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# Using Choice-Based Assessments in an Asynchronous Online Teacher Preparation Course

Marla J. Lohmann

*Colorado Christian University, mlohmann@ccu.edu*

Kathleen A. Boothe

*Southeastern Oklahoma University, kboothe@se.edu*

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### Cover Page Footnote

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# Using Choice-Based Assessments in an Asynchronous Online Teacher Preparation Course

*Marla J. Lohmann and Kathleen A. Boothe*

In a teacher preparation program, it is critical to teach best practices in education through both instruction and modeling of those practices. The American Association of Colleges for Teacher Education (2018) notes that teacher education involves a clinical practice model in which teacher candidates are explicitly taught best practices in teaching and then have opportunities to practice what they have learned in the PreK-12 classroom. This model emphasizes that theory and practice are critical elements of teacher preparation and must be taught in tandem (Dresden & Thompson, 2021).

One practice that aligns with the clinical practice model is Universal Design for Learning (UDL). UDL is an education framework that can be used in classrooms from early childhood through college and was developed by Drs. David Rose and Ann Meyer in 1984 (Thibodeau, 2021), but there is still limited understanding and implementation of this framework in the university classroom (Hills et al., 2022). UDL includes three principles to support the learning of all students: (a) multiple means of engagement, (b) multiple means of representation, and (c) multiple means of action and expression (CAST, 2018; Meyer et al. 2014). The use of the UDL framework in higher education is supported through the Higher Education Opportunity Act (2008). Despite the evidence supporting the use of the UDL framework and its endorsement in federal law, teacher preparation programs still lag behind in using this instructional practice in their classrooms (Vitelli, 2015). Teacher educators must be diligent to use this framework in their own instruction to model for pre-service and in-service teachers how to use it in their current or future classrooms (Evmenova, 2018).

Today's college classroom includes a multitude of diversity, and university faculty must be prepared to offer instruction that is responsive to the diverse needs of the students. The use of UDL can support diverse learning needs and preferences in the university classroom (Evmenova et al., 2024). Racial and ethnic diversity is growing, with almost half of all college students not Caucasian (American Council on Education, 2016). While the majority of university students are between the ages of 18 and 24, there are an increasing number of non-traditional students attending college (Hanson, 2022). Many college students have a variety of responsibilities. Over half of undergraduate students have jobs while attending college (Perna & Odle, 2020). Around half of full-time and two-thirds of part-time students are parents of children under the age of 18 (National Center for Education Statistics, 2022). The number of English language learners, including international students, is also steadily growing (Harrison & Shi, 2016). In addition, the number of students with disabilities in the college classroom is growing (Costello-Harris, 2019), but many of these students choose not to disclose their learning needs to university faculty (Black et al., 2014). This prevents them from receiving individualized supports to meet their learning needs (Kennette & Wilson, 2019). The reality is today's university students, especially those choosing to learn in online classrooms, need university faculty to use high quality instructional practices designed to meet their needs. The diverse needs of learners make the use of supports, including the UDL framework, imperative for ensuring success of all students.

## **Universal Design for Learning and Students with Disabilities**

Online learning can pose unique obstacles as technology tools can prove to be especially challenging for some students, resulting in a learning environment that is not equitable for adult students with learning needs (Rao et al., 2021). UDL helps ensure that learning environments are inclusive for all college students by removing barriers to learning (Boothe et al., 2018; Chardin & Novak, 2020; Cook & Rao, 2018). College courses that use UDL include a combination of technology tools and instructional practices that meet a variety of learning needs and preferences (Rao et al., 2021). University faculty members (Westine et al., 2019), instructional designers (Singleton et al., 2019), and college students (Kennette & Wilson, 2019) all report that the use of the UDL framework supports student success in the university classroom.

## **The Use of Choice-Making for Assessments**

The third UDL principle is multiple means of action and expression, which focuses on how students demonstrate their knowledge of the course content through both formal and informal assessments (CAST, 2018). When student learning is assessed using assessment tools designed through a UDL lens, university faculty gain a more accurate understanding of student mastery of course content, as well as future learning supports that may be needed (Rose et al., 2018). As teachers consider the use of multiple means of action and expression, they are encouraged to offer choice in student assignment format (Nave, 2021). When students are offered choices in how they access learning or how their learning is assessed, their motivation for, and engagement in, the learning increases (Evans & Boucher, 2015).

