FORMATIVE AND SUMMATIVE ASSESSMENT OF LIBRARY INSTRUCTION (LI): ENCOURAGING AND SUPPORTING "REFLECTIVE TEACHING" PRACTICES THROUGH PEER OBSERVATIONS

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INTRODUCTION

This paper will discuss the roles of formative and summative assessments of library instruction for the purpose of encouraging and supporting “reflective teaching” (Dewey, 1910, p. 9; Schön, 1987, p. 25) based on peer observations and self-evaluations in academic libraries and higher education. Classroom observations of library instruction can be formative or summative, and both are valuable for different purposes. While formative assessment is used to immediately differentiate instruction (Tomlinson, 1999, p. 21) to target learners’ needs more precisely, summative assessment provides the “final judgment” of an individual’s teaching performance (Snavely & Dewald, 2011, p. 343). When formative assessment directs library instructors to engage in strategic self-reflection on their own teaching, it strengthens library instructors’ teaching skills and broadens content knowledge prior to summative assessment. The latter is primarily used for tenure and promotion and administrative charges.

Both formative and summative assessments facilitate remaining current in academic disciplines and teaching methodologies. Through peer observations, reviewers can advise library instructors to integrate self-reflection as a way to monitor their own teaching so that it encourages and supports the successful learning outcomes of diverse populations in higher education. In addition to explaining the roles of formative and summative assessments, this article will provide suggestions on how to incorporate reflective teaching practices into peer observations—either formative or summative—so that library instructors develop regular, effective self-evaluation practices. Just as these practices will positively influence the academic success of all learners, so too will they simplify library instructors’ teaching methodologies, accommodating learners’ diverse challenges. Thus, library instructors who monitor their own teaching in systematic, consistent, and regular intervals based on feedback from peer observations and decisive self-reflection will create successful learner-centered experiences in academic libraries and higher education. Activities to initiate and establish self-reflection practices are included in the tables interspersed throughout this paper; they can be used by library instructors and individuals who conduct formative and summative evaluations, coaching and mentoring peers, and others.

Since “action research” with self-reflective teaching practices dominates contemporary education scholarship (Mertler, 2017, p. 13), there is a section on how to transform teaching reflections to action research. Two templates—one for “Action Planning” and the other for “Professional Reflection”—are in the appendices (Mertler, 2017, p. 313-314). The action research section will introduce library instructors to the value of structuring self-reflections for application to research, which focuses on improving methodologies to realize optimal success in student learning outcomes. This paper will present an overview of the action research process, discuss its iterative and cyclical nature, and explain the stages to follow in order to render an effective resolution related to teaching and learning issues. Just as critical self-reflections are important in improving teaching for specific populations, so too are well developed, well structured, and well organized action research plans. Using the former to complement the latter will facilitate empowering research that addresses a wide gamut of issues library instructors encounter in accommodating the gaps in information literacy and research abilities of diverse student populations in higher education.
RATIONALE FOR SELF-REFLECTION BASED ON FORMATIVE AND SUMMATIVE ASSESSMENTS

Although summative assessment subscribes to a more restrictive and more formal process, reviewers can still recommend ways to engage library instructors in “reflective teaching” practices. Formative assessments, generally, precede summative assessments, preparing library instructors for the forthcoming prescribed, formal evaluation. While class observations to which the reviewers are invited are formative evaluations, observations to which faculty and administrators are assigned are considered summative. As library instructors perfect their teaching strategies and expand their subject knowledge by engaging in self-reflection based on feedback from formative assessments, they will evolve as accomplished teachers who are resourceful in differentiating pedagogies for many different learning styles. A few activities in this paper will help library instructors develop inquiry-based skills used in compelling self-reflective teaching practices (See Table 1).

