



DATA PRACTICES FOR DEVELOPING LIFE/CAREER ABILITIES

Abstract

More and more educators are acknowledging that true student “readiness” requires this third domain of learning, beyond academic and technical skills, one that involves behaviors, mindsets and character traits. However, the challenge for most schools is; “How can we be intentional in this aspect of learner development - so every student develops these essential abilities?” and “How do we know if we are making progress in doing so?” The key to answering these questions is the effective use of data.

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Introduction

The Successful Practices Network (SPN) and its Career Readiness Institute have long recognized that **Life/Career Abilities** are critical to a student's performance in school, college and beyond (link to other paper). More and more educators are acknowledging that true student "readiness" requires this third domain of learning, beyond academic and technical skills, one that involves behaviors, mindsets and character traits. Rapidly improving schools are rich with examples of students acquiring and demonstrating positive Life/Career Abilities. However, the challenge for most schools is; "How can we be intentional in this aspect of learner development - so every student develops these essential abilities?" and "How do we know if we are making progress in doing so?" The key to answering these questions is the effective use of data. This is why SPN has chosen to focus one of its key priorities on how schools can use data to inform career readiness — especially data on the development of Life/Career Abilities.

Life/Career Abilities are sometimes referred to as "non-cognitive skills", "employability skills", "soft skills" or "socio-emotional skills". No matter the nomenclature, they are the skills that make someone resilient, tenacious, sociable, personable, reliable, nimble, confident, self-aware, self-regulating and armed with the grit necessary to navigate life and career in a rapidly changing world.

We at SPN prefer to call them Life/Career Abilities. This is because we find it a misnomer to refer to these skills as "non-cognitive skills". This is because, in fact, to gain, evolve, and be able to adeptly and flexibly apply these skills in a variety of scenarios requires high-level cognition. In addition, when using the term "employability skills" with school audiences, there is a tendency to consider such competencies to be primarily - or even exclusively - the responsibility of career and technical education rather than that of the entire school. This misconception is because many

academic teachers do not consider their work as readying students for employment. We consider social-emotional, non-cognitive, employability skills and soft skills to be synonyms for the same types of skills sets and attitudes, but will, for our purposes, refer to them as Life/Career Abilities.

Data is Essential

The use of data is so commonplace in our society that we often take it for granted. It is data that makes communication and transactions easier. The instant communication of the Internet is possible because of underlying data systems. Even though, we use the Internet to communicate subjective opinions and emotions, these emotional words and images are all translated into data to easily share with others. Our monetary system is based upon standard quantities, which make it easier to place values on goods and services and to negotiate transactions when buying and selling. Clothing sizing is another example of how data has helped us standardize; we are able to select clothes by size, which makes shopping more efficient. In short, data enables us to quantify, make evaluative judgments and improve most decision-making processes.

Placing data on seemingly complex student behaviors, mindsets and work habits is difficult, but not impossible. However, it is difficult, if not impossible, for a school to move toward sustainable improvement if school leaders do not have a good idea of what is actually happening in their classrooms and with their students. For educators, data is essential for:

- **Planning:** Planning processes are more efficient and effective using data. Imagine trying to open a school without knowing how many students might attend. A school must know the numbers of students as well as the characteristics that those students bring to learning. Successful education leaders use data effectively to plan for meeting student needs.

- **Goal-setting:** Effective organizations have specific goals that they work toward. In the case of schools, it is essential to establish quantitative measures for what a school expects to accomplish for its students.
- **Progress measurement:** A school can and should periodically measure results to determine where it has been successful and where it needs to strive for greater improvement.
- **Evaluation:** Data is used to evaluate various school and classroom practices, including the effectiveness of instruction. When a new initiative is introduced, educators must determine whether it is effective by using data to evaluate results.
- **Communication:** Education serves many constituencies in addition to school staff and students. Schools must communicate with parents, taxpayers, community members and leaders, state agencies, and the federal government. Including data as part of that communication process is not only efficient, but also effective in reaching the various stakeholder groups.

Avoiding the Pitfall of Too Much Standardization

Effective use of data is essential to school improvement, because it enables objective decision-making and systemic changes over time. The use of data based on student standardized tests has yielded useful tools for having consistent measures of achievement across all students in many school systems. When these assessments are tied to learning standards they are a useful measure of meeting standards.

