Student Well-Being:
The Power of Assessment, Goals,
& Self-Regulation in the Digital Age

Executive Summary

COVID confirmed what educational researchers had already established, that students struggle with not only distance education, but the side effects of living in a digital age. In the fast pace of a modern world, educators are finding it more difficult than ever to develop meaningful relationships with their students, regardless if the classroom is traditional, blended, or online. This inability to connect or to socialize in any meaningful way is associated with higher levels of anxiety, stress, depression, bullying, and feelings of isolation. Before COVID, addressing the dark side of distance learning was mostly overlooked. The assumption was that students could offset these issues by developing meaningful relationships outside of class. Post-COVID, we must realize that our responsibility as educators has expanded. In a digital age, we need to move towards a future that provides administrators, teachers, and students the tools necessary to help foster connections that can be used to ensure student well-being.

Online / Blended Learning	▶	Less Ability to Assess Students	▶	Lower Quality of Overall Instruction	▶	Less Student Engagement	▶	Lower Student Outcomes
	Leads to		Leads to		Leads to		Leads to	

Introduction

The information age has transformed the role of educators in the 21st century. Previously teachers were the primary source of knowledge. The students came to class largely naïve, and the teacher was the expert, the authority. But the Internet and 24-hour access to news and social media has shifted this relationship. In the digital age, students are more intellectually diverse. Therefore, whether in a traditional classroom or online environment, they see the teacher's role as one of facilitation rather than presentation (Norahmi, 2017).

The role of digital technology, not only in the classroom but in society, has changed how we approach instruction, including assessment strategies, course content, teacher-student interactions, and even the role of the teacher. Teaching online has proven to require different skills than those needed in a traditional, face-to-face environment. This has caused many instructors to naturally have reservations about this new approach to education (Bower & Hardy, 2004). In one study that explored the challenges and strategies of online instruction, the greatest difficulty reported by teachers was the inability to forge meaningful instructor-student and student-student connections in an effort to create a productive learning environment (Duncan & Young, 2009). What appears to be a recurring theme across multiple studies is that unlike traditional classrooms, teachers in online settings do not have the same ability to know or assess their students, making it difficult to get a sense of a student's personality, their motivations, emotional health, and their potential for growth beyond academics. In short, online environments make it very difficult to get a sense of a student's well-being.

As teachers grapple with new challenges so do students. Even though a student might have grown up in the digital age, this does not alleviate the basic human need to feel a sense of belonging to one's community. After decades of trying to replicate the social aspects of traditional classrooms in online instruction, research clearly shows that digital environments tend to increase anxiety and fail to engage students. Understandably this negatively impacts student performance (Jegede & Kirkwood, 1994). More importantly, this leads to feelings of isolation and subsequently higher dropout rates (McInnerney & Roberts, 2004), (Park,2007). In addition, as schools wrestle with a pandemic, administrators are currently reporting a spike in various mood disorders among students, including higher rates of depression, bullying behaviors, and suicide. But while preliminary findings are suggesting school closures related to COVID are a major contributor to the increase in mental health issues, more studies are needed (Hoekstra, 2020).

Regardless of the extent to which school closures have negatively impacted student well-being, it is important to recognize that the future of education will never be the same. As educators, we must address these issues, and in support of K-12 education several key elements have emerged that can help improve student outcomes in digital learning environments. These elements include the need to help students become more self-directed, teaching them how to set and strive for goals as well as increase self-efficacy through the process of reflection (Lock et al., 2017). Setting goals, monitoring progress and evaluating goals are skills clearly linked to achievement and these demands are arguably much greater in online environments than the traditional classroom. Online environments are largely autonomous and tend to lack the same level of on-going, interactive support or scaffolding that a teacher can provide in person. Therefore, self-regulation skills are more critical in distance education and the problem is compounded if teachers lack knowledge or otherwise fail to stress the importance of these

skills to their students (Bol & Garner, 2011). The end result is that even as online enrollments have exploded over the last few decades, this has not translated into better outcomes for students. This is demonstrated time and again as online programs see extremely high attrition rates, much higher than face-to-face classes and sometimes as high as 75% (Weidlich & Bastiaens, 2018). And while students in primary or secondary schools might not have the option to drop out, it is reasonable to predict an equal degree of student disengagement or dissatisfaction.