Table 1: Formative Assessment in Peer Observation
Reflection Activity

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1.</td>
<td>Have you ever been observed by a peer or an administrator?</td>
</tr>
<tr>
<td>2.</td>
<td>Have you ever conducted a peer observation of a library instructor?</td>
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<tr>
<td>3.</td>
<td>Describe your experience.</td>
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<tr>
<td>4.</td>
<td>What activity was decided upon to improve or modify your teaching? What was the result of implementing this change?</td>
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(Roffey-Barentsen & Malthouse, 2013)

Through peer assessments, observers can provide library instructors with guidance to develop an effective reflective teaching practice so that they can seamlessly differentiate within lessons, modify activities to learners’ needs, and skillfully employ a variety of teaching and learning tools. While library instructors become comfortable as facilitators of students’ academic success, students will become accountable for their own learning by developing self-confidence in their own abilities to build new knowledge on prior knowledge. Students will begin to recognize their contribution to scholarship. Peer observations should direct library instructors to develop a hierarchy of steps in reflecting and analyzing their teaching experiences (See Table 2). Developing a “self-reflective pedagogical praxis in information literacy instruction” facilitates directing a valid learner-focused approach to teaching information literacy (Houtman, 2015, p. 6) in academic libraries and higher education.
**Table 2: Formative Assessment in Self-Evaluation**

**Tiered Reflection Activity**

<table>
<thead>
<tr>
<th>Step</th>
<th>Activity</th>
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<tbody>
<tr>
<td>1.</td>
<td>Identify an area you would like to improve. Based on your self-evaluation and/or student feedback, identify an area of your teaching practice you would like to change.</td>
</tr>
</tbody>
</table>
| 2.   | Pose a question that has arisen from this issue. Combine the question with the issue to formulate a hypothesis.  
Example:  
**Question:** How can I engage students in searching for a variety of materials for their research project?  
**Answer:** Give the students extra credit.  
**Hypothesis:** Giving the students extra credit will engage them in searching for a variety of materials for their research project. |
| 3.   | Conduct a research investigation in professional and scholarly, peer-reviewed journals for ways to test the hypothesis in your classroom. |
| 4.   | Decide on an action or approach you can undertake to resolve the issue. |
| 5.   | Implement the action or approach. Collect data to describe or measure the outcomes of the action or approach undertaken. |
| 6.   | Analyze the data. Discuss with a colleague, peer, or supervisor.  
Plan for the next action. |

(Roffey-Barentsen & Malthouse, 2013)

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**SELF-REFLECTION PRACTICES SUPPORTING EFFECTIVE LIBRARY INSTRUCTION CLASSES**

According to Lupton, “critical reflection is a powerful tool for the improvement of teaching practice” (2002, p. 82). She emphasizes the use of personal reflections, planning, organizing, observing as well as cross-collaboration with library, teaching faculty, and academic support services colleagues. Library instructors might not automatically engage in sound self-reflection like teaching faculty do because the administration may consider librarians’ work service-oriented rather than purposeful teaching. Therefore, library instructors must be given explicit steps to efficacious self-reflection practices through observation evaluations—formative and summative—so that they view themselves as “educators, engaging in ‘critical reflection’ directed toward a learner-centered approach” (2002, 83). In sum, cogent self-reflection—“critical reflection”—does not automatically occur, rather it requires guidance (even explicit training), practice, and discipline in order to reap its benefits (2002, p. 84).

In order to engage in “critical reflection,” reviewers should guide librarians in establishing best practices for their teaching reflections. Dewey’s “reflective thinking” concept (1910, p. 16) begins with thinking about an issue that causes discomfort and uneasiness, considering the nature of the problem, examining what you have already done, and what you still need to do to resolve the issue. Loughran summarizes Dewey’s concept of reflective thinking as follows (1996, p. 14):
Reflection is clearly purposeful because it aims at a conclusion. The purpose of reflecting is to untangle a problem or to make more sense of a puzzling situation: reflection involves working towards a better understanding of the problem and ways of solving it.

How do we apply this concept to library instruction? What prompts can reviewers suggest that facilitate effective reflections on improving teaching and resolving learning challenges?

