

“Dad’s Online Gambling Habit Used up our Family Data Plan,” and Other Digital Excuses for not doing Homework

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Abstract

Inherent in all learning environments, and in particular virtual learning spaces, are barriers. These can include barriers unique to individual students, or a product of the technology. At California State University, Fresno the large variety of university students include over 50% of students in poverty, first generation, and emergent bilingual language learners. The challenge of capturing the talents of this group is often a struggle for instructors, particularly in digital courses. Instructors should use design elements of UDL within post-secondary courses. These include: identifying barriers to learning, alternatives for participating during class time, effective alternative assessments based on construct relevance and UDL meta cognitive goals and transparency.

Keywords

Universal Design for Learning, Post Secondary, Digital Design

INTRODUCTION

College and university instructors have an increasingly diverse student population attending a wide variety of classes including first generation students, students in poverty and students with learning disabilities. With a large variety of learners entering post-secondary settings, the challenge of capturing the talents of this group is often a struggle (Rose, Harbour, Johnston, Kaley & Abarbanell, 2006). We must harness the instructional design power of Universal Design for Learning (UDL), an instructional design lens that has the potential to provide access to rigorous curriculum (Meyer & Rose, 2005).

The purpose of this conference proceeding is to focus on planning and designing university curriculum to enable learning that is inclusive. Provided is a path to designing post-secondary courses using the UDL guidelines. Though not a complete compilation of ideas, relevant and concrete examples for using UDL in post-secondary and university course design and implementation will be given throughout the paper. The intent is to start a conversation, to begin ideas, and to give direction for providing continued access to rigorous content for all learners.

IDENTIFY BARRIERS

Inherent in all learning environments are barriers. These barriers can be unique to individual settings, students, or a product of the technology. Instructors can begin by taking specific inventory of the physical environment, identifying

barriers that often exist in traditional classrooms, from overhead lighting that reduces most humans to one-dimensional versions of themselves, to desks that were not built to accommodate laptops or lack power outlets. What can be done to overcome these barriers? Advocating for a change of classroom might work. Other options may include having student’s group desks together to form make-shift tables, letting students sit on the floor, bringing in alternative lighting, or simply turning off the overhead lights. Students who have hearing impairments often have sign language interpreters to support overcoming the language barrier, but what about the student with dyslexia? Providing materials that can be read with a screen reader will support those students when visually reading text is a barrier to the content.

Online courses come with barriers that instructors should inventory as well (Burgstahler & Cory, 2013). One may be the online learning platform (OLS) the university provides. A particular OLS may be new to the institution or overly complicated. A way to break down this barrier is to create or use an existing tutorial for the specific OLS. Allowing a tutorial to be the beginning part of the online course, with course credits or points, helps to mitigate this barrier.

Important to remember with a barrier inventory is that learners should be expected to contribute to this process. What is a perceived barrier for one learner is not for another. A robust discussion of barriers and their eliminations are an important part of any course.

PROVIDE OPTIONS FOR RECRUITING INTEREST

Course objectives and the assignments connected to those objectives need to be presented with transparency. An example of this would be “The learner will demonstrate knowledge of issues in school reform, restructuring, and the role of inclusive education in these efforts.” The assessment relates specifically to the course objective: “Create a representation of a California school reform, and/or restructuring that includes the role of inclusive education.” The rubric is connected to both: “Accurate representation of the reform and restructuring elements and specifically contains the role of inclusive education.” This makes the process transparent to learners and increases the relevance, value, and authenticity of each assignment or assessment. In a distance learning environment providing high quality options for recruiting interest and expression can seem difficult, and it is certainly different from a face-to-face classroom. (Rose, Harbour, Johnston, Daley, & Abarbanell, L

2006) In both face-to-face and online environments learner choice on how to express their knowledge is important. Examples can include meeting the objectives through an essay, an interactive poster, or using free resources such as Powtoon, Animoto, or Powerpoint with voiceover.

PROVIDE OPTIONS FOR SUSTAINING EFFORT AND PERSISTENCE

Provide specific places to get help (Grabinger, 2010). The lines between face-to-face and digital course delivery definitely blur with this specific path. Instructors can, and should, have office hour options for both face-to-face and digital communications. To further encourage options professors should have some face-to-face hours each week, some synchronous options with a delivery system such as Skype or Zoom, as well as a place to put questions asynchronously, usually in email. In order to foster collaboration and communication, all of the preceding options can be open to group participation. Undoubtedly some learners may prefer to be one-on-one with their instructor for some questions and in a group for other questions or content discussions.

Encourage idea sharing by providing a back channel where learners can make comments and pose questions to each other as an ongoing part of course communications. For face-to-face or synchronous delivery this can be a community chat using Padlet, or a shared Google document. For asynchronous delivery this could be a closed Facebook page, Twitter hashtag, and again a Google document.

PROVIDE OPTIONS FOR SELF-REGULATION

Support strategies in executive functions. Students can take and post class notes on a class website on a rotating basis. Students can self-grade their own online discussions when a rubric is provided. The instructor can ask for a midterm check for learner understanding and mastery of course objectives (i.e., Survey Monkey). This data allows for the learners to self-check where they are in understanding the class objectives and allows for the instructor to customize learning. Communicating frequently with the whole class by sending a weekly email helps reduce stress and encourage thinking and self-reflection on course progress.

