

UDL in Higher Education: Applying the Principles to Cross-Curricular Learning Environments

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Abstract

This panel presentation will focus on the work of three university faculty who consistently employ the UDL principles in their courses. In addition, they will share the structure used at Towson University to support faculty UDL implementation, the Towson University UDL Professional Development Network. Participants will learn specific strategies for applying UDL in three very different areas: library instruction, music education and instructional technology.

Keywords

UDL, universal design for learning; professional learning communities; higher education; music education; teacher education; instructional technology; technology integration; active learning

INTRODUCTION

Participation in Towson University's UDL Professional Learning Communities initiative has offered a valuable lens through which we view our students and both examine and improve our teaching. The support network provided by the UDL Professional Learning Communities over the course of three years has made significant impact on teaching and learning across the curriculum. Faculty worked collaboratively to learn the UDL Framework, then supported each other throughout the process of course redesign, including reworking course assignments, adding flexibility to classroom activities, and widening the repertoire of assessment techniques in order to meet student learning needs more effectively.

LIBRARY INSTRUCTION

Towson University's model of education librarianship is grounded in UDL practice. The UDL Framework guides teaching librarians as they facilitate active and engaged cooperative learning, design small group cooperative learning activities, facilitate large group discussions, provide guided practice with primary sources, use rubrics, facilitate students' creation of collaborative content, and experiment with formative assessment tools. At Towson, we believe UDL principles are vital to engaging our current generation of learners, enrich both teaching and learning, and provide a best practices model for our pre-service educators. We use technology tools in various ways, facilitate active discussion, offer hands-on opportunities and engage students in guided practice. We provide active assistance to student work groups arrayed in classrooms, and make time

for groups to report to the whole class so that students can discuss their findings, ask and answer questions collectively, troubleshoot problems and expand the group's shared knowledge.

In the field of Education Librarianship, one priority for information literacy instruction is to help pre-service teachers appreciate quality children's literature and encourage them to apply it to their lesson planning. Another priority is to model best instructional practice. It is important for education students to experience the benefits and fundamental elements of UDL and reflect on its framework both as learners and as future teachers. In this panel, Education Librarian Claire Holmes will discuss specific UDL instructional strategies found to be effective in this context. For example, complementary library instruction sessions for a sequence of courses focused on children's literature include:

- Offering opportunities for pre-service teachers to learn at their own pace through creating customized online tutorials using Google Forms, then evaluating their responses to inform instruction.
- Flipping instruction segments strategically.
- Creating paired or group activities to stimulate thinking and practice applying the connections between children's literature and lesson planning.
- Encouraging students to read children's books aloud with peers in class.
- Facilitating students' use of rubrics to examine and discuss cultural relevance in children's literature.
- Initiating students' collaborative creation of a list of library catalog keywords to enhance their access to culturally relevant children's literature, which is then posted online to facilitate continued use.

MUSIC EDUCATION

Since participating in Towson University's UDL Professional Learning Community initiative, Dr. Kate Evans has made a conscious effort to infuse music education courses with UDL principles. The process started by making small changes in the way information was presented, as that seemed the least intimidating. The goal was to first incor-

porate teacher-centered changes in instruction. For instance, accessible *PowerPoints* to supplement lecture materials were created, with a focus on improving color contrast and readability. Opportunities for individual choice and autonomy were increased by removing some of the formatting requirements for assignments, focusing instead on assessing assignments on the merits of content. Rather than having students answer questions at the end of a chapter, they could demonstrate their understanding of the material as they desired. Some students answered the traditional questions, created outlines, and made *PowerPoint* presentations, while others created graphic organizers, and even comic strips, to show comprehension of chapter content. Additional practical assignments that directly related to the needs of Dr. Evans students as future teachers were also created. For instance, instead of reading about how to audition students for choir, pre-service music educators completed mock auditions with volunteer students in class. They created concert programs and took turns leading warm-up activities in every class. Students were very engaged and expressed appreciation of the relevance of these practical assignments to their future careers as music educators in course evaluations.

- “As a kinesthetic learner, the experiential approach was crucial in allowing me to integrate concepts much more quickly and accurately. Each of the manipulatives used in class were successful in demonstrating specific concepts within conducting and were helpful in bringing a physical awareness beyond the intellectual awareness of the specific concept. Furthermore, many of the experiential approaches have successfully transitioned into other areas of my musical growth and development.”
- “It [the UDL approach to conducting] allowed me to move beyond what I already knew about conducting. It also provided more practical experience than a traditional conducting class. As a future music educator, I feel that the experiential approach is more conducive to integration into my classroom and teaching style. It also encouraged me to focus on things other than gesture, such as posture, facial expression, and rehearsal techniques that I found extremely relevant and beneficial.”
- “This was one of the most enjoyable classes I have had at Towson. It pushed me, I learned a lot, and I succeeded as well. I can get a traditional conducting education anywhere, but I don't know of many other places that would be able to offer such an in depth and successful education for all. It was so neat to see all of my classmates, including myself, grow using these methods. Loved it! Absolutely loved it!”

