Developing and Analyzing a Middle School ACT Survey for Career and College Readiness

*Key Learning Skills and Techniques*

By

J. Eian Harm, Ed.D., Research and Innovation Coordinator
Lisa Austin, Ed.S., Principal
Kevin Thienes, M.Ed., School PACE Coordinator

Joint School District No. 2, Meridian, Idaho
Abstract

This research sought to develop a *Career and College Readiness* model (C&CR) for use within a group of “feeder” schools within JSD2. The aim of this model is to create a scaffolding to align actions toward career and college readiness from Kindergarten through 12th grade while providing a mechanism with which to measure progress toward these goals. This alignment is an effort to systematically develop and increase career and college readiness throughout all grade levels as based upon a model developed by Conley (2010). Conley’s model focuses on four areas that lead to post-secondary success- Key Cognitive Strategies, Key Content Knowledge, Key Learning Strategies and Techniques, and Key Transition Knowledge and Skills. Using the Key Learning Strategies and Techniques survey created by JSD2 as part of this research and piloted within a middle school within the district, significant differences were found indicating that schools could focus on student *study skills* as well as increased and more effective methods of *collaboration*. Demographic groups and well as previous family college experience also showed significant differences in students’ preparedness for post-secondary success.
Developing a K through 12th College and Career Readiness Model

Introduction

With today’s emphasis on ensuring that our students are career and college ready, Joint School District No. 2 (JSD2) is developing a Career and College Readiness (CCR) model that spans the K-12 grade levels. This work is being performed in conjunction with the rejuvenated Career and College Readiness (CCR) course that has been underway within two of its secondary schools over the past year. The aim of this model is to create a scaffolding to align actions toward career and college readiness from Kindergarten through 12th grade. This alignment is an effort to systematically develop and increase career and college readiness throughout all grade levels. The second aim of this model is to develop a measurement system in order to identify areas of need and to gauge progress toward meeting those needs. This measurement model will also be aligned to work being done by the Idaho State Department of Education and the Treasure Valley Education Partnership (TVEP) in order for JSD2 to be able to make comparisons and view progress not only between schools within the district, but also within schools across the Treasure Valley.

The framework used for this study was developed by Conley (2010) and looks at the four key factors associated with student post-secondary success. These areas are:

1. *Key cognitive strategies*- “habits of mind”
2. *Key content knowledge*- academic knowledge and skills
3. *Key learning strategies and techniques*- academic behaviors, self-management, and ownership of learning
4. *Key transition knowledge and skills*- “college knowledge” and career awareness

Using this framework this study will seek, at least in part, to determine if a system-wide CCR model can be effective at improving students’ readiness for life after high school by creating relevance for subject matter while providing goals for students to work toward throughout the school experience. The development of this framework can also be used to develop “indicators” of C&CR which can then be used to:

1) Gauge the degree of success in endeavors to ensure the best use of resources.
2) Determine areas of greater need within individual schools or demographic groups.
3) Act as a “filter” to ensure that all undertakings within these schools have a “laser focus” on increasing C&CS.

Additionally, this particular report entailed the pilot of a survey instrument designed to measure student perceptions within the “ACT” category of the C&CR framework for the middle school level (6th-8th grade). The results of that pilot and the analyses/conclusions are provided within this paper as well.

**Literature Review**

**Definition of Career and College Readiness**

Conley (2010) defines *college and career readiness* as:

“The level of preparation a student needs in order to enroll and succeed- without remediation- in a credit-bearing course at a postsecondary institution that offers a baccalaureate degree or transfer to a baccalaureate program, or in a high-quality certificate program that enables students to enter a career pathway with potential future advancement.”

