

JURIES AS INNOVATION IN AN INSTRUCTIONAL DESIGN AND TECHNOLOGY PROGRAM: A SAGA OF CONTINUOUS IMPROVEMENT EFFORTS

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Academic juries have a long tradition as a method of educating students and assessing their work. This tradition has been limited to a relatively narrow range of disciplines, such as architecture and various fine and performing arts. This article describes the case of an online graduate-level Instructional Design and Technology (IDT) program adopting and adapting a jury structure to support the development and assessment of students' electronic portfolios. A key component of the adoption and adaptation is the continuous efforts to improve the impact of juries across their 10-year implementation (2005-2015) in the IDT program. Therefore, this paper explicates the history of jury establishment and development within the IDT program, reports two evaluations that provide students' perspectives about juries, and details the IDT faculty members' response to those evaluations in an effort to further improve juries as a program-wide innovation.

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INTRODUCTION

Instructional Design and Technology (IDT) is the general term that we use in this article to describe university programs that train teachers in the integration of media into classrooms and prepare other professionals for roles as instructional designers, multimedia developers, and other allied positions. Often these programs have assorted names, including Instructional Technology, Instructional Design, and Learning Technologies. IDT is inherently interdisciplinary (Reiser, 2001; Wiley, 2002) and regularly borrows broad processes and practices. For instance, in recent years, creativity (Clinton & Hokanson, 2012), design thinking (Smith & Boling, 2009), and the use of studio-based education (Clinton & Rieber, 2010; West & Hannafin, 2011) have proliferated within IDT, though they first were seminal in other disciplines. Juries—commonly used in fine arts, performing arts, and design sciences—are another interdisciplinary innovation that holds promise within IDT.

ESTABLISHING AND DEVELOPING JURIES WITHIN IDT

We start this design case by explicating the historical evolution of juries as an innovation within an IDT program at a teaching university in the Midwestern United States. In 2003 and 2004, juries were conceptualized as an innovation within that program. Based on the results of a 2005 implementation, revisions to the use of juries occurred between 2006 and 2012.

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Conceptualizing Products and Processes for Juries

In 2003, faculty members in the IDT program began discussing extensive program revisions, including a program name change from “Instructional Technology” to “Instructional Design and Learning Technologies” (ID<). Conceptually, the name change signified a shift toward a “design program,” as opposed to a program that emphasized the mechanics of media. This conceptual shift necessitated the creation of multiple program tracks—Instructional Design and Performance Improvement (ID&PI); Interactive Multimedia (IM); and Educational Technologies (EdTech), for k-12 teachers. The revision also included incorporating field experiences for EdTech students and design studios for ID&PI and IM students.

One faculty member proposed the idea of juries as an additional aspect to be included in the program revision. The faculty member putting forth this proposal pointed to the shift of the program toward being a design program—an example of a “sciences of the artificial” (see Simon, 1996) where students learn to design and build synthetic instructional products. Evoking references to other sciences of the artificial, such as user-centered design and architecture, the faculty member argued that juries seemed to fit naturally within the program revisions. While the faculty member who introduced the element of juries as a proposed component of the curriculum did not use literature as the basis of his proposal, his explanation of juries was very similar to a summary of an academic jury system from the architecture literature: Frederickson (1993) begins his article by noting that “design educators in architecture, landscape architecture, interior design, and several studio arts share a fundamental method of evaluating design projects and rendering feedback to students concerning their performance and abilities.” That method is “the jury,” which Frederickson defines as “a critical educational vehicle in which students verbally and graphically present their design work to an assembly of design teachers, visiting professionals, and student peers. It is a forum for building and communicating ideas” (p. 38).

The faculty member putting forth the proposal certainly was correct about the connection between architecture and juries (see, for instance, Anthony, 1987; Peterson, 1979; Salama & Wilkinson, 2007; Webster, 2006, 2007). It was not, however, a well-reasoned argument that motivated the faculty to accept juries as part of the program revisions; rather several faculty members already were familiar with the idea of juries and their potential application. The faculty member who introduced the idea of juries, for instance, had a bachelor’s degree in music; juries often are commonplace within university music programs (see, for instance, Bergee, 1993; Ciorba, & Smith, 2009). Similarly, a second faculty member held a degree in art. Juries are used in art programs in a variety of ways, including having a prominent role as a capstone assessment (see, for instance, Berheide, 2007; Cummings & Maddux, 2010). A third faculty member

held degrees in journalism and technical writing; within these academic programs, computer-produced products commonly were critiqued and assessed through a jury-like process. Indeed, where computer-produced products are created, juried approaches to assessment are common (see, for instance, Basa & Şenyapılı, 2005). Because three out of six faculty members had familiarity with juries, the idea for juries was privileged with a type of cultural capital that pushed their use forward as an appropriate innovation within the IDT program.

In late 2003 and throughout 2004, faculty members negotiated and debated a plan for juries as a program innovation. In terms of curriculum, the agreed-upon plan included the fact that the work of juries would not reside within a particular class. Instead, students would complete juries as a parallel effort to their coursework. Thus, juries neither added credit hours to the master’s degree nor overtly replaced the Capstone project—an applied project that had been a key requirement for the program’s exit experience prior to the curriculum revisions. It was decided, though, that the applied project would be just another course project that happened to be completed in the last course of the degree. Juries, then, became the official exit requirement from the program.

The agreed-upon plan tasked students with developing and publishing an online portfolio (i.e., an e-portfolio) at three different points during their master’s degree (i.e., Jury #1, #2, and #3). Certainly, some of the faculty members were aware of previous literature that emphasized the value of portfolios within schools of education (see, for instance, Anderson, DeMeulle, & Knowlton, 1996; Knowlton, Anderson, & DeMeulle, 1996). More relevant, some faculty members were aware of current scholarship that promoted the use of portfolios in IDT programs (see, for instance, Macedo, Snider, Penny, & Laboone, 2001; Pierson & Kumari, 2000). What is more, the faculty realized that e-portfolios were well accepted by other faculty members and students (Canada, 2002). The awareness of this literature did create “buy-in” from some faculty. The process for juries was negotiated with referents to a typical thesis or capstone project process: Students initially would work with their faculty advisor to develop content of each jury; but then, once the advisor approves it, students would publish that jury to their designated university webspace, at which point both the advisor and two additional faculty members would pass judgment on the jury. The publishing of the jury to the university webspace required students to build their website from scratch using a tool like Dreamweaver or SeaMonkey. Faculty members felt that this type of building would, in itself, be a valuable educational experience.

During those early deliberations, faculty members agreed that each individual jury should serve as a prototype for the next. Thus, by Jury #3, students would have reached a level of proficiency on each of the six newly established program

goals (see Table 1). Each jury would consist of written narratives (i.e., defenses, explanations, and reflections) that serve as an argument from the student to the faculty of how the student had met each goal within his/her coursework. Each narrative would link to supporting artifacts from students' coursework (e.g., email exchanges with peers or faculty, discussion board conversation excerpts, and course design projects) as a means of supporting claims made in the narratives. As can be seen from this description, the word *Jury* was homogenized and could be used to refer to (a) the narratives; (b) the e-portfolio more holistically; or (c) the process of portfolio development, submission, and assessment.