**SELF-REFLECTION PRACTICES BASED ON FORMATIVE ASSESSMENT**

Formative assessment is designed to provide feedback to library instructors so that they can differentiate their teaching strategies to address learners’ needs and challenges. This type of assessment can provide precise feedback on how to improve or modify teaching methodologies (Snavely & Dewald, 2011, p. 343). Smaller academic libraries might rely on formative assessment exclusively, but university and research libraries usually employ both assessments styles. Needless to say, both types of assessment can integrate reflections about teaching.

Stenhouse (1975, p. 15) maintains that merely following observers’ recommendations is not sufficient in improving teaching; he emphasizes the importance of engaging teachers in self-study as a consistent, regular, systematic evaluative practice that speaks to the two stages of a lesson:

1. Planning and organizing the lesson
2. Executing the plan and presenting the lesson. (Roffey-Barentsen & Malthouse, 2013, p. 163)

The following can be discussed in a formative observation consultation so that the observee engages in strategic reflective thinking:

1. Clarification: clarifying and describing the problem.
2. Analysis: analyzing the possible causes.
4. Selection: choosing one.
5. Initiation: putting it into practice.
6. Evaluation: evaluating whether the problem has been resolved or not (Roffey-Barentsen & Malthouse, 2013, p. 13).

Observers can help library instructors use these reflection steps to resolve issues that occur during library instruction. As library instructors become accustomed to using the prompts for self-reflection, they will be able to resolve learning issues with more dexterity. These are also effective as a precursor to summative assessment.

**SELF-REFLECTION PRACTICES BASED ON SUMMATIVE ASSESSMENT**

Summative assessment will review librarians’ overall teaching performance. This type of assessment summarizes an individual’s cumulative teaching performance. Since it is more prescribed and more formal than formative evaluations, summative assessment is used in professional reviews of library instructors for continued appointment, tenure, or promotion decisions as well as administrative reporting (Snavely & Dewald, 2011, p. 343).

After library instructors have engaged in reflective teaching practices for a significant period of time, they will be more adept in engaging in the self-evaluation process to improve or differentiate lessons. At first, library instructors might reflect about their teaching because it is required or expected, exemplifying extrinsic motivation. With more experience applying reflections to teaching, library instructors will internalize the reflective thinking process more effectively. Since they genuinely want to improve their teaching, it is important for library instructors to reach this advanced stage of reflection so that intrinsic motivation is activated. At this level, library instructors will be able to discern the advantages of mindfulness regarding their own teaching with more acute problem-solving skills, increased inquiry-based thinking skills, more self-awareness to decide on appropriate resolutions, and stronger personal management skills (Roffey-Barentsen & Malthouse, 2013, p. 56). Though summative assessment is usually reserved for tenure and promotion processes and administrative charges, summative observers should provide feedback to library instructors to encourage and support strategic critical reflection of teaching.

By the time library instructors ascertain this level of reflective thinking, they will be ready to embrace Schön’s theories: “reflection-in-action” and “reflection-on-action”. The first refers to “thinking on [one’s] feet,” and the latter refers to thinking about a particular experience after the event takes place (Roffey-Barentsen & Malthouse, 2013, p.165; Schön, 1987, p. 34). Both reflection types can benefit library instructors’ teaching, transforming learning to successful, active student-directed learning. Concentrating on feedback from student evaluations will also be helpful in reflections at this stage, though not discussed at length in this paper.
**Recommendations For Implementing A Self-Reflective Teaching Practice**

Peer observations, both formative and summative, afford opportunities to provide library instructors with constructive feedback about their teaching, academic knowledge, and classroom management. Using this information to reflect on teaching for the purpose of making improvements or experimenting with different pedagogies is important in the development of a strategic, self-reflective teaching practice. Once library faculty have established a consistent reflective practice, they should engage in conversations with others on campus. Feedback from a variety of sources will enrich self-reflections. Other venues for non-threatening criticism might be through coaching, mentoring, and feedback from student evaluations. Using a set of controlled questions (see Table 2) introduces library instructors to a strategic reflective practice. Gradually, library instructors will be able to experiment with other self-reflection theories related to successful teaching and learning.