This definition is the same as that used by ACT Inc. (2012) as well as has been adopted by the Common Core State Standards (CCSS) initiative which has also been embraced by the Idaho State Department of Education. There is much literature and research focused on students acquiring *college and career readiness* skills (CCR) in order to be successful in life beyond high school. Conley (2012) has developed a framework that is aimed at increasing college and career readiness specifically at the secondary level, though this model could certainly be expanded to develop this type of readiness from K through 12. Conley’s model highlights four (4) key factors correlated with post-secondary success (see figure 1). Conley’s framework stems from research performed by the Educational Policy Improvement Center (EPIC) which has identified the common aspects of high schools which “outperform comparable schools in preparing students for both college and career” (p. 104). Each of the characteristics are further defined in the figure 2.
Figure 1. Four Keys to College and Career Readiness (Conley, 2012)

Figure 2. The “Four Keys” defined
For our model used in JSD2, the Key Content Knowledge and Key Cognitive Strategies categories become integrated into one overarching Key Academic Proficiencies category. With the implementation of the Idaho Core Standards and the Smarter Balanced Assessments teaching and learning will fundamentally shift in the direction of increased readiness in both of these areas. With the consolidation of these “academic performance” categories we now have a clearer focus of CCR consisting of:

1. How a student is performing in school- Key Academic Proficiency Level (Key Content and Key Cognitive Strategies)

2. How engaged, aware, and motivated a student is in their own learning- Key Learning Skills and Techniques

3. How much knowledge the student has about potential careers and the pathways they must take to reach those careers- Key Transition Knowledge and Skills

Measurement of the factors

The development of a system to measure C&CR progress is essential in order to identify areas of need so as to most efficiently utilize the limited resources available to our schools. Using a combination of pre-identified data points at each grade or educational level, comparisons can then be made between schools, across districts, and throughout time and school years (longitudinally) as shown in table 1. This will enable the identification and highlighting of successes as well as areas of need and further focus. The Treasure Valley Educational Partnership (TVEP) has been working to develop measurement indices as well as “cut-off” scores used to determine college and career readiness throughout the Greater Treasure Valley area. In an attempt to be consistent with TVEP (of which JSD2 is a member), similar indices have been used within this model (see Table 1). These factors are based upon both key student developmental points, as well as identification of points where interventions may be most timely and influential for assisting a student or group of students.
Table 1. **Career and College Readiness Measurement Indices by School Level**

<table>
<thead>
<tr>
<th>Measure of Key Academic Proficiency</th>
<th>K-2</th>
<th>3-5</th>
<th>6-8</th>
<th>9-10</th>
<th>11-12</th>
<th>Post Secondary</th>
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<tbody>
<tr>
<td><strong>Grade Analyzed</strong></td>
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<td><strong>Benchmark Score</strong></td>
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<tr>
<td>% scoring a 3 (at or above grade level)</td>
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<td>3</td>
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<td>9-10</td>
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<td><strong>Other Academic Indicators</strong></td>
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<td>% of College and University Freshman who return for their sophomore year.</td>
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* Modified from the Treasure Valley Educational Partnership Baseline Report Card*
**Types of data collected.** A combination of these data points can be collected and analyzed on an individual school level as well as a “high school feeder”-level in order to systematically target CCR needs within the entire system. These data include test-based measures, survey-based measures, and completion of task-based measures (ie. % of completed FAFSA forms and graduation rate). Additionally, through the *National Student Clearinghouse* and other state-level databases, it is now possible to obtain and correlate (through statistical regression analyses) the associated C&CR factors with post-secondary measures such as enrollment, retention, and completion of some form of post-secondary degree program. With the link between in-school and post-secondary data created, it then becomes possible to identify the variables and the “scores” in each of these that are most closely associated with success in life after school- the ultimate goal of C&CR as well as any school system.

**Why do this?**

The difficult part of this C&CR equation is that in order to develop the “readiness” we need to have students who are willing to work toward the acquisition of these skills and knowledge. Students who learn subject matter deeply while developing cognitive flexibly through use of subject matter in real and non-routine ways-- connected to possible careers-- stand the greatest chance of making the “connection” between school and their own lives. The necessity for both relevance and rigor is summarized in the following statement: “rigorous coursework is intellectually demanding coursework that engages students in the *essential core knowledge and skills of a discipline and contains appropriately sophisticated content*” (The Post-Secondary Workforce Readiness Working Group, 2009). In other words, schools must try, to the best of their abilities, to replicate how practitioners use various aspects of subject matter in the working world. This of course, must be done in a grade and developmental- stage appropriate manner. In fact, from the teachers’ perspective, there could be almost no change to the way they operate their classroom, with the exception of a move toward the Idaho Core Standards (increasing the “Think” and “Know” categories) and a continuous focus
on *relevance* of their material (increasing both the “Act” and “Go” categories). Though it is imperative that these teachers connect the subject matter to the real world through career exploration and discussion of relevance. This continued focus on “why” students would need to know curricular information will naturally lead to students seeing how the information fits into their own lives (matching the social constructivist theory of learning) and, with small discussions of jobs that arise as a result of these issues, a greater understanding in the “Go,” or career knowledge category.

