
Core Function: Personalized Learning

**Effective Practice****Motivational Competency: Promote a growth mindset, stretch students' interests, and connect learning to student aspirations to enhance students' engagement and persistence with learning**

Overview: Student engagement and persistence are important to academic achievement and can be impacted by teacher practices in the classroom. Promoting a growth mindset, granting students choice in or control over their learning activities and strategies, stretching the interests of students, and connecting their progress towards their aspirations through personalization and student questioning can help build students' motivational competency. Student data can be used to personalize learning experiences based on their prior knowledge, interest in topics, and aspirations and goals. The focus on motivational competency should be school-wide and reflected in teacher and co-curricular staff lesson planning, school documents and rituals, and built into intentional communications with families.

Evaluate Your Practice: How can promoting a growth mindset encourage student engagement and persistence with learning? How can increasing students' choice encourage their engagement and persistence with learning? How can building students' interest in topics increase their motivation for learning tasks? How can teachers use data to design learning paths tailored to students' prior learning, interests, and aspirations? How can schools provide further support for fostering students' motivational competency?

Introduction

Learner-centered or personalized learning refers to “a teacher’s relationships with students and their families and the use of multiple instructional modes to scaffold each student’s learning and enhance the student’s personal competencies” (Twyman & Redding, 2015, p. 3). The student is actively involved with the teacher in co-constructing their individualized learning pathway and often through technology the location, time, and pace of learning may vary from student to student (Redding, 2016). Motivational competency, one of four personal competencies within recent personalized learning frameworks, is critical for student success. Motivational competency refers to student engagement and persistence towards learning goals that is required for learning (Redding, 2016). Student motivation is considered a dynamic, multifaceted phenomenon (Eccles, Wigfield, & Schiefele, 1998; Graham & Weiner, 1996; Seifert, 2004). Different motivational theories and constructs have been put forward to try to understand how and why students are motivated for academic achievement (e.g., Pintrich, 2003) because proper motivation can promote and sustain that academic achievement (Mega, Ronconi, & De Beni, 2013). Several methods are known to help build students' motivational competency; a summary of these “best practices” is provided below.

How can promoting a growth mindset encourage student engagement and persistence with learning?

If students believe that their own academic abilities can improve over time (i.e., they have a “growth mindset”), they are more likely to respond to initial obstacles by remaining involved, trying new strategies, and using all the resources at their disposal for learning (Dweck, 2010). A substantial body of evidence indicates that students' academic and lifelong success is a function of both their actual achievement and their attitudes, or mindsets, about achievement (Borghans, Duckworth, Heckman, & Ter Weel, 2008). To promote a growth mindset, teachers should focus praise on learners' work product or effort, rather than on their innate ability (e.g., “You are so smart in math!”). Behavior-specific praise provides detailed feedback to students about their competence and problem-solving strategies so that they may adjust their behavior in the future, and praise for effort leads to increased effort and student attribution of their success to their use of strategies (Mueller & Dweck, 1998).

Learners with a growth mindset tend to set more challenging goals, develop more adaptive strategies for learning, persist longer, and ultimately perform better (Locke & Latham, 2002; Sitzmann & Ely, 2011; Zimmerman, 2002). In addition, students with a growth mindset are more likely to focus on a mastery goal orientation, responding to academic challenges with sustained effort; mastery-focused classrooms have been shown to benefit motivation and improve learning outcomes (Meece, Anderman, & Anderman, 2006). Teachers of mastery-oriented classrooms should provide 1) appropriate learner tasks and enough time for students to complete tasks at their own pace; 2) opportunities for active student participation in decision-making related to instruction and classroom rules; 3) meaningful and specific feedback to students; and 4) opportunities for student collaborative group work where self-monitoring and self-evaluation are encouraged (Lüftnegger, van de Schoot, Schober, Finsterwald, & Spiel, 2014). Explicitly teaching self-regulation strategies, such as goal-setting, strategy use, self-monitoring, and modification of approach, also positively impacts learning and achievement (e.g., Dignath & Büttner, 2008; Hattie, Biggs, & Purdie, 1996).

