

Creating and Embracing a Learning Path for Student Success

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Abstract

Education is evolving greatly in the twenty-first century. The models of education designed in the industrial age are gradually giving way to education built around an information society that operates much differently than a factory. A central theme in this information society is that of personalization. Pedagogical approaches need to change to match the realities of the ever more personalized nature of the information age. As education changes to reflect the trends of the information age, personalization will increase as students are able to identify individualized growth plans in their learning experience. This chapter reviews how pedagogical strategies such as portfolios and rubrics are foundations for building programs that reach deeper levels of personalization in motivating a broad variety of

students. The overarching strategy is best conceptualized as each student creating a personal learning path in education of the twenty-first century.

Overview

All people follow what might be called a learning path on the way to learning a skill or a body of knowledge. That path may be practically subconscious such as learning to walk, or conscious such as learning to play an instrument or sport. Similar to both paths is an intense drive to reach a new state of being. That drive serves to direct the mind and body to find what works best to achieve the final state. It is a personal journey that follows common benchmarks. However, often times in classrooms a clear vision of the learning path is not developed in learners. Learners approach the learning assignment by assignment, achieving the small goals but not understanding the role of the small steps in the context of the overall goal. This makes learners less proactive and more a “consumer” of the activity with no sense of how this builds to their ultimate goal other than it being a grade assigned by an instructor. This chapter will review foundational thinking supporting the concept of a “student learning path” and then give some classroom examples of what it looks like.

Review of the Literature

The genesis of the learning path comes from many movements in education. In the review of the literature a broad array of some of the major foundations of educational thought are discussed.

Intrinsic and Extrinsic Motivation

Student motivation can be said to come either extrinsically or intrinsically. Extrinsic motivation uses behavioral-type awards to encourage accomplishment and punishments to discourage not staying on task. Intrinsic motivation uses the inner drive and passion students can have for an action to carry them to completion of tasks (Mirabela-Constanta

& Maria-Madela, 2011; Ryan, & Deci, 2000). Schools through the use of grades, stickers, and punishments have tended to rely mostly on extrinsic motivators. Building effective instruction on intrinsic motivators can be more challenging than creating a series of rewards and punishments.

However, studies have shown that through promoting intellectually stimulating behaviors, student intrinsic motivation can be encouraged (Bolkan, 2015). A more powerful approach is to combine pedagogy to include both intrinsic and extrinsic motivation. In classroom instruction designed to encourage intrinsic motivation, also referred to as autonomy, support and extrinsic motivation, referred to as *structure support*, Jang, Reeve, and Deci (2010) “hypothesized that students’ engagement would be highest when teachers provided high levels of both.” Their conclusion was that:

Trained observers rated teachers’ instructional styles and students’ behavioral engagement in 133 public high school classrooms in the Midwest. . . . Correlational and hierarchical linear modeling analyses showed three results: (a) autonomy support and structure were positively correlated, (b) autonomy support and structure both predicted students’ behavioral engagement, and (c) only autonomy support was a unique predictor of students’ self-reported engagement. (Jang et al., 2010, p. 588)

These results suggest that teachers can attain best achievement results when they structure their classroom to encourage both extrinsic and intrinsic motivation.

Student Agency

Students either can be dependent on teacher direction or be more proactive and use their own ideas to drive the learning process. Student agency is that energy that students get when they take charge of their learning and hold themselves responsible for their accomplishments. When students have high agency, they tend to exhibit greater skills of critical thinking, problem solving, and even teamwork: skills that employers want in the employees they hire (Zimmerman, 2015).

Effective Feedback with Rubrics

High-quality feedback to a student also provides a foundation for piecing together the total concept of a student learning path. Feedback is a strong motivator for students to stay engaged in a course (Martinez-Arguelles, Plana, Hintzmann, Batalla-Busquets, & Badia, 2015). A huge development in design of feedback has been the use of rubrics as part of the instructional and assessment process. Rubrics establish the expectation that clear targets for task accomplishment need to be given at the beginning of instruction (Yoshida & Harada, 2007). A rubric outlines the expectations for different levels of performance a student may deliver (Arter & McTighe, 2001). Students are then able to more clearly identify and perform to teacher expectations (Rochford & Borchert, 2011).

Portfolios

Portfolios have also provided a valuable extension of bringing student voice and agency into the educational experience. Some portfolios require that student work be collected to meet standards set by the educational program. Other portfolios don't tie the collection of student work to standards, so a more general body of work is included (Worley, 2011). Presented from a growth mindset, the portfolio process can represent an opportunity for students to reflect on their learning and aid them in taking responsibility for their personal growth. Portfolios can even be used as a means for starting deep conversations about the standards to which students are submitting portfolio evidence (Kryder, 2011).