Research such as that by Newmann and Wehlage (1995) and Yonezawa, Jones, and Joselowsky (2009) indicates that in order for students to truly acquire these CCR skills they will need to become *active* participants in the learning process through relevant and authentic instruction. Authentic instruction as defined by Newmann and Wehlage (1995) consists of developing schools and classrooms focused on:

1. Higher-order thinking
2. Building a depth of knowledge
3. Connection of material to the real-world
4. The ability for students to *discuss* the connection between learned materials and their own experience and lives
5. Adequate support of student achievement.

The C&CR framework seeks to accomplish just these concepts.

**Removing Barriers**

Several studies of CCR indicate that there are several barriers to students achieving post-secondary success (Postsecondary and Workforce Readiness Working Group, 2009; TRIO Program Student Survey, 2012). These barriers can be focused into 3 categories:

1. Lack of guidance concerning career paths and development of post-secondary knowledge (home, school, peers, and community).
2. Limited relevance and rigor of school.

3. Inadequate support at major transition points in school career.

_A scaffold approach to building Career and College Readiness._ Typical curriculum development uses a “top-down” approach which begins with the end in mind. Knowledge of what students need to know and be able to do to be successful is determined and then subject matter is “backfilled” to achieve those goals (Cromwell and McClarty, 2013). This would imply that being successful in school or even post-secondary training is the ultimate goal. We can take this premise one step further to put it into the context of developing readiness for _adult life_. Since the “end” result for the student is not simply entrance into and success in college or training, but rather attainment of a chosen career implementing the skills and knowledge learned in school to be successful within it-- an equal focus must be placed on students identifying, developing, and working toward personal career goals. JSD2 is developing a curriculum scaffold aimed at building CCR throughout students’ educational careers-- K through 12. Since providing relevance plays an integral part in engaging students, identifying their “goals” and the pathways to get there seems imperative. Identifying barriers both academic and non-cognitive is the first step. Working to alleviate these barriers through targeted intervention for particular students or groups of students based upon data, is the next step. Finally, but certainly the most difficult part of the equation is having and developing courses and systems that can accommodate the varied interests and engage students to perform to high levels.

The process and model of C&CR being developed within JSD2 is the first step toward a systematic attempt to increase _career and college readiness_ within the district. Information gleaned from this process can be used to further develop and improve the ability for JSD2 to foster students who are ready for not only college and career, but more importantly, their adult life.
Methods

Creating a middle-school level “ACT” survey instrument

In order to measure students’ “Key Learning Skills and Techniques” JSD2 has begun the development and pilot test of a survey instrument for middle school-aged students. The theory behind this is that, if we can measure what is in essence students’ ownership of their learning, we can begin to implement targeted actions to increase this ownership. Conley (2012) further breaks down this ownership of learning category into several groupings that encompass the following factors:

1. Time management
2. Study Skills
3. Goal Setting
4. Self-Awareness
5. Persistence
6. Collaborative Learning
7. Student Ownership of Learning
8. Technological Proficiency
9. Retention of Factual Information

As Conley’s research indicates, students who are proficient in the categories above are demonstrating a “readiness” to be successful in endeavors at the next level of education- in terms of their Learning Skills and Techniques.

