cheung & Delavega, 2014). Finally, these new and integrated conclusions guide future decisions, and shape new behaviors and actions (Svinicki & Dixon, 1987). These can culminate in final projects or active experimentation where the social work student applies knowledge by “creating new interpretations or dimensions to the knowledge or skills that are now integrated” (Cheung & Delavega, 2014, p. 1072). While course activities could be used to support each phase of Kolb’s cycle, a structure optimally provides for the cyclical use of these activities and ensures their consistent application.

**A Structure for the Active Learning Cycle: The Flipped Classroom Approach**

A flipped classroom approach is an instructional strategy that offers a functional structure for Kolb’s active learning cycle and practical application of experiential learning (Natland et al., 2016; Venema et al., 2015). The flipped classroom approach typically has two components: active learning strategies during class and digital individual instruction outside of class (Bishop & Verleger, 2013). Interactive group learning inside the class, for example, provides opportunities for the concrete experimentation portion of the active learning cycle. In one of the few studies on social work flipped classrooms, Holmes et al. (2015) emphasized “the flipped classroom contrasts with the traditional teacher-centered approaches and embraces collaborative student active learning” (p. 216). In-class time is often used for concrete activities and for active experimentation, collaboration, and reflection. The instructor adopts a stronger facilitative role, meeting with groups, and individually with students to provide feedback and encourage reflection informally or through small or large group discussions. Reflection can also include formal activities such as reflective reports. Sage and Sele (2015), for example, used a flipped classroom approach in undergraduate, social work, generalist courses to encourage reading and reflections on readings through the use of online reflection reports.

While abstract conceptualization or the ability to explain learning, can be built in during class activities, it is also a potential outcome of digital, autonomous learning (Svinicki & Dixon, 1987). The traditional lecture is often moved to online spaces and
provides distinct benefits to students. For example, students may benefit in challenging courses such as research methods, from the ability to self-pace their learning. With this approach students have the opportunity to review portions of their learning that may not be clear or in need of further review (Bergmann & Sams, 2012; Han, 2015; Wagner & Bogiages, 2020). This is particularly beneficial for a variety of student learning needs. For example, students who are learning in a second language, students with learning differences, or students who need additional time in understanding complex concepts benefit from digital, autonomous learning (Bergmann & Sams, 2012; Wagner & Bogiages, 2020). Additionally, online lectures are typically chunked or drilled down to their salient points, assisting students with making links to course concepts (Arnold-Garza, 2014; Matich-Maroney & Moore, 2016). Indeed, studies indicate that online lectures can be more effective than in-class lectures (Holmes et al., 2015). Students view lectures or participate in other online activities prior to coming to class.

Kolb’s final segment of the active learning cycle is active experimentation, where students apply concepts or as Hoffman (2014) explained, students practice the skill we want them to develop. Final or culminating active learning research projects engage students in all phases of the research process. Interactive class time can provide the space and opportunity to garner instructor feedback for project development. Yet, an important component of final social work research projects includes their practical application to broaden student understanding of what is often perceived as only an abstract undertaking (Zeitlin, 2018). As Zeitlin argues, when students are engaged in creating a final project “the connection between research and practice may seem less remote” (p. 569). Thus, final projects could include research projects or proposals in an area of research interest or community-based research projects.

When considering competency-based social work education, a flipped approach provides a promising structure and route to implement an active learning format that assists students in mastering the Council on Social Work Education (CSWE) research competency: “Engaging in practice informed research and research informed practice” (CSWE, 2015, p. 8; Matich-Maroney & Moore, 2016). In the following case examples, we illustrate the use of a flipped classroom approach and active learning format with social work students enrolled in one BSW and one MSW course.

**Flipped Classroom Approach in Research Methods Courses: Case Examples**

**Setting**

Assisting students with gaining practical, hands-on experience in social work research was a goal of two social work educators teaching research methods within one BSW and one MSW course. Although the two instructors taught at different North Texas public universities, the MSW program was a joint program between their institutions. The BSW program historically offered one required research course. Past issues included a lack of faculty qualified to teach this course, so professors from outside the department or adjunct instructors taught it. The research methods course offered in the joint MSW program was offered in the generalist track, or to students entering the MSW program who did not have
a BSW or a masters’ degree from other disciplines. Challenges for the MSW course included the range and diversity of previous research experiences of students, with some students having little to no research knowledge. Others coming from outside disciplines had previously completed joint or group research projects.