Addressing the above will require embracing new ways to approach education. And while there certainly are any number of strategies available to be tested, there are three tools to consider that are already backed by significant amounts of educational research;

1. Digital student profiles

2. Goal setting with mentors for teacher interaction

3. Teaching self-regulation to increase student engagement

Digital Student Profiles: A New Way to Assess Potential

While assessments are not new in education, the way administrators and teachers use these tools continues to evolve as do the tools themselves. A good example is the original use of the Stanford-Binet test in 1905, which was to identify students of low mental ability. Alfred Binet did not foresee the tool evolving into the modern-day IQ test (Gould & Gold, 1996). Since then the value of assessment in education has not diminished. In fact, in 1993 a new international journal titled *Assessment in Education: Principles, Policy and Practice* was launched specifically to focus on how these tools can help with policy decisions, determine what needs to be included in the overall curriculum, assess how students are

progressing, and summarize what they have learned. As tools have progressed it has become readily apparent that the power of assessment is foundational to education, identifying ever more subtle purposes and helping to define and shape a wide range of educational issues. For instance, teachers in Greece use assessment to control behavior and attention.

Other educators use item-response models to develop a learning profile for each student, and some explore how self-assessment influences a student's capacity and motivation to learn (Broadfoot & Black, 2004). Research is also clear that formative assessment tools are some of the most powerful ways teachers can receive and give feedback. This allows teachers to then modify instruction, enhancing student motivation and thereby achieving better student outcomes (Cauley & McMillan, 2010).

What has yet to be established is the type of assessment tool that can bridge the gap between the traditional classroom and online learning. If we look at teacher-student interactions in online or blended learning environments, educators no longer know their students. As teachers are no longer able to observe body language, peer interactions, and a host of other subtle behaviors, they no longer have the complete picture of their students.

A potential solution is to incorporate an assessment tool or tools that can help administrators and teachers regain some of what has been lost when transitioning away from traditional teacher-student interactions. In an online or blended learning environment as shown on the following page, the point of leverage is using an assessment tool that can give educators a digital profile of their students.

These types of assessment tools can help to identify students who might need additional support in certain key areas. It can also provide some idea of strengths and weaknesses that might influence how to approach instruction for some students.

Student	Grade	Grade Average	Last Assessed	Total Results by Tier			Resilience	Confidence	Self-Compassion	Adaptability	Thoughtfulness	Independence	Social Esteem	Creativity	Student Agency	Leadership	Empathy
				🔴	🟡	🟢											
Arianne Roach	10	88	June 3 2020	0	1	10	81	83	90	94	81	93	92	68	89	93	91
Adina Mair	10	83	June 3 2020	3	4	5	29	28	54	61	74	62	27	82	56	46	83
Marni Espinosa	10	90	June 3 2020	0	4	7	63	66	71	77	81	72	68	83	71	61	79
Nichole Mill	10	94	June 3 2020	0	1	10	82	79	73	71	84	80	81	69	77	78	82
Suleman Hodge	10	81	June 3 2020	2	6	3	26	34	28	66	77	59	45	84	51	52	77
Milton Keith	10	93	June 3 2020	1	3	9	88	83	90	94	81	93	92	98	89	97	99

This is not to say that these tools are the equivalent of how teachers get to know their students in a traditional setting. It is however, an additional tool that requires limited investment with potentially high returns. It is better than the current trend which leaves educators in a sort of digital darkness, knowing very little about the students they are supposed to be teaching.