Evans strived to provide additional scaffolds, and change the way that students interacted with course content. Examples include increased use of graphic organizers, assignment of several note takers on a rotating basis for all reading assignments who submitted their notes online to share with the class, and the incorporation of additional rubrics and checklists to clarify learning objectives and goals. Students also received vocabulary assistance through pre-teaching vocabulary and utilizing *Bookbuilder* supports to create a glossary and multimedia presentation of information. Evans modeled mastery-oriented feedback and encouraged students to provide this type of feedback for themselves and each other in class.

Physical movement was used to demonstrate concepts and increase engagement in class. Conducting gestures are traditionally taught by having students watch while the instructor models the motions. With UDL principles in mind, Evans adopted a sensory approach to the process of learning how to conduct music. Students danced with silk scarves to feel and see musical phrasing, played hand drums to hear different types of rebound gestures, shook rattles to hear subdivision in their beat gestures, and conducted on a trampoline to feel balanced weight placement and posture. Using different physical motions to teach concepts helped students to better understand the materials and also kept them more engaged in early morning classes!

Changes were also implemented that impacted how students related to course concepts and materials, as well as how they understood their own learning needs. Evans worked to activate prior knowledge and help student make connections that will help them transfer information to new situations. She intentionally included class time for review and practice on regular basis, used KWL's and concept maps to activate prior knowledge, and focused on helping students learn to set goals and assess themselves. After reading student journal entries, it was apparent that they didn't understand how to practice effectively. The structure of journal entries was changed to require that students create individual weekly goals, a plan of action to achieve these goals, and then write a reflection upon their progress. This helped students to concentrate their efforts, focus their practice, and dramatically improve their skills in less time. This also allowed the instructor to help students more accurately assess themselves and gauge their progress in meeting personal and course goals. Students also completed surveys about their perceptions of their skills at various points throughout the class. The survey and journal reflections helped Evans realize when individuals were struggling or frustrated as well as when additional review or individualized help for specific students was needed.

EDUCATIONAL TECHNOLOGY

UDL has been an important topic in Towson University's Teacher Preparation program for many years. Over the past few years, collaboration between the Department of Special

Education and the Department of Educational Technology and Literacy have resulted in the fruitful integration of UDL into core courses across the teacher preparation curriculum. Starting with the introduction to instructional technology course and expanding from there, UDL has become an integral part of the preservice teacher experience and what they come to learn as good instruction. As a panelist for this presentation, Dr. Bill Sadera will share examples of how UDL has been integrated into an Introductory Instructional Technology course and expanded throughout the Educational Technology program. This portion of the panel will share examples of curricular design and integration as well as student artifacts exemplifying how UDL is addressed.

The decisions regarding curricular change and the integration of UDL were guided by existing research on UDL and preservice teacher preparation (e.g. Claflin, Eddins & Eicher, 2012; Courey, Tappe, Siker & LePage, 2013; Pace & Blue, 2010; Williams, Evans & King, 2012). Moreover it draws upon knowledge of preservice teachers' existing beliefs about teaching, learning and UDL and strategies to help strengthen those beliefs. Sadera and Berquist (2013) argued that preservice teachers must have a thorough and accurate understanding of the foundational assumptions of UDL; this is essential in helping them to adopt the framework and apply the principles in their future classrooms. Worthwhile experiences and proper training support the adoption and ownership of accurate beliefs and understanding of UDL and are essential to ensure that preservice teachers make UDL part of their practice in designing and implementing their own instruction.

CONCLUSIONS

The support network provided by the Towson University UDL Professional Learning Communities has been incredibly beneficial in providing encouragement and assistance for the implementation of UDL across the curriculum. The integration of UDL principles has encouraged intentional teaching, afforded appropriate scaffolds for the varied learners in many courses, and provided a framework to help students better understand their own learning and emotional needs. Modeling UDL principles for pre-service educators increased engagement in class. Students commented in

course evaluations that they loved the UDL approach and many expressed an eagerness to apply the principles in their own classrooms. This approach was initially uncomfortable for some students and instructors because it was different from what many had experienced previously, but once UDL principles were incorporated, the students and faculty members in these courses truly embraced the idea of instructional flexibility and making learning possible for all students.

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