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Pointing a Telescope toward the Night Sky: Transparency and Intentionality as Teaching Techniques

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POINTING A TELESCOPE TOWARD THE NIGHT SKY: TRANSPARENCY AND INTENTIONALITY AS TEACHING TECHNIQUES

BETH FUCHS

INTRODUCTION

As instruction librarians, we bring a tremendous amount of professional knowledge and experience to each learning experience that we lead. We know about instructional design, information-seeking behaviors, classroom management, teaching and learning theories, active learning activities, and a host of additional information that feeds our thought processes and drives our approaches when we need to plan instruction. Even so, how often do we communicate the “why” behind our instructional decisions with our students? Certainly, it is possible to overshare, but research suggests that a more enriching experience for all involved would occur if some of these decisions were shared. When we enter instructional spaces for short periods of time, often for only one or two class sessions, we enter as strangers without knowledge of pre-established norms for instructor-student interaction. As a consequence, our instructional intentions might not be clear or may be misinterpreted, contributing to students’ hesitation to participate and engage with us. A more proactive approach could be focused on appealing to their trust by helping them to understand the rationale behind our instructional decisions. In this sense, transparency and intentionality can be considered pedagogical techniques when they are applied to instructional design.

This interactive workshop introduced participants to the research produced by the Transparency in Learning and Teaching in Higher Education Project and then asked them to use that information to analyze an assignment, define transparent teaching, and brainstorm ways to incorporate transparent teaching into their teaching practices.

BACKGROUND: TRANSPARENCY IN LEARNING AND TEACHING IN HIGHER EDUCATION PROJECT

The Transparency in Learning and Teaching in Higher Education Project (*TILT* Higher Ed) began in 2010 at the University of Illinois with Dr. Mary Ann Winkelmes, who now works at the University of Nevada, Las Vegas. She was interested in researching an idea articulated by some faculty members that their students’ learning outcomes increased when they let their students know how and why they designed their learning experiences in particular ways. Over the course of this initial research project, Winkelmes (2013) discovered several teaching methods with statistically significant benefits for students’ learning, such as:

discuss assignments’ learning goals before students begin each assignment, explicitly connect ‘how people learn’ data with course activities when students struggle at difficult transition points, [and] gauge students’ understanding during class via peer work on questions that require students to apply concepts you’ve taught. (pp. 51-52)

These various teaching methods were found to be beneficial for a large number of specific populations, including students taking introductory courses in the social sciences and humanities as well as students taking intermediate and advanced courses in the STEM (science, technology, engineering, and math) fields. In addition, first-generation college students, students of color, transfer students, and students in large-enrollment courses also showed benefits from these teaching methods (Winkelmes, 2013).

Since assignments figure prominently in the lives of students, further research by Winkelmes focused on assignments. A research study published in 2016 focused on several minority-serving institutions and asked participating faculty members who were teaching two sections of the same course, mostly introductory courses containing first-year students, to make two assignments in the course more transparently designed and more problem-based. Students in one section of the course would receive the revised assignments, and students in the other section of the course would receive the assignments as they were originally designed. In addition to creating two revised assignments, instructors were asked to use the Transparent Assignment Template to frame class discussions about each revised assignment's purpose, tasks, and criteria for evaluation before students began working on the assignment (Winkelmes, 2016).

Figure 1: Transparent Assignment Template

All students who received the revised assignments benefitted in statistically significant ways, and the benefits were slightly greater for first-generation, low-income, and underrepresented students. Students noticed the greatest increases in the following abilities:

connecting information from a variety of sources, learning on [their] own, applying knowledge and skills to different contexts, writing effectively, judging the reliability of information from various sources, considering opinions or points of view different from your own, [and] judging the strengths and weaknesses of ideas. (Winkelmes, 2016, p. 34)

Students also reported benefits in areas associated with “student success,” such as academic confidence and sense of belonging. Faculty members noticed benefits, too, including increased student motivation and more substantive class discussions (Winkelmes, 2016).