Goal Setting and Mentorship

In traditional classrooms, a student's personality, behavioral and emotional tendencies, and motivations are most often communicated indirectly. They are largely nonverbal. A teacher gains knowledge about who they are teaching when they see a student with a musical instrument, dressed to play a particular sport, or carrying some artwork or a sketchpad. Often, teachers pick up on subtle body language and witness interaction between peers. At the same time students are learning social norms from the teacher. In this sense, an educator is not only a teacher, but a role model. When teaching online or in a blended classroom, this type of indirect teacher-student communication shrinks significantly and can be difficult to replicate.
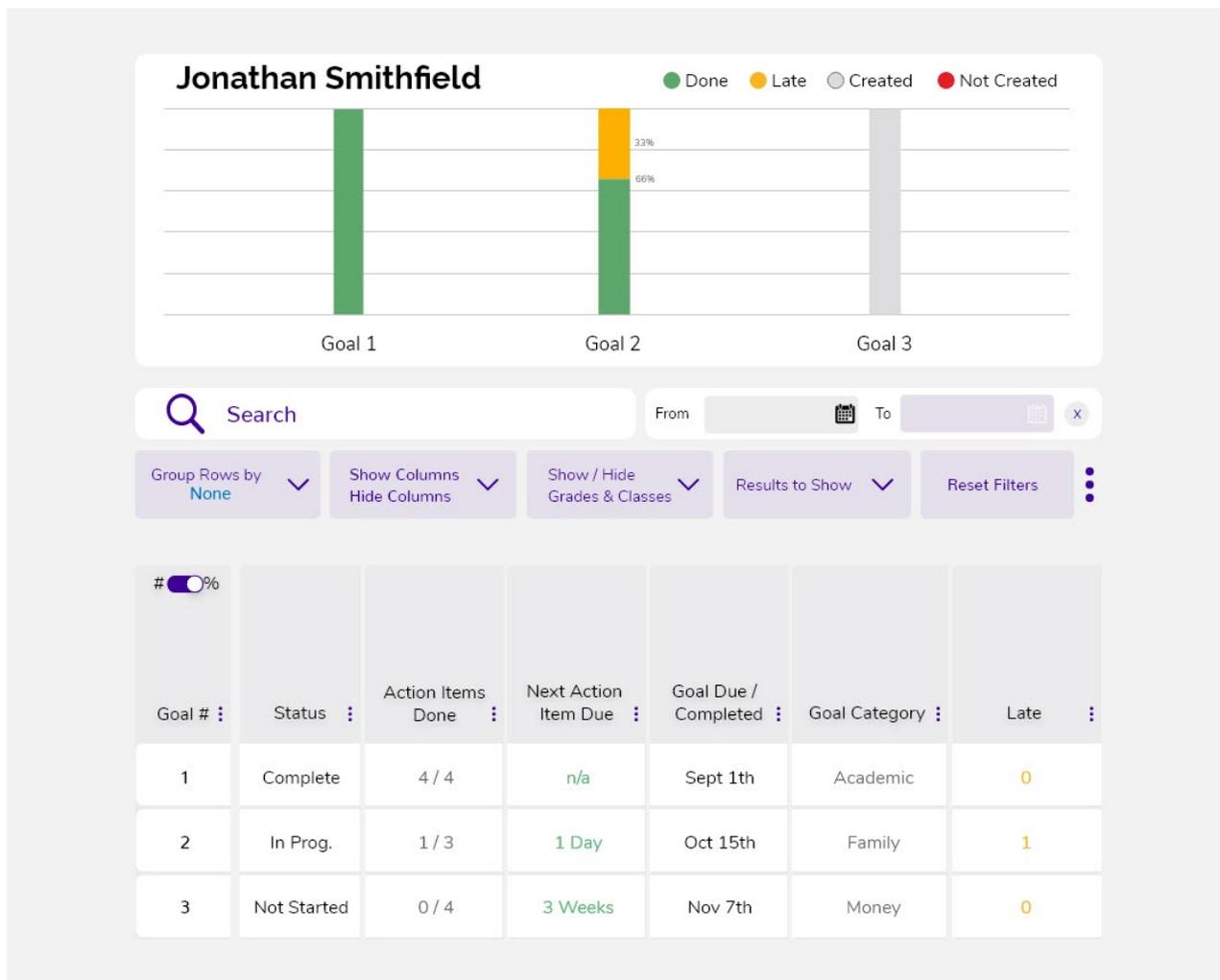
Another component often missing online is mentorship or coaching, both in the form of teacher-student interactions and the type of mentorship that might take place informally between students. In a traditional classroom, a teacher is free to walk around, observe, and engage in short feedback sessions with each student. A traditional setting also allows for quick, informal student-student interactions, a form of peer mentorship that generally cannot take place in an online video chat and is difficult in text-based environments.

Goal Setting

To offset these challenges, educators need to introduce explicit activities that will strengthen relationships and form connections that normally develop implicitly in traditional settings. One evidence-based approach that shows a number of benefits in this area is goal setting. This is notably a different approach than trying to cultivate artificial relationships

by using prescribed team building activities or "ice breakers". Instead, goal theory supports creating a natural bridge between teachers and students in that goal setting requires a degree of autonomy or self-directed behavior (Lock & Latham, 2013). In doing so, educators can help students shift towards higher levels of self-regulation, while at the same time learning things about their students that can then be used to improve instruction (Grow, 1991), (Garrison,1997). In other words, infusing a degree of student agency into the classroom provides teachers valuable feedback that is largely missing in online settings, including gaining insights into the hopes, dreams, and motivations of their students.