**Critical Self-Reflection Teaching Practices In Action Research**

As mentioned in this paper’s introduction, “action research” is vital in improving teaching methodologies and learning tools for the successful academic achievement of diverse learners in higher education as well as in the elementary and secondary schools. In essence, action research is a systematic inquiry-based process conducted by educators who maintain a “vested interest in the teaching and learning process or environment for the purpose of gathering information about how their particular schools operate, how they teach, and how their students learn” (Mills as cited in Mertler, 2017, p. 4). Action research occurs when library instructors conduct research about their own teaching practices through assessments (diagnostics, formative and summative), student evaluations, and feedback from peer observations (formative and summative). This type of research restricts the study on the specific characteristics of a particular student population for whom differentiated instruction is needed. The process of action research involves four basic steps:

1. Identifying an area of focus.
2. Collecting data.
3. Analyzing and interpreting the data.

One way for librarian instructors to engage in action research is to examine one’s own practice through self-reflection teaching practices. According to Mertler, self-reflection involves “critically exploring what you are doing, why you decided to do it, and what its effects have been” (2017, p. 13). Through the process of using reflections for action research, library instructors must be actively engaged in their own learning as well as their teaching (Parsons & Brown as cited in Mertler, 2017, p. 13).

Reflective teaching is a process of developing lessons or assessing student learning with thoughtful consideration of educational theory, existing research, and practical experience, along with the analysis of the lessons’ effect on student learning (Parsons & Brown as cited in Mertler, 2017, p. 13).

Thus, the process of collecting information—qualitative, quantitative, or mixed methods—followed by inquiry-based reflection is the foundation of action research in education.
Library instructors can easily integrate inquiry-based reflection on a consistent, regular basis into their teaching practices. Kurt Lewin has been credited for coining the term “action research” (Krapp, 2005), conceptualizing it as a spiral of steps involving planning, taking action, and collecting and analyzing data.

1. The planning stage.
2. The acting stage.
3. The developing stage.
4. The reflecting stage. (Mertler & Charles as cited in Mertler, 2017, p. 15)

This framework is iterative and cyclic and almost never becomes linear. Therefore, library instructors will discover that this process requires frequent repetitions of the above steps (Mertler, 2017, p. 37). Library instructors should embrace action research is a problem-solving process used to resolve teaching and learning issues at all levels of education.
This process simulates professional development in daily teaching. Together with feedback from formative and summative assessment, student evaluations, peer coaching and mentoring, and one’s own action teaching reflections, action research can transform library instructors into highly skilled teacher-scholars. Ultimately, this type of transformation will benefit the learning needs and challenges of diverse learners in academic libraries and higher education.

**CONCLUSION**

Library instructors “must be actively committed to a process of self-actualization that promotes their own well-being” for the purpose of empowering all learners to be accountable for learning new academic content and developing self-confidence regarding their own abilities to learn (Panos, 2015, p. 299) throughout life. Engaging in critical self-reflection consistently, systematically, and regularly will facilitate improving and experimenting with current teaching methodologies to create a student-driven learning environment. Peer observations—formative and summative—peer coaching and mentoring, student evaluations, and library instructors’ own self-reflections can provide valuable information about students’ learning and the learning environment so that improvements and other modifications can be made for higher academic achievement and better learning outcomes. Once library instructors have established a regular, consistent critical self-reflection practice, they will be able to use the information from their reflections in action research. Through their own action research about library instruction in higher education, library instructors will be able to create a supportive, comfortable learning environment where all students are able to experience academic success and optimal learning outcomes.

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Figure 2. “Professional Reflection”

**Step 1**
The purpose of my study was

**Step 2**
I learned the following about my initial problem:

**Step 3**
Things I learned about my professional practice are

**Step 4**
Things I learned about action research are

**Step 5**
Things I learned about myself include

**Step 6**
When I conduct action research again, I will

Adapted from Action Research: Improving Schools and Empowering Educators, by Craig A. Mertler. Copyright 2017, p. 314.
REFERENCES


