Student-Engaged Assessment:
A Meta-Analysis of Expeditionary Learning Assessment Practices

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Abstract

In an era in which standardized tests are receiving increased attention, low-performing schools are often eligible for increased financial and professional support, intended to improve student achievement. Comprehensive School Reform (CSR) models are gaining popularity across the nation, and Expeditionary Learning (EL) is an example of one such model. The meta-analysis examined EL's Core Practices for Assessment, which guide EL schools in developing and maintaining a balanced assessment program focused on student-engaged assessment, assessment for learning strategies, and effective use of both formative and summative assessment data. The current study captures the collection, analysis, and synthesis of professional materials regarding each of the Core Practices and sub-practices to determine the potential benefits of their implementation. Analysis suggests that education professionals are, in general, in support of student-engaged assessment practices. Limitations and implications are discussed.

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Section One

In an era in which the American public education system is under constant scrutiny, review, and reform, education professionals are working now more than ever to find models and best practices that will improve student achievement and better prepare today's youth for success in life after high school. With the adoption of the Common Core Learning Standards in 2008, and the implementation of new curriculum and assessments over the last four years, it's become increasingly evident that the achievement gap between impoverished students and their more affluent counterparts continues to grow, plaguing the image of the education system in the eyes of the public.

Problem Statement

As a result of these issues, increased attention has been directed at Comprehensive School Reform (CSR) models that work to revamp educational practices in public schools by aligning research-based practices to the specific needs of low-performing schools in impoverished areas. The U.S. Department of Education, which has historically been known for implementing nation-wide initiatives in an attempt to standardize the education system from the top down (Title I and No Child Left Behind), has recently recognized the need for more individualized reform models that schools can adopt and adapt to the specific needs of their student populations.

In 2002, the U.S. Department of Education set eleven specific guidelines that define Comprehensive School Reform, which are used to determine whether CSRs receive funding and recognition as effective models. These guidelines are as follow:

1. Employs proven methods for student learning, teaching, and school management that are based on scientifically based research and effective practices, and have been replicated successfully in schools;

2. Integrates instruction, assessment, classroom management, professional development, parental involvement, and school management;

3. Provides high-quality and continuous teacher and staff professional development and training;

4. Includes measurable goals for student academic achievement and establishes benchmarks for meeting those goals;

5. Is supported by teachers, principals, administrators, and other staff throughout the school;

6. Provides support for teachers, principals, administrators, and other school staff by creating shared leadership and a broad base of responsibility for reform efforts;

7. Provides for the meaningful involvement of parents and the local community in planning, implementing, and evaluating school improvement activities;

8. Uses high-quality external technical support and assistance from an entity that has experience and expertise in schoolwide reform and improvement, which may include an institution of higher education;

9. Includes a plan for the annual evaluation of the implementation of the school reforms and the student results achieved;

10. Identifies federal, state, local, and private financial and other resources available that schools can use to coordinate services that support and sustain the school reform effort; and

11. Meets one of the following requirements: the program has been found, through

scientifically based research, to significantly improve the academic achievement of

participating students; *or* the program has been found to have strong evidence that it will

significantly improve the academic achievement of participating children. (U.S.

Department of Education, 2002)

As mentioned, CSR models that meet the above criteria are receiving increased attention,

particularly in high-poverty and low-achieving areas, specifically those schools eligible for

funding under Title I/NCLB guidelines. There has been an increased push for the implementation

of research-based CSR models in the at-risk and low-performing schools of America, and one

such model will be the subject of this capstone project.

Significance of the Problem

The aforementioned Comprehensive School Reform models that are gaining popularity in the

world of education are, in part, a response to the ever-present achievement gap in public

education. In an Editorial Project published in *Education Week* (2011), the authors describe

achievement gaps as any statistically significant gap in student performance between various

groups of students, particularly those gaps between black and Hispanic students and their white

counterparts, as well as those between students from low socio-economic backgrounds and their

more affluent counterparts. Recent studies show that black and Hispanic students are, on

average, performing two grade levels below their white counterparts, and are graduating on time

at about half the rate of white students (Education Week, 2011).

Studies related to socio-economic status indicate that students from poverty (families of

four that earn under $21,947 per year) are also less likely to be successful in school. In the U.S.

Department of Education's 2011 *Condition of Education* report, they found that only 68 percent

of 12th-graders in high-poverty schools graduated with a diploma in 2008, while 91 percent of 12th-graders in low-poverty schools graduated with diplomas. The study also indicated that the percentage among students from poverty has dropped 18 percentage points since 2000, while the graduation percentage within low-poverty schools has remained consistent (NCES, 2011).

Regardless of the factors that contribute to the achievement gaps in the education system, which could be analyzed at length on their own, the purpose of this study is to examine one model that is attempting to close the gap through the implementation of research-based practices with a track-record for success, regardless of the student population's demographics.

Purpose

The purpose of this analysis is to examine the research and professional opinions regarding assessment techniques and philosophies of the Core Assessment Practices embedded within the Expeditionary Learning Comprehensive School Reform model. Through this analysis of research and other professional resources, I hope to provide an in-depth look at how implementation of these specific practices benefit student learning, particularly in regards to literacy learning and assessment. Through my analysis, I also hope to determine how well the EL model meets the specific criteria for CSRs described above; i.e. Are the practices truly research-based? With these purposes in mind, I hope to address the following research questions.

Research Questions

Using the method of a meta-analysis, I will address the following research questions: How does implementation of each Expeditionary Learning Core Practice for Assessment support literacy development in students? What does the education professional community believe are the benefits of using student-engaged assessment practices in today's schools? Lastly, how much of

the EL Core Assessment Practices are, in fact, research-based, thus meeting the criteria for a

Comprehensive School Reform model?

Background to the Study/Personal Rationale

As a teacher in the lowest performing district among New York's "Big Five" (Rochester,

Buffalo, Syracuse, Albany, and New York City), I've been immersed in the implementation of

one such CSR for the last four years. As a priority school (performing in the lowest 5% of the

district), my school applied for and was awarded a Title I grant for a three-year contract with

Expeditionary Learning (EL), formerly known as Outward Bound.

The grant provided us the monetary and personnel support necessary to reform the school

according to EL's Core Practices, a collection of research-based practices that guide schools

through the reform model. Not surprisingly, the EL Core Practices directly align to the

aforementioned guidelines for CSRs under the U.S. Department of Education's definition, as

they are split into five distinct categories: Curriculum, Instruction, Assessment, Leadership, and

Culture & Character. For the purposes of this project, I've chosen to focus on the assessment

portion of the Core Practices.

My time spent learning and putting into practice the EL model has been extremely

beneficial to my teaching, and influential on my own education philosophies, particularly in

regards to assessment. When we received the grant, we were guided through the development of

an annual work plan to support us in implementing EL practices that met the needs of our school.

As a member of the Implementation Team, which consisted of administrators, teachers, coaches,

and Expeditionary Learning school designers, I was involved in the initial conversations to

determine areas of need for our school. Early on in these conversations, the term Assessment for

Learning (AFL) became an obvious focus area for us, and has continued to be an integral component of our work plan each year.

Through hours of professional learning and collaborative partnerships with colleagues and EL school designers, I've learned the value of effectively using formative assessment strategies to promote student learning. In an era when so much public attention is focused on high-stakes standardized tests, we as a school chose to focus on our day-to-day assessment practices, specifically practices that require students to engage in self-assessment, track their own progress towards learning targets, and organize and analyze their own performance data, transforming them into what Ron Berger refers to as "leaders of their own learning" (2014).

