

An Examination of Teachers' and Administrators' Conceptions about UDL: Considerations for Applying Conceptual Change-based Professional Development

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Abstract

Across the United States, school leaders are focusing on Universal Design for Learning (UDL) as a framework for meeting the challenge of learner variability and designing high-quality, standards-based instruction (Hall, Rose & Meyer, 2012). The two studies presented in this narrative describe and analyze the beliefs, knowledge and practices of administrators, and teachers about UDL. In study one (*Administrators' Conceptions about Universal Design for Learning: An Opportunity for Conceptual Change*), phenomenological research methods were used to analyze data collected from interviews with 15 administrators. Results will be presented through six emerging themes based upon the beliefs and understandings of these administrators regarding UDL. In study two (*A Mixed Method Study of Teachers' Conceptions about Universal Design for Learning, teacher beliefs, knowledge and practices about UDL*) were examined through a mixed methods study conducted with teachers participating in a UDL professional development system. The narrative presents conceptual change as a theoretical framework to assist those responsible for designing professional development relating to the implementation of Universal Design for Learning. The results of these studies provide necessary insight into the beliefs, knowledge and practices of administrators and teachers who are responsible for recommending future instructional UDL practices. The impact of these practices are fundamental to changing our understanding of UDL, and they help ensure that the UDL framework is wholeheartedly adopted by educators.

Keywords

Universal Design for Learning, Conceptual Change, Teacher Education, Administrators

INTRODUCTION

Rappolt-Schlichtmann, Daley, and Rose (2012) indicated "over the past five years, there has been exponential growth in interest surrounding the UDL framework, primarily within education policy and practice" (p.1). The purpose of this narrative is to build upon this emerging body of research by presenting two studies that, combined, will provide data regarding current perceptions of school administrators and in-service teachers about UDL.

Much of the existing literature about UDL is related to product development and emerging practices (Rappolt-Schlichtmann, Daley, & Rose, 2012). In their text, *A Research Reader in Universal Design for Learning*, Rappolt-Schlichtmann, Daley, and Rose (2012) call for research that is "explicitly informed by the problems of education practice" (p. 9). The research presented in this narrative will answer this call to action, in part, by exploring and developing an understanding of the perspectives of educators and administrators who are responsible for integrating the UDL framework into practice.

The results of the two studies presented here will directly benefit teacher preparation and professional development programs. Both studies are framed by one overarching research question: What are the beliefs, knowledge and practices of teachers and administrators about the role of UDL in supporting all learners?

THEORETICAL FRAMEWORK

The conceptual change model can be used as a method for assisting individuals as they consider, alter and strengthen their existing beliefs and understandings about a certain topic (Posner, Strike, Hewson & Gertzog, 1982). These beliefs may be conceptions or pre-conceptions, depending upon whether the belief was formed before or after formal instruction. Regardless of when the belief originated, all learners enter into formal educational settings with strong ideas based upon their prior experiences (Dole & Sinatra, 1998; Özdemir, G. & Clark, 2007). When exposed to a new concept, these pre-existing beliefs often present a barrier for learners because they may be inconsistent with the new information being presented (Strike & Posner, 1993; Tillema, 1998). These beliefs cannot be modified or advanced without a progression through the stages of conceptual change.

The original model of conceptual change, as proposed by Posner, Strike, Hewson and Gertzog (1982), was designed to help learners alter their beliefs by progressing through four specific stages: dissatisfaction, intelligibility, plausibility, and fruitfulness. The UDL framework and its foundational assumptions represent new ideas for many learners (CAST, 2012). Because the assumptions of UDL may be contradictory to traditional beliefs about teaching and learning held by administrators and teachers, it was appro-

priate to frame this research in a conceptual change model based on creating dissatisfaction with existing beliefs.

Sadera and Hargrave's (2005) dissatisfaction based conceptual change research was based on the argument that building dissatisfaction with existing beliefs, and helping learners to confront those beliefs, was essential to the conceptual change process. Sadera and Hargrave's model consisted of three stages on a dissatisfaction continuum: pre-dissatisfaction, dissatisfaction and beyond dissatisfaction. Sadera and Hargrave (2005) explained that pre-dissatisfaction is the learner's ability to acknowledge their pre-existing beliefs, while dissatisfaction focuses on acquiring new knowledge and comparing that new knowledge with their current conceptions. Finally, post-dissatisfaction occurs when the learner understands and accepts a new conception that is sustained over time. Learners who successfully pass the post dissatisfaction stage will be able to see the new conception as intelligible, plausible and fruitful when applied back into the traditional conceptual change model.

Data collected in the studies presented in this narrative were interpreted in order to determine where educators fall in the conceptual change process and, more specifically, where they are with regard to their dissatisfaction of existing beliefs as defined by Sadera and Hargrave (2005). The findings summarized below are essential for assisting those responsible for introducing the UDL framework to educators and administrators in order to design more targeted and effective professional development (instruction).

STUDY 1: Administrator Conceptions about Universal Design for Learning

The purpose of the first study was to describe school administrators' beliefs, knowledge, and practices surrounding UDL using qualitative research methods. While understanding each participant's unique experience with UDL was a necessary component of the data analysis procedure, the final results were presented as collective textual-structural descriptions. These descriptions represented reoccurring themes that provided insight into the essence of school leaders' beliefs, knowledge and practices about UDL. As a result of this research, the following six phenomenological essences were identified: viewing UDL as an overarching framework, understanding that UDL is a paradigm shift, expecting the curriculum to do more, identifying barriers to practicing UDL, acknowledging expectations of teachers, and enhancing professional development practices.