CONSTRUCTIVIST APPROACH TO LEARNING MORE ABOUT TRANSPARENT TEACHING

In order to better understand the differences in the assignments that contributed to these changes observed by both students and faculty members, LOEX workshop participants were asked to analyze an assignment used in an introductory science course and revised by the faculty member according to the Transparent Assignment Template. (This assignment, and several others (such as the one shown in the Appendix, are available on the *TILT* Higher Ed website: <https://tilthighered.com/tiltexamplesandresources>) Participants received both the original version of the assignment and the revised version of the assignment and were then asked to discuss the differences they noticed. Participants noted that the revised assignment included a written indication of the purpose of the assignment at the top as well as a short statement regarding how the assignment would be graded. A participant commented that there was room for improvement in the revised assignment, particularly in the “criteria” section and suggested including a rubric and/or examples of completed assignments. Participants also noted that the language used in the “task” section changed in the revised assignment to use action words from Benjamin Bloom’s Taxonomy (<https://www.uky.edu/celt/instructional-resources/scholarly-teaching/blooms>). While the wording changes were relatively minor, a participant suggested that the changes might help students better understand how their efforts will be graded by the instructor. Another participant stated that the changes in wording also changed the affective interpretation of the assignment for her, making the assignment seem more personal and giving the impression that the instructor was interested in what students might learn from this assignment rather than just focusing on students getting the “right” answer.

Now that participants had an introduction to the research involved in *TILT* Higher Ed and had carefully analyzed an assignment that was revised according to the Transparent Assignment Template, participants were asked to create a definition for transparent teaching. One participant memorably defined it as “giving the game away,” suggesting that students might feel sometimes as though their education is a game that they have entered in without really knowing the rules. Letting students know how the “game” is played and what the rules are from the beginning would both encourage and allow them to take more ownership of their learning. Additional definitions for transparent teaching were provided from the literature. Anderson, Hunt, Powell, and Dollar (2013) define it as “a teaching style that clarifies to students the instructor’s choice for lesson plans and specifies how those choices relate to course goals” (p. 38). Hubbell and Goodwin (2013) write that transparent, intentional teaching “requires us to constantly ask ourselves why we’re doing what we’re doing and then change our practice when we find we can’t offer a good explanation” (p. 182). The definition of transparent teaching is also linked to backward design, as articulated by Wiggins and McTighe (1998), where instructors plan learning experiences and instruction after they have identified desired results and determined acceptable evidence.

IMPLICATIONS FOR INSTRUCTION LIBRARIANS

Given that the majority of instruction librarians are not teaching semester-long courses (the type of instructional situation that was the focus of *TILT* Higher Ed research), how might this research apply to our professional practice which commonly consists

of a variety of instructional situations, predominantly one-shot sessions? Three main areas were addressed: relevance and motivation, expectations and knowledge of teachers, and assessment.

Relevance and Motivation

Like all teachers, we have an ever-present relationship with student engagement. We want students to be engaged in our instruction, and we are always in search of ways to improve. Engagement can be considered, in some ways, to be linked to relevance, and relevance increases when students understand why they are asked to do something. Hubbell and Goodwin (2013) remind us that as we reflect on our own learning, we can recognize that for nearly everything we learn, we choose to learn it for a specific reason, whether the reason is to help us accomplish a specific task or to help us to understand something better. Explaining to students the reason why we are asking them to learn something or do something in a certain way can enhance their motivation to learn. Fisher, Frey, and Hite (2016) point out that relevance is also reinforced when students are encouraged to understand themselves as learners, so inviting students into our processes of designing their instructional environments helps to send the message that we value their experiences of self-actualization as learners. Wiggins and McTighe (1998) assert that the challenges of engagement and motivation have a long history of being addressed through extrinsic means of carrots (praise, good grades) and sticks (punishment, low grades). They advocate, instead, for thoughtful instructional design as a principal facilitator of student engagement.