A survey was developed by JSD2 based on Conley’s research as well as a compilation of several other College Readiness surveys (Crites & Savickas, 1996; Illinois Department of Educational Policy, 2011). Questions were chosen from the various surveys to fit within each of the categories above. Since many of the survey instruments chosen were of a high-school or even post-secondary level, the questions were modified to be appropriate for middle-school aged students. This compiled survey was reviewed by individuals (administrators and teachers) who were participating in the study. This was done to ensure that the information gathered from the survey was deemed useful for concerns within
the particular school, but also as a way to certify the validity of the results- did it measure what it was supposed to?

**Pilot Test of the Survey.** Once the survey was deemed valid, the questions were entered into the K12 Insight survey instrument and a link was sent to the school. At the school all 6\textsuperscript{th} (N=249) and 8\textsuperscript{th} (N=302) grade students completed the survey as they rotated through a computer lab. The data was assembled by the survey program and downloaded for analysis once all students had participated.

**Reliability Analysis.** A Cronbach’s Alpha analysis was used to determine the reliability of the survey instrument within each of the categories. This, in effect, determines if the groups of questions can reliably be said to represent a student’s perceptions within a given category. Alpha values close to 1 are sought after, but researchers recommend values of $\alpha$ greater than or equal to .7 for publication (Garson, 2012). Within each of the “ACT” framework categories alpha reliability values from this survey pilot are presented below:

*Table 2. Reliability Values for ACT Framework Survey Instrument (N= 651)*

<table>
<thead>
<tr>
<th>ACT Framework Category</th>
<th>Cronbach’s Alpha Value ($\alpha$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Management</td>
<td>.535</td>
</tr>
<tr>
<td>Study Skills</td>
<td>.713</td>
</tr>
<tr>
<td>Goal Setting</td>
<td>.685</td>
</tr>
<tr>
<td>Self-Awareness of Talents</td>
<td>.816</td>
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<tr>
<td>Persistence</td>
<td>.731</td>
</tr>
<tr>
<td>Collaboration- working with others</td>
<td>.840</td>
</tr>
<tr>
<td>Student Ownership of Learning</td>
<td>.619</td>
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<tr>
<td>Technological Proficiency</td>
<td>.803</td>
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</tbody>
</table>
Based on the alpha values above, several of the ACT category variables did not hold up to a test of internal validity. For this reason, statistical comparisons between groups were not made among the following variables: *Time management, Goal Setting, and Student Ownership of Learning*. Questions among these variables will be modified in the subsequent school year survey in order to obtain valid results. The individual questions within these categories, however, can still be used for descriptive data purposes to identify trends and target areas of needed improvement. The remaining variables were indeed shown to be valid from a statistical standpoint and comparisons were made among groups within the following categories:

1. Study Skills
2. Self-Awareness of Talents
3. Persistence
4. Collaboration - working with others
5. Technological Proficiency

*Statistical Analyses.* Statistical analyses were made between various demographic variables asked within the survey. These variables included student grade level, gender, race, and several variables linked to the “GO” category of the C&CR framework appropriate to the middle school level—whether a family member had ever attended college, knowledge of a career of interest, knowledge of the skills and requirements for their career of interest, and finally their level of agreement choosing a career strictly for salary or enjoyment.

*T-tests and ANOVAs.* Comparisons between groups were made using t-test and ANOVA statistical procedures between the demographic groups mentioned above. Each of these comparisons was made between mean values for all aggregated questions within a particular ACT category. T-tests were performed where there were only two variables to be analyzed. This occurred between gender groups as well as the two grade levels that participated in the study (6th and 8th). Additionally, repeated measures t-tests were performed to identify statistically significant differences between means for each
of the categories within the ACT framework. This was in an attempt to identify real and significant
differences between these variables to highlight areas of need.

ANOVA analyses were performed similar to the t-tests mentioned above. These, however were
performed for variables that contained three or more categorical groups such as racial groups, and the
“GO” category variables which typically included the three choices of “yes”, “no”, “I do not know”. This
last “GO” category variable was used to identify if true differences existed as a result of a student’s
family exposure to the college-entry process and the level of the “college culture” the family had.

Results

The survey results from the targeted middle school were compiled and analyzed in SPSS.
Descriptive statistics were performed on demographic, gender, and grade variables as well as
comparisons were made between relevant groups based upon the C&CR Framework categories. This
was done in order to determine where statistically significant differences existed. Though many
analyses were performed, only the most intriguing and significant results are presented in this report.