Both instructors had prior experiences with implementing experiential learning projects and some or all of Kolb’s active learning cycle within social work research methods courses. Moreover, both instructors identified challenges given the diversity among student learners’ previous experiences with research and the time needed to help students understand research concepts. When discussing these challenges, they agreed to use a flipped classroom approach because it is a pedagogical model that offers an active learning structure and helps to “emphasize the link between research and practice” (Natland et al., 2016, p. 49).

Retrospective Faculty Observations

BSW Flipped Classroom Approach

The BSW research course was developed using a hybrid model with students attending class one time per week (1 hour 20 minutes) and completing online assignments (including discussion boards) for a second weekly class session. The in-class session was originally conceptualized as a lecture/discussion. Class size was 42 students and was held in a theater style lecture hall. This required course was often students’ first exposure to research of any type and there was wide variation in the interest of students in the course, including those who were curious about the subject matter, those who acknowledged they did not comprehend the concept of research, and those who viewed the course as an obstacle to be surmounted. During initial interactions in class, some students identified concerns that research was disconnected from their real-world experiences.

To make the course more relevant and experiential, the instructor implemented a flipped classroom approach by completing Panopto PowerPoint video lectures for review before each class session. Classes employed experiential and collaborative learning in small groups to learn the Evidence Based Practice process (EBPP). Exercises completed in real time included: Developing classroom groups with various practice interests, creating a research question based on research interests, participating in a sampling exercise, searching the literature for evidence-supported treatments (ESTs), applying criteria to evaluate both quantitative and qualitative research studies, reporting the results of an interview held with an expert in their interest area, triangulating the data from the literature review with the expert practitioner interviews, searching the public domain for assessment measures, critiquing a survey measure, and completing a literature review project in an area of their own interest. During the project each student formulated a research question in consultation with the instructor and their own small group, and secured feedback from the small group over several weeks to develop a PowerPoint presentation and final paper. At the end stage the student presented their findings to their small group with discussion of applicability of the findings to their own practice. Table 1 depicts examples of classroom experiential learning activities.
Table 1. **BSW Flipped Classroom Experiential Learning Examples**

<table>
<thead>
<tr>
<th>BSW Examples and Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Develop classroom groups focused on similar practice interests. These groups become the working groups for classroom activities, literature critiques and final presentations.</td>
</tr>
<tr>
<td>• Formulate individual research questions in consultation with group and instructor.</td>
</tr>
<tr>
<td>• Participate in a sampling activity.</td>
</tr>
<tr>
<td>• Engage in a personal literature review and engage in peer critiques in the classroom work group.</td>
</tr>
<tr>
<td>• Apply established criteria to evaluate sample quantitative and qualitative research studies.</td>
</tr>
<tr>
<td>• Search the public domain for assessment measures and critique a survey measure.</td>
</tr>
<tr>
<td>• Conduct interviews with an expert in student interest area and report results to peers. Triangulate the data from the literature review with expert practitioner interview.</td>
</tr>
<tr>
<td>• Receive feedback from peers (small groups) over a period of several weeks to develop a PowerPoint presentation and final research paper.</td>
</tr>
<tr>
<td>• Student presentation of findings in small groups includes student-led discussions of applicability of findings to practice.</td>
</tr>
</tbody>
</table>

**MSW Flipped Classroom Approach**

The MSW research course began as a modified flipped course using Kolb’s active learning cycle. A three-hour, face-to-face course met once a week with a class size of 23 students. The course was initially designed to accommodate active learning strategies with some instructor lectures during class. Student experiences with research ranged from students who had previously written a thesis or participated in group research projects to those students with no previous history of taking research courses. During the seventh week of a fifteen-week semester, the MSW instructor implemented an informal classroom assessment, in which students were asked to anonymously provide informal feedback (Brookfield, 2017). The overwhelming student feedback was feeling distanced during the micro lectures, or the opposite, asking for more time spent on the lecture and concept explanations. Thus, students had very different responses. After a class discussion, the instructor placed lectures online using Panapto PowerPoint video lectures. This provided students with more autonomy in determining how much time to spend on the lectures, and provided students who were asking for more explanations the opportunity to stop, rewind, and re-listen to portions of the lecture that they needed more time to understand (Bergmann & Sams, 2012; Nouri, 2016).