These deliberations were difficult, and resulting decisions did not come easily. Tensions among faculty members were high due to not only decisions made about juries but also the negotiation and deliberation process itself. For instance, in terms of the deliberations, the faculty member who brought the idea of juries to the group was a jazz musician and was trained in a "prototyping" framework for design; by virtue of this training, he was more comfortable improvising off of ideas and going with the ebbs and flow of tentative decision making than were two other faculty members who were trained in a much more regimented systems design tradition. These two faculty members advocated for extreme details and decisions before implementation.

Partially as a compromise to add some detail to the notion of juries, faculty members collectively began creating a rubric to guide jury judgments and assist students in aiming their

INITIAL PROGRAM GOALS
GOAL 1: Demonstrates understanding of various theories and concepts that inform the practice of instructional design and learning technologies.
GOAL 2: Employs appropriate models for design and development of instruction, learning environments, and/or human performance improvement interventions.
GOAL 3: Demonstrates skills with various media and other tools typically used in the development and deployment of learning and/or performance improvement technologies.
GOAL 4: Demonstrates critical, reflective, and metacognitive thinking.
GOAL 5: Demonstrates professionalism and effective collaboration.
GOAL 6: Demonstrates competence in the appropriate normative standards of the discipline as specified by recognized professional organizations or agencies.

TABLE 1. Initial program goals.

jury toward the program goals. The far left-hand column of the rubric contained rows that listed the program goals and detailed sub-goals. For instance, the goal of "demonstrating critical, reflective, and metacognitive thinking" contained four sub-goals that asked students to (a) reflect on their own design processes by discussing how they will use "lessons learned" in their future design endeavors, (b) analyze how the processes used in creating various artifacts contributed to their own development as a professional, (c) describe how their experiences in the ID< program had contributed to their education, and (d) connect design decisions and other professional practices within the ID< program to their own emerging philosophy surrounding issues in the field. As a result of the sub-goals created for each goal, the rubric consisted of a listing of twelve items that students needed to address, yet it still did not address the many "normative standards of the discipline" (i.e., Goal #6 in Table 1). For each of the twelve items, the rubric included detailed descriptions for various levels of achievement—expert, proficient, developing, beginning, and not addressed (see Table 2).

The cumbersomeness of the rubric created disagreement among faculty. Yet, overall, the rubric intuitively felt right to a majority of the faculty members. One reason that the rubric was accepted despite its cumbersomeness related to an issue in the program's history. Prior to these curriculum revisions that brought in the use of juries, the program's exit experience was a traditional capstone project. Numerous faculty members who had come to the program within the previous five years raised concerns about the rigor of the capstone. The capstone project had become, in some faculty members' estimation, a functional process of certification that defied the type of meaningful learning that could occur within a graduate-level education. Thus, many faculty members felt that the details of the jury rubric added a sense of rigor to the program that had been previously missing. Other faculty members accepted the cumbersomeness of the rubric because they hoped that it would obligate faculty members to take the task of assessment of juries more seriously.

To a large extent, this case description so far illustrates that faculty members themselves were engaged in a type of collaborative discovery process to determine what juries would be within the ID< program. To summarize, the result of the deliberations show that juries should culminate in a portfolio that students worked on throughout their time in the program. These portfolios were to be developed by students in consultation with their advisor. Juries were decentralized in that they were not a public event in which students shared their portfolios with other students. Rather, students worked individually through the process of creating a portfolio for Jury #1, receiving feedback and revising for Jury #2, and then receiving additional feedback and revising for Jury #3. Faculty members judged the final jury to determine whether or not students had demonstrated proficiency

TABLE 2. Rubric for juries, circa 2004.

GOAL	EXPERT (4 POINTS)	PROFICIENT (3 POINTS)	DEVELOPING (2 POINTS)	BEGINNING (1 POINT)	NOT ADDRESSED (0 POINTS)
Demonstrates understanding of various theories and concepts that inform the practice of instructional design and learning technologies (ID&LT).	Connects relevant and appropriate theory to design practices.	Provides connection of relevant and appropriate theory to design practices, but lacks clarity of expert work.ED	Provides partial connection of relevant and appropriate theory to design practices.ED	Provides a weak connection of relevant and appropriate theory to design practices.ED	Provides no connection of relevant and appropriate theory to design practices.ED
	Explains clearly, substantively, and appropriately connections between theory and practice.	Provides explanation or appropriate connection between theory and practice, but lacks the clarity of expert work.	Provides partial explanation or appropriate connection between theory and practice.	Provides a weak explanation or appropriate connection between theory and practice.	Provides no explanation or appropriate connection between theory and practice.
Employs appropriate models for design and development of instruction, learning environments, and/or human performance improvement interventions.	Establishes a clear problem and/or opportunity and justifies the design and development of materials and/or processes as an appropriate strategy to solve the problem or take advantage of the opportunity.	Establishes a problem and/or opportunity and sufficiently justifies the design and development of materials and/or processes as an appropriate strategy to solve the problem or take advantage of the opportunity, but lacks the clarity of expert work.	Partially establishes a problem and/or opportunity and partially justifies the design and development of materials and/or processes as an appropriate strategy to solve the problem or take advantage of the opportunity.ED	Weakly establishes a problem and/or opportunity and weakly justifies the design and development of materials and/or processes as an appropriate strategy to solve the problem or take advantage of the opportunity.ED	Problem and/or opportunity are not established and justification of their design and development of materials and/or processes as an appropriate strategy to solve the problem or take advantage of the opportunity is omitted.
	Justifies and defends design decisions based on established models and/or project-based contextual factors that dictate the need to not follow a prescribed model.	Justifies and defends design decisions based on established models and/or project-based contextual factors that dictate the need to not follow a prescribed model, yet justification and/or defense lacks the clarity of expert work.	Partially justifies and defends design decisions based on established models and/or project-based contextual factors that dictate the need to not follow a prescribed model.	Weakly justifies and defends design decisions based on established models and/or project-based contextual factors that dictate the need to not follow a prescribed model.	Fails to justify or defend design decisions based on established models and/or project-based contextual factors that dictate the need to not follow a prescribed model.

