

Personalized Learning in Higher Education: Low-, Mid-, and High-Tech Strategies

Kelly Paynter and Jimmy Barnes
Jacksonville State University

Abstract

This session includes justification for personalized/customized learning assignments in higher education; some benefits of using this approach; and a discussion of how such assignments promote critical thinking skills as students work within the higher levels of Bloom's Taxonomy. Low-tech, mid-tech, and higher-tech differentiation strategies are discussed via examples of these types of assignments that the presenters use in their own classes.

Introduction

Differentiated learning. Personalized learning. Choose-your-own adventure. Choice boards. These concepts have long been discussed and implemented in the K-12 environment (Coppens, 2021), but their adoption in higher education has been slower.

Why should professors implement customized or personalized assignments in their classrooms? The reasons are many. Most people like talking about themselves and enjoy integrating their experiences into assignments. Students appreciate relating their schoolwork to something practical. Instead of wondering when they will use an assignment in “real life,” students find themselves using, applying, and making meaning of topics immediately. Personalized assignments give students ownership of their work, cut down on cheating, and encourage students to perform at the higher levels of Bloom’s Taxonomy (Armstrong, 2010). Instead of working within purely knowledge-based assignments, personalized assignments can help students produce artifacts in the analysis, synthesis, and evaluation spheres.

What can (or should) be personalized?

Personalizing assignments can initially feel overwhelming. A professor might wonder, “Am I supposed to make a unique assignment for every student in my class?” Instead of the onus for personalization falling solely on the teacher, however, consider the role of the student in personalization. The students may have great ideas about how to personalize assignments to their current jobs, classes, or future careers. Remember that not every assignment needs to be personalized. Some assignments should be completed word-for-word, step-by-step by every student so that every person has the same basic understanding of introductory material. Such knowledge-level activities, designed to help students remember content, are at the lower levels of Bloom’s Taxonomy and may not lend themselves as well with personalization. Often, students must pick up the background knowledge about a subject before they have the big-picture perspective to be able to personalize anything. Admittedly, some subjects or projects may lend themselves better to personalization than others. Professors must embrace the discomfort of having students submit assignments that may look different than what the professor envisioned. Often students may submit assignments that are better than what the professor envisioned!

Having a high-quality rubric for any assignment that a student can personalize helps to reduce (unwanted or poor-quality) surprises with the end product.

Professors tend to approach differentiation in one of three ways—they may disregard it, adapt to it, or transform the process (Boelens et al., 2018). Professors who do not offer any customization in their assignments would fit under the *disregard* category, and professors who allow a great deal of differentiation/customization in their assignments would fall under the *transform* category. While neither end of the spectrum is “right” or “wrong,” it is important to self-reflect and think about which end of the spectrum one currently falls.

Ways to Personalize

Professors must first decide, for a given project, if the format or the content is the most important piece for the students to master. If one matters much less than the other, then that is the area that may be best for personalization. For example, if a teacher’s goal is for a student to learn a specific technology—say, Flipgrid—then the format matters, but the content (what the student discusses in his/her Flipgrid) doesn’t. This professor can give the students agency in the topic, style, and presentation of the Flipgrid. A biology professor may want his students to learn the basics of mitosis—the content is non-negotiable—but the format in which the student relays the information about mitosis can vary from student to student. Modifying content may not always be possible due to industry standards, but professors can consider ways to modify their process and product to the benefit of the students (Pham, 2012).