How can increasing students' choice encourage their engagement and persistence with learning?

Giving students choice in, or control over their learning activities and/or learning materials, helps promote student-directed learning. Often touted as allowing students to “take responsibility for their learning” (Checkley, 1995), proponents of student-directed learning believe that this practice increases student motivation, learning, and engagement (Gambrell, 1996; Malone & Lepper, 1987). A meta-analysis of 41 studies revealed a strong link between providing students with choices and their intrinsic motivation, task performance, and their willingness to accept increasingly challenging tasks (Patall, Cooper, & Robinson, 2008, as cited in Goodwin, 2010). Too many choices, however, produced diminishing returns (e.g., giving more than five options was less effective than giving three to five). Research shows that fewer choices should be offered to less experienced/younger students, while older/more advanced students can be offered more options, with transitions to more choices occurring gradually (Guthrie, Wigfield, & Perencevich, 2004, as cited in Goodwin, 2010). Incorporating project-based learning into the classroom is one way

to help promote student choice and student-directed learning. Project-based learning (PBL) has been linked to a variety of positive learning outcomes, including achievement, content knowledge, attitudes, motivation, and critical thinking skills (Condliffe, 2016; Kokotsaki, Menzie, & Wiggins 2016). Students can provide input as to their roles on teams, tasks, resources, questions, and final products; however, teachers in many cases may need to provide “driving questions” to help structure projects (Condliffe, 2016).

When appropriate, students can be given an element of choice or control over their use of learning strategies. However, strategy use does not emerge organically without direct instruction, so students cannot be expected to make choices about the application of learning strategies unless they have been taught how to do so. In order to learn how to choose from among problem-solving strategies, students need to see evidence that the strategies they are learning really do lead to improved performance (see Pressley, Levin, & Ghatala, 1984, 1988; Pressley, Ross, Levin, & Ghatala, 1984). Teacher modeling of strategies is key to teaching those strategies (Pressley & Harris, 1990). This instruction must include not only the strategies themselves, but also how to choose the most effective strategies to solve problems. Pressley and Harris (2006) recommend that teachers model: 1) why the strategy is used, by providing specific reasons for the strategy selection; 2) how the strategy is used, by providing explicit instruction absent of ambiguity; and 3) what strategies to select in specific situations, by selecting the appropriate strategy to match the situation.

How can building students' interest in topics increase their motivation for learning tasks?

Building students' curiosity about and interest in a range of topics increases their motivation. Students who are interested “or see a connection between academic tasks and their own future goals...are more likely to expend persistent effort and exhibit academic behaviors that support school success” (Farrington et al., 2012). The teacher's challenge then is to nurture that same persistence and engagement with a topic or task for areas in which the student has not shown prior interest or of which he/she does not have prior knowledge. The relationship formed between the teacher and the student and their family allows the teacher to both know the student's interests and aspirations and build from those interests/aspirations into other topics or studies. A

teacher with her “relational suasion” (Redding, 2014, p. 7) can motivate a student to tackle even a formerly unpleasant or undesired task because the student now has an internal motivation to not only please the teacher, but also to gain new mastery for herself.

Teaching students to ask questions is one of the best ways to help them build that curiosity and inquisitiveness. While teachers often ask students if they have questions, they rarely teach them how to ask questions to pursue possible new areas of interest related to a topic. Like any skill, asking questions can be taught and practiced, and with the 21st century emphasis on self-directed learning, this skill is increasingly important (Rothstein & Santana, 2011). The QFT (Question Formulation Technique) is a research proven method of teaching this skill. Briefly, this technique involves the teacher providing a question focus followed by student generation of questions (both closed and open-ended), student improvement of questions, student prioritization of questions, a research activity (with student input), and finally reflection on what was learned (for a complete description see Rothstein & Santana, 2014). Classroom studies (e.g., Elves, 2012) show positive academic benefits for this technique, and Rothstein and Santana (2014) argue that it promotes student voice, critical thinking (both divergent and convergent), and metacognition.