Class time was structured in the following way. During the first hour of class, students worked collaboratively in groups on different weekly research topics to assist them in becoming users of research. Literature critiques provided the basis for these activities, and student groups focused on segments of the research process highlighted in assigned readings. The second hour included other collaborative or experiential activities that aligned with the weekly modules such as peer and group critiques of student research questions and proposal topics, searching the public domain for assessment measures and critiquing them, and practice with research software. The final portion of class was
designated for small groupwork sessions in which students answered questions based on the week’s readings. Later in the semester, additional active learning time was also used to provide peer and instructor feedback for the student’s final project: a research proposal in their area of interest. This final project was designed to assist students in becoming developers of research. Throughout the semester, students worked on drafts of different stages of their proposals and had opportunities to receive extensive feedback from their groups and the instructor. This culminated in a final research proposal class presentation. Table 2 depicts examples of the MSW Flipped classroom experiential learning activities.

Table 2. MSW Flipped Classroom Experiential Learning Examples

<table>
<thead>
<tr>
<th>MSW Examples and Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Develop classroom groups randomly.</td>
</tr>
<tr>
<td>• Group literature review critiques corresponding to readings and focused on weekly research topics.</td>
</tr>
<tr>
<td>• Class reflection of group critiques in which groups describe their readings and their conclusions.</td>
</tr>
<tr>
<td>• Group critique of member research questions, proposal topics and methodology.</td>
</tr>
<tr>
<td>• Search the public domain for assessment measures and critique these measures.</td>
</tr>
<tr>
<td>• Interview a peer during class and transcribe the interview.</td>
</tr>
<tr>
<td>• Lab practice using SPSS and NVivo.</td>
</tr>
<tr>
<td>• Weekly group written assignments based on the readings.</td>
</tr>
<tr>
<td>• Create a research proposal in an area of interest and present the proposal to the class.</td>
</tr>
</tbody>
</table>

Figure 1 provides an illustration of Kolb’s active learning cycle and activities that could support each segment of the cycle (p. 9).

Discussion

Blazquez et al. (2019) argued that social work professors’ pervasive reliance on traditional and didactic approaches makes them ineffective in helping students see the relevancy of research in applying learning to real world problems. Moreover, they provided initial evidence that experiential learning techniques can positively impact student learning in social work courses and specifically in social work group work courses (Blazquez et al., 2019). In order to do this in a content heavy course, however, something has to give. Giving students the opportunity to review lecture content before class reserves the time in class for experiential learning. Providing hands-on experiences to apply research knowledge and skills, increases student insight into the links between research and practice, and develops student research capacity (Natland et al., 2016; Whipple et al., 2015; Zeitlin, 2018). Moreover, Vinjamuri et al. (2017) emphasized the importance of thoughtful teaching strategies as a primary component in fostering positive student attitudes toward research. In particular, using experiential strategies during class can potentially increase student confidence and encourage them to use evidence-based research in practice.
Kolb’s active learning cycle provides a lens and framework for understanding the role and steps involved in active learning. It follows then that courses need a structure for relevant active learning experiences. A flipped classroom model provides this type of structure with added benefits of offering students autonomy in pacing their learning. The following recommendations provide guidance for designing a flipped social work research
course that implements the four phases of Kolb’s active learning cycle. These recommendations could be implemented at either the BSW or MSW level of instruction.

**Recommendations**

Students may need an orientation to assist them in understanding expectations and acclimating to a research course that uses a flipped classroom approach (Findlay-Thompson & Mombourquette, 2014; Wagner & Bogiages, 2020). A standardized online course design that is easy for students to navigate and is structured in a way that students know what to expect each week benefits a diverse range of learners. Activities in class can assist students in becoming both users of research (e.g., through critiquing research articles, developing research questions, sampling activities, and library activities and speakers) and developers of research (e.g., through culminating research projects). Table 3 highlights some key recommendations for flipping BSW and MSW research courses. These recommendations can be utilized for hybrid, face-to-face, and online courses with remote, synchronous components.