Previous research indicates students appreciate having options regarding how their learning is assessed (Bennett & Ray, 2022; Morris et al., 2019). The proactive role they can take in their own learning leads to benefits (Pretorius et al., 2017) such as increased interest and motivation for learning (Hanewicz et al., 2017). The choices provided by the instructor must be intentional and relevant to the learners and content (Evans & Boucher, 2015; Morris et al., 2019). When designing choice-based assessments, faculty must ensure all learners will be assessed on the same learning content (Morris et al., 2019). In addition, faculty must be aware some students will feel overwhelmed by having choices, which can impact their success and satisfaction with learning (Bennett & Ray, 2022).

This literature review highlights the benefits that have been seen in the use of choice for student assessment. Currently, minimal research exists that examines the use of choice in teacher preparation programs, as well as the use of choice-based assessments in online learning. This study attempts to add to the research base by investigating student perceptions of choice-based assessments in one online course.

## **Methods**

This study can best be described as aligning with the Scholarship of Teaching and Learning (SoTL). This approach to research is designed to improve instruction in the university classroom through using data to make specific improvements to programming and curriculum within a certain university program (Trigwell, 2013). While the intent of SoTL is focused on the specific

setting in which the research is conducted, the implications of the research may be applicable beyond that setting, making it vital to share the results of data collected through this research methodology (Schrum & Martensson, 2023).

The research was conducted as a survey in a five-week intensive asynchronous online special education course. This is the first course taken by all students who are pursuing either alternative teacher certification or a master's degree in special education. In addition, some undergraduate elementary education students select to take this course in lieu of the bachelor's level inclusive needs course. During four of the five weeks in the course, students are required to complete a reflection assignment on the weekly course content, with a specific emphasis on applying what they have learned to their own experiences and to their current (or future) roles as special education teachers. For each of these reflections, students are instructed to share their personal reflection in a method of their choosing with the rubric used to evaluate their submissions focusing on the reflective process, not the medium they chose to complete the assignment.

Students in the first author's asynchronous online master's level Introduction to Special Education course were selected for participation in the study. The course is taught one or two times each semester, three semesters per year. Students who took the course between Fall 2019 and Spring 2022 semesters were included in the research. After approval from the Institutional Review Board (IRB), the research began in fall 2019. At the conclusion of each section of the course, all students received an email inviting them to participate in the research. Students who chose to participate completed an anonymous online survey (Figure 1) designed by the authors.

### Figure 1

#### *Survey of Teacher Candidate Perceptions Regarding Choice Based Assessments*

<p>In which semester did you take SED-500: Introduction to Special Education?</p> <ol style="list-style-type: none"> <li>1. Which of the following best describes you?             <ol style="list-style-type: none"> <li>A. Undergraduate student</li> <li>B. Alternative licensure program student</li> <li>C. Master's degree student pursuing initial teaching license</li> <li>D. Master's degree student not pursuing teaching license</li> </ol> </li> <li>2. For your reflection assignments, which format(s) did you choose? Check all that apply.             <ol style="list-style-type: none"> <li>A. Written text</li> <li>B. PowerPoint presentation</li> <li>C. Video</li> <li>D. Audio file</li> <li>E. Other</li> </ol> </li> <li>3. If you answered "Other" in the previous question, please briefly describe the format you chose for your reflection assignment.</li> <li>4. In 2-3 sentences, explain why you chose to use that method(s) for your reflections.</li> <li>5. As you think about this assignment and other class assignments, what benefits do you see in having a choice in response method?</li> <li>6. As you think about this assignment and other class assignments, what challenges do you see in having a choice in response method?</li> <li>7. Would you like to have choices for response methods for your assignments in future courses? Please explain your answer.</li> <li>8. In what ways (if any) did the choice-based assignments change your thinking about your own classroom instruction?</li> <li>9. Is there anything else you believe the researcher should know about the choice-based reflections in SED-500?</li> </ol>
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## **Data Collection and Data Analysis**

After the data collection period was complete, the open-ended questions were coded to look for themes in the research. Previous research has demonstrated that open-ended questions in online surveys can be used to collect qualitative data (Braun et al., 2021). The participant responses were coded by hand to look for patterns, a process known as thematic analysis (Clarke & Braun, 2013). When using this method of data analysis, it is vital that researchers look for themes in responses among various questions instead of just looking for similarities in the responses to each specific question (Maguire & Delahunt, 2017). To complete the coding for this data, the first researcher reviewed the data and noted themes. This data was then confirmed by the second author, who suggested one new theme to better reflect participant responses. Together, the two researchers then discussed each participant statement and determined the most appropriate theme. Using this method, the researchers found five unique themes in the respondent answers.