Put into practice, administrators and teachers can use technology to incorporate a limited form of goal setting into the overall school curriculum as shown below. In limited form, this takes into consideration time constraints while providing the potential for teachers to briefly model goals for their students as well as support students in pursuit of their own goals. While this approach will certainly not mirror traditional teacher-student interactions, it is arguably an improvement over the current approach that limits the ability of students to build an identity within the classroom or the school.

Jonathan Smithfield

● Done ● Late ○ Created ● Not Created

Goal #	Status	Action Items Done	Next Action Item Due	Goal Due / Completed	Goal Category	Late
1	Complete	4 / 4	n/a	Sept 1th	Academic	0
2	In Prog.	1 / 3	1 Day	Oct 15th	Family	1
3	Not Started	0 / 4	3 Weeks	Nov 7th	Money	0

Mentorship

As noted by Dykman & Davis (2008), educators need to cultivate and sustain relationships in online environments, but this can be a time consuming and tedious process. It doesn't generally take place because online platforms are not adequately designed for the kinds of subtle interactions that provide teachers or students meaningful insights. In addition, in online environments, students typically have less access to peers in both quantity and quality. A counter to this is creating a digital space for students to interact e.g., an online forum or chat room. Unfortunately, these tend to be cold, informal spaces with asynchronous communication. For a student in need of extra support it can be difficult to interact with peers, to share, to connect, to seek help or to express difficulties in a public space (Duncan & Young, 2009).

If teachers do not have the time, and peer interactions are not supported adequately, then another option is to formally introduce mentors as potential surrogates. As an alternative to traditional approaches, this can help increase student engagement and promotes a degree of social accountability, both shown to occur when mentorship or coaching is introduced in the learning process. Specifically, research has found that these types of collaborative relationships can help students to build an identity within the classroom (Hadwin et al., 2011). And while few studies have examined the impact mentoring has on educational achievement and attainment in the general population, results of the available studies show that in cases where mentorship does occur, there is a positive net influence on student outcomes (Erickson et al., 2009).

A good way to think of mentorship is as a valuable resource for students, regardless of the learning environment. In traditional settings, access to a mentor can help with educational and goal attainment. In blended or online environments mentors can also help offset issues of social accountability as well as provide students a sense of peer collaboration. It should no longer be a question of whether mentorship should be part of the broader curriculum, but rather how it can be incorporated efficiently.

Self-Regulation

The term self-regulated learning emerged largely from a sociocognitive perspective. Self-regulated learning refers to strategic and metacognitive behavior, motivation, and cognition aimed toward a goal (Hadwin & Oshige, 2011). And while self-regulation is important in traditional classrooms, it is an absolute necessity in online environments. In particular, students online are often required to learn independently and must navigate through non-linear, asynchronous content. When they encounter a difficulty, there are limited ways to electronically "raise your hand" and get immediate and personalized attention from the teacher. Therefore, successful students are those with a greater ability to engage in self-regulation strategies that involve planning, monitoring, and evaluation (Bol & Garner, 2011). This then brings into the discussion the realization that historically self-regulation strategies were rarely taught, because students who shared a traditional classroom were not required to use different strategies. In other words, prior to widespread implementation of distance learning, the disparity in self-regulation skills between students and the requirement to exercise different strategies was less prevalent.

There are a variety of tools or methods to help teach students improve self-regulation skills, including the use of goal setting which has already been presented. In addition to goal-setting, Schraw (1998) found that using checklists was a useful way to promote metacognitive strategies, encouraging students in academic settings to reflect on three key elements; planning, monitoring, and evaluating.

While there are other ways to address self-regulation, the use of reflection has significant empirical support, is cost effective, transfers across domains, and works well in conjunction with other strategies such as goal setting or improving self-efficacy.

Planning

1. What is the nature of the task?
2. What is my goal?
3. What kind of information and strategies do I need?
4. How much time and resources will I need?

Monitoring

1. Do I have a clear understanding of what I am doing?
2. Does the task make sense?
3. Am I reaching my goals?
4. Do I need to make changes?

Evaluating

1. Have I reached my goal?
2. What worked?
3. What didn't work?
4. Would I do things differently next time?

(Schraw, 1998)

Summary

The Internet has fundamentally shifted how we must approach education. The information age, including access to social media, means students are more intellectually diverse than previous generations. The expectation in the 21st century is for teachers to be facilitators of education, helping students critically think about the issues. This holds true regardless of educational environment.

Compared to traditional schooling, online learning is a cold, impersonal endeavor as teachers and students fail to develop productive relationships. In the digital age, educators no longer know who they are teaching and students are unable to develop a sense of community. This leads to higher levels of anxiety and feelings of social isolation. Arguably, under certain conditions it can also have a negative impact on students' mental health. Combined, these factors impact instruction, lowering student engagement, and negatively impacting student well-being.