How can teachers use data to design learning paths tailored to students’ prior learning, interests, and aspirations?

Data-based decision-making focuses on ongoing monitoring of student outcomes to provide an evidence base for continued use of an intervention (VanDerHeyden & Havey, 2013) and can result in improvements in student achievement (Campbell & Levin, 2009; Cawelti & Protheroe, 2001; Lai, McNaughton, Amituanai-Tola, Turner, & Hsiao, 2009; Carlson, Borman, & Robinson, 2011) and increased student motivation for academic tasks (Eliot & Harackiewicz, 1994). The data that are collected in the course of daily instructional practice can be examined to evaluate the impact of different practices and interventions on student performance. The data that are generated allow teachers to customize individual learners’ curriculum paths, personalizing their learning experience. A variety of personalization techniques may be included, such as targeted scaffolding (based on a student’s prior knowledge), the inclusion of topics of interest to individual learners (including those in which interest has been

generated due to teaching students to ask questions), and the setting of individual student learning goals based on their personal aspirations.

How can schools provide further support for fostering students’ motivational competency?

Teachers must intentionally build the enhancement of students’ motivational competency into their instructional planning. To best enhance motivational competency, Redding (2014) recommends that all teachers and instructional teams incorporate their strategies for enhancing student motivation into their lesson planning process. By purposefully planning out ways to spark student interest, promote a growth mindset, and create a sense of value for the topic, these behaviors will become more embedded into the instruction and culture of the school and consequently, will foster habits of student engagement and persistence (Redding, 2014). Staff involved with co-curricular programming (e.g., afterschool or summer programming) can similarly be encouraged to adapt their programming in order to build and reinforce students’ motivational competency and thus encourage their engagement. These programs should be encouraged to connect learning experiences to real life, offer collaborative activities, and develop positive relationships to increase student interest and engagement (Beckett et al., 2009).

Parents can also be partners in fostering their student’s growth mindset and are a critical lever for instilling values about certain tasks and processes in schooling, both of which lead to motivation. Motivational competency should be embedded into key communications and school documents, explaining what it is and how it is addressed throughout the school day and year, as well as the parent’s role in promoting it (Redding, 2006, 2016). Incorporating motivational competency into school routines and rituals, such as morning announcements, student showcases, and morning meetings, can further help to embed the competency into the overall culture and value system of the school (Educator Competencies, 2015; Redding, 2014a).

Indicators to Support the Effective Practice
The School Community Council ensures that all parents understand motivational competency (a growth mindset, the value of mastery, and connecting learning tasks with students' personal aspirations) and how they can enhance motivational competency at home.
The School Community Council ensures that all volunteers understand motivational competency and their roles relative to its enhancement in students.
All teachers and teacher teams plan instruction with a curriculum guide that includes methods to enhance student motivation to learn.
All staff conducting co-curricular programs fulfill the purposes of the programs including appropriate elements of student motivation to learn.
The school's key documents explain the value of motivational competency and how it is enhanced through specific roles and relationships.
The school promotes motivational competency in school rituals and routines, such as morning announcements, awards assemblies, hallway and classroom wall displays, and student competitions.
All teachers promote a growth mindset by attributing learning success to effort and self-regulation and insist upon (and reward) persistence to mastery.
All teachers encourage self-direction by giving students choice in the selection of topics and the application of learning strategies.
All teachers help students articulate their personal aspirations and connect their learning to the pursuit of these aspirations.
All teachers stretch students' interests to find value in new topics and connect learning tasks to students' personal aspirations.
All teachers differentiate assignments to provide the right balance of challenge and attainability for each student.

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