TABLE 2 (CONTINUED)

GOAL	EXPERT (4 POINTS)	PROFICIENT (3 POINTS)	DEVELOPING (2 POINTS)	BEGINNING (1 POINT)	NOT ADDRESSED (0 POINTS)
Demonstrates skills with various media and other tools typically used in the development and deployment of learning and/or performance improvement technologies.	Uses a broad range of media and other tools effectively and appropriately to create interactive learning environments and/or compose, develop, or revise materials to promote efficiency in human performance or learning.	Uses a variety of media and other tools adequately to create interactive learning environments and/or compose, develop, and revise materials to promote efficiency in human performance or learning, but lacks the clarity of expert work.	Uses a few media and other tools to create interactive learning environments and/or compose, develop, and revise materials to promote efficiency in human performance or learning, but needs vast improvement in this area to demonstrate proficiency.ED	Uses very few media and other tools to create interactive learning environments and/or compose, develop, and revise materials to promote efficiency in human performance or learning.ED	Fails to use media and other tools to create interactive learning environments and/or compose, develop, and revise materials to promote efficiency in human performance or learning.
Demonstrates critical, reflective, and metacognitive thinking.	Reflects on their own design processes by discussing how they will use "lessons learned" in their future design endeavors. Analyzes how the processes used in creating various artifacts has contributed to their own development as an ID< professional. Describes how their experiences in the ID< program has resulted in their own development as "educated" people.	Satisfactorily reflects on their own design processes by discussing how they will use "lessons learned" in their future design endeavors but lacks the clarity of expert work. Satisfactorily analyzes how the processes used in creating various artifacts has contributed to their own development as an ID< professional, but lacks the clarity of expert work. Satisfactorily describes how their experiences in the ID< program has resulted in their own development as "educated" people, but lacks the clarity of expert work.	Partially reflects on their own design processes by attempting to discuss how they will use "lessons learned" in their future design endeavors.ED Partially analyzes how the processes used in creating various artifacts has contributed to their own development as an ID< professional. Partially describes how their experiences in the ID< program has resulted in their own development as "educated" people.	Weakly reflects on their own design processes by weakly discussing how they will use "lessons learned" in their future design endeavors.ED Weakly analyzes how the processes used in creating various artifacts has contributed to their own development as an ID< professional. Weakly describes how their experiences in the ID< program has resulted in their own development as "educated" people.	Fails to reflect on their own design processes by omitting discussion about how they will use "lessons learned" in their future design endeavors.ED Fails to analyze how the processes used in creating various artifacts has contributed to their own development as an ID< professional. Fails to describe how their experiences in the ID< program has resulted in their own development as "educated" people.

TABLE 2 (CONTINUED)

GOAL	EXPERT (4 POINTS)	PROFICIENT (3 POINTS)	DEVELOPING (2 POINTS)	BEGINNING (1 POINT)	NOT ADDRESSED (0 POINTS)
Demonstrates critical, reflective, and metacognitive thinking. (continued)	Connects design decisions and other professional practices within the ID< program to their own emerging philosophy surrounding issues in the field.	Satisfactorily connects design decisions and other professional practices within the ID< program to their own emerging philosophy surrounding issues in the field, but lacks the clarity of expert work.	Partially connects design decisions and other professional practices within the ID< program to their own emerging philosophy surrounding issues in the field.	Weakly connects design decisions and other professional practices within the ID< program to their own emerging philosophy surrounding issues in the field.	Fails to connect design decisions and other professional practices within the ID< program to their own emerging philosophy surrounding issues in the field.
Demonstrates professionalism and effective collaboration.	Contributes productively to group-based design projects by showing a willingness to listen to other's ideas and by extending professional courtesy and respect to others.	Satisfactorily contributes productively to group-based design projects by showing a willingness to listen to other's ideas and by extending professional courtesy and respect to others, but lacks maturity of expert group interrelations.	Partially contributes productively to group-based design projects by showing a willingness to listen to other's ideas, but is more interested in his/her own ideas and by extending professional courtesy and respect to others.	Weakly contributes productively to group-based design projects by being only mildly willing to listen to other's ideas and by extending professional courtesy and respect to others on a limited basis.	Fails to contribute productively to group-based design projects by declining opportunities to listen to other's ideas and by not extending professional courtesy and respect to others.
	Demonstrates a contribution to the knowledge and success of individual classmates and/or professors as well as the success of the SIUE ID< learning community.	Demonstrates a contribution to the knowledge and success of individual classmates and/or professors as well as the success of the SIUE ID< learning community, but contributions lack the clarity of expert work.	Demonstrates a partial contribution to the knowledge and success of individual classmates and/or professors as well as the success of the SIUE ID< learning community.	Demonstrates a weak contribution to the knowledge and success of individual classmates and/or professors as well as the success of the SIUE ID< learning community.	Fails to demonstrate a contribution to the knowledge and success of individual classmates and/or professors as well as the success of the SIUE ID< learning community.
	Articulates a plan for their own continual professional development.	Articulates a satisfactory plan for their own continual professional development, but lacks the clarity of expert work.	Articulates a partial plan for their own continual professional development.	Articulates a weak plan for their own continual professional development.	Fails to articulate a plan for their own continual professional development.
Demonstrates competence in the appropriate normative standards of the discipline as specified by recognized professional organizations or agencies. (See NCATE Technology Facilitator standards, ISTE-NETS for Teachers, or other standards documentation to determine student success.)					

in their work. There are elements here, then, of both process and product. As will be seen in this case, though, various faculty members were not interpreting the processes and products in similar ways.

Implementation

A minority of the faculty members aggressively voiced the view that, while the idea of juries was excellent, the plan for implementation was too generalized to create a meaningful system in which students could use juries to bolster their learning. Still, a majority of the faculty members were comfortable with the plan; thus, in 2005, juries were implemented.

Faculty members quickly realized that they were not all of one accord with regards to either jury products or processes. In terms of jury products, for instance, some of the students' juries included dominant narratives of considerable length, as the centerpieces of the e-portfolios. In these cases, supporting artifacts from coursework were supplemental and supportive of the narratives. Other juries, however, were quite light on narrative and mostly constituted applied projects that had been completed and graded as part of the student's coursework. In these cases, the narrative might be a mere paragraph that only provided context for the course assignment. Still, other juries presented a balance between narratives written as a part of the jury process and projects completed during coursework. These contrasts provided clear evidence that faculty members had envisioned very different types of portfolios from students. Reconciling these differences was difficult: When any one faculty member would argue in response to this evidence that the juries should be a culminating display of coursework, another faculty member would raise questions about the ethics of re-assessing as a capstone those products that had already earned credit as part of a class grade. In what sense, some faculty members asked, is turning in work completed in discrete courses indicative of a culminating capstone?

In terms of process, some advisors would work with students through multiple revisions before the jury was passed on to the full committee while other faculty members "signed off" on jury drafts from students without providing the student with any preliminary feedback and requests for revision. In fact, some faculty members were so *laissez-faire* in their approach that students occasionally would get to the end of their coursework having not yet completed Jury #1. In other instances where Jury #1 was completed and passed on to the full committee, some committee members would provide careful feedback that served as a guide to students on their subsequent jury efforts, while other faculty members provided generalized feedback. In one instance, in approximately 2006, one faculty member offered a student two, single-spaced typed pages of feedback on her Goal #1 narrative for her Jury #1; another faculty member's

feedback on that same narrative was, in its entirety, "You have discussed three different theories. On Jury #2, add more theories." Tensions were raised when the faculty member who had provided detailed feedback—an untenured assistant professor—pointed out that the two-sentence feedback was meaningless toward helping the student revise for a subsequent jury. That feedback, the faculty member argued, was so generic that it could be copied and pasted as feedback on most any Goal #1 narrative written by any student. In opposition, faculty members who offered students more detailed feedback regularly were chastised by the Chair of the department and the ID< Program Director. On one occasion, the Chair, a tenured, full professor, waived detailed printed feedback in an untenured faculty member's face and declared, "You must stop this."