PROVIDE OPTIONS FOR PHYSICAL ACTION

Even in the digital world there is physical action. For example, learners need to be able to physically navigate a laptop, tablet, or smart phone to be able to express their ideas and thoughts through these devices. Instructors need to make sure learners are able to use these devices without physical barriers. (Hawkins, Graham, and Barbour, 2012). In addition instructors need to ensure that students are not lacking information to be able to navigate divides. For example, if assignments are in one form only, like a traditional paper, this may provide students a narrow way to demonstrate understanding of the goal. By providing alternatives for participation during class time and study time, instructors are more likely to get a better response toward

the educational goal. In face to face classrooms during lectures, presentations, or class discussions teachers might encourage students by providing alternatives to joining in whole group discussions. Learners could choose to chat in small groups or with one other student, or even to journal privately. Accessing technology to provide the ability for students to text, voice, video, email, Facebook message, Skype etc. In distance learning specific examples for student options might include:

Encouraging students to make a short video for an assignment using iMovie.

Teaching students how to create a voki. Then giving voki as an assignment alternative.

Asking students to give a tour of their study area during a synchronous lesson or meeting using the video option.

PROVIDE OPTIONS FOR EXPRESSION AND COMMUNICATION

Strive for effective alternative assessments based on goals and objectives. The goal is to encourage strategic, goal-directed learners (Meyer & Rose, 2005). One type of expression is not equally suited to every student, or every goal. The current free or low cost opportunities for learners to demonstrate understanding or ask questions is practically unlimited. As an instructor or educational designer do not assume students know how to use enough of these options to make deep choices. Provide new resources for expression and teach learners how to use the specific resources. For example use Viemo, YouTube, Prezi, PowerPoint with voiceover, or Glogster. So instructors are up-to-date of the technologies learners use, ask students to generate resources to share with the class. Instructors should provide consistent communication to students specifically addressing how the course objectives are being addressed during the quarter, semester, or year.

Scheduled face-to-face class sessions can be designed to address this progress. Once a week at the beginning of a class period the instructor can specifically address progress on course goals and objectives. In a digital environment the instructor should send out a weekly email addressing progress to course objectives. Learners should have an opportunity to reflect on their own progress as well. This allows students to take steps to course correct themselves if necessary.

PROVIDE OPTIONS FOR EXECUTIVE FUNCTIONS

Use the UDL metacognitive goals with transparency by explaining and pointing out instructor thinking around the choices of content and assessment. As when telling a story to illustrate a concept, make a point of telling the students that story telling is an option for multiple means of representation. The digital world offers almost too many choices in new applications and programs (Vasquez & Serianni, 2012). Students need a way to judge what options work for them, a way to match the application with the assignment. Teachers need to provide instruction to support learner

choices. This does not mean that the teacher needs to have mastery of each option, but instead is willing to learn alongside students in making judgments. One specific example could involve offering a class three choices for an assignment that reflects on interacting with new content, i.e., a book chapter, journal article or lecture: iMovie, PowerPoint with voiceover, or voki. Included in the assignment is a reflection piece on the effectiveness of their choice of expression. Share the reflections with the whole class.

PROVIDE OPTIONS FOR PERCEPTION

Start with the Syllabus! Syllabus considerations include presenting the course syllabus in a variety of ways, placing information for support systems and accessibility at the beginning of the syllabus, and making the introduction to the course personal and friendly. The instructor should present the syllabus in accessible digital form so that a screen reader may be used. This is helpful for both face-to-face and online courses. Make a video recording out of the syllabus. An excellent example is from the On Campus website developed with CAST: <http://udloncampus.cast.org/home#.VE6ccRCF9vk>

PROVIDE OPTIONS FOR LANGUAGE, MATHEMATICAL EXPRESSIONS, AND SYMBOLS

Set students up for success by assuming that they will need individual clarification around different concepts (Coy, Marino, & Serianni, 2014). Teach students how to use accessible options for the web platform. Just because every student does not need that level of accessibility doesn't indicate that they should not be able to use these features. It's empowering for all and included in most common resources such as Google and Word.

PROVIDE OPTIONS FOR COMPREHENSION

Use the power of webcasts and web-based conferencing. Explore and understand the visual, audio, and interactive features of webcasts. Use web conferences to engage students in an alternative form to check comprehension.

Use Zoom (www.zoom.com) for planned synchronous instruction. This is a low cost interactive tool that participants join through a website, and students can see each other's facial expressions.

Google Hangouts. If Pope Francis can run a Google hangout, so can you.

CONSTRUCT RELEVANCE

Constructs are the knowledge, skills, or abilities that are measured by assessments. Instructors should continually evaluate the assessment(s) required of students and consider that irrelevant factors may impede accurate assessment of individual student knowledge, skills, and abilities. For example, differences in organization and time management, or background skills and knowledge could result in inaccurate measurement of students' abilities on course objectives. Traditional discussions are an identifiable barrier for many students in post secondary online courses. Because peer-to-peer learning is so important in university work it is

necessary to reduce this barrier. Plan for a variety of ways for students to interact. Here are some specific ideas:

Create a Facebook page that is open only to the students in the course. Assign postings, (written, images, videos, graphic organizers) based on reaction to content, encourage and then assign students to comment on each others' posts.

GIFs. Go to Facebook, message a friend, click on GIF button, type in the idea "have a good day" and you can send an expression immediately. Better yet, have students create their own GIF's to send to each other or the instructor to express ideas and reactions to content.

CONCLUSION

A professor's deep content knowledge will propel rigorous ideas that meet the lens of UDL, opening doors to content important for learners to master on their way to success. Designing for the growing variety of students attending universities allows professors and instructors the opportunity to plan for robust and inclusive classroom settings, both in the face-to-face and digital delivery models. This paper provided specific examples for planning and designing curriculum for post-secondary learning environments that takes advantage of UDL.

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