Given this reality, educators must continue to discover new ways to overcome the challenges presented by modern technology and the information age. To this end, there are three promising lines of research where the evidence supports tools educators can use to help bridge the gap.

1. **Digital Student Profiles:** An assessment tool that goes beyond academics to help educators develop an overall picture of who they are teaching.

2. **Goal Setting and Mentorship:** Helping to strengthen teacher-student relationships and provide additional interactions through the use of mentors.

3. **Teaching Self-Regulation:** Develop higher levels of student autonomy, helping students to develop metacognitive skills.

While individually each of the above can stand on its own merit, there is little reason not to leverage all three strategies. Student assessments can be used to inform goal setting and self-regulation can help students work on improving areas of weakness identified in the assessment. Self-regulation can help improve success in achieving goals and those goals can be targeted to develop a stronger student profile. In this sense, when used together these strategies will help educators and students to build stronger relationships, thereby improving instruction, increasing student engagement, and ultimately leading to better student outcomes.

Select References

Bloom, M. (2013). Self-regulated learning: Goal setting and self-monitoring. *The Language Teacher*, *37*(4), 46-51.

Bol, L., & Garner, J. K. (2011). Challenges in supporting self-regulation in distance education environments. *Journal of Computing in Higher Education*, *23*(2-3), 104-123.

Bower, B. L., & Hardy, K. P. (2004). From correspondence to cyberspace: Changes and challenges in distance education. *New directions for community colleges*, *2004*(128), 5-12.

Broadfoot*, P., & Black, P. (2004). Redefining assessment? The first ten years of assessment in education. *Assessment in Education: Principles, Policy & Practice*, *11*(1), 7-26.

Cauley, K. M., & McMillan, J. H. (2010). Formative assessment techniques to support student motivation and achievement. *The clearing house: A journal of educational strategies, issues and ideas*, *83*(1), 1-6.

Duncan, H. E., & Young, S. (2009). Online pedagogy and practice: Challenges and strategies. *The Researcher*, *22*(1), 17-32.

Dykman, C. A., & Davis, C. K. (2008). Online education forum: Part two-teaching online versus teaching conventionally. *Journal of Information Systems Education, 19*(2), 157.

Erickson, L. D., McDonald, S., & Elder Jr, G. H. (2009). Informal mentors and education: Complementary or compensatory resources?. *Sociology of education, 82*(4), 344-367.

Garrison, D. R. (1997). Self-directed learning: Toward a comprehensive model. *Adult education quarterly, 48*(1), 18-33.

Gould, S. J., & Gold, S. J. (1996). *The mismeasure of man.* WW Norton & company.

Grow, G. O. (1991). Teaching learners to be self-directed. *Adult education quarterly, 41*(3), 125-149.

Hadwin, A. F., Järvelä, S., & Miller, M. (2011). Self-regulated, co-regulated, and socially shared regulation of learning. *Handbook of self-regulation of learning and performance, 30*, 65-84.

Hadwin, A., & Oshige, M. (2011). Self-regulation, coregulation, and socially shared regulation: Exploring perspectives of social in self-regulated learning theory. *Teachers College Record, 113*(2), 240-264.

Hoekstra, P. J. (2020). Suicidality in children and adolescents: lessons to be learned from the COVID-19 crisis.

Jegede, O. J., & Kirkwood, J. (1994). Students' anxiety in learning through distance education. *Distance education, 15*(2), 279-290.

Lock, J., Eaton, S. E., & Kessy, E. (2017). Fostering self-regulation in online learning in K-12 education. *Northwest Journal of Teacher Education, 12*(2), 2.

Locke, E. A., & Latham, G. P. (Eds.). (2013). *New developments in goal setting and task performance.* Routledge.

McInnerney, J. M., & Roberts, T. S. (2004). Online learning: Social interaction and the creation of a sense of community. *Journal of Educational Technology & Society, 7*(3), 73-81.

Norahmi, M. (2017). 21st-century teachers: The students' perspectives. *Journal on English as a foreign Language, 7*(1), 77-96.

Park, J. H. (2007). Factors Related to Learner Dropout in Online Learning. *Online Submission*.

Weidlich, J., & Bastiaens, T. J. (2018). Technology Matters–The impact of transactional distance on satisfaction in Online Distance Learning. *International Review of Research in Open and Distributed Learning, 19*(3).