## **Results**

During the study period, a total of 24 students responded to the survey, out of 69 students who took the course during this time period, for a response rate of 34.78%. The distribution of participants across semesters is as follows: (a) six in fall 2019, (b) one in spring 2020, (c) eight in fall 2020, (d) five in spring 2021, (e) one in fall 2021, and (f) three in spring 2022. Of the respondents, three (12.5%) were undergraduate students, 12 (50%) were master's students pursuing their initial teaching license, five (21%) were master's students who already had their teacher certification, and four (17%) were enrolled in the alternative certification program. According to their self-report, the majority of survey respondents chose to write papers ( $n=13$ ; 54%) and create PowerPoint presentations ( $n=19$ ; 79%) for the choice-based assessments.

In the responses to the open-ended survey questions, several themes regarding choice-based assessments emerged, including: (a) reduced student stress when choices are offered, (b) enhanced learning when provided with choices, (c) knowledge can be demonstrated through student strengths, (d) selecting an assessment format can be challenging for some learners, and (e) the use of choice-based assessments encouraged respondents to use similar options in their own classrooms.

**Choice Reduces Stress.** The first theme that emerged was that choice-based assessments reduced the stress of assignment completion for some learners. Ten participants (42%) included response statements that fell into this theme, with students indicating that the use of choice-based assignments helps them focus more on the content of the learning and less on the format of the assignment. One participant noted:

“Students may feel less anxiety about a certain assignment if they can do it in a format that is good for how they are comfortable presenting material versus already having anxiety about an assignment plus you have to do it in a format that is unfamiliar.”

Other participant responses reinforced this statement with comments noting that the participant may perceive him/herself to have poor writing or technology skills, so being able to choose not to write a paper or to avoid doing a PowerPoint presentation reduced their concerns about their

skills and allowed them to focus on demonstrating their own knowledge related to the course learning. Recent research by Fovet (2020) supports this finding that students' levels of stress about coursework may be reduced when choice-based assignments are offered within a UDL instructional framework.

**Choice Enhances Learning.** The second theme that arose is that students perceive choice-based assignments as enhancing their learning. A total of seven students (29%) had responses that aligned with this theme, and three students specifically noted that this assessment method allowed them to demonstrate their knowledge in a format that best aligns with their own learning preferences. Student responses that aligned with this theme included statements such as, "I believe I retain more information when I create based on my choosing," and "I feel in control of my learning and therefore retain more information." One student noted that he/she was able to spend more time focused on learning the course content instead of focusing on learning the process for demonstrating knowledge; this student specifically gave the example that he/she has poor technology skills and must spend considerable time learning how to create a PowerPoint presentation, which reduces the time available for learning the course content. Two students also noted that the use of choice allowed them to increase their own knowledge and skills in the specific format they chose for completing the assignments. While growing their writing or technology skills was not necessarily the purpose of offering choice, doing so did have this result for a few students.

**Choice Demonstrates Knowledge of One's Strengths.** A third theme that arose in the surveys was that choice-based assessments allowed students to demonstrate their knowledge in a manner that supports their strengths. As noted in the two previous themes, some students mentioned concerns that they have limited writing or technology skills that can limit their abilities to demonstrate their mastery of course content. Nine participants (38%) reported that being provided a choice in response format gave them the option to select a format that aligns with their strengths, ensuring the focus was on the information they were sharing, not on their writing or technology skills. Three students also mentioned that being provided a choice allowed them to be more creative in their assignment submissions. Finally, one student noted, "Previously the assignments were requested in different formats, and I found I liked writing over creating a PowerPoint because writing is normal or familiar." Similarly, another student said, "It nice to have choice, so if you are not a strong writer, you can do a PowerPoint or a video and don't get counted off for not being a good writer." One student mentioned that he/she chose to complete these assignments in a format that was not aligned with his/her strengths, with the goal of gaining new skills.

**Choice Can Be Challenging.** While the participant responses generally showed positive reactions to the use of choice-based assignments, we did identify one theme that indicates students have some concerns about the use of choice-based assignments. The fourth identified theme, noted by four (17%) of survey respondents, is that selecting an assessment format can be challenging for some learners. One respondent said, "It is an added stressor to have to think of a new way of providing the information," and another noted, "There may be a challenge when it comes to those who are used to only having one method of response. The ability to choose can be overwhelming for some."