Each of these "student-engaged assessment" practices will be discussed in detail in the meta-analysis portion of this project, but I feel it's necessary to note how profoundly my own teaching philosophies and practices have improved due to the implementation of EL strategies, which is the impetus for this in-depth study of the research behind them. I've personally seen in my own classroom how effective assessment for learning strategies can be, but by examining professional resources on the subject, I hope to further understand the research and reasoning behind the EL assessment design.

Study Approach

In an effort to organize and synthesize professional resources on the topic of student-engaged assessment practices, particularly those outlined in the Expeditionary Learning Core Practices for Assessment, I've conducted a meta-analysis. Meta-analyses, a term coined by Gene V. Glass (1976), are described by the *International Encyclopedia of Social Sciences* as studies that organize and evaluate various research studies on a specific topic in an attempt to develop quantitative conclusions regarding the subject (2008).

In this paper, I review literature related to each of the Expeditionary Learning Core Assessment Practices, including the individual components of each. The Core Practices, which guide the EL model in its entirety, claim to be research-based, thus meeting the criteria for a Comprehensive School Reform model. That said, this paper sets out to organize professional research that supports these practices, in an effort to determine the overall benefits of implementing them, whether as part of the Expeditionary Learning model or not.

While collecting research on each component of the Core Assessment Practices, I found it difficult to find "research studies" related to many areas, but obtained a number of resources published in professional education journals or books that support the practices. For the purposes of this capstone project, I determined that, while not necessarily "research-based", many of the resources outlined below offer valuable insight into the benefits of student-engaged assessment practices, the core of EL's assessment philosophy.

As a result, each section of the EL Core Assessment Practices are analyzed individually, based on the findings and opinions of education professionals from various backgrounds. I begin each section with the description of the Core Practice provided by EL, which provides the reader background information to consider while reading about outside resources that support the EL practices.

Section Two: Review of Literature

Core Practice 20: Using Student-Engaged Assessment to Create a Culture of Engagement

and Achievement

"Student-engaged assessment is a hallmark of Expeditionary Learning schools.

Assessment plays a key role in building an overall culture of engagement and

achievement. Students take responsibility for their own learning and see themselves as

the key actors in their own successes. Additionally, students and adults operate from a

growth mindset—a belief that everyone is capable of high achievement and that learning

comes as a result of effort. Habits of scholarship, such as perseverance, craftsmanship,

and responsibility, name specific characteristics that support students' academic

achievement. All learning, whether in the realm of academic progress or habits of

scholarship, is supported by the purposeful use of learning targets." (Expeditionary

Learning, 2011)

Berger, Rugen, and Woodfin worked collaboratively on the book, Leaders of Their Own

Learning (2014), which outlines and describes each of the EL Core Assessment Practices. They

describe the role of student-engaged assessment as an opportunity to move away from evaluation

and ranking of students based on performance, and towards students using their own assessment

results as motivation to grow and improve. Student-engaged assessment "builds independence,

critical thinking skills, perseverance, and self-reflective understanding students need for college

and careers and that is required by the Common Core State Standards" (p. 5). Below is an

analysis of professional resources regarding the four components of Core Practice 20: Growth

Mindset, Student Ownership of Learning and Assessment, Habits of Scholarship (Performance

Character), and Supporting Purposeful Learning with Learning Targets.

A. Growth Mindset

Carol Dweck is considered one of the leading psychologists in the field of motivation, which she describes in detail in her book *Mindset* (2006), a culmination of over 20 years of research. Dweck believes that there are two types of people in the world—those with fixed mindsets and those with growth mindsets.

People with fixed mindsets believe that all ability, be it academic, artistic, athletic, etc. are innate, and thus cannot be changed. Those with fixed mindsets tend to accept their abilities as they are, and do nothing to try to improve them, whereas people with growth mindsets are always striving to improve their abilities. With the belief that through hard work, perseverance, and learning from past mistakes, people with growth mindsets recognize opportunities to improve their skills in any number of areas.

Dweck's work has been gaining popularity in schools, and is a key component in successful Expeditionary Learning schools. Dweck has conducted numerous studies on student motivation, and she's concluded that students' success is directly related to what they believe about their own intelligence. Students with fixed mindsets tend to follow specific "rules" based on the belief that their intelligence is predetermined and stagnant (2007).

The first, and often most detrimental, rule is to *look smart at all costs*. Students with fixed mindsets fear failure, which is why they also follow the rule *don't make mistakes*. Any mistake is considered an inadequacy, which directly impacts their motivation for success. Similarly, students with fixed mindsets *don't work hard*, due to the belief that if an assignment is difficult for them, they must lack the intelligence to be successful on it. Finally, these students believe that *if you do make mistakes, you shouldn't try to repair them*. Students with fixed mindsets are often interested in whether an answer was correct, not what the correct answer

actually was. Again, each of these rules can be directly connected to those students' motivation, which is clearly hindered when they concede to a fixed mindset (Dweck, 2007).

Like students with fixed mindsets, those students with a growth mindset also follow certain rules that impact their motivation and overall success. Dweck's research concluded that students with growth mindsets *take on challenges*. When given the option between a difficult task that they could learn from, or a simple task that would make them look smart, growth minded students chose the more difficult option, regardless of the risk involved. Students with a growth mindset also *work hard* to meet their goals. They believe that effort, not inherent ability, leads to success. Finally, in contrast with the fixed mindset, students with a growth mindset *confront deficiencies and correct them* as learning opportunities. These students, when getting an answer wrong, look for the right answer to further their knowledge (2007).

Keeping these conclusions in mind, one must ask how the development of growth mindsets impacts student achievement. Dweck cites multiple studies that indicate that explicitly teaching students about their own mindset and helping them to develop growth mindsets has directly led to improved achievement and motivation (Aronson, Fried, & Good, 2002; Good, Aronson, & Inzlicht, 2003; Blackwell, Trzesniewski, & Dweck, 2007; Yeager & Dweck, 2012).

Based on the research that supports Dweck's work, EL schools work to develop growth mindsets in all students, as well as the school staff. It's equally important for teachers to approach their work from a growth mindset as it is for students, particularly when participating in professional learning opportunities. One component of Expeditionary Learning's professional development model is to immerse teachers in authentic experiential learning opportunities, similar to those they are expected to facilitate with their students (Expeditionary Learning, 2011).

Klein and Riordan (2011) found that when teachers participated in professional development while "wearing the student hat"—acting as the student—they were more likely to apply similar teaching strategies and practices in their own classrooms. This directly correlates with the idea that teachers, as well as students, need to develop the belief that their abilities are not fixed, but can be developed through effort, perseverance, and a commitment to improvement.

B. Student Ownership of Learning and Assessment

When schools help students develop a growth mindset, it increases their motivation, thus providing opportunities to take more ownership of their learning. In an Expeditionary Learning school, this means that students will be engaged in a variety of tasks involving their own learning processes and assessments. Students in EL schools need to understand how assessments can be used as tools to improve their future performance, which is why they are expected to self-assess their progress towards specific targets, record and track the progress they've made, and set goals based on their past results (Expeditionary Learning, 2011).

