

Precision Mastery: Reaching Students Who Need It Most



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learning

Introduction

This paper represents a close examination of the personalized learning system and pedagogy of ResponsiveEd's credit-recovery model. A discussion of the history of credit recovery programs provides context for understanding how the *precision mastery system* (Wimberley, 2016) can ensure high quality educational experiences. We take a close look at how Comprehend curricula facilitates credit recovery, remediation, and acceleration for students who have not succeeded in the traditional academic setting. In addition to detailing best practices within the credit recovery model, we provide theoretical foundation for the mastery-based methodology, revealing *why* the system has been successful. We flesh out key elements of the model, including formative assessment, identification of learning paths, targeted remediation, engaging curricular content, post-assessment, and acceleration. Finally, we cast a vision of how Comprehend curricula meets the needs of traditionally underserved students, promoting educational equity across demographic groupings, and providing hope to those students who need need it most.

History

The Center for Public Education (2012) characterized credit recovery programming as a structured means for secondary students to earn missed credit in order to meet graduation requirements. Credit recovery Programs are administered at the school, district, or state levels, and consist primarily of courses in the following areas:

- 1) Fully online
- 2) Hybrid/blended
- 3) In-person (brick and mortar)

Depending on program type, students are able to complete credit recovery classes after school, on weekends, at home, in a computer lab, in summer school, or during the traditional school day. Credit recovery programs have been shown to be the fastest growing area of online learning (Center for Public Education, 2012). While there are a range of options for credit recovery programs, the following points summarize the most common elements:

- 1) Decentralized structure.
- 2) Even within a district, some schools may opt to participate while others may not.
- 3) Some programs have mandatory prerequisites related to attendance, minimum number of missing credits, and age.

Unequivocally, parental and familial (social) pressure have an accountability system of their own, with over 91% of parents of students in grades 6-12 expecting their child to earn a high school diploma and continue their education beyond this milestone (NHES, 2003). This pressure has been formalized at the federal, state, and school levels. Enacted in 2001, No Child Left Behind required individual states to set goals for improving high school graduation rates, and as a result, set forth accountability standards to measure their success (St. Andrie, 2012). The concept and rationale for credit recovery programs is a direct byproduct of this federal initiative. At the state level, Texas continues to include graduation rate as part of the equation for determining accountability status. This legacy data-point will continue to be present in our future, domain-based accountability system. It is no surprise then that the demand for proficiency-based credit recovery programming is on the rise and has far surpassed its counterpart, which can be described as *time-based credit recovery* (St. Andrie, 2012).

Theoretical Foundation

Students coming to a credit recovery program can be described as *academically fragile*. That is, the students have demonstrated over time that they are not successful in the traditional

school environment. This attitude toward school is cumulative, inclusive of a range of learning experiences most often in the traditional school setting. While students' self-concept can be diminished through successive academic failure, other less obvious practices, such as exposure to controlling teaching practices, excessive focus on assessment, and punitive discipline policies, may combine to undermine intrinsic motivation to learn (Ryan & Deci, 2017). Rather than providing *more of the same*, ResponsiveEd takes a student-centered approach, mindful of the unique circumstances of each student, along with the motivational implications of classroom practice.

The *precision mastery system* was designed to provide academic momentum to students through optimal challenge, short-term learning goals, and success--early and often. While the learning system makes intuitive sense, we have applied theoretical grounding through self-determination theory (Deci & Ryan, 1985; Ryan & Deci, 2017). Growing out of the work of DeCharms (1968) on personal causation, self-determination theory posits three basic human needs, including autonomy, competence, and relatedness which apply across domains (Deci & Ryan, 1985). *Autonomy* is characterized by a perceived internal locus of control (Deci & Ryan, 1985); *competence* is the individual's expectation of success or mastery; and *relatedness* concerns the quality of connection with significant others (Deci, Vallerand, Pelletier, & Ryan, 1991). The extent to which these three basic human needs are satisfied correlates directly with the individual's quality of motivation--namely, the level of intrinsic motivation. Intrinsically motivated acts are those made out of personal volition which are endorsed at the cognitive level and performed because of their inherent pleasure (Deci et al., 1991).