**Choice is Replicable.** The final theme that arose in this study is that having choice in their assessment formats encouraged pre-service and in-service teachers to offer choices to their own students. This aligns with guidance from Israel et al. (2014) who note that teacher candidates who have been taught using a UDL framework are more likely to use UDL in their own classrooms. Seventeen students (71%) responded with statements aligning with this theme. One student noted, “It is a good reminder for me to offer my students choice—always a good thing to help them feel like they have a say in their learning.” And another student said, “It made me evaluate the power of choice and the strengths of students I work with. Presenting choice that gives them the opportunity to use those strengths will (hopefully) increase engagement and work completion.”

**Concerns about Choice.** In addition to the themes identified, individual respondents raised additional concerns and challenges about the use of choice that should be considered. First, one respondent noted that certain types of files were difficult to upload within the university Learning Management System (LMS). A second respondent explained that they were unsure about options for assessment formats and wanted more guidance on what would be acceptable. Finally, one respondent noted that it was challenging to know if they met the assignment requirements when they chose to do a more nontraditional assessment. It should also be noted that one student mentioned choosing a format that aligned with his/her learning style; however, this educational theory has been debunked in the literature (e.g., LeBlanc, 2018; Newton & Wang, 2024), and the statement provided the first author with information indicating she needs to ensure her students understand the theory is not backed by empirical evidence.

## **Discussion**

The survey results indicate that some graduate teacher education students like choice-based learning assessments. Because the survey did not specifically evaluate student learning, the results do not indicate whether the use of these assessments had an impact on student learning of course content. Additionally, participant responses indicate that university faculty must intentionally plan for challenges related to choice-based assessments.

The results of this study demonstrate that the use of choice-based assessments may be a good instructional strategy in the online college classroom. This investigation found results similar to previous studies wherein students preferred being provided choices (Bennett & Ray, 2022; Morris et al., 2019). This study also found that students in the Introduction to Special Education course appreciated having the opportunity to choose how to demonstrate their learning and felt their learning was enhanced through choice.

The results of this investigation are limited due to the small sample size and the fact that all students were enrolled in the same academic program at the same university. Due to the limited nature of the sample, the results may not be generalizable to other populations. In addition, the survey did not ask respondents to indicate their diverse learning needs and preferences, including any disabilities students may have. Therefore, the study results may not accurately represent the impact of assignment choice for diverse learners.

We also note that this study began before the COVID-19 pandemic and data collection continued through the pandemic and related school shutdowns. We did not note a difference in survey responses based on whether the student took the course before, during, or after the shutdown. Therefore, we do not believe that, for these students, the COVID-19 pandemic impacted their perceptions of choice-based assessments in this course.

## Conclusion and Recommendations

This study is limited and, as is common with SoTL research, the results may not be generalizable beyond the setting in which the research was conducted. With this in mind, the authors recommend that all university faculty members, not just those in the field of education, consider the use of choice-based assessments in their courses and collect their own data on its effectiveness for their own student populations. The UDL framework can remove barriers to learning (Black et al., 2015), and choice is a commonly used strategy within the UDL framework (Chardin & Novak, 2020). Because the respondents indicated that having choices could sometimes be overwhelming, we do recommend that faculty provide scaffolded supports in choice-based assessments. Specifically, we suggest that these assignments might include a list of potential formats for assignment completion, as well as a rubric that clearly explains how the work will be graded.

In addition, this study highlights the need for further research on assessment in online courses. We suggest several future research directions. First, we recommend a replication of this study with a larger population of students at multiple universities. Second, research should be conducted to investigate the impact of choice-based assessments on student learning; specifically, it is vital to understand if students are able to demonstrate mastery of course content more accurately in some assessment formats as compared to other formats. Third, a follow-up study of teacher candidates who were offered choice-based assessments in the college coursework should be conducted to explore how this experience impacted the ways in which they design assessments in their own K-12 classrooms. Finally, because this data does not offer information on the use of choice-based assessments outside of asynchronous online courses, we suggest replication of this research in teacher preparation courses that are taught in different formats, including face-to-face, hybrid, and synchronous online course offerings.

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*Marla J. Lohmann ([MLohmann@ccu.edu](mailto:MLohmann@ccu.edu)) is an Associate Professor and Program Director of Special Education and Alternative Licensing Programs at Colorado Christian University, as well as the editor of The Dialog: A Journal for Inclusive Early Childhood Professionals. She is active on X/Twitter at @MarlaLohmann and Bluesky at @marlallohmann.bsky.social.*

*Kathleen A. Boothe ([KBoothe@se.edu](mailto:KBoothe@se.edu)) is an Associate Professor and Program Coordinator of Special Education at Southeastern Oklahoma State University and is the co-author of two books, including Teacher Education Online: A Practical Guide for Instruction (Bloomsbury Academic, 2025). She can be found on X/Twitter at @kah1978.*