Demographic Results

*Figure 3. Student Racial Demographics (n=651)*
ACT Framework Category Comparison

ANOVA Comparisons were made between the ACT- Key learning techniques and strategies framework variables. All framework values were found to be significantly different from each other with the exception of the study skills category and the collaboration category F= (4, 249)=109.30, p<.005 and F=(4,299)=104.03, p<.005; for 6th and 8th grades respectively). Results do show however, that in both the 6th and 8th grades, students reported significantly lower mean values overall for study skills and collaboration (m=3.32, SD=.81 and m=3.44, SD=1.20 respectively). They also reported the highest mean values for self-awareness of their talents which was found to be statistically significant as well (m=4.13, SD=.73 and m=4.08, SD=.82).
Figure 5. 6th Grade Survey Values for the C&CR ACT categories

* All values are significantly different at the p < .005 level with the exception of study skills and collaboration which showed the lowest mean scores.

Table 4. 6th grade ACT category means and standard deviation values (n=249)

<table>
<thead>
<tr>
<th>Category</th>
<th>Mean Value</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study Skills</td>
<td>3.32</td>
<td>0.81</td>
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<tr>
<td>Self-Awareness of Talents</td>
<td>4.13</td>
<td>0.73</td>
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<tr>
<td>Collaboration</td>
<td>3.44</td>
<td>1.20</td>
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<tr>
<td>Persistence</td>
<td>3.90</td>
<td>0.77</td>
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<tr>
<td>Technology Proficiency</td>
<td>3.96</td>
<td>0.80</td>
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</table>
** Figure 6. 8th Grade Survey Values for the C&CR ACT categories

** All values are significantly different at the p < .005 level with the exception of study skills and collaboration

**Table 5. 8th grade ACT category means and standard deviation values (n=249)**

<table>
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<tr>
<th>Category</th>
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<th>Standard Deviation</th>
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<tr>
<td>Study Skills</td>
<td>3.07</td>
<td>0.82</td>
</tr>
<tr>
<td>Self-Awareness of Talents</td>
<td>4.08</td>
<td>0.82</td>
</tr>
<tr>
<td>Collaboration</td>
<td>3.42</td>
<td>1.11</td>
</tr>
<tr>
<td>Persistence</td>
<td>3.89</td>
<td>0.78</td>
</tr>
<tr>
<td>Technology Proficiency</td>
<td>3.82</td>
<td>0.86</td>
</tr>
</tbody>
</table>

**Identifying trends from 6th to 8th grade.** In an attempt to identify trends associated with students’ progression through middle school, comparisons were made between 6th and 8th grade students in the five measured ACT categories. Significant differences were found between each of the ACT categories (each individual line shown below) with the exception of study skills and collaboration, which had the lowest mean values for all students in the school. Non-significant differences were found between 6th to 8th grade students in all categories with the exception of student study skills which
showed a significant *decline* from 6th to 8th grade $F(4,547)=97.3$, $p<.005$. Again, the highest mean values were found for students’ self-awareness of their talents. For all variables within the ACT category, however, there was a slight decrease in mean values and though these results were non-significant (with the exception of study skills) there is an apparent trend in the data.

*Figure 7. Trend comparison between 6th and 8th grade students in ACT categories*

**Identifying trends within racial groups.**

Racial group data analyses were performed for all of the racial subgroup categories. Only racial groups with more than 10 students were included in the analysis. Results are shown in figure 8 below. The racial data shows that similar patterns exist between each of the ACT category variables with study skills and collaboration having the lowest mean values and self-awareness of talents having the highest overall. What does stand out, from these data is that the Hispanic population reported consistently
lower values in all of the ACT categories. Though most of these results were non-significant between the groups, there was a statistically significant difference between the Hispanic population group and white group in the technology proficiency category.