It's crucial that students understand that assessments are about much more than a grade at the end. Effective use of formative assessments with students has been shown to increase motivation to improve and overall performance. Chan et al. (2014) agree with this sentiment, and provide a valuable source of research based strategies that have been shown to improve student ownership of their learning. Many of these practices also appear within the Expeditionary Learning Core Practices (2011). For example, Chan et al. provide a flow chart that illustrates the connections necessary between clear learning targets (which need to be communicated with students), feedback (which can be provided by the teacher or peers), and collection and documentation of evidence (which should be student-driven).

Each of these components plays an integral role in providing students opportunities to take ownership of their learning. The clear communication of learning targets, use of effective feedback, and documentation of learning will all be discussed at length in later sections of the literature review, but it's important to note that each of these components has been shown to directly increase student ownership of their learning and to improve student achievement (Chan et al., 2014).

C. Habits of Scholarship (Performance Character)

Coinciding with the previous two components of student-engaged assessment practices described above, EL schools consider habits of scholarship, or performance character, to be equally important to student success as their performance on academic standards. Skills like perseverance, time-management, self-awareness, and study skills are taught explicitly in EL schools. Teachers and students are encouraged to promote these skills by referencing habits of scholarship learning targets alongside their academic targets. Students are also expected to participate in the same progress-tracking, self-assessment, and goal-setting described in the previous section when addressing their own habits of scholarship (Berger, Rugen, & Woodfin, 2014).

For example, in my school, we refer to our habits of scholarship as Habits of Work and Learning (HOWLs). They include perseverance, commitment to quality, honor and integrity, and collaboration. Each of these HOWLs is posted in classrooms and throughout the school, and have become part of our schoolwide vocabulary. Students understand what each HOWL means, and need to be able to recognize when they should apply them. My own students are responsible for self-assessing their ability to use the HOWLs at the conclusion of each day. Based on those

self- assessments, students also must set specific goals for the following day, which we track in a variety of ways.

In a position paper developed by the Character Education Partnership (2008), the authors describe the importance of addressing and assessing "performance character" in schools. They note that much research has been conducted on the importance of teaching "moral character" (needed for ethical behavior) to students, but recognize the importance of teaching "performance character" (needed for best work) to improve students' habits of scholarship.

The CEP authors go on in their paper to describe research studies dating back to the early 1990s that support the benefits of helping students develop performance character values (2007). Following the review of the literature, the authors provide ten research-based practices that teachers can use at the schoolwide or classroom level to promote students' development of performance character values. Below, I provide a brief synthesis of each practice and the research used to support it (2007). Please note that many of these research-based practices apply directly to other portions of the EL Core Practices for Assessment, and thus will be referenced later in this paper as well.

1. *Create a safe and supportive learning community*

   By creating a school community in which students feel valued and safe, we can promote student engagement and motivation. The authors cite a study of 90,000 middle and high school students from which they concluded that students that feel "connected to the school" are statistically more motivated and engaged in their own academic achievement (Elbot & Fulton, 2007).

2. *Create a culture of excellence*

The CEP authors cite Ron Berger's book, *An Ethic of Excellence* (2003) in their description of this practice. Berger describes his classroom as a room full of "craftsmen", in which students feel empowered by the production of excellent work. When students see their highest abilities come to fruition, Berger argues, they are transformed into a different kind of learner—one who will not accept anything but excellence in all that they do.

3. *Foster, in both faculty and students, a "growth mindset" that emphasizes the importance of effort.*

   Not surprisingly, Carol Dweck's (2000) extensive research studies on growth vs. fixed mindsets are described in detail. While much of their implications and suggestions have been described above, the CEP also points out the importance of providing students with opportunities to struggle with tasks that are appropriate for their current levels. That is, assignments that require enough challenge to make students "stretch" their thinking, which will lead to authentic learning and development of perseverance and persistence.

4. *Develop thinking dispositions in all members of the school community.*

   The CEP authors describe thinking dispositions as an integral component of performance character, as it describes one's ability to use metacognition—that is, to think about their own thinking. The authors support the belief that one's "intellectual character" promotes collaboration, honesty and integrity, and an overall ability to "think before acting", all of which are described as components of EL's model of scholarship habits (2008).

5. *Assign work that matters.*

Students are more likely to apply habits of scholarship when they are engaged in assignments and learning that is meaningful to them. Again, the authors cite Berger's *An Ethic of Excellence*, in which he describes his sixth graders' intrinsic desire to produce high-quality work on books that were to be presented to senior citizens in the community. When students are producing work for an authentic audience, Berger argues, they are more likely to give and receive feedback, edit their work, and commit to producing work at their highest level (2003).

6. *Provide models of excellence.*

   Students require guidance towards excellence, and models are often extremely beneficial to promoting high-quality work in schools. When students are engaged in the examination and analysis of excellent examples, it provides them a basis from which to gauge their own performance levels. When students are clear on what's expected, they are more likely to use habits of scholarship to meet the expectations (Berger, 2003).

7. *Develop a culture that encourages feedback and revision.*

   Effective use of feedback and revision is at the core of the EL Assessment for Learning practices, and as the CEP authors point out, can also benefit students in developing their own performance character and habits of scholarship. Critique sessions and specific feedback are necessary in supporting students in producing excellent work. That said, students and staff need to be taught to give and receive feedback in productive and meaningful ways to promote student achievement (Berger, 2003).

8. *Prepare students to make public presentations of their work.*

Similar to the fifth practice described above, when students are given opportunities to share their learning and work with authentic audiences, they have a greater desire to strive for excellence. Participation in service-learning opportunities or presentations to the public outside the school walls are powerful for students and promote their habits of scholarship as experts on a specific topic. This is also a core value in Expeditionary Learning Schools (Berger, 2003).

9. *Use rubrics to help students take responsibility for their learning.*

   Extensive research has been conducted to determine the effects of using rubrics throughout the learning process, as opposed to simply using them for evaluation of the final product. Interestingly, the CEP fails to cite any such research, but describes a school in which students are expected to assess their own habits of scholarship through the use of a rubric. This directly aligns with the EL expectation that students should be working towards habits of scholarship learning targets, just as they work towards academic learning targets. When students are held accountable for their performance character, they are more likely to work towards specific character goals (2008).

10. *Encourage mastery learning.*

    Mastery learning refers to an expectation of excellence and mastery of standards, which must be achieved by all students before they can be promoted to the next concept. Students who fail to meet expectations of excellence must repeat the assignment until it's done to the highest level. The CEP authors cite that historical research promotes the positive effects of mastery learning, but again fail to provide any recent scientific studies to support their claims (2007).

Each of the practices described above directly correspond to the EL Core Practices, particularly those related to habits of scholarship. As stated, many of them also relate to other components of the Core Practices, and will be referenced in later sections of the meta-analysis.

D. Supporting Purposeful Learning with Learning Targets

Learning Targets have been gaining popularity in the education world over the last few years, as teachers are now being told to replace the essential questions of old with "I can" statements called learning targets. Learning targets were originally developed by Expeditionary Learning, and the positive impact they have on student achievement and assessment for learning practices have made them the new universal term for learning objectives. In EL schools, students are expected to work closely with learning targets as guides to their learning, tools to self-assess progress, and desired outcomes as they work on assignments (Expeditionary Learning, 2011). While the term "learning target" has gained popularity recently, the idea that objectives should be clearly communicated with students is not new. For years, educators have agreed that for students to be successful at meeting standards, they must understand what those standards are.

