Instructional technology innovation as transformational learning: female faculty’s narratives of experience

K. Campbell
Faculty of Extension, University of Alberta

Abstract

Workplaces are potential learning communities that invite critical reflection on practice that can be shared with others. Higher Education (HE) may be described as a workplace in which instructional development activity may be a form of inquiry in which faculty see “the taken-for-granted with new eyes” [33, p.3], prompting them to critically reflect upon their experiences and practice and leading to a foundational reframing of their core beliefs, assumptions, and values and subsequent actions [31].

Instructional innovation in HE can be personally risky, yet this is the level at which transformational thinking and action occurs and is sustained. The incorporation of instructional technology into teaching practice extends an already complex environment, introducing an unfamiliar realm of expertise. This complexity may be increased for female faculty who already experience some degree of marginalization in HE.

The study on which this paper is based is a feminist project of narrative inquiry informed by the theoretical constructs of transformative learning, and feminist pedagogy in technology-enhanced environments. In this framework narratives of experience can be understood as “statement(s) of belief, of morality” that are values-based, doing social and political work as they are told [19, p.12]. In this study 47 female faculty from Canadian universities participated in research conversations as both method and site for the construction of personal and sociocultural understanding and change.

Comparative analysis of the conversations reveal several interacting themes including psychosocial issues related to female faculty teaching with technology, the role of collaborative design conversations in perspective transformation, and relational practice for action learning.

Keywords: perspectives transformation, narratives of experience, action learning, faculty learning, instructional design.
1 Introduction

While most studies of gender and IT have investigated “possible gender differences in education, computer use, attitudes towards computers, math and sciences…only a few have addressed potential gender differences related to faculty use of and attitudes toward instructional technology in higher education” [40, p.425]. The study referred to in this paper explored the experiences of 47 Canadian female faculty integrating information and communications technologies (ICTs) into the learning environment and suggests that these instructional innovations are adopted if they clearly fit or are aligned with their instructional goals. Further, involvement in a project of instructional development may be an intensely personal process of cognitive and cultural change in which beliefs and values may be realigned. This process is supported and enhanced through a relational process in which these faculty engage in constant collaborative conversations with instructional designers and colleagues. The transformative essence of this critical design narrative may be gender-based.

Workplaces are potential learning communities that invite critical reflection on practice, and support professionals sharing their learning with others [15]. Higher education (HE) may be described as a workplace in which instructional development activity is a form of inquiry in which faculty see “the taken-for-granted with new eyes” [33, p. 3]. For some faculty members, developing technology-based curriculum becomes a “disorienting dilemma” or trigger point that challenges their teaching and learning paradigm, leading to a foundational reframing of their core beliefs, assumptions, and values and subsequent actions [31].

While instructional innovation in HE can be personally risky, this is the level at which transformational thinking and action occurs and is sustained [13]. The incorporation of ICTs into teaching practice increases complexity in an already complex environment, introducing a new realm of expertise. This complexity may be increased for female faculty who already experience some degree of marginalization in HE and in technology-enhanced environments, whether through perception that ICTs are contrary to their beliefs and values, or sociocultural expectations related to women and technology.

The two-year study on which this paper is based is a feminist project of narrative inquiry informed by the theoretical constructs of transformative learning, and feminist pedagogy in technology-enhanced environments [6, 32]. Stories or narratives of experience can be understood as “statement(s) of belief, of morality” that speak of values and…do social and political work as they are told [19, p.12]. Thus, in this study female faculty shared narratives of experience through research conversations as both method and site for the construction of personal and sociocultural understanding and change.

This paper is constructed in 2 main parts: 1) the presentation of the two interrelated theoretical constructs, transformative learning and technology issues related to feminist pedagogy; that frame the 2) selected narrative of experience and transformation. The analysis of the research data is ongoing; at this point interpretive directions are suggested that may be pursued. Additional narratives
and implications for the support of female faculty will be shared during a participant discussion.

2 Theoretical constructs

Faculty involved in instructional development are engaging in a process of both personal and cultural change characterized by active, or action learning. Some research suggests that female faculty generally experience this process under different circumstances and with different expectations than many of their male colleagues: this context potentially increases the personal and professional risks associated with change and innovation.

2.1 Risk factors for female faculty innovators: ICTs as learning catalysts

Female faculty develop their pedagogical values and approaches in an institutional context in which they have historically been marginalized [9, 10, 21, 34]. The typical female faculty member is significantly less likely to occupy a tenured or tenure-track position, at higher ranks is older than her male peers and is less likely to have an authoritative or administrative role in the institution. Academics that are more senior do less teaching possibly because senior faculty are able to obtain course releases through research grants, or for administrative duties [34]. Because of the lower proportion of senior women, female faculty tend to have disproportionately heavier teaching loads than male faculty. As the institution might place less value on activities that are teaching-related, women may get less credit for their time than their more research-oriented male counterparts [1, 26, 22, 34, 35].