The Purdue University Indianapolis ePortfolio includes four domains: "(1) increasing understanding of self and others, (2) setting self-concordant goals, (3) developing hope, and (4) shaping education career plans with a focus on facilitating students' ability to integrate learning to promote meaning making and the development of purpose" (Buyarski et al., 2015). This kind of framework is exemplary of how these proven strategies of using intrinsic and extrinsic motivation, building student agency, and using comprehensive portfolio structures can work synergistically to create a student learning path to guide and support a student to academic success.

Integration into the Student Experience

To set the stage for construction of the learning path framework, some analogies to other life learning experiences are helpful. The process of learning to walk illustrates how personal learning can be harnessed by the inner drive that exists in all of us to accomplish personal goals. Our brain tracks small successes and failures in a non-value-laden nature. Each attempt at walking, successful or not successful, is used as a step toward the ultimate goal. The analogy of learning to walk can help students to understand why they must own their learning and ultimately direct it. Helping students see their learning path gives them agency to direct and take responsibility for their learning. They come to understand that learning is not something that a teacher does to them, it is something they accomplish by their own hard work.

In the process of moving to share locus of control between the instructor and student, there should be ground rules. The ground rules should include a process of learning. A generic process can include that the student knows: (1) the learning target, (2) what is next, and (3) the resources needed. For example, for students going through a teacher preparation program, first the instructor should work with the students to define what the learning target is long-term (such as "become an inspiring teacher"), to the short-term (such as "How do teachers get kids' attention after recess?"). The key is to continue to define explicitly what the final target looks like. In the first quarter of a program, most students' understanding of what it takes to be an inspiring teacher will look much different than their view when they get to student teaching. It is helpful to mix abstract and concrete visions in this long-term identification process. In this example, having students focus on how they will answer basic questions about teaching in their interview for a position is a task that matches vision with concrete actions and reality.

Second, students must be able to have a good enough scope of the path to the final target that they can track where they are on that path. Students must be ready for diversions and surprises on the journey. They must learn how to chart and reflect on these diversions and surprises so that the next steps can be modified and adjusted. This is where learning journals or portfolios come in as activities to help learners describe experiences so that they can be seen objectively and analyzed.

Proven Practices, Examples, and Results

Finally, students must know where to go to achieve the next learning steps. Being proactive will be a great advantage to students. If they rely strictly on what the teacher supplies, they may miss the opportunity to personalize elements to their own learning path. The process to identify next steps may be as easy as following assignments in class or reading the textbook. Or it may require students to be creative and find other resources, such as talking with a teacher in a classroom or teaching a lesson to some neighborhood kids. Students, through making their own way through the journey, find their voice, and learn in a constructivist manner, utilizing personalized creative and unique choices to navigate the journey. As J. K. Rowling said, "It is our choices that show who we truly are, far more than our abilities." When students find and make sense of their personal experience in this process, it leads them to gain their professional voice, which guides their becoming an inspirational teacher.

Rubrics are a tool used to chart the journey down a learning path. But current rubrics are limited because they are designed to measure finite tasks as a summative assessment. When applied to a skill, such as critical thinking, they are not effective. A skill or disposition, such as critical thinking, is difficult to measure. More confounding is finding a top end to this kind of ever-developing skill. A skill such as critical thinking continues to develop over a lifetime; it does not fit easily into a four-level rubric. A strategy to adapt rubrics to measure a skill is to think of the standards measured as growing in complexity along a spiral path. In that model, growth in a particular standard is revisited regularly but measured at an ever-greater complexity.

Take for example the critical thinking tool of cause and effect. Children understand cause and effect in concrete terms: if you put your hand on a hot burner, the effect is a burnt hand. As children get older, they are challenged to understand more complex cause-and-effect relationships, such as weather patterns, economic processes, or political events. Understanding cause and effect in these fields is a lifelong learning process. Another analogy is found in the process of learning a skill, such as playing an instrument or a sport. Performers and athletes are always practicing to get better at a particular skill. They never reach a final status of completion at the skill. As Pablo Casals noted when he was in his eighties about his cello practicing, "I think I see some progress. I think I am making some improvement."