In EL schools, learning targets guide the work that teachers and students do day in and day out. Recent research shows the importance of being clear when sharing learning outcomes with students in order to support them in meeting the targets. Chan et al. (2014) describe the importance of clear communication of targets when trying to promote student ownership of learning. Their findings show that targets need to be written in accessible student-friendly language, should be shared with students at the beginning of a lesson, referenced throughout the learning process, and evaluated upon completion of a lesson. In other words, learning targets

provide a valuable resource when utilizing assessment for learning strategies that promote student ownership (2014).

Chan et al. also describe the importance of connecting new learning to previous learning, another key component to EL's student-engaged assessment practices. The authors cite a study by Brophy and Good (1986) that concluded that students learn more effectively when they can make connections between past learning, the current lesson, and future learning. One effective way to support students in making such connections is to always keep learning targets posted and accessible for students throughout the learning process (Chan et al., 2014).

In their article, *Setting Clear Learning Targets to Guide Instruction for All Students*, Konrad et. al (2014) describe the importance of setting clear and meaningful targets when trying to increase student achievement. In their study, they describe a method for creating learning targets that was developed by Marzano (2013), which supports teachers in designing learning targets that are measureable—a key characteristic if the target is to be used for AFL practices.

Marzano's five steps are as follows: develop a schoolwide system and structure around the vocabulary that will be used in learning targets ("I can" or "I will"); create objectives around what the intended outcomes are for a particular lesson; examine the progression that will be necessary for students to track and evaluate their own progress based on assessment and feedback; develop sub-targets within the overall intended learning that will benefit students in reaching the final outcome; and finally, rewrite targets in student-friendly language (2013). Clearly, the research supports EL's belief that clear communication of the intended outcome is essential to improving student achievement. In the next core practice, I examine how teachers and students can work collaboratively to use assessment for learning strategies that promote future learning.

Core Practice 21: Using Assessment for Learning Strategies on a Daily Basis

"In Expeditionary Learning schools, assessment for learning strategies help students

engage in, reflect on, and take responsibility for their own learning. Assessment for

learning strategies are formative assessment actions that help students improve their

understanding and skills at the onset of learning and during the process of learning.

Teachers and students collaborate in the learning process, and both use these strategies on

a daily basis." (Expeditionary Learning, 2011)

In *Leaders of Their Own Learning,* Berger et al. describe assessment for learning strategies as an

integral component in any teacher's assessment arsenal. Assessment for learning (AFL) they say,

is far more valuable than assessments of learning, particularly in supporting teachers'

instructional decisions (2014). The authors offer a variety of strategies for teachers to use as

formative assessment techniques, including a number of different checks for understanding,

which are a major part of the EL Core Practices for Assessment.

Berger et al. describe five strategies that teachers can utilize to inform their instruction:

writing and reflection, student discussion protocols, quick checks, strategic observation and

listening, and debriefs. When used properly, these strategies provide teachers with the

information they need to quickly and appropriately address gaps in the students' understanding

of a concept (2014). These are the kinds of formative assessment strategies addressed in this

portion of the meta-analysis.

A. Communicating Learning Targets and Criteria for Success

As I've described in the previous section, learning targets are at the center of any and all

assessment conversation in an Expeditionary Learning school. EL believes that in order for

students to meet the intended outcomes, they must first understand what that outcome is, how

they are expected to reach it, and how they will be assessed on it. Students should be exposed to strong and weak models and exemplars, and then guided through the process of determining what qualifies high-quality work. Students generate criteria for success and then work to achieve high levels of work on their own (Expeditionary Learning, 2011).

Research shows the benefits of clearly communicating objectives with students, particularly in regards to student engagement with the target throughout the lesson. When students understand their goals and the purpose of the activity they are participating in, they are more likely to engage in meaningful learning. In her article, *Clearly communicating the learning objective matters!* (2012), Reed describes a case study in which she tracked the number of times a novice teacher referred to the learning objective during his lessons. She found that the more times the objective was referenced in a lesson, the higher the level of student engagement. She also found that there were fewer behavior issues when students clearly understood the objectives. When students are clear on what is expected of them, they are more likely to work towards specific goals.

Stiggins (2006) also supports this viewpoint. He explains the importance of instruction that is centered around a student-friendly version of the learning target, thus making the objective accessible to the learners. He also promotes the use of a wide range of samples that students can use to generate criteria and evaluate their own work. He says it's important to use AFL strategies "that show students what success looks like, how close they are coming to that target as they work, and how to continue to close the gap between their work and the agreed vision of excellence" (2009, p.17). Clearly, if students are expected to produce excellent work, they need to understand what excellent work is, which is why clear communication of the learning target is such an essential component of the EL assessment practices.

B. Focusing on One Skill, Concept, or Strategy at a Time

Expeditionary Learning schools believe in a scaffolded approach to guiding students towards intended outcomes. When planning instruction, EL teachers are expected to keep the end in mind by creating long-term learning targets, and then developing daily targets that will support students in achieving their long range goals (2011).

Stiggins (2009) addresses the importance of setting manageable targets in his synthesis of AFL instructional practices, citing the importance of teaching one facet of quality at a time, particularly when teaching literacy skills. For example, if students are generating the criteria for a high-quality writing assignment, they must first determine specifically what aspect of the writing will be assessed, and then generate the specific characteristics of high-quality work. By forcing students to focus on smaller "chunks", we can support their ability to synthesize learning over time.

Konrad et al. (2014) concur, and offer a valuable reference tool for teachers to use when developing learning targets, whether short or long range. The authors created a flow chart that starts with a Common Core Standard and guides educators through their options when developing a target to meet the specific standard. First, teachers must identify the knowledge and/or skills necessary to meet the standard, and determine whether the standard requires students to apply higher-order or lower-order skills. From there, teachers can develop any variety of learning targets that will support students in meeting the standard. Taking note from Bloom's infamous work (1976), Konrad et al. suggest that teachers choose from knowledge targets, reasoning targets, skill targets, or product targets, depending on what the standard calls for (2014). By scaffolding daily learning targets for students, we increase their chances of meeting long-range goals.

C. Using Strategic Questioning

The benefits of using pre-planned strategic questioning are numerous, and in EL schools, teachers and students are encouraged to be thoughtful about the questions they ask in the classroom (Expeditionary Learning, 2011). Pre-service teachers are exposed to Bloom's hierarchy of questioning approaches early in their careers, and there is endless research to support the use of higher-order questioning strategies to promote student achievement.

In my search of material on strategic questioning, I came across two articles by Nancy Fordham (2006a, 2006b) that explain how thoughtful questioning can benefit student achievement, particularly in regards to reading comprehension. Fordham argues that all teachers—not just teachers of literacy—have the ability to support students' ability to think critically about their own learning by asking strategic questions, regardless of the content area.

In reading Fordham's articles, I came across a synthesis of different types of questions by McKenzie (1997), which the author insists should decorate the walls of every educational institution in the country. While the entire article was thoroughly thought-out and well-organized, McKenzie's description of "strategic questions" struck me as relevant to this meta-analysis. He says, "Strategic questions arise during the actual hunting, gathering, inferring, synthesizing, and ongoing questioning process" (p.4). This metacognitive thinking is exactly what EL schools strive for during day-to-day assessment practices. Students are expected to generate and recognize their own thoughtful questions, and then apply them to further learning.