Simple ways to personalize assignments are as follows. Professors can offer choice boards. These boards are like tic-tac-toe boards, and students must complete X number of assignments, of their choice, to submit for grading. For example, an instructor could allow a student to demonstrate mastery of a topic through writing a poem, drawing a poster, creating a PowerPoint, writing an essay, filming a video, performing a skit, making a brochure, making a children’s book, etc. The student could choose three of these activities (each of which has a well-developed rubric) and submit the artifacts that s/he finds most relevant, interesting, or relatable. Even on a single assignment, such as a paper or discussion board, students can choose a prompt to which to respond, offer their own prompts, or include a section about how the subject material relates to their lives or future/current careers. Campbell and Cox (2018, p. 11) noted that “digital video was an authentic and personalized learning experience that fostered personal choice and voice and peer collaboration.” When students have agency in their assignments’ parameters, they feel more competent, autonomous, and related to the group (Danley & Williams, 2020). When preservice teachers have professors who provided differentiated learning experiences, they themselves are more likely to differentiate to their own students when they enter their own classrooms (Joseph et al., 2013). Marghitan et al. (2016) note that students’ intrinsic motivation and final grades increase when the students are offered choices in workshop and lab opportunities.

Examples

The authors of this paper both teach primarily graduate-level students in instructional technology classes. Many of their classes are project-based, and the majority of the students work full-time and attend school part-time. It is the goal of the professors to have the students create artifacts that demonstrate specific competencies that they can use in their daily jobs as

opposed to assigning “busy work.” Here are some specific examples of assignments they use in their classes that allow for customization or personalization from the students.

EFD 552: Diversity in the Classroom

This class helps current and aspiring teachers understand the backgrounds, needs, and strengths of children from diverse upbringings. Students create a Schoolwide Diversity plan for their capstone requirement. In this project they use findings from scholarly research along with data from the school at which they work to identify underachieving student subgroups and present ways their school can better address these student needs. They author a paper, create a PowerPoint presentation, and record a screencast of them presenting their ideas to stakeholders where they discuss their ideas. They are encouraged to share their findings with principals, fellow teachers, parents, school boards, and other stakeholders so that their carefully researched suggestions might be considered for implementation locally, leading to positive change at their schools.

EIM 504: Learning Through Interactive Technologies

This class is project-based, and students experiment with different emerging or established educational technologies. Each technology learned is then related by the student to a standard they teach, or an ISTE standard. Since students have varying proficiency levels, more advanced students are allowed to explore technologies not covered in the class so that they are still learning new things. Students are encouraged to incorporate their certification field, grade levels, and school policies into all artifacts.

EIM 505: Digital Literacy in the Classroom

In this class, current and aspiring teachers learn how to evaluate digital sources, implement them into their classrooms, and teach their own students how to think critically. Students “choose their own textbook” for the class from a list of popular nonfiction books. They select an Alabama Virtual Library database of choice to teach to classmates, and they curate digital literacy resources in a class wiki and post to a shared class blog. Each student brings his/her own knowledge and expertise to these tasks and takes ownership for passing that knowledge along to other class members.

EIM 517: Designing Virtual Learning Spaces

Students in this class design, built, and deploy online courses in a learning management system. They get to choose their topics, subjects, grade levels, etc. For those who are current teachers, they can use existing assignments, or they can use this class as an opportunity to also create new assignments more suited for the virtual or blended environment. Ideally, the students will take what they created in the class and deploy it in the near future to “live” students, especially relevant in the era of pandemic teaching.

EIM 555: Instructional Design

This class covers high-quality design standards, whether in-person or online. Students pick a passion project unrelated to K-12 teaching and design, from the ground up, a complete mini-class on the topic. Students produce Gantt/PERT charts, infographics, rubrics, lesson plans, objectives, needs/task/learner analyses, and more. By having the students pick a fun, “non-school” topic, they can remove preconceived notions about lesson planning and focus on creating a high-quality instructional project based on something they love, such as travel, baseball, or gardening.

EIM 610: Emerging Technology and Collaborative Tools

This class is for students earning their educational specialist degrees. All students are current fulltime teachers across various disciplines. They research podcasts, assemble social bookmarks, and create YouTube channels about their discipline and share their findings with the class. They learn to differentiate among low-, mid-, and high-tech solutions in their discipline, and they train other students about technologies specific to their discipline.