*Figure 8. Racial demographic group analysis.*

**Comparison between family experience with college or university.** Using the question “has anyone in your family ever attended college” as a categorical variable, an ANOVA analysis was performed between each of the ACT framework categories. Significant results were found for the technology proficiency category with those who had family members who had some college experience reporting higher mean values ($m=3.98$) compared with the “no” and “I don’t know” categories ($m=3.42$). Additionally, there were nearly significant findings with students whose family members had some
college experience reporting higher values for both their study skills and their persistence. Finally, students who reported that they did not have a family member who had attended college showed a higher mean value in the area of collaboration, indicating possibly a greater enjoyment of working with others when compared with the more general population- this result however was not significant, meaning these results could have occurred by chance.

Figure 9. College experience by student family analysis

*significant difference between means found for technology proficiency at the $p < .005$ level; nearly significant difference between means found for study skills and persistence variables.

Conclusions and Implications

Through the use of the ACT category survey it has become possible to decipher areas of both strength and possible improvement using the College and Career Readiness Framework within our schools- in this case within the middle school level. As shown by the results of this survey we can see
that student reported strengths are in the areas of knowledge of their own strengths and talents (mean value of 4.01), technological proficiency (mean value of 3.89), and persistence (mean value of 3.90).

Focus areas that can be highlighted for future action (or areas of need) are in the categories of study skills (mean values of 3.20) and collaboration-enjoyment of working with other students (mean value of 3.43). It must be noted that these values were all rated above average on the Likert Scale survey (1-5 scale with 2.5 being an “average” rating) that was presented to the participating group of students, though the purpose of this endeavor was not to determine “absolute values” for these areas, but to identify significant differences in order to best determine areas in which to focus attention, effort, and resources within the upcoming school year in order to best grow student Career and College readiness (C&CR). It could be hypothesized that the results presented within this study indicate students who are, in general, confident in their own abilities and not only know the importance of education, but also understand that their own personal effort results in success. It could also be hypothesized, however, that most middle school-aged students will tend to self-report toward the higher-end of the survey scale feeling that they know what they need to be successful in a career and being fairly confident in being able to achieve those goals—though not truly having this experience or knowledge. This survey showed that there indeed are significant differences that can be found between demographic groups as well as between age groups within the middle school studied in this report and possibly other schools within the district.

**Racial Groups.** When examined by racial demographic groups, the Hispanic population reported lower mean scores in all of the survey groups indicating that this population could benefit from further and deeper analysis. By looking into individual students and identifying those who are in most in need, specific and targeted interventions could begin to take place. It is also worth ascertaining if the nearly 25% of the population that stated they were either of Hispanic descent or of “two or more races” align with the nearly 25% of the population that stated they had no one within their family who had
previously attended a college or university—though this may (and probably is) a simplification of the data and results—further analysis is therefore necessary.

**Grade level groups.** Another area of interest is the significant differences that were found between the 6th grade students and the 8th grade students within the school. As shown in figures 5 and 6, the 6th and 8th grade populations both reported significantly lower mean values in the areas of *study skills* and *collaboration*. The highest values were found for students’ *knowledge of their own talents*. Additionally, the only significantly different reported value from 6th grade to 8th grade (longitudinal analysis) was found within the *study skills* category, indicating that students are losing interest in studying and preparing for tests, their confidence in how to do so, or even whether they feel like working hard enough to complete assignments. This could certainly indicate that students, during their progression through middle school, are becoming less engaged and less interested in putting forth the effort necessary to be successful. This would match much of the research that states the importance of schools and districts focusing on the middle school years. Further research could be implemented with this school to more precisely determine what is causing this decline in interest and engagement. This determined, the information could be used to identify what schools and the district could most effectively do to head this off during this very important time in a student’s educational career. Subsequent survey analyses could then be used to compare with this baseline data to identify if implementations are being successful in achieving desired results. Finally, since collaboration (enjoyment of working with others) values were also significantly lower, identification of ways to engage students in the more constructivist group-based and problem/project-based learning could be enacted throughout the school. Research in pedagogical methods to enable more productive collaboration between students *may* be a possible focus area for teachers in subsequent years.
Final Thoughts and Recommendations