The teacher preparation program at some universities, including as a leader, City University of Seattle, has begun to implement actions that represent the constructs of this learning path approach to education. One example is when education students present their portfolios to fellow cohort members in a formal setting at the end of program. The presentations give opportunity for presenters to choose the most effective work they have done during the length of the program. They get the opportunity to look at their work through a strengths perspective to focus on what they have really done well. Their fellow cohort members are able to see models of other ways to success. The presentations give an opportunity for the entire cohort to review a body of learning on their chosen profession. Through these presentations students are able to put their learning into perspective of a continual learning path on which they are traveling. In addition, from a pragmatic perspective, they are practicing talking about their strengths and approach to school teaching, leading, or counseling, which will directly translate to the answers they will provide in upcoming interviews for positions to which they will be applying. It is this focus on preparing for the imminent interviews for positions that has provided the basis for talking about a long-term learning path. Moving this experience so all students begin this visualization of the interview in the first quarter as part of their formulating their learning path for the entire program will enhance this learning pathway.

Students in the teacher preparation program keep reflective journals in a template format that requires the students to include in their writing the basic levels of Bloom's taxonomy, which includes (1) a level of describing the experience they are writing about, (2) analyzing the experience, and (3) evaluating and putting meaning to the experience. The next evolution with the learning path will be to put this journaling process in the context of the students' learning path and how it reflects on movement along that path. Another activity to keep the focus on tracking growth is the quarterly end-of-course reflection students complete on what they learned in that course to move them along the learning path. This is similar to an End-of-Course Evaluation, but it puts the focus on what the student is doing instead of the instructor. In this way a greater sense of agency is being built in the students, focused on helping students assume responsibility for their learning.

As discussed earlier in review of the literature, it is advantageous to develop pedagogical strategies that utilize both extrinsic and intrinsic perspectives. This process of charting growth along a learning path can do just that. For the extrinsically motivated students, the focus might be more on charting completion of assignments and courses but as part of the total program. In addition, as these students feel ready, they can actually write responses to standardized interview questions they will field in their first interviews. They can check off completion of each answer. And, as in the spiral rubric process, the answer they write in the first quarter about how they will teach most likely will be revised to reflect deeper understanding as they go through the program. For intrinsically motivated students, the quest to understand what kind of inspiring teacher they will be will continually grow and gain depth. The process of becoming the teacher they want to be will be squarely in front of them throughout the program.

Lessons Learned, Tips for Success, and Recommendations

Incorporating a personalized learning pathway approach continues to expand and affect practice as it is implemented. For example, while portfolios have been used for years, how the portfolios are used and their relationship to the overall program continue to evolve. It seems one change can elicit a cascade effect of changes to other aspects of a program. Deep reflective conversations among faculty are necessary to understand these changes and design appropriate next steps in program and pedagogical design. Second, it is important to understand that the students and faculty all come from different levels of understanding of these changes in pedagogical design. As such, discussions about and even actual implementation are constantly influenced by these vast differences in understanding of pedagogical design among students and faculty. It is critical to approach students from where they are and then move them in their understanding from that point. Finally, with these new activities, it is important to review what elements in an educational program may no longer be necessary. If this is not done, it is easy to have students overwhelmed by the continual addition of activities with none ever taken away. The focus must remain on identifying what is the most effective instruction delivered in the most efficient manner.

Conclusion

Education is evolving greatly in this new century. The models of education designed in the industrial age are gradually giving way to education built around an information society. A central theme in the information society is that of personalization. Goods and services are all being revolutionized by the way technology is opening opportunities for personalization to the customer. Personalization in education will come as students are able to experience individualized growth in their learning. Pedagogical approaches need to change to match the technologies of the information age. Supporting students in identifying and following their own learning path is just one of the pedagogical changes to come with the twenty-first-century education experience.

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Author Biographies

Craig Schieber is the Dean of the School of Education and Division of Arts and Sciences at City University of Seattle. Craig advocates for making the educational system relevant and transformative. His belief in inquiry, project-based learning that empowers the learner is the driving force behind all of Craig's work. He has taught in the public schools where he developed project-based curriculum and a student portfolio system, among other innovations. He holds an EdD in educational leadership from

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Sue Seiber's career has spanned more than forty-five years in education culminating with the position of Director of Teacher Certification programs at City University of Seattle. She has been a classroom teacher, administrator, curriculum developer, professional development trainer, and university faculty member. She has presented conference sessions for the North Dakota Department of Education, International Literacy Association, Council of Exceptional Children, OSPI January Conferences, OSPI Summer Institutes, and many school districts' professional development workshops. Awards include City University Claude Farley Excellence in Teaching, WEA Excellence in Teaching, and the Washington State Christa MacAuliffe Outstanding Educator Award.