Self Regulation and Online Developmental Student Success

Autorregulación y el Éxito del Desarrollo del Alumno Online

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Abstract

Developmental students, who can be defined as students with academic skill and/or knowledge deficits, benefit from strategic support that includes self-regulation support. Because many developmental students are enrolled in online courses, it is important for online faculty members to provide effective self-regulation support in online learning environments. The most effective support strategies for online, developmental students include self-regulation support that a) helps students develop self-regulatory strategies and behaviors; b) is designed to help students transfer self-regulatory strategies and behaviors; and c) addresses students' resistance to change.

Keywords: self-regulation, student support, developmental education, remedial education, online education, distance learning, whole-student approach

Resumen

Alumnos del desarrollo, que se puede definir como los alumnos con déficits de habilidades académicas y/o déficits de conocimiento, se benefician de un apoyo estratégico que incluye soporte de auto-regulación. Debido a que muchos estudiantes del desarrollo están matriculados en cursos en línea, es importante para los miembros de la facultad en línea para apoyar eficazmente la autorregulación en los ambientes de aprendizaje en línea. Las estrategias de apoyo más efectivas para los estudiantes del desarrollo, en línea incluyen el apoyo de autorregulación que: a) ayudan a los alumnos a desarrollar las estrategias y comportamientos de autorregulación; b) están diseñados para ayudar a los alumnos a transferir estrategias y comportamientos de autorregulación y c) se concentra en la resistencia de los alumnos a cambiar.

Palabras clave: auto-regulación, apoyo a los alumnos, educación en desarrollo, educación correctiva, educación en línea, aprendizaje a distancia, perspectiva integral de los alumnos

Self-Regulation and the Success of Developmental Students in Online Learning

When students self-regulate, they plan and strategize to amplify their achievement. Self-regulated students also reflect on their outcomes, successes, and challenges, and adjust future planning based on their conclusions. Developmental students, who can be defined as students with academic skill and/or knowledge deficits, benefit from strategic support that includes self-regulation support (Boylan, 1999; Smittle, 2003; Stahl, Simpson, & Hayes, 1992).

Overall, online enrollments are growing; currently, more than 1 in 4 college and university students is taking at least one online class (Sloan Consortium, 2009). As a part of this figure, developmental students are enrolled in developmental reading, writing, and math courses. As of 2007, over 3% of developmental reading, writing, and math courses were taught exclusively online, while over 3% more included an online component (Gerlaugh, Thompson, Boylan, & Davis, 2007). This means that, as of 2007, at least 7% of enrollments of developmental students in developmental classes involved online learning. Developmental students are also enrolled in non-developmental online courses, whether in place of, in addition to, or subsequent to developmental coursework.

Academic Challenges Faced by Developmental Students

Not surprisingly, many adult developmental students are not academically prepared to succeed in a rigorous academic environment (Boylan, 1999; Smittle, 2003). Because of skill and/or knowledge deficits, many developmental students require additional support to succeed. One way developmental students receive support is via developmental education programs and classes. In 2003, 29% of the students who entered a community college enrolled in developmental courses and 21% of all students who entered

college or university enrolled in developmental courses (NCES, 2008). Also, many more developmental students take advantage of the support offered by learning centers and tutoring programs (Boylan, 1995 as cited in Boylan, 1999). It is difficult to know how many developmental students use learning centers and tutoring programs because they are not consistently identified as being developmental learners.

Adult students who do not enroll in college directly from high school are especially likely to require developmental support (Boylan, 1999). They are more likely to be returning to college after having dropped out after a previous attempt, or attended high school at a time when college preparatory course work was less common. Also, older adult students may not have attended school for many years and may have forgotten prior learning.

Non-Academic Challenges Faced by Developmental Students

Also, like all adult students, many adult developmental students face non-academic challenges. Adult students balance work, home, family, and other adult responsibilities. Therefore, effective support must also address these challenges and take a "whole-student" approach to adult education (Boylan, 1999; Burley, 2008; Smittle, 2003). Successful programs for adults must value student contributions and recognize that adult students are developing personally as well as academically.

Developmental Education

Developmental education support is important; it enables many students to succeed in higher education. The value of developmental education for students who require it should not be dismissed. Boylan (1999) states, "contrary to some public opinion, developmental students are not, as one misguided politician called them, 'the welfare mothers of higher education.' They are our sons and daughters, our mothers and fathers, our friends, and often our coworkers. They are the working poor, the middle class, and occasionally the wealthy classes. They do not attend our institutions as part of some affirmative action initiative. They attend our institutions because they seek educational opportunity. And, educational opportunity is still promoted as a priority for this country and its higher education institutions."

Even so, research and practice regarding developmental education has not advanced as it should have (Burley, 2008). Burley argues, "For me, listening to the research of far too many reports at developmental education conferences ismuch like "Rockin' to the Oldies," same old tunes, re-mastered, re-mixed, and re-reported, one more time" (p. 51). Toward this end, it is important to understand exactly how to provide effective support for adult developmental students in online settings. According to Burley, one area that warrants a closer look is the connection between developmental student success and self-regulation.