The danger of having these quantitative assessments is that it can lead to too much standardization. The negative side of student testing is that it has often standardized too much of the learning process specifically narrowing the focus of schools to where it is important only to get a test score on a narrow range of knowledge acquisition; teaching becomes simply test preparation. As a result, testing has placed less emphasis on the broader set of skills, knowledge and abilities that contribute to college, career, and life readiness - particularly the Life/Career Abilities. Furthermore, state accountability focuses on minimum student achievement thus lowers standards for some students. The most effective and rapidly improving schools, do not focus on minimum performance, but use higher and broader targets to stretch student learning and achievement. This breadth is particularly important when discussing Life/Career Abilities.

Using data does not necessarily standardize every aspect of a process. The example of money and clothing, again are good examples. Using a standard monetary system still allows multiple forms of transactions, include cash, debit cards, credit cards and Electronic Funds Transfer (ETF). Likewise, clothing still is available in various styles, colors and fabrics while still adhering to size standards. The desirable balance in data for Life/Career Abilities is to use underlying standard measures of success, but encourage multiple and flexible ways to achieve those standards.

Data is essential, but that data must be more balanced in school improvement and measure Life/Career Abilities as well as typical test scores.

We must embrace use of data in Life/Career Abilities in order to become more intentional in improvement, but at the same time avoid the standardization in how skills are developed. Without introducing more data measures to Life/Career Abilities, schools will continue to share stories of individual student success, but public complaints about poor student attitudes and work habits from employers and the greater public will persist.

Data Touch Points

Using data effectively with respect to Life/Career Abilities, involves several data touch points. These are aspects of school planning and instruction for which data measures related to Life/Career Abilities should be used. These touch-points can be described in two broad categories: school and classroom.

1. *Across the School* category includes school-wide measures that leadership teams should focus on to set goals and measure progress.
2. The *In the Classroom* measures are tools for teachers to support developing Life/Career Abilities through student learning experiences.

ACROSS THE SCHOOL

Learning Criteria

SPN created a conceptual framework called the *Learning Criteria for 21st Century Learners* as part of a five-year research grant in partnership with the International Center for Leadership in Education and the Council of Chief State School Officers and with support from the Bill & Melinda Gates Foundation. This project identified, analyzed and disseminated the nation's most successful school-wide practices and policies for achieving a rigorous and relevant curriculum for all students, with a particular focus on classroom instruction and effective learning.

As part of its initiative to create the *Career Readiness Institute (CRI)*, SPN has revised the Learning Criteria to better reflect what it means to prepare students to be career ready as well as college ready. The original Learning Criteria was important in drawing attention to the fact that schools need measures of both "stretch learning", which requires moving beyond simply meeting

minimum requirements as defined by state tests and district/school requirements, as well as the development of “personal skills”. These criteria, along with traditional academic measures (foundation learning) and a fourth measure of “student engagement”, provided a useful model for designing and implementing intentional learning experiences and a culture conducive to increasing emphasis on “soft skill” development.

The renamed and revised *Learning Criteria for College and Career Readiness (2014)* that has subsequently been adapted and adopted by SPN identifies three broad domains of a student’s experience in school:

- **Academic** (“know”) - Measures of what students know, organized around the traditional core subjects of English language arts, mathematics, science and social studies
- **Performance** (“do”) - Measures of what students can do including technical, artistic and/or athletic performances, as well as their ability to apply academic knowledge to solve problems
- **Life/Career Abilities** (“be”) - Measures of who students are, as reflected in their personal skills and interests, interpersonal skills, work habits and career planning skills.

This revised Learning Criteria does not neglect the original notion of indicators around learner engagement and stretch learning. Learner engagement and stretch learning are now subcategories, or dimensions, in each of the three domains, as is foundation learning.

- **Learner Engagement:** the degree to which students exhibit behaviors and decisions that demonstrate an interest in and commitment to learning
- **Foundation Learning:** core knowledge and skills required of all students as the minimum level of achievement
- **Stretch Learning:** opportunities to extend and enhance learning in areas of students’ talents and interests

The Learning Criteria model defines a process for schools to engage in redefining broader, school-wide measures for student growth and achievement, with an emphasis on quantifiable measures of learning that includes Life/Career Abilities.

School Self-Assessment

For more than a decade, SPN has been conducting school and district assessments as a means of supporting school leaders in their improvement efforts. This experience has helped us to develop an array of tools, which now comprise a resource called the *CRI Career Readiness Self-Assessment*.

The Career Readiness Self-Assessment is an easy-to-use array of checklists designed to allow school leaders and staff members to assess the career readiness of their students and related practices - as well as other aspects of student learning and development. The assessment is comprised of checklists that enable and empower educators to:

- assess the **practices** in place to promote life/career readiness
- examine aspects of school **culture** that support or inhibit achieving life/career readiness
- evaluate the **results** of these processes through the assessment of student readiness.