D. Strategically Using Critique and Descriptive Feedback

Effective critique sessions in which students are responsible for evaluating the quality of their own work or the work of their peers have become a staple in my own classroom assessment practices, because I've seen first-hand how powerful it is to observe students using a rubric that

they were involved in creating to check the quality of writing assignments. Expeditionary Learning believes in the power of using structured critique protocols as tools to promote student engagement in the assessment process as they work towards higher levels of work (2011).

EL teachers also understand that in order for these critique sessions to be beneficial, students must be explicitly taught how to give and receive feedback that is kind, specific, and helpful. That is, feedback that is directly related to the intended outcome, timely, focused on a specific aspect of the criteria for success, and most importantly, requires the writer to think about how to improve their work, instead of making corrections for them (Expeditionary Learning, 2011).

There is a wide range of professional material that describes various types of feedback, along with the benefits and detriments of each type. Education professionals agree that simply giving a student a grade provides little to no benefit to the learner when they approach future assignments (Cohen, 2014; Hargreaves, 2013; Chan et al., 2014, Andrade et al., 2009). Instead, research shows that by providing detailed, specific feedback that is directly related to the expected level of quality, teachers can support students on future assignments.

As mentioned, EL schools believe that students must be explicitly taught to give and receive feedback that meets the above criteria. Chan et al. agree, citing the fact that students who know how to recruit feedback from adults or peers demonstrate better metacognitive skills necessary to engage in meaningful self-assessment. By recognizing their own areas of need (based, of course, on the criteria for success), students who recruit their own feedback are more likely to work to improve the quality of their work. Similarly, students need to understand what it means to act on feedback, whether it's been given by the teacher or a peer. In order for this to happen, students must feel comfortable sharing their work with the class community, something

that is developed over time and through modeling and practice (2014). EL schools use critique

protocols to facilitate this practice so students can seek out and utilize feedback to improve the

quality of their work with each subsequent draft or attempt.

Berger describes the type of classroom culture necessary for feedback sessions to truly

benefit student achievement in his book, *An Ethic of Excellence* (2003). Once a culture of

excellence has been established and when students recognize academic achievement as desirable

or "cool", Berger argues that they will not stop until they achieve excellence on every

assignment. This value also benefits students in regards to the next AFL practice in the EL Core

Practices, because students need to understand how to use feedback to facilitate focused revision.

E. Teaching Students Focused Revision

As students approach a feedback session, they are expected to ask for feedback related to one or

more specific areas of the rubric and/or criteria for success, thus making revision more

manageable as they approach their next draft (Expeditionary Learning, 2011).

Again, research shows that when students think about their work in "chunks" and the

teacher supports them in scaffolded step-by-step progress towards the intended outcome,

students are more likely to meet the criteria (Andrade, et al., 2009; Stiggins, 2006; Konrad, et al.,

2014). Chan et al. agree with this sentiment, citing research that demonstrates the benefits of

self-assessment and peer assessment, both of which allow teachers to place some of those

responsibilities on the students, thus supporting their formative assessment practices (2014).

F. Self-Assessing, Reflecting on Progress, and Setting Goals

When it comes to goal-setting, students need to be able to use the aforementioned assessment for

learning strategies to recognize areas of need in their own performance, evaluate the steps

they've taken to reach the intended outcome, and use that information to set achievable goals for

the future. As with most of the AFL strategies described in this meta-analysis, self-assessment is

not a skill that comes naturally to students, particularly those in the elementary grades. Rather,

students must be taught explicitly to evaluate their own performance, again through the use of

student-generated rubrics and criteria lists (Holtzheuser & McNamara, 2014).

Holtzheuser and McNamara describe the importance of students' metacognitive

development acting as a tool between previous and current learning, particularly in regards to

literacy learning. As referenced in Core Practice 21.B, engagement in learning increases when

students can make connections between the current learning targets and past learning. The

authors also explain that when students set specific goals for themselves, based around the rubric

and/or learning targets for a particular lesson, they are more apt to track their progress towards

those goals and make any necessary improvements to meet them. When students are responsible

for tracking their own progress through self-assessment and reflection, they can set realistic and

meaningful goals that benefit a teacher's assessment for learning practices (2014).

It should be noted that these metacognitive and intrinsic motivation strategies directly

correlate to the aforementioned research from the Character Education Partnership, which

supports explicit teaching of such performance character habits as perseverance, a growth

mindset, and goal-setting to benefit student achievement (2008). When teachers give students a

clear image of the expected target, the required resources and steps to achieve said target, and the

tools to track and reflect on their own progress, authentic learning can occur for all students.

Core Practice 22: Creating Quality Assessments

"Expeditionary Learning teachers craft quality assessments, aligned with standards-based

learning targets, in order to collect meaningful, accurate, and timely information about

student learning. Teachers are well-versed in the methods of assessment and select the

best method based on the type of learning target they are assessing. In addition, they

involve students in metacognitive thinking about types of learning targets and matching

assessment questions or tasks, and support students to create their own assessments.

Teachers use criteria lists and rubrics to support quality work during the learning process

and guide reflection and evaluation. Quality assessments are used to support assessment

for and of learning." (Expeditionary Learning, 2011)

Core Practice 22 directly aligns with the previously described practices, but focuses more on the

actual assessments that teachers use to determine the level of learning that each student is

demonstrating. Expeditionary Learning schools believe in working with the end in mind when

developing assessments, as was described in the section regarding focusing on one skill, concept

or strategy at a time. By establishing standards-based learning targets, both long and short range,

Expeditionary Learning teachers have the advantage of presenting what they expect to students

early in the assessment procedure. Through the collaborative development of criteria lists and

rubrics, teachers and students at EL schools work towards clear assessment outcomes, which

research supports on many levels (2011).

A. Aligning Standards, Learning Targets, and Assessments

As previously described, Expeditionary Learning teachers work to craft long and short range

learning targets that are directly aligned to any number of assessments they may use throughout a

unit of study. The New York State Department of Education adopted the Common Core State

Standards (CCSS) in 2009, with the expectation that teachers statewide would all be addressing

the same rigorous academic requirements, thus leveling the field, so to speak. However, since the

standards are written very broadly, it requires a purposefully pedagogic eye to unpack the

standards to make instructional decisions. The same concept applies to the development of learning targets and assessments.

Konrad and her colleagues (2014) explain the importance of identifying the higher and lower level skills required to meet a standard, and then developing assessments that will provide the teacher with timely information to support further instruction. Again, without appropriate development of meaningful learning targets (discussed, above) that are aligned to the standards, students will not know what they are being assessed on, and are thus less likely to meet the rigorous expectations of the state (Marzano, 2013).

Konrad et al. also point out that by practicing a thorough deconstruction of each standard prior to planning instruction, teachers will gain further understanding of the standards, thus improving their ability to assist students in reaching them. Aside from the personal and professional growth opportunities this process offers, the implementation of statewide standards has also opened new doors to teacher collaboration. With access to resources all over the state, teachers have more support than ever as they plan their instruction (2014).

I should note here that with the implementation of the statewide standards came a vigorous competition between private education organizations to develop their own models of instruction and assessment methods to address the new standards. While Pearson took on the development of the 3-8 English language arts and math state assessments, Expeditionary Learning was contracted by New York State to develop the 3-8 curriculum modules that are being implemented in a number of districts (including mine) around the state. These modules were adopted in an effort to streamline the process of aligning standards, learning targets, and assessments, which is clearly a practice that EL knows something about.