Beyond the issue of quality feedback differentials, some faculty members would rate each narrative as "proficient," even on a Jury #1. This raised the question of the value of three juries as a developmental process throughout which student improvement would occur. That is, if a student's Jury #1 was "proficient," then what was the point of asking those students to revise for Jury #2 and #3? In one meeting where a faculty member asked this question, other faculty members were stumped in providing an answer. Clearly, faculty members did not have a shared vision of juries and their implementation. An and Wilder (2010) note that the lack of a shared vision with regard to e-portfolios is highly problematic, for without a shared vision and endorsement of process by faculty members, students will neither be able to demonstrate their skills nor provide evidence of their knowledge.

Iterations Toward Refinement

Between 2006 and 2012, numerous changes occurred in the program, including a name change from "Instructional Design and Learning Technologies (ID<)" back to "Instructional Technology (IT)." Furthermore, when juries were implemented in 2005, the program had six full-time faculty members. By 2012, there were three. With regards to juries, faculty members considered the many problems that became apparent during the initial implementation. Revisions made in response to these problems were not the result of proactive and systematic improvement efforts. Rather, revisions were made reactively as a method of resolving the most pressing concerns. Some of these revisions that occurred during this six-year span included (a) reducing the number of juries from three to two, (b) crafting a more robust explanation of juries within the program's student handbook, (c) creating a clearer "jury guide" that provided instructions for students, and (d) providing students with broader options than building their website from scratch and FTPing it to the university server. For instance, many students began using websites like BlogSpot, Google Sites,

REVISED PROGRAM GOALS
GOAL 1: Demonstrates understanding of various theories and concepts that inform the practice of instructional technology.
GOAL 2: Employs appropriate approaches for envisioning, designing, producing, and evaluating a variety of design projects.
GOAL 3: Demonstrates critical, reflective, and metacognitive thinking.
GOAL 4: Contributes productively to group-based design projects by showing a willingness to listen to other's ideas and by extending professional courtesy and respect to others.
GOAL 5: Demonstrates a plan for continued professional development.

TABLE 3. Revised program goals, 2012.

or WIX. In what follows, two changes will be discussed in depth.

Revision of program goals

By 2012, the goals had been revised and tightened in an effort to make them less cumbersome (see Table 3). The first goal was divided into two sub-goals of (a) understanding the theory and (b) applying the theory to one's own work.

The second goal was divided into four sub-goals, one each for envisioning, designing, producing, and evaluating. This created, in essence, a total of nine goals and sub-goals that students had to address, which was a reduction from the previous iteration of twelve.

With these revisions to the goals, the rubric was abandoned in favor of a simple judgment guide that did not include detailed descriptors for expert, proficient, developing, and beginning levels of achievement. Rather, those single-words stood alone as quality descriptors. Table 4 shows the judgment guide that replaced the rubric. This was not as radical of a shift as it may sound, as faculty members came to realize that the descriptions in the rubric sometimes were essentially the same, except for single-word modifiers. For example, the difference between a description of "developing" and "proficient" levels of achievement might have been as simple as a change in the word "sometimes" to "consistently." In other words, faculty members came to the conclusion that the detailed rubric descriptions were, in some ways, already single-word descriptions of performance. In addition to simplifying assessment, faculty members hoped that the change from a rubric to a judgment guide might free students to be more creative within their portfolios. Ford (2002) has noted that, particularly in online contexts, rubrics can reinforce students' tendency to turn in "mechanical" work (p. 78). Moreover, An and Wilder (2010) have noted that the value of portfolios only can be realized when their implementation allows students the psychological space for creative artifact selection, integration of personalized

		EXPERT	PROFICIENT	DEVELOPING	BEGINNING	NOT ADDRESSED
PROGRAM GOAL						
GOAL 1: Demonstrates understanding of various theories and concepts that inform the practice of instructional technology (IT).	Sub-goal 1					
	Sub-goal 2					
GOAL 2: Employs appropriate approaches for envisioning, designing, producing, and evaluating a variety of Design projects.	<u>Envision:</u>					
	<u>Design:</u>					
	<u>Produce:</u>					
	<u>Evaluate:</u>					
GOAL 3: Demonstrates critical, reflective, and metacognitive thinking.						
GOAL 4: Contributes productively to group-based design projects by showing a willingness to listen to other's ideas and by extending professional courtesy and respect to others.						
GOAL 5: Demonstrates a plan for continued professional development.						

TABLE 4. The judgment guide.

experience, and reflection. Faculty members hoped that the less restrictive judgment guide provided that space.

Detailing of advisor's responsibilities

The first few years of jury implementation revealed the need for a strong process as the advisor and student work together to solidify the content for each jury. In fact, a 2010 university program review team made a clear recommendation as a part of their evaluation of the Program: "Create a more uniform structure for advising students prior to the jury stage." Certainly, faculty had made some efforts between 2005 and 2010 to improve advising processes, but as a result of the recommendation, faculty created an internal policy that solidified standards toward which the advisor must aim. For instance, the policy dictated that advisors should not allow Jury #1 to be submitted to the larger committee until that advisor felt the student had earned a "beginning" level of achievement on each of the narratives. If the advisor could not rate each narrative as "beginning," then it was incumbent upon the advisor to continue working with the student toward improving the quality of the narratives. Furthermore, the policy designated some courses as "Phase 1" and others as "Phase 2." If a student had not submitted Jury #1, the internal policy dictated that the advisor should not allow that student to enroll in Phase 2 coursework. Similarly, with Jury #2, the advisor was not to forward the jury to the full committee until the advisor felt the student had met a level of "proficient" on each narrative. This shift fundamentally changed the process of juries. Often, the process required multiple cycles of feedback from the advisor and revision by the student. Some faculty objected to what they perceived as a more cumbersome process, and others simply ignored the internal policy that they had agreed to; still, some faculty members felt that additional cycles of feedback and revision

both improved the quality of student work and bolstered student thinking, learning, and attention to detail.

From There to Where: The Need for Formal Evaluations

As can be seen, the establishment and development of juries within the program was both political and contentious among faculty members. Ironically, by 2012, the faculty member who had introduced the idea of juries to the program was ready to abandon them in the name of an applied capstone project—a return to the pre-2005 program requirements. Conversely, a faculty member who was an outspoken critic of the jury plan in 2004 was, by 2012, the strongest advocate for juries.

In an effort to gain deeper insight into the usefulness of juries as a learning innovation, faculty members conducted two evaluations. The first was based on student surveys and the second on student interviews. These evaluations were not meant to achieve levels of empirical rigor that would be suitable for publishing as pure research. In fact, when each evaluation was conducted, faculty members had no inclination to publish the results or discuss them publicly. Rather, the point was to create programmatic evaluation data that could support additional program innovation. The next two sections of this paper present the evaluations. After that, this paper describes how those evaluations motivated additional efforts to improve juries.