With the learning system at ResponsiveEd, we seek to address each of the basic human needs in a unique manner. Students demonstrate *autonomy* through a range of choices, including pace of academic progress and division of time and prioritization of coursework.

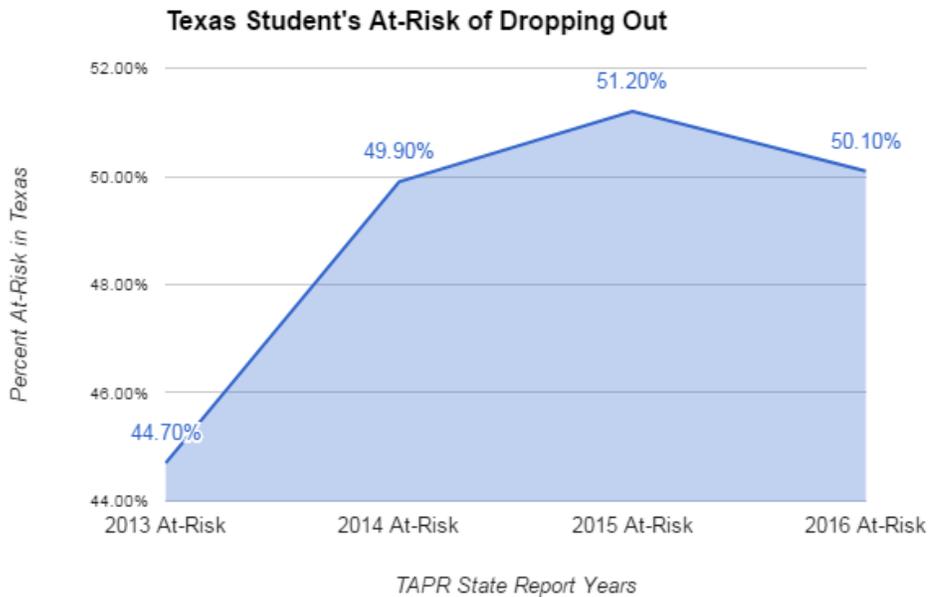
Students show competence through participation in baseline assessments, targeted remediation, and completion of mastery-based activities. The system has *failsafe* elements or *exit tickets* to ensure that student demonstrate success every step of the way. Finally learning environments that are *small by design* support close student-peer and student-teacher collaboration, satisfying the basic need or relatedness. Combined, the learning system fosters an environment that supports self-regulated learning, optimal challenge, and intrinsic motivation.

Best Practices in Credit Recovery

A direct response to need, school districts across the State of Texas began implementing credit recovery courses and programs. Nearly a decade ago, the National Center for Education Statistics reported that an astonishing 88% of school districts in the U.S. offered credit recovery courses (2009). Students, families, and school districts continue to seek programming that can efficiently and effectively meet each learner's needs without sacrificing quality. Considering that the Texas Education Agency (2016) reported that 50.1% of school-aged children were at-risk of dropping out of school, credit recovery programs and dropout prevention programs are as crucial as ever. Table 1 below visualizes the percent of all students enrolled in Texas schools who are at-risk of dropping out.

Table 1

Texas Academic Performance Report: Summarized by Year and At-Risk Percentage; 2012-13, 2013-14, 2014-15, 2015-16