This study sought to pilot an ACT (Key Learning Skills and Strategies) category survey for middle-school aged students. In the process of this pilot, data was collected from all 6th and 8th grade students within the school that was studied. ACT Framework categories that were found to be “valid” statistically were used in the analysis, though several of the desired ACT category survey question groups failed to achieve these results. These question groupings will have to be modified and re-tested in subsequent years. The survey however, still yielded ample results, several of which showed statistical significance, which can be used to guide future activities within the school. This information can also be used as a baseline for longitudinal comparisons and even between other middle schools within the district. Since no control or comparison group was used within this study (non-experimental design) these data can only be used to identify strengths and weaknesses for future targeting of time and resources- not to identify real or “absolute” values within the school. This is because there is no knowledge of how any or all other middle school students throughout the district would rate themselves on the same survey. Further study is necessary to acquire this information.

Recommendations arising from this analysis would be first, to identify possible ways to increase student engagement by making school relevant and meaningful through a connection to the world outside of the school walls, such as through further identification of strengths and career “groupings” aligned to these strengths. This should be followed by setting goals toward careers and post-secondary education beginning with alignment of courses and information about high school- the next level for these students. A focus on why taking school seriously, studying for tests, and completing assignments is important in order to achieve these set goals could then supplement this difficult work. Additionally, if possible, struggling students within demographic subgroups as well as those with limited or no familial college experience could be targeted for future interventions through programs that are currently in
operation within the district. Through these programs parents could become a major (and possibly the most critical) piece of the puzzle in displaying the need for an education and being ready for the “next level” as provided through schooling. Since it is neither possible, nor necessary, to devote the scant resources that our schools have to all students within a particular school, this targeting becomes necessary in order to achieve results for these individual students—which will yield large results on overall school outcomes.

Much research on Career and College Readiness indicates that a focus must be placed on middle school. The research that was performed through this survey served two purposes: 1) to create and pilot an ACT survey for middle schools within the district aligned to the C&CR framework and 2) to identify areas of focus for future endeavors with the surveyed school. Though there is still work to be done to better align this survey instrument toward creating an overall ACT value for future use and comparison, this research did accomplish the goal of identification of significant differences which can now be focused upon.

The Key Learning Skills and Techniques category of the C&CR framework, in essence, assesses students’ mindsets toward their education. This category gives an indication of how important they feel school is and will be in enabling them to reach their goals, as well as their willingness to expend their own effort in achieving them. Since middle school has been shown to be integral in developing students who are successful through high school as well as post-secondary endeavors, creating a way to measure and target areas of most need is essential at this age. This research is the beginning of this process and subsequent analyses. The information gleaned through this study will certainly enable more clear decisions to be made which will yield results showing greater degrees of success for our middle school students.


Camara, W. & Quenemoen, R. (2012). *Defining and Measuring College and Career Readiness and Informing the Development of Performance Level Descriptors (PLDs).* The College Board and The National Center on Educational Outcomes. Paper Commissioned by PARCC.


The Federal TRIO Program, Office of Postsecondary Education. Website: http://www2.ed.gov/about/offices/list/ope/trio/index.html