Teaching innovation carries added risk when compared to more conventional instruction, for example it is not unusual for student course evaluations to be lower. These evaluations are often used by Faculty Evaluation Committees to help determine faculty pay raises and tenure. Given the higher relative non-tenured proportion female faculty may be proportionately more vulnerable to these risk factors. Developing faculty expertise in teaching innovations has not been well supported in the post-secondary context due, in part, to the historical emphasis of the academy on the scholarship of discovery, the scholarship of integration, and the scholarship of application, which are typically associated with the research rather than the teaching process. Only recently has the scholarship of teaching received increased attention [18]. Western thought, represented in the academic tradition of the classroom lecturer, posits one truth to be discovered and learning as an objective, logical activity of receiving that truth through the Expert. The view of ICTs as delivery vehicles for received knowledge represent this conduit model. But, a view of ICTs as catalysts for faculty learning places emphasis on values-based decisions that align with teaching beliefs and styles, and that are shared, elaborated and reconstructed through relationship, conversation and social negotiation.

The literature on critical feminist teaching in academia [11, 41, 42] aligns the research on preferred teaching styles of female faculty with Kimmel’s [27]
proposition that “one mark of a feminist classroom (is) that the personal is not only political but often pedagogical” [27, p.62]. Learners and faculty are encouraged to “seek connections between course content and their own lives, (see) their lives in a larger social perspective…(and) employ experiential activities” that are collaborative, egalitarian and relational, such as discussion seminars and small-group activities [27, p.67]. It is reasonable then to expect, and in fact it has been reported [7], that the technologies employed by female faculty enable a classroom environment that is relational (that is, emphasizing relationships between teacher and students, and among students themselves), experiential (that is, focusing on personal experience rather than abstract knowledge), and non-hierarchical (that is, centered on students rather than the teacher). Learning about the ways that ICTs can support social change may be a way in for faculty struggling to transform learning environments into more participatory and democratic environments.

2.2 Perspective transformation as action learning

Faculty have historically viewed their teaching role as one of transmitting a body of knowledge in their discipline to their students [30]. However, a global shift in emphasis to the learners’ experiences suggest a renewal of curriculum and a critical transformation in pedagogy that may enhance the development of students’ skills beyond disciplinary knowledge—for example, in skills such as problem-solving and interpersonal and communication skills—and that require instructors to handle more diversity and use more inclusive instructional methods [8, 24, 30, 31]. These changes require education and support and, more importantly, require faculty to modify their personal beliefs about their role as teachers. The development and implementation of innovative models of teaching and learning that meet these challenges is a difficult process that can be transformative at both personal and institutional levels [12, 38].

Proceeding through multiple stages, transformative learning is prompted by a disorienting dilemma or cognitive conflict leading to a change in both worldview and curricular scope [25, 28]. Since admitting uncertainty could be construed as a sign of weakness [36] the incorporation of technology into teaching practice is stressful for academics in that their culture itself resists change. Learning how to use ICTs that support more learning-centered experiences encourages faculty to re-examine core values, expectations, and practices related to teaching and learning. This process of personal transformation also has the potential for grassroots change in institutional policy and practice [5]. The power of this change process lies in sharing experiences and new understandings in a supported learning community.

Mezirow’s theory of adult perspective transformative learning [31] can be summarized as a process of acquiring new knowledge while critically examining core beliefs, assumptions, and values. It begins “when we encounter experiences…that fail to fit our expectations and consequently lack meaning for us, or we encounter an anomaly that cannot be given coherence either by learning within existing schemes or by learning new schemes” [31, p.94]. Developing technology-based curriculum may lead faculty to “question their
perspectives, open up new ways of looking at their practice, revise their views; act based on new perspectives” [39, p.3].

As a learning environment, the professional workplace of the University invites critical reflection on practice, and must allow time and space for faculty to collaboratively develop a “more inclusive, differentiated, permeable, and integrated perspective” [52]. Schön [36] defines this sort of activity as inquiry in which constructions of the situation are brought into the open, juxtaposed, and held against alternative accounts or beliefs. In this view, interacting with knowledgeable colleagues, colleagues and instructional designers, is a socialization process that encourages participation in a knowledge community or professional culture. According to Jarvis [23] faculty who actively problematize their practice keep growing and learning, becoming experts in the community from whom novices in turn may learn.

The principles underlying teaching excellence are inherent in the effective use of instructional technology innovations, however HE has failed to make substantial cultural, political, and administrative changes to accommodate the changing nature of instruction. According to Seminoff and Wepner [37] and others [43] measures need to be taken to increase the value of scholarship invested in technology-based projects: as female faculty are strongly invested in teaching and in designing “non-traditional” learning environments these measures may reduce the risk of innovation for these faculty. Innovations present challenges to existing patterns of work and specialization on campuses requiring institutions to work more like close-knit, integrated communities [4]. As female faculty are already marginalized partly by virtue of their teaching role, a collaborative community of practice, in which exposure to premature and summative evaluation is minimized, becomes critical.

3 Narratives of experience

Communities of practice, such as those involving faculty and designers engaged in conversation about teaching in technology-enhanced learning environments, instantiate social reality through the use of language, on the one hand “deconstructing or dissolving meanings” and on the other creating and supporting them [16, p.19]. In other words, to become meaningful, shared and a source of knowledge and understanding, practice must be named. Once named and brought into consciousness, we can be critical of, and reframe or reconstruct, experience.