B. Choosing Assessment Methods

I've paid thorough attention to assessment for learning assessment techniques outlined by the Expeditionary Learning Core Assessment Practices, but it's necessary to note that EL teachers are expected to use a balance of summative and formative assessments in their classrooms, depending on the situation (2011). Stiggins, (2006) agrees that assessments need to be chosen based on the information they will provide, and to whom that information will be beneficial. All stakeholders (teachers, students, parents, and administrators) have a reason to look at student assessment data, but not all data is created equal.

Stiggins describes three levels of assessments that support various facets of the education system: classroom level assessments that support students, teachers, and parents; program evaluation and support level assessments, which allow administrators to determine the effects of specific programs and/or support specific students in need of intervention, and; institutional and policy level assessments, which inform superintendents, school boards, legislators, and taxpayers of student achievement in a particular area (2006). EL schools also believe that all assessments need to be chosen with a specific audience in mind.

C. Creating and Using Criteria Lists and Rubrics

Regardless of the format of an assessment, be it written, spoken, demonstrative, or otherwise, Expeditionary Learning teachers and students work collaboratively to determine the criteria necessary for success, and then develop rubrics based on the agreed-upon criteria. Often, teachers and students use exemplars, both good and bad, when developing criteria lists, which allow them to focus on specific aspects of the work they will need to do. Furthermore, rubrics are used throughout the entire process: at the beginning of an assignment as the rubric is developed, throughout the course of the assignment as a tool for self-assessment, and at the end of a unit or

assignment for evaluative and reflective purposes (Expeditionary Learning, 2011). Research demonstrates that rubrics and criteria lists can have a positive impact on the quality of work that students produce, particularly in regards to writing.

In their position paper, the Character Education Partnership describes the importance of rubrics when engaging students in their own assessment practices, particularly in regards to self-assessment. Rubrics, they say, allow students to evaluate their own performance, both academically and behaviorally. By clearly stating the expectations and providing various levels of performance on a rubric, students can determine how they are progressing towards intended outcomes and set goals based on previous performances and assessments (2008).

Heidi Andrade is an education professional whose name shows up whenever rubrics are discussed, and she's conducted extensive studies to determine how rubrics can benefit student learning, not just evaluate it. Andrade defines rubrics as "documents that articulate the expectations for an assignment by listing the criteria, or what counts, and describing levels of quality from excellent to poor" (2000, p. 15). In my search for resources that support the use of rubrics, particularly for writing assignments, I came across two studies by Andrade and her colleagues that demonstrate the benefits of using rubrics as assessments for learning—not just of learning.

The first study, *Putting rubrics to the test: The effect of a model, criteria generation, and rubric-referenced self-assessment on elementary school students' writing*, compared the work of two subsets of elementary students. One group was involved in the development of criteria lists and rubrics based on high-quality exemplars, while the others were not. The first group was also expected to evaluate their own work based on the rubric, throughout and at the end of the writing process. The study found that the treatment group performed significantly better than the

comparison group (by about one letter grade, in standard grading terms), and the students who were actively engaged in the self-assessment process achieved even higher (2008).

In another study, (Andrade et al., 2009) the authors found statistically significant evidence to support the use of common rubrics for middle school writing assignments throughout the school year. By developing a consistent rubric based on the 6+1 Traits of Writing, adapted from Lucy Calkins' famous work around writing assessment, teachers were able to standardize their writing assessment process in an effort to improve students' writing performance on standardized tests. The study shows that students who had clear expectations of the work, received frequent feedback from teachers and peers, and engaged in self-assessment based on the common rubric, scored significantly higher on the ELA exam than they had prior to the implementation of the common rubric. EL schools also support the practice of schools working to develop common rubrics that become familiar to students, thus providing a common language for all members of the community to consider when assessing student writing (2011).

As discussed in the previous two sections, students must understand what is expected of them if they are going to meet their academic goals. Rubrics and criteria lists provide explicit information that students and teachers can use to improve the quality of the work they are producing. When students have a voice in the generation of the criteria, they are more likely to engage in continuous improvement of their work, thus leading to improved achievement, as well as supporting their habits of scholarship.

Core Practice 23: Raising Achievement on Assessments of Learning

"Assessments of learning (summative assessments) are part of a balanced system of
assessment in Expeditionary Learning schools. Summative assessments fulfill the role of
measuring student progress and reflecting the level of student learning at a particular

point in time. The results of such assessments have a variety of uses, including informing

teachers about the effectiveness of instruction and documenting achievement for purposes

of grading, reporting, advancement, and graduation. EL seeks excellent student

performance on standardized tests because their results determine opportunities for

students and convey to the community, district, state, and other stakeholders on important

measures of academic proficiency achieved by students. Teachers can best prepare

students for standardized tests through ongoing, high-quality instruction that is explicitly

aligned with assessed standards rather than through isolated test practice. Thus, when

classroom and school-level assessments of learning are of high quality and purposefully

planned, they help to both create a complete and accurate picture of student learning and

prepare students for success on standardized tests." (Expeditionary Learning, 2011)

Assessments of learning are a necessary component of any educational program, as they

provide valuable information to all stakeholders about the progress students are making towards

the standards. From teachers and administrators, parents and students, and policy makers, we

need accurate and relevant data that can be used to make informed decisions for the future.

Obviously, standardized testing is a hot topic right now, fueling a major debate over the

implementation of the 3-8 Common Core State Exams in ELA and math. However, this analysis

is not intended to take any political stance on standardized tests, but to examine how they align

with the rest of the Core Practices for Assessment in the Expeditionary Learning model. As you

will see, EL schools value assessments of learning, not only as a source of data, but as a resource

to improve student engagement and achievement (2011).

A. Student Preparation and Readiness for Assessments of Learning

EL schools recognize that assessments of learning are necessary to determine progress towards academic goals, but believe it's necessary for students to understand the purpose behind them as well. By providing students opportunities to engage in authentic and meaningful assessments for learning, EL teachers give students the resources to prepare for success on assessments of learning. The aforementioned study by Andrade, et al. (2009) provides evidence that giving students opportunities to evaluate their own progress in writing using a consistent rubric throughout the school year increases the likelihood that they will apply those skills on standardized tests.

Statistically, the study found that students in grades six and eight scored seven and 15% better on their ELA tests after exposure to a consistent rubric for extended response writing throughout the year. The authors also note that economically disadvantaged students' passing rates increased 20% after the implementation of the common rubric (2009).

These numbers indicate that by exposing students to the level of performance that is expected on standardized assessments throughout the year, instead of in isolated test preparation sessions, teachers can improve students' ability to transfer their skills to assessments of learning.

B. Analyzing Assessment Data

As education research has evolved into the scientifically driven field it is today, much attention has been paid to using data effectively in the classroom. Teachers gather endless amounts of data in the form of student work, assessment results, and day-to-day observations. As such, there are many research studies that support EL's philosophies regarding data collection, analysis, and application to instructional practices.

Essentially every study, article, or book referenced in this meta-analysis supports what is commonly referred to as "data-driven instruction" in today's education field. There have been multiple books written on the subject, some of which I've studied through EL Professional Development, including *Driven by Data* (Bambrick-Santoyo, 2010) and *Drowning in Data?* (Shea, Murray, & Harlin, 2005). Both of these books provide valuable insight into the most effective ways for teachers to use assessment data to inform and improve their instruction.

