The relationship between instrumental and transformative learning in structured workplace learning programs: Insights from embedded formative assessment

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**Recommended Citation**


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Abstract. A grounded theory study of tacit knowledge and beliefs in training programs examined the interaction of instrumental and transformative learning elements. Learner beliefs about professional practice challenged content legitimacy, content elicited beliefs and framed perspective transformation.

Keywords: transformative learning, instrumental learning, training

In order to deepen understanding of key theoretical tenets of transformative learning theories, Cranton and Taylor (2012) argued for examining transformative learning theory in conjunction with other learning aims. Most intentional learning programs have instrumental aims, that is, clear goals for knowledge development and this is particularly true in the workplace context. However, these instrumental aims of learning, that is, learning something new or elaborating on something known have often been placed in the background in analyses of instructional factors that support transforming an assumption, belief or broad perspective (Cranton, 2006, p. 139).

This study examined adult practitioner learning in structured workplace learning programs that were designed with transformative learning theory and intentional instrumental learning goals. The purpose of the study was to analyze instances where learners revealed content reactions, tacit beliefs, frames of reference and perspective shifts in order to answer the primary research question of how do instrumental and transformative elements converge in workplace learning processes?

Conceptual Framework

Choy (2009) and King (2009) found that transformative learning theory (Mezirow, 1991, 2000) explained learning of collaborative inquiry groups used for workplace training purposes. Active learning, dialogue and reflection, along with safety and trust were found to have a central role in fostering perspective transformation (Choy, 2009; King, 2009). Choy (2009) also found that content relevancy was an essential element associated with transformative learning. Both researchers found that perspectives transformed and new skills were developed, but they provided relatively little detail on the relationship between transformative-supporting activities, training content, tacit knowledge, and actual skills developed. Consistent with Cranton (2006), instrumental content was not a primary focus of Choy (2009) or King (2009) in applying transformative learning strategies.

In an overview of promoting transformative learning, Cranton (2006) developed a framework for instructional questions that separated questions by type of learning. When instrumental or skill acquisition was the focus, Cranton (2006) recommended, recall, application, and analysis types of questions. However, in regard to transforming an assumption, belief or frame of reference, she focused on content, process and premise reflection as forms of critical self-reflection. In this case, content reflection targeted at epistemic habits of mind referred to learners questioning what they have learned from their experience or other personal standpoint.
perspectives.

Yet, the distinction between instrumental and transformative learning may not be exclusive. For example, in the stages of perspective transformation (Mezirow, 2000), learners are described as acquiring necessary knowledge and skills for a new course of action, which is not content neutral.

In adult learning in workplace settings, instrumental and transformative processes likely interact. If dialogue, varied media, and experiential learning activities are key transforming factors in helping learners reflect and uncover their beliefs (Taylor, 2009) and these are also intended to teach a concept, then instrumental learning and perspective transformation are dynamically linked in theoretically important ways.

In the realm of formal education, where learning intentions and instrumental outcomes are generally of primary concern, formative assessment theory has been recognized as a unifying theory of instruction (Clark, 2012). Formative assessment theory explains the mediating role of an educator in learning (Black & Wiliam, 2009). That is, an educator presenting a learning intention (i.e., information, concept or content) also has an instructional task of paying attention to the interaction between learning intentions and learners’ responses analyzing and acting on these to improve instruction (Black & Wiliam, 2009). Formative assessment describes an educator as actively involved in interpretative listening (Davis, 1997) in order to glean information about a learner’s thinking. In practice, embedded formative assessment identifies learners’ current beliefs, states of knowledge and meaning structures so that an educator can adjust feedback or instruction accordingly. Theorists have noted that embedded formative assessment is a process not a specific measure and argued that important insights on tacit knowledge are revealed through educator and learner discussion, reflection and experience (Clark, 2012; Wiliam, 2011). Formatively eliciting, interpreting and using evidence of the process of learning may be immediate, on-the-fly or longer term (Wiliam, 2011). In formative assessment, significant attention is given to a learner’s mental life and educator’s learning from interactions and learners’ responses to feedback so that educators build up models of how students learn (Black, Harrison, Lee, Marshall & Wiliam, 2002).

Both transformative learning theory (Mezirow, 1991, 2000) and formative assessment theory (Black & Wiliam, 2009) are constructivist theories. Together they support inquiry into the interactions between training instrumental content, learner beliefs and learners’ responses.