The entire process is valuable, including allowing the school leadership team to reflect on achievement and effectiveness using, if so desired, all thirteen checklists, including Career Readiness Instructional Practices, School Culture and Student Learning Results. That said, two of the checklists *directly* relate to quantifying school performance related to the development Life/Career Abilities.

- First, one of the instructional practices checklists addresses the topic of Life/Career Abilities development in classroom practice.

- Second, one of the Student Learning Results focuses on Life/Career Abilities student success.

These two checklists specifically enable school leadership teams to quantify their practices and results related to Life/Career Abilities using the self-assessment rubrics.

The Extra-curricular Curriculum

There is a legitimate education-related reason why schools offer sports, clubs and other extracurricular activities as part of students' learning experience. These activities provide opportunities for students to:

- develop social skills,
- be exposed to more of the world beyond school
- work with others to accomplish a goal, and
- develop perseverance through competition.

These rich learning experiences are some of the best existing ways that students develop Life/Career Abilities in school. This is why schools and parents insist on offering these experiences, even when resources are limited or they may "interfere with" academic instruction. Some of students' most valuable learning is derived from relationships, struggles and achievements in non-academic learning experiences. Further, these extra-curricular activities increase student engagement, aid in drop-out prevention and improve attendance.

Quantifying the student learning in the realm of Life/Career Abilities can be elusive. However one simple way schools can collect data in this domain is to keep track of which students and what percentage of students, over time, participated in sports, held a leadership or membership role in

a club, were part of a competitive school- or intramural team, engaged in work-based learning or engaged in service learning. There is no guarantee that every student that participates in such experiences will develop positive Life/Career Abilities, but there is certainly ample intuitive, teacher-observed, and research-based (e.g. Eccles, 2003) evidence of a strong correlation. An excellent school-wide measure of success in developing students' Life/Career Abilities is to strive for an ever-increasing number of students that participate in these experiences. Some schools even require participation in service learning experiences.

Quantifying Perceptions

Collecting and analyzing student perception data is another reliable measure for evaluating effective instruction and is also an excellent way to collect school-wide data on Life/Career Abilities. The most well-known student survey to elicit student perceptions of classroom instruction for a teacher's evaluation is the *Measures of Effective Teaching (MET)* project, funded by the Bill & Melinda Gates Foundation. The MET project uses the *Tripod* survey instrument, developed and revised over the past 10 years by Ron Ferguson of Harvard University. (MET Project, 2010).

SPN also has extensive experience with its own widely-used perception surveys known as the *WE Surveys*[™] <http://www.wesurveys.org/>. The *WE Learn* student survey has been administered to over 500,000 students to examine their perceptions of the quality of rigor, relevance and relationships in their classrooms.

The newest *WE Survey*, *WE Are Ready*, examines five essential Life/Career behaviors:

- Self-Reflection
- Self-Advocacy
- Communication

**We Are Ready Survey
Sample Student Questions**

- I understand the work and training required for the career I want
- I am taught strategies in class for solving difficult problems
- I understand how my personal skills align to my career interests

- Collaboration
- Problem-Solving.

Student Recognition

Schools have traditionally deployed student academic recognition practices (such as honor role, honor society or wearing high academic chords on the graduation gown) to celebrate academic achievement. Schools that strive to make Life/Career Abilities an important learning domain, also use parallel ways to reward and model student achievement (such as recognizing leadership, service, kindness, or effort). Doing so may not be as simple as ranking grade-point average and should be also be broad and flexible enough for students to earn recognition for a variety of experiences that demonstrate different Life/Career Abilities. For example, there might be points awarded for different types of non-academic experiences, participation rates, and achievements. Nominations and recommendations from teachers, coaches, faculty advisors and even fellow students could also be included. Each student who accumulates enough points through effort, attitude, experiences, and demonstration of positive traits could be recognized with a designation of achievement. Some schools already hand out single awards that might be designated as Character or Service Awards to individual winners. This broader form of recognition would be different “criteria-based” (e.g. extracurricular participation, attendance, proactive effort, collegiality, demonstrated acts of kindness or support, etc.) and every student meeting those standards would be recognized. Schools could track the number of students earning such recognition over time and set goals for improvement.