Teachers, Knowledge, and Expectations

Teachers require a vast repository of varied knowledge to do their work. Many people might assume that the teacher will have mastered specific content knowledge and that the role of the teacher is to teach that content knowledge. While that assumption is not incorrect, it is also incomplete. Teachers, including instruction librarians, must also possess pedagogical knowledge. Fisher et al. (2016) define pedagogical knowledge as

a unique knowledge base held by teachers that allows them to consider the structure and importance of an instructional topic, recognize the features that will make it more or less accessible to students, and justify the selection of teaching practices based on learning needs. (p. 81)

Not only do teachers need to understand the tools of teaching but they also need to know how to make the content understandable to others who do not have the same level of knowledge. Thus, an understanding of cognitive development is also an essential knowledge base for teachers. As is true for all professionals, we are obligated as instruction librarians to keep up with developments in our field and integrate them into our professional practice. Whether it is through conference attendance, reading the scholarship of teaching and learning (SoTL), or conversations with colleagues, research such as *TILT* Higher Ed underscores that there is always more for us to learn and that we need to be intentional about taking the steps necessary to continue to grow as professionals. Hubbell and Goodwin (2013) articulated this idea well when they wrote, “It has been said that change is inevitable, but growth is intentional. If this is true, then intentionality is crucial to becoming a great teacher” (p. 182).

Assessment

If we are letting students know why we are using particular instructional strategies, then it is also important that we do the same with any assessment. Students should not be surprised by how they are asked to demonstrate their learning, and assessment should not be drawn up as an afterthought. This is an essential component of effective instructional design processes, as articulated by Wiggins and McTighe (1998), who emphasize that determining learning results and acceptable evidence of learning should occur before learning experiences are planned. Students need to have a clear understanding of the ultimate goal for their instruction as well as knowledge of how they will be assessed. A great deal of emphasis is placed on assessment of student learning, emphasizing what students know and are able to do as a result of their instructional experiences. By the same token, there is room for an argument to be made advocating for a reciprocal emphasis on instructors to make plain to students what they are doing to create effective learning experiences. Hattie (2009) underscored this idea when he wrote, “What is most important is that teaching is visible to the student, and that the learning is visible to the teacher” (p. 25).

APPLICATIONS FOR INSTRUCTION LIBRARIANS

The final activity of the workshop asked participants to brainstorm how they might apply transparent teaching practices to their professional practice. Participants were asked to write down ideas, and some of these ideas were later shared verbally in the workshop. All ideas were collected, transcribed, and emailed to interested participants after the conclusion of the conference. A sampling of those ideas follows:

- Start with the big picture/big question—something that might not be answered today but that we’re working towards
- Add a purpose slide to my instruction presentations, to give some context for what we’ll be doing and why

- When doing group work, explain why the students would benefit from working in groups as opposed to individually completing the task (i.e., learning from others' perspectives, sharing expertise, etc.)
- Post agenda/short version of my teaching plan on board at start of library instruction session. Include how much time we'll spend on each concept/activity. Gives students a clear outline for session and what to expect
- List learning outcomes and purpose of all assignments
- Normally when I plan, I ask the instructor for the assignment to better contextualize, but I don't really make that clear. I can share my knowledge of their assignment, how this info will help them with it, and also with other research
- When and if I use worksheets, modify to include a purpose. We talk about adding this to presentations and even class descriptions. Before today, I had not really thought about or seen it on a worksheet

CONCLUSION

Notwithstanding all of its benefits, teaching transparently and intentionally is not without its difficulties. Teaching this way makes us more vulnerable, as we give others the ability to see through our actions and to question our decisions. When added to all the other risks that we as teachers are asked to assume each time we enter a learning space, a reasonable person might argue that this additional risk is just not worth it. In addition, the idea of transparency has taken on some rather unfavorable connotations in the world around us in recent times. In some cases, we have seen transparency invoked by those in power when the true intention is to conceal, to define problems as those that only require illumination to solve, or to advocate for a single acceptable interpretation of information, all of which fly in the face of the purpose of transparency. For these reasons, some may be reluctant to consider adopting a transparent teaching methodology. The research of its effects on student learning, however, should provide a convincing argument to act otherwise.

Instruction librarians often have limited time with students, and it is easy to feel as if that limited time with students all but guarantees that they will benefit minimally from the learning experiences that we design for them. Research from *TILT* Higher Ed, however, ultimately provides teachers with a hopeful message, one that shows important gains rising out of small changes.

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Figure 1

FIGURE 1. TRANSPARENT ASSIGNMENT TEMPLATE

Purpose

- Skills practiced
- Knowledge gained

} relevance to students 5 years out
connection to Learning Outcomes

Task

- What to do
- How to do it

Criteria

- What excellence looks like (multiple annotated examples)
- Criteria in advance to help students to self-evaluate

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