The Benefits of Self-Regulation Support

Adult developmental students can use self-regulation to address challenges and increase their success (Boylan, 1999; Smittle, 2003; Stahl, Simpson, & Hayes, 1992). In particular, students can use self-regulation skills and strategies to plan and work effectively. They can also use self-regulation to reflect on the outcomes of their work, both positive and negative, and to use their conclusions to shape future plans and strategies (Zimmerman, 2002). However, many developmental students need support to establish these skills and behaviors (Boylan, 1999; Burley, 2008; Smittle, 2003; Stahl, Simpson, & Hayes, 1992; and Williams & Hellman, 2004).

Academic Benefits of Self-Regulation

Overall, self-regulated students experience more academic success than those who do not self-regulate (Montalvo & Torres, 2004; Schloemer & Brenan, 2006). Students who self-regulate believe change and success are possible. Therefore, they proactively use strategies to achieve their goals.

Students who use self-regulation exhibit the following qualities (Montalvo & Torres, 2004; Schloemer & Brenan, 2006):

1. They consciously use cognitive strategies to succeed.
2. They plan, control, and direct their mental efforts.
3. They use motivational beliefs and emotions to promote their own achievement.
4. They manage their time and effort.
5. They choose favorable work environments.
6. They show initiative to participate in academic tasks and planning.
7. They strategize to maintain effort, concentration, and motivation.

In addition, self-regulation helps students to:

1. Stay more mentally active during instruction (Pintrich & Schrauben, 1992; Schunk, 1990, all cited in Williams & Hellman, 2004).
2. Learn more (Lan, 1998 as cited in Williams & Hellman, 2004).
3. Earn higher test scores (Lan, 1998 as cited in Williams & Hellman 2004).
4. Earn higher GPAs (Williams & Hellman, 1998 as cited in Williams & Hellman, 2004).
5. Be more likely to complete their courses (Zimmerman, 2002 as cited in Williams & Hellman, 2004).

Benefits of Self-Regulation for Developmental Students

Students, developmental or not, can benefit from support in self-regulation, but strategy-based support is especially helpful to students who struggle academically. One study (Ryan & Glenn, 2004) indicates that college freshmen with a first semester GPA of 2.0 or higher who participated in a strategy-based freshman seminar were 9% more likely to enroll the following fall. Even more notable is that college freshmen with a first semester GPA of 1.9 or lower who participated in a strategy-based freshman seminar were 29% more likely to enroll the following fall.

This statistical difference may be explained by the fact that many adult developmental students lack self-regulation skills and are more likely than other students to lack self-regulation (Boylan, 1999; Burley, 2008; Smittle, 2003; Stahl et al. 1992; Young & Ley, 2003). Also, developmental students are often unable to accurately judge their own abilities and progress. This is especially problematic; developmental students with skill deficits can particularly benefit from self-regulation because it helps them use strategy to compensate for learning differences (Zimmerman, 2002).

Benefits of Self-Regulation in Online Learning Environments

The link between self-regulation and student success is also particularly strong in online learning (Artino, 2008; Hodges, 2005; Niemi, Launonen, & Raehalme, 2002; Williams & Hellman, 2004). Students who study online work in a learner-controlled environment and have more choices than students in brick and mortar classrooms; for example, online students must decide fully how they will study (Meng-Jung, 2009), when they will study (Meng-Jung, 2009; Williams & Hellman, 2004), and where they will study (Williams & Hellman, 2004). Therefore, it is especially important that online students plan, direct, and, when necessary, modify the ways they approach academics. Absence of self-regulation is strongly linked to absence of online academic success; when students do not succeed in online classes, lack of self-regulation has been shown or suspected as the cause of this lack of success (Hodges, 2005).

Self-Regulation Support for Developmental Students in Online Environments

Developmental students are enrolled in online classes. Therefore, in online learning environments, it is important to incorporate practices that support developmental learners. One way to do this is to provide self-regulation support in online courses; if support of students' self-regulatory skills is vital to the effective support of developmental students (Boylan, 1999; Smittle, 2003; Stahl, et al., 1992) and online students (Artino, 2008; Hodges, 2005, Niemi et al., 2002; Williams & Hellman, 2004), it seems logical that self-regulation support is central to the success of developmental students who are learning in an online environment. Therefore, the strategic design of self-regulation support for online developmental students is important.

It can be a challenge for instructors to provide of self-regulation support in content-based courses. The provision of such support requires faculty members to manage a dual focus; they must simultaneously support course content knowledge acquisition and self-regulation skill acquisition. Nevertheless, the effort of integrating skill development support into course content pays off. According to Boylan, "the best developmental programs make it hard for a student to sit in any class or participate in any service without learning how to learn, how to think critically, or how to study effectively" (1999).