EVALUATION #1: STUDENT SURVEYS

Evaluation Overview and Results

Faculty members created an online questionnaire that students completed by logging into a secure website. The questionnaire began by asking students about their status

	NUMBER OF RESPONSES FOR EACH CHOICE					DESCRIPTIVE STATISTICS	
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Standard Deviation
ITEM #2: I think that I have a reasonable understanding of the jury process	0	7	3	9	1	3.2	1.01
ITEM #3: I have discussed my jury 1 with my advisor	2	6	2	8	2	3.1	1.25
ITEM #4: I have read what the IT Student Handbook says about jury 1	0	0	0	7	13	4.65	0.49
ITEM #5: Based on everything that I know about juries, I think that completing a jury will be a meaningful learning experience	0	4	5	11	0	3.35	0.81

TABLE 5. Survey questions for students who had not yet submitted a jury.

with regard to completing a jury—had they (a) not finished Jury #1, (b) not started on Jury #2, (c) actively worked on Jury #2, or (d) submitted Jury #2. Thirty-three students answered this question about their status in completing juries. Of those 33 students, 21 had not yet submitted their first jury. Thus, they were branched to the five-point Likert-scale items shown in Table 5. The remaining 12 students had submitted their first jury, so they were branched to the Likert-scale items shown in Table 6. As can be seen from Tables 5 and 6, not all students who answered the first item answered subsequent items, as Table 5 has an N of 20, and Table 6 has an N of 10.

The end of the survey solicited open-ended responses. Those comments provided mixed opinions of juries, though the comments did overall seem more negative than positive. In terms of a positive comment, one student wrote:

"I am happy with what I learned through the process. To me, that is what really matters. My advisor was fantastic and provided me with guidance during every step of the process. . . . And every time I submitted my narratives, he would write back with his comments that always made me think more and made me look for additional information to support my thoughts."

As an example of a negative comment, one student wrote the following:

"The jury process is flawed and beyond repair. It provides no legitimate use to students and serves as a completely unnecessary roadblock to students graduating from this program. . . . [O]nce students submit juries, faculty members go well out of their way to ask for revisions they did not ask for previously. They should only be allowed to ask for revisions twice and not continue to go out of their way to

	NUMBER OF RESPONSES FOR EACH CHOICE					DESCRIPTIVE STATISTICS	
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Standard Deviation
ITEM #6: Completing a jury caused me to think deeply about myself as a student and my experiences in the IT program.	3	0	1	5	1	3.1	1.52
ITEM #7: Completing a jury caused me to think deeply about how theories, concepts, and models are applied in the practice of Instructional Technology.	2	1	0	4	3	3.5	1.58
ITEM #8: Completing a jury caused me to think deeply about my future career plans and goals	2	1	1	5	1	3.2	1.4
ITEM #9: I felt as if my advisor was a useful mentor during the jury process.	1	0	3	3	3	3.7	1.25
ITEM #10: I received useful feedback from my advisor that caused me to think deeply about my jury portfolio.	1	0	2	5	2	3.7	1.16
ITEM #11: The jury process was meaningful to me	3	1	1	2	3	3.1	1.73
ITEM #12: If the IT program wants to best help me learn, then the program should abandon its current use of juries and require a thesis or a larger "final project" (i.e., a more detailed project in the final field experience or design studio)	1	1	3	3	2	3.4	1.26
ITEM #13: I enjoyed the jury process.	3	2	3	2	0	2.4	1.17

TABLE 6. Survey questions for students who had submitted a jury.

"find" things wrong . . . This wastes the students' time . . . Quite frankly, the jury process is completely full of it . . ."

Faculty Members' Consideration of the Results

Two of the three faculty members took solace in some of the results. For instance, as shown in Table 6, 60% of the respondents found that juries made them think deeply about themselves as a student and their experiences in the program (item #6); 70% found that it caused them to think deeply about theories, concepts, and models and their application to design (item #7); and 50% found the juries to be meaningful (item #11). On the face of it, these results may not seem impressive, but the two faculty members who viewed these data positively pointed to the fact that, as noted earlier in this article, past efforts to improve juries had been non-systematic and reactionary. Given that context, these two faculty members argued, the survey results seemed to show potential in juries, if only faculty members would take steps to systematically improve design and implementation.

For the remaining faculty member, a single item was damning of juries. As can be seen in Table 6 (item #12), 50% of students either agreed or strongly agreed that the IT program should abandon juries and, instead, require a thesis or a capstone project. Discussion over this item was lively, with two opposing points being made. First, 30% of students were neutral (neither agreed nor disagreed) on this item, which meant that 50% either were neutral or disagreed with the item. Second, faculty members noted that this item was the most hypothetical of them all, as students had not experienced either a thesis or a capstone project.

While there was a clear majority view among faculty members, the decision was made to share the evaluation results with a school-wide taskforce that had been charged by the Dean with counseling the IT program. Faculty members wrote two questions to guide the discussion with the taskforce and to focus the taskforce's advice on addressing issues that divided the IT faculty members:

Do the data that you see within the student survey about juries support a perspective that juries are not viable and should be replaced by other capstone types?

Do the data that you see within the student surveys about juries support the view that students see juries as an "artificial barrier"?

During the taskforce meeting, the IT faculty member who urged for the ending of juries expressed numerous views about the problems of juries, including the fact that juries served as a barrier that kept students from moving forward in their coursework. This barrier, the IT faculty member

argued, was hurting enrollments. One of the taskforce members responded by noting that *all* work that we ask students to do could be perceived as this type of barrier. Another taskforce member noted that, in fact, the program was growing in numbers of students; thus, there did not seem to be the negative impact on enrollment that was implied. In sum, the taskforce suggested that a decision to end juries as a part of the program should not be made on the basis of a single evaluation item, or even the cumulative results of the evaluation. The taskforce recommended that the IT faculty members begin systematic efforts to revise and improve juries while simultaneously conducting an additional evaluation that might elicit even richer data.

EVALUATION #2: STUDENT INTERVIEWS

This second evaluation was based on student interviews. Once again, the point continued to be on the collection of data for program improvement, not for demonstrating empirical rigor. Interview questions were based on the results of the first evaluation. The interview questions are shown in Table 7. Eight current and former students were selected for interviews. The current students interviewed were in various stages of the program with some working on Jury #1 while others were working on Jury #2. These eight interviewees were selected based on their reputation for offering fair and honest feedback on past evaluations. In plain language, they were people who could be counted on to tell the truth as they saw it.

INTERVIEW QUESTIONS

When you look back on your own experience doing juries, what problems did you encounter? What went well? What could the program do to avoid the types of problems you encountered and maximize the types of things that went well?

What strategies would you like to see with regard to interaction with your advisor on your jury work? How could your advisor better help you achieve self-direction, meaningfulness, self-examination, and creativity?

Faculty members want juries to be a meaningful experience that encourages students to think deeply, critically, and creatively about their own work. What can faculty do to make juries more of a meaningful experience?

Faculty members want juries to better help students see themselves as professional designers. What needs to happen with the jury process to help students see themselves as professional designers?

Is there anything else you would like to share about your experiences with juries?

TABLE 7. Interview questions.

Results

In summary, interviewees found some value and benefit to juries, but that value was tempered by concerns over the ways that juries were implemented. Three specific themes emerged from the interviews.

Theme 1: Feeling lost early in the process

Two different participants used the word “scary” to describe initial feelings associated with juries. Others used the language of feeling “lost,” experiencing “confusion,” being “in the dark,” and “floundering.” One participant recounted initial thoughts about juries: “What is a jury supposed to look like? What are we supposed to do?” Another had a similar experience: “When preparing for the first jury, the trouble was I had no idea where to begin . . . or what [a jury] should look like.”