Table 3. *Recommendations for BSW/MSW Flipped Research Courses*

<table>
<thead>
<tr>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Implement an orientation at the beginning of a flipped research course that includes expectations for face-to-face/synchronous and online learning. This could include online navigation and other technology guidance.</td>
</tr>
<tr>
<td>• Provide a standardized online course design and in-class schedule, so students know what to expect each week.</td>
</tr>
<tr>
<td>• Create shorter, micro lectures to assist students in understanding the salient points. This provides students with a diverse range of learning styles to gain a deeper understanding of the material. Students watch lectures outside of class so they come to class prepared to engage in activities.</td>
</tr>
<tr>
<td>• Develop methods for holding students accountable for viewing online lectures and/or readings. These include low risk quizzes or discussion boards (Matich-Maroney &amp; Moore, 2016).</td>
</tr>
<tr>
<td>• Provide active learning strategies that assist students in becoming users of research such as learning research vocabulary. This could include small group work critiquing the literature and/or discussing the use of evidence-based interventions in practice.</td>
</tr>
<tr>
<td>• Provide active learning strategies that assist students in becoming developers of research. This could include final group or individual projects in areas of interest or connected to community agencies.</td>
</tr>
<tr>
<td>• The more facilitative role of the instructor provides increased opportunities for feedback. Feedback is essential to assisting students in gaining research competency.</td>
</tr>
</tbody>
</table>

**Implications for Teaching Social Work Research**

Using a flipped classroom approach provides social work students with opportunities for self-paced learning, enabling them to take the time needed to comprehend concepts. Students are in charge of using their time actively in class to advance their skills in a subject that often evokes anxiety and uncertainty. In research courses where vocabulary and concepts are more likely to be new or complex, this is an added benefit. This may be
especially true for students who need multiple exposures to master concepts. Furthermore, this on-demand access provides students with the time needed to understand research concepts and develop a new vocabulary necessary to engage in effective practice and evaluation of practice. Utilizing class time for active and experiential learning assists students in making connections between their online learning and practical application of this learning (Bergmann & Sams, 2012).

Nouri (2016) speculated that the flipped classroom approach was a teaching strategy that empowered students, particularly those who had academic challenges. A key benefit of using a flipped classroom approach is its versatility in meeting the learning needs of a wide range and diversity of learners. Both university settings for this project were Hispanic-serving institutions where there were greater numbers of students learning in a second language. Students learning in a second-language may experience problems keeping up with the pace of a traditional lecture due to language-related challenges (Wagner & Bogiages, 2020). While this approach can benefit students whose primary language is not English, it can also benefit students who have academic challenges or those who find research courses especially unfamiliar.

Nevertheless, the flipped classroom approach does require additional commitments outside of class. Informal and formal MSW course surveys administered by the MSW instructor and the instructor’s university indicated that some students did not like the out-of-class commitment to watch video lectures and preferred in-class lectures. Other studies have reported similar student perceptions of increased workload in a flipped class, while some research has emphasized differences across groups in student perceptions of online lectures (Findlay-Thompson & Mombourquette, 2014; Nouri, 2016). Nouri (2016) found that students who were low achievers had more positive attitudes towards video lectures than high achievers due to the flexibility of being able to slow down and review the lecture as needed. Students also experience difficulties in making connections between online and in-class activities, thus it is important to clearly align and connect face-to-face and online portions of a flipped classroom (Kim et al., 2014). Informal class teaching assessments indicated that some students desired additional in-class explanations of weekly concepts. The instructor addressed concerns by incorporating micro-lectures and a review of concepts in real time.

Competency in understanding how to apply research evidence in practice and in evaluating one’s practice is one of the CSWE competencies for both undergraduate and graduate education. Hands-on learning, then, also becomes possible in the flipped classroom and can energize students. A predictable course layout is replaced with active learning, and students may look forward to a class environment where they can engage in a non-threatening dialogue with peers about research. During experiential exercises they are thrust into the problem-solving role rather than assuming a passive role where professors are the sole source of disseminating information. Professors become facilitators of learning rather than dispensers of knowledge, and their classes become opportunities for exploration and discovery (Bergmann & Sams, 2012). A final insight that emerged from the authors’ work with this teaching method, with implications for teaching research, is the importance of addressing the gap between research and practice. Students intuitively perceive this gap and need to grasp why research is so critical for effective practice.
Rethinking how we teach research will likely serve to increase the number of graduates who apply the evidence-based practice process in their work.

References


**Author note:** Address correspondence to Beverly Wagner, School of Social Work, Psychology and Philosophy, Texas Woman’s University, Denton, TX, 76204. Email: bwagner4@twu.edu