Gergen [16] points out that discourse influences the ways we create social life together, imbuing events with “coherence, integrity, fullness, and closure” [20]. A narrative structure invests events and memories with moral significance: we are able to understand our actions as purposeful and embedded in our core values. The nature of the instructional design process itself, which was narrative in structure, challenged Susan, an Education professor, to critically confront her beliefs and actions and imagine a transformed practice in which her constructivist goals could frame her pedagogical decisions. Also, in this study faculty were invited to share their narratives of experience both privately and
through a series of community-based conversations; through a forum and in collaborative interpretation and writing of the “data”. In sum, the design experience was an action learning process (reflection-in-action), which was further elaborated by the narrative recounting of it.

A comparative, ongoing analysis of the conversations reveal several interacting themes including psychosocial issues related teaching with technology, the role of collaborative design conversations in perspective transformation, and relational practice for action learning. In this short paper, one narrative is chosen that illustrates the experience of a female instructor who began a reluctant journey to “just get a web page” and, through a relational, conversational process that challenged her to connect with her core values, transformed her pedagogy through learning design.

3.1 The collaborative design conversation and perspectives transformation

Initially sceptical about using technology for anything more than a productivity or presentation tool, Susan’s growing interest in using technology to create an authentic learning environment is consistent with understanding of the transformative learning that can result from such a project (10:10:03). Part of her reluctance to undertake a course development process was related to her academic status at that time: she was applying for tenure and had an excellent teaching reputation that she did not want to jeopardize, and a developing research program that might be slowed as she made the time commitment to the project. She had been advised by departmental colleagues to “steer clear” of an innovation that would compete with time for writing and publishing, although one outcome of the process was a more fruitful reorientation of her research to issues of technology-based teacher education [17].

Susan recalls her impatience with her instructional designer who asked “lots of questions” directing her to readings “that would help me to think a little bit more about what I had just said. Later, when it came to having to write a philosophy of education for my tenure package, it came so easily to me because I had had to think and read about it so much in the initial part of the project…I remember endlessly asking ‘When do I get to make the web page?’ Yet that was one time where I had to stop and ask myself questions about what I believed about teaching and learning, which has had so many ramifications”.

Susan wanted her students to have specific learning opportunities. Through the design conversation “the first step was to articulate my personal goals…as we (reflected on) my beliefs about teaching and learning, I began to clarify what would be important. My students would need opportunities to learn from real-life authentic problems and practice…I wanted there to be built-in checkpoints for my students to engage in reflection-in-action…and I wanted the learning experiences to be the focus of the course, not the technology.

“It’s just been an amazing experience creating (the course)…Not only did I end up having the experience of creating that website for my undergrad course and all the things that have come out of …the new and interesting research areas…But then to have it influence my graduate teaching too…
“In looking back, I can see that so much of what I initially felt as being frustration was…the diamond in the rough, because it turned out to be the most powerful aspect of the whole experience. Everything I’ve done since then is tied up in asking those big philosophical questions. Whenever anybody has questions about what they can do with technology, I always say, ‘You need to start with the design process first’. It’s not enough to tell people they need to use technology; you have to have a vision of how it can enhance learning”.

Susan came to the process with a traditional, teacher-centered construct of content presentation. But through a series of critical design conversations she developed and was able to articulate a constructivist worldview that now embodies her practice. For example, she is currently developing a comprehensive online, case-based “faculty learning” portal, through which colleagues find teaching resources, connect with peer mentors, participate in problem-solving discussions, and develop collaborative research initiatives related to the scholarship of teaching.

4 Final words

Transformation through innovation potentially has the most impact on other faculty colleagues and instructional practices at the level of the personal [3], a context in which female faculty may prefer to learn and teach. After Albion and Gibson [2], who maintain that individual faculty, sharing innovative teaching methods, can encourage others “to acquire the insights which will enable them to adapt their own practice” (p.1), faculty engagement in a team-supported instructional development process provides a catalyst to change in understanding and practice. Indeed, the sharing of experience with colleagues and designers is a social, relational process of collaborative conversation [14] that supports faculty learning. Personal knowledge based on prior experiences and belief systems is available, and evolves through the social interaction inherent in sharing stories of practice in which we attempt to make our perspectives clear and meaningful to others, and to understand the perspectives they offer in return. This process of social construction challenges us to step outside of our own views and re-evaluate our beliefs about teaching, learning and design. An environment of collaborative conversation, as this one faculty narrative of experience suggests, is one in which female faculty feel comfortable and may prefer, as it subverts notions of status and authority and reduces personal and professional risk.

Currently, the author is investigating implications of gender in the social agency of instructional designers in HE, and exploring the nature of the gendered relationships between faculty and designers related to the transformation of institutional culture vis a vis the scholarship of teaching. It appears that female designers may practice differently than male designers, and that aligning the core values of the designer with the core values of their faculty colleagues impacts the potential for perspective transformation. It also appears that both female and male faculty feel “safer” with female designers as they perceive that the risk of
“not knowing how” is diminished with a woman: conceivably this relates to academic status.

References