**Context, Method, Data Collection and Analysis**

Data for this grounded theory study were collected during a series of non-credit training seminars and workplace coaching sessions for child and youth development practitioners and in post-program interviews. The professional development seminars were comprised of 8 to 12 class sessions ranging from 2-3 hours, addressed current social policy goals for quality improvement, and were delivered and taught by university outreach personnel. All participants worked in an urban intensive context primarily working with diverse groups of children and youth from socioeconomically disadvantaged families. Child and youth care workers are characteristically low or lower-wage workers and vary in their educational backgrounds. They generally have few opportunities for external professional development activities that engage them with practitioners from agencies other than the one with which they are employed.

During learning sessions, a semi-structured observational protocol focusing on capturing formative instances was employed. Specifically, trainers noted learning engagement, exchanges and events that revealed learner tacit knowledge, beliefs, state of knowledge and meaning.
making. In addition, the researcher or another experienced trainer observed, when possible, entire sessions using the same observational protocol. End of program learning statements or interviews were also conducted and analyzed.

The researcher reviewed written observational and reflective notes and generated a series of memos that briefly summarized the topic, activity and learner statements (Huberman & Miles, 1994). Memos were then analyzed in a constant comparison and open coding method to identify themes of activity-discussion-content elements and learner reactions, beliefs, knowledge, reflection and perspective transformation. Themes were synthesized in an interpretive fashion to address the research question.

**Findings**

Instrumental and transformative elements converged in workplace learning processes in several ways. Instrumental content elicited beliefs and frames of reference, it framed and enriched dialogue eliciting specific practice issues and beliefs from participants. In addition, instrumental content provided a scaffold for the type of perspectives that were transformed.

**Value-based Work and Learning**

Analyses of content-based learning activities indicated that they elicited strong practitioner values and beliefs related to working with children and youth living in socioeconomically disadvantaged families and neighborhoods. Participants conveyed concerns for the level of risk in urban neighborhoods and family conflicts and found meaning in their work particularly believing in the capabilities of the socioeconomically disadvantaged children and youth they worked with especially when others did not believe in these youth. Work beliefs and values conveyed that children and youth have the right to receive help and support. As one participant explained, “we are on the ground fighting for youth.” In regard to a change in view of oneself as a professional, another participant commented, “It’s clearer to me that I’m here to change the world by educating these young people.”

Learners often questioned and judged the relevance of content based on their beliefs about the meaning of their work with youth. This was summarized by one participant as “we know our youth” and this belief seemed to serve as a legitimacy filter for content and principles being taught. That is, new content was not readily accepted and it was assessed against strong beliefs about the nature and purpose of their work. What was viewed as relevant was first scrutinized for legitimacy tied to participants’ values and direct experience.

For example, during a discussion of the needs of youth that underlie youths’ motivation, a participant questioned the completeness of the content being presented. He cited Maslow’s hierarchy of needs, specifically, the need for safety. In his question and comments he revealed that a youth’s need for safety influenced his view of his work. As he explained his thinking, his frame of reference regarding risks of urban, high poverty neighborhoods was revealed. He noted that gang membership represented safety and belonging for some youth. Moreover, he saw gangs as an environmental risk and youth programs as safe places for youth. His reasoning was that being in a program was better than being on the street. While the instructional content aim was to consider a framework for youth needs that aided understanding of different levels of quality of youth programs, the participant’s belief about programs as social opportunity was critical to his learning related content. The participant was engaged in active construction or sensemaking of how new content fit with an existing habit of mind. Reckoning with prior knowledge and a foundational belief influenced his content engagement.
Similar to Choy (2009), participants sought relevancy, however, relevancy was closely tied to frames of reference regarding the meaning and value of youth programs for socioeconomically disadvantaged youth. These value-based beliefs or frames of reference were elicited in content-focused dialogues and through post-program interviews. Participant questions or discussion often initially conveyed mistrust for the program recommendations discussed in sessions or experienced in their work. Value beliefs about work and meanings associated with interpretations of their work experience were frames of reference associated with why they worked with youth and what they believed was relevant.

**Dialogue and Reflection**

Dialogue was rich when participants could talk about the issues at their own program site. Initially participants had difficulty getting past that programs varied in format and emphasis and there appeared to be some discomfort when there wasn’t direct application to the way their site operated. However, over time discussions became richer and deeper and content elicited sharing, problem solving and reflecting on one’s practices.

Participant personal reflection was evident as a result of lower-risk intentional learning activities where learners could use personal reflection to discuss their immediate response to a class exercise or work experience connected to it. For example, rich dialogues were associated with participant engagement where content, such as applying the ecological framework for youth development, was studied through personal reflection on the learners’ own adolescence. Using a visual model, participants readily discussed and reflected on factors in their own life and then applied the framework to particular youth with whom they worked and served as an entry into program elements that affect quality.