ResponsiveEd is unique among charter management organizations, with a specialized mission to aide in preventing and recovering high school dropouts. As a large consumer of Comprehend curricula, ResponsiveEd continues to be a pioneer in student-driven blended-learning learning systems. Comprehend’s format and ease-of-use allow teachers to humanize the educational experience and re-engage the disenfranchised learner. By experiencing success early and often, ResponsiveEd students “own” their academic achievement and in turn become active participants in the learning cycle. The addition of Credit Recovery Tests have allowed under-credited students the opportunity to recover credits in a single testing session. Students are able to sit for a single summative assessment and demonstrate proficiency by mastering specific skills and standards. These assessments are

easily managed in part by Comprehend's online assessment model. Randomized questions and distractors ensure each test is unique, and therefore minimizes the possibility of academic dishonesty. Efficient systems like Comprehend, allow for the teacher to focus on what matters most without compromising testing integrity. Furthermore, Comprehend sets a passing standard on post-assessments that ensures mastery, fostering students' heightened self-efficacy beliefs, and continued competence as they work through the program.

Personalization, Quality, and Equity

Credit recovery programs offer an equal opportunity for students of all needs. The efficiency that Comprehend curriculum provides allows schools like those within ResponsiveEd time to address the underlying social, emotional, and academic needs of the students they serve without sacrificing quality. Personalization, or individualized learning, allows the student agency and choice in their learning and educational planning. This is a shift away from traditional teaching models where the environment, sequence, and pace is dictated by a governing body or institution. Figure 1 is a visual by CompetencyWorks which summarizes the ways in which these cutting-edge methodologies relate to one another under the umbrella of personalization (2015).

Building a Personalized System Enabled by Competency Education, Personalized Learning, and Blended Learning

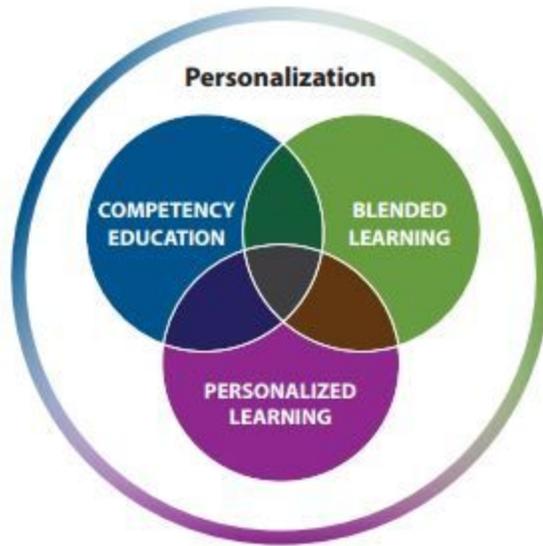


Figure 1

Diagram of Personalized Learning by CompetencyWorks

ResponsiveEd ensures that, despite personalization and personal learning, schools produce equally positive results. By way of Comprehend, ResponsiveEd schools carefully monitor student progress and outcomes, providing remediation and teacher intervention on demand. This allows schools to set high expectations for all learners and target-teach those who demonstrate a need. Students who are historically underserved and underrepresented do not fall through the cracks, and are instead given the tools and structure they need to thrive. ResponsiveEd's transparent system uses Comprehend as a tool to ensure equity and continuous improvement in their classrooms. iNACOL, the leading International Association for K-12 Online Learning, stated the following about equity in credit recovery programs:

Ensuring students are successful at each state of their academic lifecycle is important and the gaps should be addressed in real-time with supports. Providing high-quality pathways to

learn, ensuring high levels of learning and depth of learning, and providing the student supports to achieve mastery of the knowledge, skills and dispositions are critical.

Comprehend supports this tenet through automated formative assessment options, choice activities, resource libraries, and high teacher-student interaction via engaging online platforms.

Conclusion

Creating opportunities for under-credited students is necessary in order to prevent students from dropping out of high school or delaying their graduation timeline. Because of an expanding need for alternatives to the traditional time-based structure of learning, a new generation of curricula from digital platforms must be developed. Comprehend curricula represents the industry standard for mastery-based, student-driven learning models. Student-centered pedagogy eliminates the one-size-fits-all approach, and is at the heart of ResponsiveEd's credit recovery system. Grounded in motivational theory, the precision mastery system carves out individualized learning pathways to ensure high quality learning experiences for all students.

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