IN THE CLASSROOM

Formative Feedback

John Hattie, in his (2012) groundbreaking meta-analysis research, has made clear that feedback is one of the most effective instructional strategies. Feedback includes telling students what they have done well, and what they need to do to improve; but it also includes clarifying a target of excellence. Feedback is especially important when focusing on this learning domain of Life/Career Abilities. Fortunately, many teachers *do* give informal and impromptu feedback, but primarily by way of brief, subjective comments, such as, “Nice job” or “Well done.” What is clear from Hattie’s research is that the feedback should be tied to giving students the assessment criteria included in the feedback. High-quality feedback should always be given against a context of explicit criteria. By using well-defined analytic rubrics, teachers can help students understand the desirable behaviors that are expected. It is more effective to have students view their behavior as a learning experience to aspire to, rather than be used a punitive shame-based system – one that has increasing levels of “punishment” based on levels of poor or unacceptable behavior (Shindler, 2009).

In order to have effective systems of feedback on Life/Career Abilities, teachers need to have convenient and easily understood rubrics that students can comprehend at their own conceptual and vocabulary (and overall reading) levels.

Teachers also need to purposefully and intentionally design and provide learning experiences in ways that students have opportunities to demonstrate the desired behaviors. For example, teachers are unable to give students feedback on the behavior of collaboration if the student work is always individual and students are never expected to collaborate. Teacher should reflect on

the learning experiences they design to make sure these experiences are designed to provide opportunities to demonstrate Life/Career behaviors.

Self-Reflection

One of the recommended practices in using rubrics as formative assessment is allowing students to reflect on their work prior to teacher evaluation and feedback (Goodrich, 1996). The same applies when using rubrics to evaluate behaviors related to Life/Career Abilities. By using the rubrics, students can reflect on a level of behavior on a quantifiable scale and thus are better informed and more likely to see potential to improve behavior over time to a higher level. Without a quantifiable rubric, students often see their behavior as good or bad. Good is acceptable and bad is punished. Moreover, many students lack the value and guidance provided by an objective scale of acceptable behaviors and therefore self-assess themselves as either more or less capable than they really are. Such either/or approaches rarely result in meaningful behavior modification efforts and likely reduces – not increases - students taking fuller responsibility for their behavior. The use of a quantifiable rubric uses data to increase the likelihood of students beginning to more thoughtfully reflect on behavior and attitude.

Grading Practices

A number of education researchers recommend doing away with including behavioral factors in student achievement grades (O'Conner, 2010). However, it is still too common a practice in many schools for teachers to raise or lower grades because of either positive or negative attitudes or behaviors. The reason this practice persists is that grading is one to the few controls that teachers have over students and the threat of lowering a grade (that most students still feel is important) may be enough incentive to modify behaviors in the short term. The problem with this practice is that it distorts the academic grade as an indication of what a student has learned. It also provides limited feedback on student development of the desired behaviors. One alternative is to still assign

grades for behavior, but keep them separate from measures of students' academic performance (Wormeli, 2006).

Teacher Reflection on Instruction

The notion of reflection as learning goes back to the early work of John Dewey (1933). By gaining a better understanding of their own individual teaching through reflective practice, teachers can improve their effectiveness (Ferraro, 2000).

One of the initiatives of the Career Readiness Institute (CRI) introduces a new form of data-driven instruction that can trigger teacher self-reflection, inspire great teaching, and lead to continuous improvement. This initiative is a series of teacher reflection surveys based on the BETTER Learning Model. BETTER is an acronym for six instructional elements that are essential 21st Century skills and reflects cumulative effective teaching research. Following are the titles of the six elements of the BETTER Learning model and the six surveys.

- **Build Connections with Relevance**
- **Engage as Independent Learners**
- **Test and Grade for Proficiency**
- **Target Personal Skills and Work Habits**
- **Empower with Hope and Confidence**
- **Reward Creativity and Innovation**

Effective teachers continue to improve their practice by reflecting on what works and what can be improved in their teaching. One of the ways to stimulate reflection is to use a survey that highlights gaps between current and preferred state. These six teacher reflection surveys are meant as personal self-improvement. The goal is for teachers to teach in a manner that increases student

readiness for college and career. After responding to a series of characteristics and then self-identifying the degree to which they are practiced, teachers receive a personalized report that summarizes favorable practices and offers suggestions on how to improve.

Summary

Life/Career Abilities should amount to more than telling “one of” stories or sharing romanticized anecdotes about the successes of a few individual students. The domain of Life/Career Abilities need to be addressed and developed for *all* students, not only for employability reasons, but also for their success in further education and in adult life as responsible adults and contributors to the betterment of society.

Schools and teachers can (and need to) become more intentional and systemic in the development of Life/Career Abilities by introducing several of the data measures described previously to focus across the entire school to measure in this critical domain of school improvement. Good teachers *do* influence the development of student mindsets and behaviors. However even good teachers can become better at doing so by quantifying their work with some of these suggestions for employing the use of data.

It is time to “measure what matters” in relation to Life/Career Abilities.

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