Participants offered numerous solutions for alleviating the fear and confusion. More than one participant commented on the need for example portfolios that could serve as models. Another noted that an “up-front orientation” would have been useful. The participant suggested that this orientation might include discussing the jury guide, providing examples of artifacts, and clarifying what the faculty members want in a jury.

Theme 2: Disconnect from authentic projects

Five of the eight students expressed disconnect between juries and authentic design experiences. One participant suggested that “having a project or case study to work on would be more helpful.” Another said that faculty should “assign a design project as part of the jury process.” This idea was echoed in that another participant noted the need for real-world projects to reflect on. This participant elaborated by noting that juries required the synthesis of literature, such as when defining theories; this type of literature synthesis, the student noted, felt too academic and not practical.

Three participants noted that addressing this disconnect might simply be a matter of revising the jury goals. One participant noted that the more valuable jury prompts “really get you to focus on the process [within a real-world project] and how you think about [that project].” Another participant noted that the goals are written in a way that creates artificiality in discussing design projects. As an example, the student asked, “What’s the difference between envisioning and designing?” The student’s point was that the wording of Goal #2 (as shown in Table 3) distinguishes among phases of envisioning, designing, producing, and evaluating, whereas, in design projects completed within students’ design studios, field experiences, and other courses, the phases are not discrete.

Theme 3: Interaction with advisors

Several participants said that advisor feedback was informative and useful. However, *each* of the eight participants expressed that all advisors do not provide the same depth and quality of interactions and feedback. As one participant noted, “My advisor was instrumental in the success of my portfolio; [therefore], juries were a meaningful and powerful experience. However, all advisors are not as interactive with students.” Another participant echoed this sentiment by expressing the need for “more back-and-forth communication” with the advisor. Yet another student agreed, noting that his/her advisor was “not very proactive,” but only “reactive”: “I never met once with my advisor. Other students talked about being on the phone with their advisor, but I did not get that from my advisor. I was told that everything was in the handbook.”

Faculty Members’ Consideration of the Themes

One faculty member saw the interview results as a further reason for ending juries. Two faculty members saw the interview results as a further validation of the view that, with systematic improvements, juries could be a more meaningful program innovation. In fact, these two faculty members put forth their perspective by noting an interactive relationship among the themes: If faculty members did a better job in their advising role (theme 3), students might then have a better understanding of juries early in the process (theme 1), and better see the connection between juries and authentic design work completed within their courses (theme 2).

With regards to the relationship between theme 1 and theme 3, it should be noted that advisors were expected to have an initial orientation meeting with students when they first enter the program. This expectation was solidified in the earlier-described policy that delineated advisor responsibilities within the context of juries. When conducted well, this initial orientation meeting begins the process of students understanding the nature of juries and the expectations within both jury processes and products. Stronger interaction with the advisor, then, might better prevent the initial fear and confusion that participants experienced. Furthermore, stronger interactions set a tone of support for high standards in student learning. Such a tone and its importance are commonly discussed as being important within higher education (see, for instance, Bain, 2004; Hagopian, 2013).

In terms of the relationship between theme 2 and theme 3, some faculty members’ advising experiences suggest that mentoring students in the jury portfolio creation process is not a matter of merely discussing drafts of pre-written narratives and narrowly focusing on the portfolio as a product. Rather, through organic discussion, advisors can help students realize additional connections between juries and course projects completed in, say, a design studio. Collaborative playfulness and free exploration can allow

professors to guide graduate students' thinking toward richer and more substantive jury content. When an advisor engages a student in seeing through this lens of connection between coursework and juries, students are provided with new ways of understanding juries as a process of rethinking their authentic design experiences.

RESPONDING TO THE EVALUATIONS FOR SYSTEMATIC IMPROVEMENT

Armed with data from the two evaluations, faculty members invested themselves in a systematic process of continuous improvement, focusing on both conceptual and practical revisions to jury expectations and processes. Faculty members began by revising the program goals. Using the new goals as a driving force, faculty members made efforts to scaffold their own knowledge and skill, as well as that of their students.

Revision to Program Goals

The program goals were revised in 2013 and implemented in January of 2014. Table 8 lists the revised goals. A change in the order of the goals is purposeful. Notice that in the previous goals (i.e., Table 3), Goal #1 asked students to address theories and concepts that guide design, while Goal #2 asked students to discuss their projects. The revision (i.e., Table 8) reversed those two goals. Thus, students begin their jury portfolio by discussing the lifecycle of their applied projects. Within the new jury guide, the point is made that the remaining three goals should connect back to Goal #1. Each jury narrative, then, connects to students' applied projects. The hope in this revision is that students would better be able to see the connection between juries and authentic design projects. In total, these revisions eliminated all sub-goals; thus the revised scoring guide that faculty used to mark their judgments of each jury was even more simplified (see Table 9).

REVISED PROGRAM GOALS

GOAL 1: Employs appropriate techniques and processes throughout design project lifecycles.

GOAL 2: Demonstrates understanding and application of theories and/or concepts that inform design practices.

GOAL 3: Envisions the impact of an M.S.Ed. in Instructional Technology on your future.

GOAL 4: Expresses a sense of self-awareness.

TABLE 8. Revised program goals, 2014.

Other revisions were made to promote flexibility in the jury prompts and thus give students more control over jury content. There are several examples of this increased flexibility, but one is of particular importance. The previous iteration of the goals required students to discuss their design projects in light of efforts to envision, design, produce, and evaluate (EDPE). EDPE was meant to be a generic "catch all" that could encapsulate any design project. Students often interpreted that goal more denotatively and forced their discussion of projects under headings of E, D, P, and E. This sometimes created artificiality in students' narratives. The new goals no longer refer to EDPE; rather, they refer to the unfolding "lifecycle" of a project. Therefore, a student who used, say, a specific design model or a rapid prototyping approach might no longer feel the need to force the discussion of that project into EDPE but could, instead, use headings indigenous to the model or approach that she/he actually used.

Not only did faculty members revise the goals themselves, but also they revised the contextual framing for juries. One way they did this was by reframing the way that students should think about juries: "Your jury portfolio is about *you*—your journey as a designer in this program, and how that journey will lead to a viable future." Faculty members crafted

PROGRAM GOAL	EXPERT	PROFICIENT	DEVELOPING	BEGINNING	NOT ADDRESSED
GOAL 1: Employs appropriate techniques and processes throughout design project lifecycles.					
GOAL 2: Demonstrates understanding and application of theories and/or concepts that inform design practices.					
GOAL 3: Envisions the impact of a M.S.Ed. in Instructional Technology on your future .					
GOAL 4: Expresses a sense of self-awareness.					

TABLE 9. The revised judgment guide.