UH 101: Priming Students for Study Abroad

This class is taught to college freshmen and sophomores and is intended to support first-generation college students, or those who have traveled little, in their quest to become study abroad participants. During the class, students plan/budget domestic and international trips. They complete a study abroad application and a study abroad scholarship application based on their ideal study abroad location. They choose 2-4 activities offered around campus that get themselves out of their comfort zone (such as trying a cardio fitness class, attending a lecture on a topic they wouldn't normally find interesting, or taking an Uber); complete these activities; and reflect upon them.

General Ideas for Personalization/Customization/Extension

In any class, students who author exceptional papers can be encouraged to submit them for publication. This leads them to investigate journals in their field and become more involved professionally. With interview assignments, allow students to pick their own interviewees and craft their own questions. Consider a statement in syllabi to the effect of, “If you have a better idea/way to approach/implement this, suggest it for approval!” If students in your classes are already experts on a specific unit, engage their help in teaching the unit, tutoring others, or demonstrating practical applications of the topic. In some classes, students who already possess mastery of a unit can design their own alternative learning experience and submit it for approval.

Roundtable Questions

The following guiding questions will serve as a starting point to promote discussion at the roundtable. The session will be designed to solicit input and engagement from the attendees, as we value their input and look forward to hearing ideas about how they customize or personalize assignments in their own classrooms. The roundtable will be a springboard of ideas and also

serve as a "genius hour" of sorts as like-minded professors share personalization strategies that they use in their own classes.

1. Please share with the group any ideas you have about how to customize or personalize class assignments.
2. What classes or subjects do you think work best with customized assignments? What classes do you feel would be difficult to allow personalization in assignments?
3. What pros or cons do you feel exist with this style of teaching and assessment?
4. Brainstorm ways that a professor could offer personalized or customized assignments in the "difficult" subjects.
5. Brainstorm how you can give fewer multiple-choice tests in favor of more authentic, personalized assignments.

Conclusion

Although examining the literature regarding customized and personalized learning is useful, it is also very beneficial to have face-to-face discussions with professionals in the field. Learning what others do well, and then seeking to do it oneself, is a way that professors can increase their scholarship of teaching. Using guided questions, this roundtable will provide a forum for these conversations.

References

- Armstrong, P. (2010). *Bloom's taxonomy*. Vanderbilt University Center for Teaching. <https://cft.vanderbilt.edu/guides-sub-pages/blooms-taxonomy/>.
- Boelens, R., Voet, M., & de Wever, B. (2018). The design of blended learning in response to student diversity in higher education: Instructors' views and use of differentiated instruction in blended learning. *Computers & Education*, 120(2018), 197-212.
- Campbell, L. O., & Cox, T. (2018). Digital video as a personalized learning assignment: a qualitative study of student authored video using the ICSDR model. *Journal of the Scholarship of Teaching and Learning*, 18(1), 11-24. <http://dx.doi.org/10.14434/josotl.v18i1.21027>
- Coppens, K. (2021). Engaging and empowering students through choice. *Science Scope*, 45(1), 16-19.
- Danley, A., & Williams, C. (2020). Choice in learning: Differentiating instruction in the college classroom. *InSight: A Journal of Scholarly Teaching*, 15, 83-104. <https://doi.org/10.46504/15202005da>
- Joseph, S., Thomas, M., Simonette, G., & Ramscook, L. (2013). The impact of differentiated instruction in a teacher education setting: Successes and challenges. *International Journal of Higher Education*, 2(3), 28-40. <https://doi.org/10.5430/ijhe.v2n3p28>

Mărghitan, A. L., Tulbure, C., & Gavrilă, C. (2016). Students' perspective regarding the necessity and opportunity of using the differentiated instruction in higher education. *Bulletin of the Transilvania University of Brasov. Series VII: Social Sciences. Law*, 9, 179-186.

Pham, H. L. (2012). Differentiated instruction and the need to integrate teaching and practice. *Journal of College Teaching & Learning (Online)*, 9(1), 13-20.