Successful Self-Regulation Support

Although further research is needed to determine exactly which strategies most effectively support developmental students in online settings, current research shows that, to be most effective, self-regulation support includes the following:

1. It helps students develop self-regulatory strategies and behaviors (Boylan, 1999; Smittle, 2003; Stahl et al., 1992; and Williams & Hellman, 2004).

2. It is designed to help students transfer self-regulatory strategies and behaviors (Stahl et al., 1992).
3. It addresses students' resistance to change (Dembo & Seli, 2004; Dweck, 2002).

Helps Students Develop Self-Regulatory Strategies and Behaviors

Self-regulation can be taught through straightforward tutorials aimed at specific skill development (Gerhardt, 2007). However, self-regulation support is most effective when it is incorporated into course activities (Boylan, 1999; Williams & Hellman, 2004) or provided by a learning specialist and concurrently carried out by students in coursework (Stahl et al., 1992). This integration allows students to practice their self-regulation skills in "real-world" situations.

Effective support also engages students in all three phases of the self-regulation process: the forethought phase, the performance phase, and the self-reflection phase (Zimmerman, 2002).

1. Forethought phase: Students evaluate their needs (Dembo & Seli, 2004) and the task at hand (Zimmerman, 2002). Students set goals, plan, and strategize for how they will approach that task.Progress is catalyzed by self-motivation that is based on a belief that change is possible and that individuals can be agents of change (Zimmerman, 2002).
2. Performance phase: Students enact the plans they created in the forethought phase (Dembo & Seli, 2004; Zimmerman, 2002).
3. Self-reflection phase: Students evaluate their plan and outcomes by comparing their results to a standard (Dembo & Seli, 2004; Zimmerman, 2002).

Supports Self-Regulation Skill Transfer

Integration of self-regulation support into course activities helps students learn to transfer self-regulatory skills from the context in which they are taught to other relevant situations (Stahl et al., 1992). This transfer of strategies is important; without it, students learn to apply self-regulatory strategies in isolated situations but do not continue to use their skills to promote future success.

Addresses Students' Resistance to Change

Unfortunately, many students, especially those in online settings, do not use the self-regulation tools and support that are made available to them (Winters, Greene, & Costich, 2008). Also, students who do use available tools and support frequently overestimate the degree to which they take advantage of support resources.

This could be linked to a global difficulty people experience in attempts to change their own behavior (Dembo & Seli, 2004). According to Prochaska & Prochaska (1999), people have difficulty changing behavior because they: a) believe they cannot change; b) do not want to change, c) do not know what to change, or d) do not know how to change (as cited in Dembo & Seli, 2004). Therefore, for students must first have an understanding that they need to change, be motivated to try to self-regulate, believe that change is possible, and believe that they can be agents of change (Zimmerman, 2002).

Faculty members can support student motivation and openness to change by crafting feedback that communicates the idea that intelligence is an expandable quality rather than a fixed trait (Dweck, 2002; Dweck, 2007). When students believe this, they are more motivated to work to develop their own skills and knowledge. In contrast, a belief that intelligence is a fixed trait discourages students from exerting more effort because it carries the implication that success results from endowment rather than strategy, practice, or effort.

When students receive feedback that praises the process they used to create their work (for example, effort or strategy), rather than their personal traits as a student (for example, intelligence or innate ability) their motivation increases (Dweck, 2002; Dweck, 2007). Process feedback promotes the importance of *how* students work. It emphasizes the ideas, strategies, choices, development, and execution that students used to create their work. Process feedback also highlights methods students can use to repeat success and overcome challenge. This approach presents feedback as part of an ongoing interchange rather than as an evaluation. As a result, it helps students to value learning, to enjoy effort and challenge, and to thrive in the face of difficulty.

While Dweck's conclusions regarding process feedback are largely based on studies involving grade school and adolescent students, studies involving college students also support her recommendations

(Wilson, Shelton, & Damiani, 2002). At least eleven different studies have shown that even one instance of "attributional retraining" (promotion of the idea that success and failure are dependent on changeable factors) can influence college student success rates (Wilson, et al., 2002).

Conclusion

Self-regulation support promotes student success. This is especially true for developmental students and online students. Therefore, developmental students in online classes may be in particular need of support that helps them develop self-regulating strategies and behaviors. Faculty members who work with developmental students in online learning environments can promote student success by providing self-regulation support. An integration of self-regulation activities into course work and an emphasis on process oriented feedback are important practices that provide self-regulation support.

However, while motivation and strategic behaviors are helpful, the eventual goal is not self-regulation for the sake of self-regulation. Instead, it is to equip students to be independent learners. "What defines [students] as 'self-regulated' is not their reliance on socially isolated methods of learning, but rather their personal initiative, perseverance, and adoptive skill. Self-regulated students focus on how they activate, alter, and sustain specific learning practices. In an era when these essential qualities for lifelong learning are distressingly absent in many students, teaching self-regulated learning processes is especially relevant" (Zimmerman, 2002).

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