STUDY 2: A Study of Teachers' Conceptions about Universal Design for Learning

The purpose of the second study was to describe teacher beliefs, knowledge and practices about UDL using mixed research methodologies. Descriptive data were presented based upon consistencies and inconsistencies in beliefs, knowledge and practices related to the foundational as-

sumptions of UDL. This data were analyzed at both the group and singular level.

Numerous consistencies in teachers' beliefs and practices aligned with the UDL framework were noted. For example, when asked if curricular methods and materials should recruit and sustain student engagement in learning, 20 participants (91%) "agreed or strongly agreed." 19 participants (86.5%) indicated that they did this at least "some of the time." In this example, teacher beliefs and practices seemed to be more consistent with the UDL framework. Similar consistencies were identified in regard to teacher knowledge and practice.

During the analysis process it also became apparent that teacher beliefs were not always consistent with their practices. For example, question two in the Beliefs and Practices section of the survey stated: "I believe all students can benefit from having multiple curricular options or learning pathways." Twenty participants (91%) at least somewhat agreed with this statement. However, only eight participants (32.4%) indicated that they provided multiple curricular options more than "some of the time." In this instance, it was clear that teachers were able to articulate their beliefs but was not necessarily able to put those beliefs into practice. Additionally, data collected from open-ended questions were analyzed using a quantitative iterative process. From this process, the following themes emerged: challenges in the written curriculum, competency in identifying options, barriers to the assessment process, and willingness to learn more about UDL.

Based upon the results of these two studies, it is evident that administrator and teacher beliefs, knowledge and practices span all three stages of the dissatisfaction-based conceptual change model. When reviewed as a whole, the results from this research have the potential to assist those responsible for introducing the UDL framework to administrators and teachers in designing more effective instruction using the dissatisfaction-based conceptual change model as a guide. Defining each stage of the dissatisfaction-based model and considering examples from each population examined in this research will help those responsible for professional development to create more targeted instruction and help the participants to adopt UDL-based beliefs about teaching and learning accordingly.

DISSATISFACTION-BASED CONCEPTUAL CHANGE INSTRUCTION IN PRACTICE

Pre-dissatisfaction refers to a stage in which learners have not yet deliberately considered their beliefs (Sadera & Hargrave, 2005). In both of our studies, learners in the pre-dissatisfaction stage were school administrators or teachers who had not yet become cognizant of their beliefs about the role of UDL in teaching and learning. It is likely that these individuals have not had the opportunity to specifically confront their beliefs about the underlying assumptions of UDL. They may hold misconceptions about the UDL framework, and have not had adequate time, coursework,

or professional development opportunities to reconsider their misconceptions. Teacher educators and those responsible for professional development must have a clear understanding of the existing conceptions held by their learners in order to challenge them to explicitly confront their beliefs. When introducing any new framework, educators must be certain to first provide time to identify the existing conceptions held by learners. This is especially relevant when introducing UDL, as many of the foundational assumptions differ from what is considered traditional instruction (Rappolt-Schlichtmann, Daley, and Rose, 2012).

Dissatisfaction is characterized when learners begin to question the validity of their current beliefs (Sadera & Hargrave, 2005). Data from our studies indicate that learners in the dissatisfaction stage were administrators or teachers who have a firm grasp on their beliefs about UDL, but do not see these beliefs coming to fruition due to existing barriers. Administrators and teachers may cite these barriers as time constraints, challenges with the existing curriculum or lack of resources. Therefore, the challenge for teacher educators and those responsible for professional development is to provide teachers with opportunities to evaluate and to compare and contrast their beliefs, knowledge and practices with the new conceptions being presented (Sadera & Hargrave, 2005). Instructional activities must challenge learners to directly confront their conceptions about the foundational assumptions of UDL, whether aligned with the framework or not.

Finally, the *beyond-dissatisfaction* stage is representative of those learners who are able to evaluate, compare, and contrast two conceptions; the one currently held and the new one being presented (Sadera & Hargrave, 2005). Data from our administrator study indicates that school leaders who are in this stage have begun to collect information about UDL and test the alternative conception of UDL. They see UDL as a plausible. In comparison, teachers in the dissatisfaction stage in our teacher study were quite aware of their beliefs about UDL, and they were beginning to realize that their current solutions to meeting the needs of diverse learners may not be adequate.

Coursework and professional development activities for administrators and teachers about UDL must be grounded in an understanding of conceptual change teaching strategies. Instruction that supports change should include time for learners to build a personal understanding and knowledge base about UDL (Sadera & Hargrave, 2005). Examples of learning activities may include opportunities to speak with colleagues and process new conceptions, identify technology tools that support the integration of the UDL principles, practice lesson writing using the UDL

principles, and view lessons and video from teachers and schools where multiple options are the norm. These concrete examples of effective first-instruction include flexible options from the inception of the lesson, and are a stark contrast to the traditional intervention model. These experiences will help learners begin to see the UDL framework as intelligible, plausible and fruitful.

CONCLUSIONS

Viewing these findings through a dissatisfaction based conceptual change lens is useful in designing deliberate learning activities that will serve as a catalyst for moving teachers past dissatisfaction. Without experiencing dissatisfaction, learners will not realize the benefits of restructuring their beliefs (Sadera & Hargrave, 2005). This is essential to move learners from awareness to integration and has great implications for practice.

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