- As the prompt for this narrative notes, you should pick projects that have been meaningful to you. Find ways to weave into your narrative the reasons that the project was meaningful. This adds personality and uniqueness to your narrative.
- While the criterion is to pick projects that have been meaningful to you, you should consider showing diversity in what “design” means to you through the projects that you have selected. Demonstrate that you have had broad experiences with design.
- You likely cannot show us the “lifecycle” of your project by only giving artifacts that are your end results (i.e., the final draft of a project or its documentation). “Lifecycle” is shown mostly through direct references to process-based artifacts: storyboards, objectives, scripts, assessment approaches, outlines, excerpts from rough drafts, evaluation plans, proposals, interview or survey data, discussion board postings, and other artifacts that get at process, not just products.
- Show us the non-linearity of your design process: Take us to the dead ends you reached, your missteps, your “back ups and start overs,” your trial and error approaches, etc. Make each project a story of the life-cycle as you really lived it, not an artificial “telling” of an idealistic design experience.
- Write about the lifecycle as if you were taking a reader on a “journey” through the project. One possibility is to write as if you were trying to lead a more junior designer through your thinking about design projects. Or, you might take a tone as if you are in a job interview and trying to describe your approach to a hiring manager.
- Providing your readers with insights into rational and model-driven techniques that you used is important. Do not discount, however, more whimsical aspects of your project’s lifecycle. Consider the following possibilities (but certainly there are many beyond this list) as factors that might have influenced your project:
 - Interaction with others (e.g., your best friend as you lamented about how hard graduate school is; off-the-cuff comments from a professor or classmate)
 - Collaboration in discussion boards with other designers
 - Imagination
 - Creativity
 - Spirituality
 - Mean spiritedness
 - Empathy
 - Hobbies and interests
 - Luck and fortuity
 - Misfortune and failure
 - Playfulness
 - Daily experiences (e.g., being stuck in rush hour traffic)

TABLE 10. Suggestions for creating substance and meaningfulness within Goal #1.

- How have you changed as a designer over the course of completing your design projects?
- How has your approach to design changed throughout the completion of these projects—from earliest to most recent?
- What have been your “ah ha” moments about yourself, your designs, and/or your own approach to learning within the completion of the course projects?
- In what sense have you matured as a creative thinker? How do your projects evidence that maturity?
- In what sense have you matured as a design thinker? How do your projects evidence that maturity?
- In what sense have you matured as a learner? How do your projects (perhaps combined with other experiences in the program) evidence that maturity?
- In what sense have your personality, values, beliefs, or other characteristics enhanced (or detracted from) your ability to design well?
- In what sense have your designs and projects had an impact (either positive or negative) on you personally and/or professionally—consider the value of discussing a broad range of impact: intellectual, aesthetic, spiritual, and/or emotional?
- What do you have to share about your journey through this program that has a sense of tension to it? (How can you be provocative? Intriguing? Complex?)
- How have you become more mature as a collaborator and/or team member? One possible angle within this question might be to consider the extent to which you’ve become more accepting of difference among individuals (e.g., cultural, racial, gender-based, or personality differences).
- How have you matured in your communication skills?
- How have your experiences in one course (or studio or field experience) influenced your experiences in a second course to change your thinking? (Showing that you are thinking across courses—that there is an evolution to your thinking—is one way to create depth in what you have to say.)
- How can you add a sense of humanity to earlier narratives in your portfolio by sharing the way that you think about your own work?
- How do you feel violated by this program? In what sense has this program robbed you of meaningful aspects of your personality, design sensibility, etc.? How has this program made you a worse human being?
- What is your best critical critique of your work? For instance, how do you think your work would be received by a hiring manager or professor in another IT program? What does this critical critique suggest about you as a designer?

TABLE 11. Probing questions to prompt student thought about Goal #4.

this new introduction to the jury goals to help students better connect their experiences “in the program” to their “future” in the real world of design; in so doing, faculty felt that they were responding to the theme of disconnection between juries and authentic design projects.

Another way that faculty revised the contextual frame for juries was by creating a series of “Suggestions and Guidance” documents—one for each jury goal. Important is the wording of “suggestions and guidance,” as opposed to, say, “a checklist of requirements.” Each document announced that students were “free to ignore everything within this document and, instead, find a sense of substance in [their] work in [their] own way.” While not requirements, these documents were meant to provide students with a functional “starting point” for drafting or generating ideas that they want to discuss with their advisor.

In some cases, the guidance came in the form of bulleted lists for student consideration. For instance, Table 10 shows the faculty members’ suggestions for “creating substance and meaningfulness” within Goal #1 narrative. Often the guidance came in the form of questions designed to elicit thought. For instance, Table 11 lists probing questions that should prompt student thought about Goal #4 narrative.

Faculty Scaffolding of Understanding and Skill

The evaluation results described earlier made it clear that faculty members needed to improve in their role as advisors. Frankly, based on the survey results, faculty members felt that some positive strides had been made in advising. As can be seen in Table 6 (item #10), 70% of students agreed or strongly agreed that they had received useful feedback from their advisor. The results of the interviews, however, seemed less positive, illustrating that not all faculty members were engaged strongly in mentoring and counseling students. Redish, Webb, and Jiang (2005-2006) note that strong faculty member commitment in assisting students throughout portfolio development made a difference in the quality of student work. Similarly, Scanlon and Ford (1998) argue that a professor’s interaction with students, while they are developing portfolios, is essential to success. To improve their commitment to juries and advising skills, faculty members have engaged in both informal and formal professional development.

Discussions of jury goals and criteria

As faculty members crafted the jury goals shown in Table 8, they discussed the wording of the criteria for assessing each goal. The discussions emphasized the fact that, because the new jury goals are more open-ended, students have more room to pursue their own ideas without needing to conform to faculty expectations so strictly. For instance, one discussion among faculty members focused on the goal that asks students to express a sense of self-awareness (i.e.,

Goal #4 in Table 8). Discussion ensued about why that goal was important. How is that goal different from the previous iteration of goals (i.e., in Table 3) that required students to “demonstrate critical, reflective, and metacognitive thinking”? What do faculty members expect to see within that goal’s narrative? Occasionally, these discussions led to concrete answers. Often, though, they merely served as an opportunity to broaden faculty members’ collective understandings of the goals and the myriad ways of proficiently fulfilling a goal.

Jury norming sessions

Once several students had used the new goals as the basis of their jury portfolio, faculty members held a series of “norming sessions” that were designed to help faculty (a) consider the type of feedback that they would give to students and (b) “norm” their judgments in rating narratives. To prepare for these sessions, faculty members reviewed a selected student narrative. During the norming sessions, open-ended questions guided the discussion about that narrative: If you were the student’s advisor, what feedback would you give to help him/her improve the narrative? If you were judging this narrative on the scale from “not addressed” through “expert,” what rating would you give it and why? These norming sessions are new to the repertoire of faculty development efforts, but a majority of faculty members have already indicated that the norming sessions are particularly meaningful. At least one faculty member has used his own notes taken during a norming session to guide some of his commentary on jury narratives.

Student Scaffolding of Understanding and Skill

Both evaluations demonstrated that students need an earlier understanding of juries. This clear message from students led faculty members to create scaffolds to orient students to jury processes and products. Redish, Webb, and Jiang (2005-2006) orient students to the portfolio requirements within their program through a three-hour workshop. In this workshop, students are introduced to web design software (e.g., Dreamweaver) and are given a template for their individual portfolios. While such an approach can be valuable, the faculty in the IT program felt that it further separated juries from the experience of being a student in the program. Therefore, faculty decided to scaffold students’ understanding by making juries part of the curriculum to be studied. Also, faculty developed numerous just-in-time support materials.