In contrast, some media and concepts where trainers expected greater response, reflective prompts did not produce rich dialogue. In several cases, learner reactions were expressed in short statements best summarized as “I get it,” which represented both understanding the concept and to some extent what the concept meant for their practice. There was a sense that further discussion of application wasn’t needed. In other cases, the lack of dialogue was difficult to interpret. These may have been content only experiences or there may have been a disorienting dilemma or insight that quieted the participants. The workplace context and learner needs for appearing competent and not revealing that one was questioning the efficacy of one’s current practice may have led to lower risk-taking especially in large group discussion. In workplace training programs, critical reflection may not be readily shared. Critical reflection was evident in learning statements though observed less in sessions.

**Practice Perspectives Elicited and Transformed**

In participants’ retrospective assessment of their learning there was evidence of changes in practice associated with perspective transformations. That is, learning was not just skill development or elaborating a frame of reference, there were shifts in perspective. Reports of change in practices were notable because they represented action not just knowledge gains. For example, many participants reported a sense of initially feeling overwhelmed, but then working through their understanding and meanings of program leadership. As one participant stated, “I had to work through what leadership is all about.” Another stated in regard to the training sessions “Initially I didn’t buy in. The facilitators helped me. I thought I was drowning in policies. He then described that his leadership style changed and he was more intentional in guiding, supporting and encouraging those he supervised.
Other practitioners also described their change in supervision practices. They discussed recognizing that they had been hesitant to lead or tell those they supervised what to do. Reckoning with new content, critical reflection on the meaning of the content for one’s practice, and attempting new practices led to a new understanding and transformative perspective. There was a sense that a practice like providing clear expectations to staff was essential to quality programming for youth. The following quote illustrates one of the most significant and richest descriptions of perspective shift reported.

*I learned that I can lead with honey. I have some vinegar too, but I can present myself as a leader and I can get respect and results. At first, I thought I was just a teammate – instead I learned that I had to be the boss. I was reluctant to be the boss...At first, I thought we just want a fun loving environment, but then staff would let things slide that shouldn’t. That’s a disservice to our program...I now see that I am helping both youth and staff.*

In general, learners commented more on how they changed than demonstrating new knowledge. That is, participants cited using different practices, but did not convey the instrumental concept underlying the practice. Thus, they reported changes in practice that could not be justified by instrumental knowledge alone. Moreover, practices that were reported as changed were consistent with training content aims. Given that practice changes are very difficult to achieve by knowledge alone, participants’ action-oriented learning is consistent with transformed perspectives as more inclusive, discriminating and more justified in guiding action (Mezirow, 2000).

**Discussion and Implications**

Instrumental and transformative elements converged in workplace learning processes in several ways. Participant work-related values were elicited as strong beliefs through which content was filtered. These beliefs about a sense of purpose associated with work values, as frames of reference, affected how participants approached learning and engaged with content. Dialogue between participants fostered by content was an opportunity for reflection and elicited assessment of one’s beliefs and feelings and importantly reasoning about one’s professional practice (Mezirow, 2000, 2003). The quality of these dialogues developed over time. Participants also identified engaging with others about practices as important to their learning. However, in the workplace training context critical self-reflection was not particularly evident to those observing the training sessions, but was revealed in post-program learning statements and interviews.

In addition, some activities produced less discussion than expected. Despite the fact that reflection is viewed as essential to professional development and effective practice (Lyons, 2011), disorienting dilemmas and subsequent critical reflection may be riskier aspects of transformative-oriented learning in workplace training programs for low and lower-wage workers. In workplace training, participants’ may be hesitant to share self-critical reflecting and experiences of disorienting dilemmas. And, perspective transformation may be more incremental than epochal (Mezirow, 2000). This suggests that instructional design may need to focus on learning activities that engage high levels of dialogue and recognize that participant critical reflection happens privately as learners work through issues raised in discussion. That is, instructional methods aimed at directly eliciting self-critical reflection during training sessions may not be the most effective strategy in workplace learning programs.

An implication of recognizing the interaction between instrumental content and transformative learning elements is that participant engagement with content focused on learning
something new or elaborating on something known fostered learner reactions, questioning, reflecting and elicited important frames of reference about their professional practices. When practice change requires perspective transformations, then attending to what is revealed about learner frames of reference during content-focused activities is an educator skill that may need to be developed by trainers to enhance the impact of learning.

References