Driven By Data provides a wealth of resources that schools can utilize when trying to develop what Bambrick-Santoyo refers to as a data culture. The book is full of rubrics for implementation of a data-driven model, sample agendas, calendars, and assessment templates that schools will need if teachers are expected to develop the skills necessary to purposefully and skillfully analyze student work, regardless of whether the assessment is formative or summative. The author supports these practices with 20 case studies of schools that have implemented the model, many of which are part of the Northstar Academy network, a component of the Uncommon Schools that has achieved consistently high results on standardized testing (2010).

Drowning in Data? also offers a wealth of resources to support teachers that want to better utilize formative and summative assessment data to benefit student achievement. Similar to *Driven by Data*, *Drowning in Data?* provides specific action items to implement in order to achieve a data-driven culture. They refer to their methods as CARP (Collect, Analyze, Report, Plan) and TWIN (Thinking, Work samples, In-the-classroom benchmarks, and Norm-referenced or other standardized testing), which, when implemented with fidelity and in conjunction with one another, have the potential to support student achievement (2005).

Regardless of the methodology schools or teachers implement to instill a data-driven mindset into the educational environment, research shows the potential for success when schools

learn how to effectively analyze data for instructional purposes. EL schools work to foster this mindset by giving teachers extensive training, protocols, and opportunities to practice the data-driven strategies referenced above.

C. Interim Assessments

While EL schools recognize the need for standardized tests, which will be discussed in the next section, they recognize the need to administer more formative assessments outside of the day-to-day classroom setting. That's why many districts have been exploring the benefits of using interim assessments periodically throughout the school year as a way to gauge student growth over time. Most interim assessments are given quarterly or at the beginning, middle, and end of the school year, and are considered in the education community a blend between formative and summative assessment (Hoover & Abrams, 2013).

Interim assessments qualify as summative assessments of learning when they are used to determine student achievement levels relative to the standards and/or their peers. That said, EL schools believe that interim assessments should be closely analyzed in collaborative settings so teachers and school leaders can use the data to evaluate their own practices, analyze the results to identify common misconceptions, and make instructional decisions that support student learning, all of which were discussed in the previous section (2011).

With that in mind, I must note that there is little research to directly support the benefits of interim assessments on student achievement. In fact, the studies I came across all concluded that while interim assessments can provide information to teachers about student performance levels relative to the standards, few teachers are given the opportunity to thoroughly analyze the results in a way that will impact their instruction (Riggan & Olah, 2011; Olah, Lawrence, & Riggan, 2010; Hoover & Abrams, 2013).

EL schools seek to develop interim assessments that are at or above the level of rigor of state exams, and to provide teachers with training and support to analyze the results, which could lead to improved student achievement. However, it appears there is still more research to be done on the benefits of interim assessments.

D. Standardized Tests

Anyone in the education field today knows about the debate over standardized testing, and most people are aware of the benefits and detriments that both sides of the argument have voiced on the subject. For the purposes of this meta-analysis, I wanted to be sure to remain as neutral as possible, thus avoiding my own biases regarding standardized testing. Instead, in this section, I examine what Expeditionary Learning schools believe about standardized tests, and then present a synthesis of the pros and cons of standardized testing according to one group of education professionals from Columbia University (2013).

At EL schools, students and teachers see standardized tests as a tool to track and measure progress, both at the individual and holistic level, and thus, work to instill a sense of value in the tests and their results. That said, EL schools understand that standardized tests are only a portion of an effective overall assessment model, which is why they avoid "teaching to the test" or overwhelming teachers and students with arbitrary test preparation.

Rather, EL schools seek to provide students with authentic learning opportunities that will provide them with specific skills including test-taking strategies, habits of scholarship, and analysis of testing formats throughout the year during regular classroom instruction. By familiarizing students with the expected levels of performance on standardized tests, as well as providing a context and purpose for the exams, students at EL schools learn to value the standardized testing process, and try to achieve the high-expectations they require (2011).

As I eluded to above, education professionals at Columbia University developed a list of pros and cons to standardized testing that sum up both sides of the political and social arguments that are so prevalent in the media today (2013). Regardless of the readers' personal position on the subject, the following list seemed adequately neutral for the purposes of this analysis.

The potential positive impact of standardized testing, according to the Columbia University authors are synthesized below:

1. *Accountability*- Standardized tests hold schools and teachers accountable for teaching the agreed-upon standards of the national, state and local authorities. Schools and teachers alike, if not achieving the expected levels of performance, could fall under scrutiny that can lead to teachers losing their jobs or schools being shut down and/or restructured.

2. *Guidance for teachers*- Standardized tests provide teachers with the information regarding what to teach students in order to adequately prepare them for the exams. By analyzing the standards addressed by the exams, teachers have a road map of what to teach students throughout the year.

3. *Information for families*- Parents and guardians can use standardized testing information to determine how their child is performing compared to other students across the district, state, and nation. This information can be used to seek outside support for students who are struggling to meet the standards.

4. *Comparative data*- By adopting the Common Core Standards nationally, education professionals can now compare performance data across the country, something that was impossible when states were still allowed to develop their own standards for student achievement. Now that all students are being held to the same standards, we can examine

comparative data more accurately, thus determining success levels of certain parts of the country.

5. *Consistent standards*- With standardized testing comes common standards. The Columbia authors point out that by utilizing consistent standards across wide areas and at specific grade levels, we reduce the possibility that students are being taught the same standard at different levels of their education. Also, students who move from one district to another should be able to generally stay on target towards meeting the intended standards.

6. *Objective grading*- While classroom assessments are often graded subjectively by a teacher who knows the students well, standardized tests are objective in nature, and thus provide a more accurate picture of what students can do independently. By grading exams with computers or outside personnel, objectivity increases, thus leading to more accurate results.

7. *Comparative data among sub-groups*- When administering standardized tests to students from diverse backgrounds, it's important to avoid comparing apples to oranges, so to speak. Standardized tests provide a resource for comparing students from similar socioeconomic backgrounds, ethnicities, special-needs, or English proficiency levels. This is the kind of data that supports research on the achievement gaps that were discussed in section one of this analysis (2013).

Conversely, the following points were listed as potential downfalls of standardized tests, according to the professionals at Columbia University:

1. *Limited context*- The authors point out that standardized tests only provide information about student performance during one instance, and thus could be impacted by any

number of outside factors. They point out that test anxiety is a real issue for many people, and that students who are distracted by social or emotional hardships are less likely to perform well on standardized assessments.

2. *Teaching to the test*- With the amount of pressure teachers are feeling to show improvement in student achievement on standardized assessments, more teachers than ever feel the need to "teach to the test", which often hinders creativity in teachers and students alike.

3. *Individual proficiency vs. growth over time*- Standardized tests are used to determine whether students are meeting Adequate Yearly Progress (AYP), which is used to evaluate schools and teachers. However, since the tests only allow for comparison of one year to another, the true picture of a student's growth over time, which offers a more accurate idea of what the teacher and student have accomplished throughout the year, can be neglected when officials simply look at the student's proficiency level.

4. *Stress*- Standardized tests, particularly today when so much attention is being paid to the results, are a major stressor on students and teachers alike. Teacher turn-over is an increasingly relevant issue, as good teachers are fleeing from high-poverty and low-achieving districts, or from the profession altogether, often as a result of the pressure they are under due to standardized testing.

5. *Potential for bias*- When developing exams, test-makers are increasingly aware of the potential for bias in the questions, especially as our achievement gap between black and Hispanic students and their white counterparts continues to grow. That said, students from Asian backgrounds have not historically performed much lower than white students, so this argument still requires further attention.

