

Personalized Learning

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Pedagogy

Learner Agency

Self-efficacy

Personalized Learning

Personalized learning is an instructional strategy that tailors instruction to learners' unique backgrounds, interests, abilities, or needs, and commonly includes the prescription that learners have some voice and choice (i.e., agency) in such tailoring. Personalized learning is not a new strategy, though it has seen a rise in popularity in research and practice since the turn of the 21st century. Personalized learning has also seen a variety of descriptions and implementations since the turn of the 21st century. Various definitions of personalized learning have required the pedagogy to include some semblance of mastery-based learning, strong connections between learners or others included in the instruction, engaging instruction, and/or individual learning plans for each learner. There has also been a demand to describe personalized learning by including a more detailed awareness of what learning is being personalized, how it is being personalized, who controls the personalization, and what data informs the personalization.

Despite gaining increased attention in the mid-2000s (Shemshack and Spector, 2020), personalized learning is not a new pedagogical approach. The idea of tailoring instruction to an individual is likely as old as education itself through processes such as apprenticeships, which are often highly personalized. Prior to advancements in instructional technology, however, personalized learning required great efforts by instructors to create and curate resources that learners could use to direct their learning within a learning environment. For example, P-12 teachers looking to provide personalized instruction throughout most of the 20th century would need curriculum and resources for various grade levels or subject areas stored within their classrooms so learners could access materials that were below, at, or above grade level based on their needs and abilities. Access to even more materials would be needed for teachers and learners to tailor instruction to learners' interests. These constraints became much less severe when digital media, the internet, and learning management systems provided tools for digitally creating and curating a range of course resources and materials within a technology-enhanced learning environment (Video 1).

Video 1: What Is Personalized Learning? – Educause



The availability of technologies that can facilitate personalized learning is one reason that the 2010 U.S. National Educational Technology Plan called for an increased effort to implement personalized learning. That plan defined personalized learning as instruction “paced to learning needs, tailored to learning preferences, and tailored to [learners’] specific interests,” adding that “personalization encompasses differentiation and individualization” (p. 12). This definition lacked a specific focus on the learner’s role in personalized learning, generalizing the use of the term to describe any tailoring of instruction.

The 2017 U.S. National Education Technology Plan provided a revised definition of personalized learning. This definition added that personalized learning included “learning activities [that] are meaningful and relevant to learners, driven by their interests, and often self-initiated” (p. 9), highlighting the role the learner plays in personalizing instruction. Some states have required new K-12 teachers to show proficiency in personalized learning (Arnesen et al., 2019), echoing an ongoing call for a dynamic, personalized learning approach able to provide a unique and effective learning experience for each learner and support each learner in reaching their full potential (Lee et al., 2018).

A 2020 literature review from Shemshack and Spector explored definitions of personalized learning in published research. They found that personalized learning “looks different according to the needs and goals of the individual” (p. 17). This finding is not surprising. As a pedagogical strategy, personalized learning contains several sub-layers (Gibbons, 2013) or core attributes (Graham et al., 2013). Gibbons (2013) stated that pedagogical strategies are often defined differently by individuals who implement them based on singular individual’s focus for the implementation. For examples of these core attributes within personalized learning, consider how various stakeholders in Video 2 define personalized learning based on the core attributes of the pedagogy that matter to them. They separately state that personalized learning includes (a) a customized curriculum, (b) learning that excites, (c) learning that puts the student first, (d) learning that promotes agency, (e) learning that is tailored to the individual, (f) learning that provides key interventions based on students’ needs, and (g) learning based on how students learn.

Video 2: How Do You Define Personalized Learning? – Educause



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Schools, universities, and corporate settings have the technological ability to personalize learning according to the unique needs of learners. Technology provides many options to learners and educators for novel approaches to personalized learning. Yet, the pedagogical knowledge needed to understand the importance of personalized learning and to increase learners' self-efficacy, empowering them to initiate their own learning and assume responsibility for it, has yet to develop.

In pursuit of such pedagogical knowledge, Horn and Staker (2014) provided a framework for thinking about the dimensions of personalized learning in practice. They suggested personalization of instruction can happen by tailoring the time, place, pace, and/or path of learning. Graham et al. (2019) added a fifth dimension to this framework – goals. Shemshack et al. (2021) suggested that a unified evolving personalized learning approach would consider four main components: learner profiles, learners' previous knowledge, personalized learning paths, and flexible self-paced learning environments generated according to dynamic learning analytics (Chatti & Muslim, 2019). Learning environments that include these various dimensions and components may empower learners to assume responsibility for their own learning and increase their learning self-efficacy.

Figure 1

5 Dimensions of Personalized Learning from Graham, et al. (2019)



Research building on deconstructions of personalized learning explained that while various definitions of personalized learning describe the tailoring of instruction based on learners' backgrounds, needs, abilities, or interests, descriptions of personalized learning should include (a) what is being personalized – learning objectives, assessments, or learning activities; (b) how it is being personalized – goals, time, place, pace, and/or path; (c) who or what is providing personalization – an instructor, learner, or adaptive learning system; and (d) what the personalization is based on – performance data, activity data, or learner profile data (Short, 2022). Other research has suggested that more work is needed to understand the outcomes of personalized learning initiatives and the hopes of technology to live up to its transformational potential to provide tailored, individualized learning (Bulger, 2016; Watters, 2023; Zhang et al., 2020).

Related Terms

Blended Learning, Competency-Based Education, Differentiation or Differentiated Learning, Individualization or Individualized Learning, Learner Agency, Learning Management Systems, Open Pedagogy, Problem-based Learning, Project-Based Learning, Adaptive Learning, Technology Enhanced Learning, Smart Learning Environments

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Community Artifacts

<https://www.thepittoolbox.com/> - A resource from Dallas Independent School District about schools in their district that provide wall-to-wall personalized learning.

https://edtechbooks.org/k12blended_series - A series of Open Educational Resources focused on K-12 blended teaching. Each book of the series has a chapter that focuses on personalized learning.



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