Integrating the jury concept into a first-year course

Faculty members revised the “Principles of Instructional Technology” course. Moving away from merely a functional survey of broad historical and theoretical doctrine, the course has become an introduction to graduate studies for IT program majors. New goals within the course ask students to consider explicitly the virtues of juries as a learning-driven

process. Questions about juries have become part of the course curriculum: Why a jury process? What is its virtue toward student learning? What is the virtue of advisor mentorship within the jury process? To help students answer some of these questions, the course follows the advice of Redish, Webb, and Jiang (2005-2006) by providing an opportunity for students to collaboratively work on jury narratives.

Also, new goals in the course focus on process-driven thinking approaches that will serve students well as they construct their jury portfolio. These approaches include design thinking, creative thinking, and writing as an act of discovery. Within the course, students certainly practice these thinking approaches, but the course also develops capacities in students to tolerate the ambiguities and discomforts of the process. Indeed, students often have not yet considered the realities that graduate school writing is an iterative process of discovery (Knowlton, Eschmann, Fish, Heffren, & Voss, 2004), creative quality is a function of quantity and attempts (Simonton, 2004), and failure is a necessary precursor to design success (Sims, 2011). The course, then, goes beyond rote practices of thinking; it builds students' perseverance, even if they are spinning their metaphorical wheels, seeming to not make meaningful progress.

Creating just-in-time supports for students

The notion of creating just-in-time supports for students did create worry among some faculty members. As noted throughout this article, some faculty members seem unwilling to engage students through a mentor-protégé relationship. In fact, as previously reported, some students noted that they felt pawned off onto the student handbook instead of embraced by their advisor. Would the creation of additional resources simply give faculty members more excuse to send students to pre-fabricated resources instead of engaging them in organic interactions? In spite of these concerns, numerous just-in-time resources were created for students. These resources included the types of scaffolds shown in Tables 10 and 11, in addition to (a) video lecture about each program goal, its logic, and rationale; (b) podcast-style discussion among four second-year IT students who discuss their experiences in completing juries; and (c) revised section on juries within the student handbook.

One emphasis within these resources was the consistent use of language. As noted earlier, sometimes the word "jury" had been used in various ways—as a synonym for (a) the portfolio, (b) interactions between student and advisor, and (c) judgments by faculty members, just to name a few. In these newer resources, faculty members were much more intentional and exacting in the use of terminology. *Jury portfolio*, was used only to describe the product; *juries* was used to describe the full process—from a student putting pen to paper on the first narrative for Jury #1 through students receiving feedback on Jury #2. Stunningly, faculty members

only recently started referring to the larger committee that assesses the portfolios as "jurors." This new intentionality with language is a response to students' pleas for more clarity surrounding juries holistically.

IMPLICATIONS: A CONSIDERATION OF FACULTY RESISTANCE

In total, this article has illustrated the lifecycle of juries within an IDT program at a regional university in the Midwestern portion of the United States. Throughout this illustration are the sagas of growing pains that can occur as a result of innovation, including consideration of faculty resistance and iterative cycles of continuous improvement. Throughout this article, we have maintained a focus on the description of the saga—the case itself. Importantly, though, it should be noted that some faculty behavior and beliefs illustrated in this case are connected to the literature. For instance, some literature suggests that juries might "coerce students into conforming" to faculty authority (Webster, 2006, p. 286; see also, Frederickson, 1993; Webster, 2007). The case reported in this paper seems to suggest that faculty members who embrace their own authority might hinder learning within a jury process. Similarly, the literature suggests that juries can allow for portfolios to be a product around which faculty and student dialogue can occur (see, for instance, Ciorba & Smith, 2009; Webster, 2006). This is true, if faculty members have both the skills and willingness to engage students in meaningful dialogue; as this case illustrates, though, not all faculty members willingly engage.

A consideration of why faculty might embrace their own authority and not engage students in dialogue is a worthy point of consideration as an implication of this case. Two implicit faculty-member beliefs seem to be ever present across the case and work against juries as a meaningful learning innovation. First, faculty members often comfortably accept their own formal authority and feel entitled in the context of faculty-student relationships (Speck, 2013). As Bain (2004) notes, professors may well be most comfortable when students simply and unquestioningly do what they are told. Whether intentional or not, faculty members obligate students "to fit themselves successfully to the professorial ego," which, because of a lack of two-way communication and reciprocal engagement, inherently undermines students' opportunities to learn and thrive (Hagopian, 2013, p. 11). Sperber (2000) designates this as the "non-aggression pact" (p. 12)—a state of agreement between a faculty member and a student that neither will tax the other with particularly cogent demands. Knowlton and Sharp (2015) note that faculty members often first leverage this tax.

Second, some faculty members have been well indoctrinated into a market model of universities, viewing themselves as deliverers of a commodity to student customers. In an effort to keep customers happy, faculty members sometimes

resist inclinations to set rigorous learning requirements, such as the expectation of multiple revisions to student work based on detailed feedback. Such rigor can lead to unhappy customers who resist. The market model can lead faculty members to interpret resistance as a sign of a poor commodity being sold. As Seidel and Tanner (2013) have noted, however, some student resistance is constructive. After all, if the purpose of an instructional innovation is to improve students' critical analysis and problem-solving skills, then faculty should not be surprised when those students apply those skills to the pedagogical innovation itself. Certainly, Seidel and Tanner's point might be particularly cogent in an IDT program where students primarily are focused on the design, development, and implementation of instructional innovation. Through this lens, some faculty within this case adjusted their perspectives to see student resistance as a compliment to the innovation itself; other faculty throughout this case held more tightly to the virtues of a strict commodity view.

The bottom-line implication, then, can thus be stated: Faculty members within university programs that are engaged in any innovative curriculum or instructional revisions must recognize these tendencies within themselves. Despite these tendencies to assert formal authority and succumb to a market model of universities, faculty members must bravely design innovations. To do otherwise is to abdicate faculty responsibility as purveyors of the curriculum and enablers of student learning.

CONCLUSIONS

In total, the design case reported in this article illustrates a type of peer debriefing (see, for instance, Smith, 2010) because it discusses disagreements among faculty members, three of whom are authors of this paper. Such an illustration might be useful to other groups of faculty toward thinking about and addressing their own disagreements on curriculum issues. Furthermore, this article has begun a consideration of juries as a curriculum innovation and a pedagogy. The consideration within this paper might serve others who are using juries within their own curriculum.

As for the IDT program that is the subject of this case, the saga continues. Recent data shows that the retention rate in the program is unacceptably low; and some faculty members blame juries for the dropout rate, while other faculty members blame a lack of faculty commitment to the jury process. Similarly, the program is creating a new curriculum that de-emphasizes the Master's degree and, instead, emphasizes smaller credentials, such as 9-credit-hour professional development sequences and 18-credit-hour certificates. Large budget issues for public universities in the state where this program exists are also influencing faculty workloads and the amount of time that a faculty member

can spend mentoring students. All of these issues are continually factoring into programmatic decisions. Regardless of the future of juries within this case, however, we hope this paper has served readers usefully in thinking about programmatic innovation in using juries.

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