6. *School success depends on students*- Instances in which students are aware of how their performance on standardized tests can impact their school increase the level of pressure they feel going into the exam. The Columbia authors point out that when students are so focused on preparing for standardized tests, particularly at the high school level, they are less likely to engage in extra-curricular activities that support their development in other areas.

7. *Limited non-academic activities*- With the increased pressure on schools to perform better on standardized assessments, many schools have opted out of programs and activities that promote social-emotional, physical, and collaborative enrichment for students in order to provide more time in the classroom. Experts feel that students are missing out on potential beneficial opportunities that activities like recess provide (2013).

Clearly, there is much debate over the possible pros and cons of our current standardized testing program in this country. In EL schools, teachers and students are expected to accept the reality of the current system, and work to demonstrate high-levels of achievement for all students.

Section Three: Synthesis and Conclusions

Through this meta-analysis, I've developed a clear understanding of the practices that guide Expeditionary Learning schools' assessment plans and procedures. I feel more confident applying many of these strategies to my own teaching, knowing there is a growing research base that suggests that they can potentially benefit my students' academic performance. Some of the practices analyzed above have been instrumental in the improvement of my own abilities, which I eluded to in section one. I know that the training I've received through my school's EL grant has benefited my teaching style and philosophy, particularly in regards to assessment, and I am optimistic about utilizing more student-engaged assessment techniques with the data and resources I've collected throughout this analysis.

That said, to properly synthesize the wealth of research and resources described above, I must consider how they have helped me address my research questions: How does implementation of each Expeditionary Learning Core Practice for Assessment support literacy development in students?; What does the education professional community believe are the benefits of using student-engaged assessment practices in today's schools? and; How much of the EL Core Assessment Practices are, in fact, research-based, thus meeting the criteria for a Comprehensive School Reform model?

As I've stated previously, finding actual research studies that supported each of the four EL Core Practices and the seventeen sub-practices within them proved more difficult than I anticipated. By widening my search for resources to include professional journal articles and books, I increased my findings, but I was ever-conscious of the term "research-based". A true meta-analysis, I know, is far more statistically driven than this paper has been, but I believe I can still answer my research questions, starting with the third.

While it was a challenge to find sound and statistically significant data to support each of the sub-practices, my research showed a general consensus within the education community under the new Common Core State Standards that students and teachers need to utilize more formative assessment for learning strategies that call on students' metacognitive awareness to support them in evaluating their own performance, setting goals, and motivating themselves to meet those goals.

Whether it's called student-engaged assessment, assessment for learning, or a balanced assessment program, educators agree that when students are actively participating in the assessment process through the use of rubrics, specific feedback, self-assessment, goal setting, and progress tracking, they are more likely to develop higher-level academic and performance character skills that will prepare them for college and career readiness. As such, I believe EL has developed an assessment model that combines aspects of many "best-practices" according to key professionals in the education community, and thus meet the criteria for a Comprehensive School Reform model described in section one.

Expeditionary Learning schools have developed the Core Practices for Assessment as a guide for teachers that want to foster the aforementioned values and skills in students' academic experiences. EL notes that it's nearly impossible for any single teacher to implement every practice consecutively, and recognize the need for explicit training on each technique, which requires expert support, as well as the time for teachers to integrate the practices into their own teaching. However, even when they are not utilized in unison, the core practices and sub-practices have been used in EL schools across the country for over almost two decades, and they have a track record for success. Based on these findings and the thorough analysis of resources on the subject of student-engaged assessment practices, I believe that implementation of the EL

Core Practices for Assessment has the potential to significantly improve students' academic

performance, particularly in regards to literacy proficiency.

Section Four: Analysis of Findings

Positionality

Not surprisingly, my own experiences over the last four years of implementing the Expeditionary Learning model have impacted my positionality to the subject. Having spent over 100 hours in EL professional learning opportunities and conferences, I've developed a strong understanding of what EL believes to be best practices for improving student achievement, and I've adopted many of their beliefs into my own teaching philosophy. Since my school's work plan has been focused on assessment for learning strategies, I have acquired very specific knowledge on EL's assessment practices.

Naturally, my own bias on the subject informed some of the views and opinions expressed in the meta-analysis portion of this paper. That said, I worked hard to remain neutral when searching for resources related to each of the Core Practices, and made sure to note when statistically significant research could not be found on a particular practice. I also recognized the need for further research on those subjects that could not be statistically supported by professional resources.

Methods of Data Collection

In order to analyze what the professional community believes are the benefits of each of the EL Core Practices for Assessment, I used a variety of methods to find resources. Many of the articles and resources I studied for this meta-analysis were found through searches on the College at Brockport's EbscoHost search engine of professional articles related to education and human development. I used a variety of keywords and combinations to find sources for the meta-analysis, including the titles of each Core Practice for Assessment, and combinations of the terms *literacy development*, *assessment for learning*, *student-engaged assessment*, *balanced assessment*, and *Expeditionary Learning*.

As previously stated, when finding research-studies related to each practice limited my analysis, I broadened my search to include professional journal articles, books, and articles from education websites. I chose books that were directly related to my search subjects (*Mindset*, *Leaders of Their Own Learning*, and *Driven by Data*, as examples), which were truly beneficial in proceeding with my analysis, and offered valuable support in answering my research questions.

That said, if I were to further my research on the subject of student-engaged assessment, perhaps for a dissertation, I would limit my search to include only quantitatively supported research studies, thus allowing me to conduct a true meta-analysis of each practice. However, for the purposes of this capstone project, I believe my research methods suited my purposes sufficiently.

Procedures

My procedures for analysis and synthesis were fairly linear in nature, which seemed most logical when examining the Expeditionary Learning Core Practices, which are numbered and then bulleted with specific sub-practices. My initial examination of the subject yielded a flow-chart (Appendix A) that acted as my guide for further analysis. Once I had a general outline for the capstone, I was able to develop specific research questions and begin collecting resources.

I spent countless hours searching for and gathering resources related to each of the Core Practices, again working in a linear fashion. As I worked from Core Practice 20 to 23, I found a number of articles that supported more than one of the sub-practices, and made sure to cite those connections in my notes. After collecting and reading some three dozen resources, some of which were pertinent to my research questions and some of which were not, I narrowed down my collection, and determined in which areas I needed more resources. Many of my later

searches were based around authors' names that came up frequently in my reading, which

provided even more valuable research articles to support my analysis.

Once I collected and analyzed each resource, and made relevant connections between

them, I found the meta-analysis portion of my capstone relatively easy to piece together. There

were so many connections between the practices, and I found myself referring back to previous

sections often, which made the synthesis portion of section three rather easy to write. I only hope

that it made as much sense on the page as it did in my own thoughts, thus allowing the reader to

see the relevant connections between EL practices and the mindset of the education community

at large.

Criteria for Trustworthiness

As I referenced in the section regarding positionality, I am aware of how my own experiences

with Expeditionary Learning may have biased this meta-analysis, and my responses to the

research questions. Clearly, I see the potential that each of these practices has in improving my

students' achievement, particularly in regards to literacy development. With that in mind, I was

determined to conduct the analysis with the goal of synthesizing the research honestly and

neutrally, which I feel I've achieved with distinction. I recognize the gaps in the research base

regarding certain sub-practices of the EL model, but truly believe that the overarching constructs

of the Expeditionary Learning assessment practices have been supported by the overall education

community, and thus should be considered best practices as we move forward under the

Common Core State Standards.

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