# College and Career Readiness Best Practices

<table>
<thead>
<tr>
<th>Career and College Readiness Framework:</th>
<th>What the research says- “Best Practice”</th>
<th>Current and Future Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Know-Content knowledge (what do they know)</td>
<td>❖ Deeper not wider curriculum- how do all subjects support “core” curriculum? ❖ Find opportunities to connect to careers. ❖ Build partnerships- businesses and universities</td>
<td>• Idaho Core Standards • Mastery learning • Authentic Lessons • Simulations/Problem-based learning (PBLs)</td>
</tr>
<tr>
<td>Think- Cognitive strategies (skills- what can they do?)</td>
<td>❖ Authentic Lessons and Teaching/Mastery Learning ❖ Relevance of what we are doing in class to what the student will be doing beyond school (real-world) (Newmann &amp; Wehlehe, 1995). ❖ Technology Integration- use 21st Century Tools ❖ Instructional Strategies- scenarios, simulations, Problem/Project-based learning, cooperative learning, inquiry-based lessons, problem-solving. ❖ Enrichment and remediation at all levels (especially middle school)</td>
<td>• Jim Knight Trainings- • KLT (Keep Learning on Track)-formative assessment • Academic coaches to promote this type of teaching. • RtI, G&amp;T, AP, Dual credit classes • RtI, IEP’s, EL Programs, etc.</td>
</tr>
<tr>
<td>Act- Learning skills and techniques (ownership of learning)</td>
<td>❖ Create Data Systems for students to monitor their own progress. Technology and programs to monitor progress (ie. Aleks, Think Through Math, Powerschools) ❖ Academic Behaviors ❖ Focus on Middle School Core subject credits Simulations ❖ Mastery Learning</td>
<td>• Technology programs to collect instant data for analysis (student and teacher) • Connect with parents and community • School-wide Positive Behavioral Supports; Behavior RtI</td>
</tr>
<tr>
<td>Go- transition knowledge and skills</td>
<td>❖ Transition Focus Level to Level (especially Middle to HS &amp; HS to Post-secondary) Create a “strand” for C&amp;CS through all grades Remediate before transition points Short term &amp; Long term goals Using same C&amp;CS vocabulary across system ❖ Career and College Focus at ALL Levels How does everything we do fit into C&amp;CR? ❖ Connections to Careers and Colleges PTE, speakers, job shadowing, etc.. ❖ Removing Barriers Financial Navigating the college “system”</td>
<td>• 8th to 9th grade advisory lessons to prepare students for high school registrations and 4 year planners. • Counselor delivered 5th grade Career lessons. • 6th grade keyboarding lessons/3 page paper on a career cluster. • Trio Program • FAFSA information nights • College Fairs • Individual appointments with counselors • Mentors for Homeless Youth</td>
</tr>
</tbody>
</table>
Career and College Readiness Middle School ACT Category Student Survey

Name________________
Teacher______________
Class_________________
Date_________________

MIDDLE SCHOOL LEVEL CAREER AND COLLEGE SUCCESS SURVEY
Rate your agreement with the following statements:
1 means totally disagree
2 means usually disagree
3 means neutral
4 means usually agree
5 means totally agree

1. Time management
   a. ___ I find myself rushing to get things done
   b. ___ I am often required to attend lunch detention to complete my assignments
   c. ___ My grades have been negatively affected due to turning in assignments late
   d. ___ I have more than three tardies in one or more of my classes

2. Study skills:
   a. ___ I have a good set of skills to study for tests and quizzes
   b. ___ I actually study for tests and quizzes
   c. ___ I complete all my reading assignments
   d. ___ I take notes on reading assignments and look up words I don’t know

3. Goal Setting:
   a. ___ I believe it is important to set goals for success
   b. ___ I usually meet the goals I set
   c. ___ I have talked with family and friends about my future

4. Self-Awareness:
   a. ___ I am aware of what my talents, skills, and abilities
   b. ___ I can depend on my talents, skills, and abilities to succeed
   c. ___ I know the things I’m good at because they come easy to me
   d. ___ I know that hard work will overcome my weaknesses
   e. ___ I enjoy working in groups
   f. ___ I prefer to work alone

5. Persistence:
   a. ___ I usually complete a task, especially if it is a challenge
   b. ___ people can count on me to complete a task
   c. ___ I feel satisfied when I finish a project on time

6. Collaboration:
   a. ___ I participate in school sports and/or clubs
b. ___ I learn when I work in small groups in class
   c. ___ I teach others when I work in small groups in class

7. Student Ownership of learning
   a. ___ I am responsible for my own learning
   b. ___ I like to be challenged academically in school
   c. ___ If I am learning, it is ok to not get an “A”
   d. ___ My work ethic is the single most important factor in my grades

8. Technology proficiency:
   a. ___ I know how to do valid research on the internet
   b. ___ I can format papers and edit documents on Microsoft Word
   c. ___ I can create slides and insert transitions and effects in PowerPoint
   d. ___ I can create and use a spreadsheet in Excel
   e. ___ I know how to validate a website

CAREER AND COLLEGE: Answer T= True NS= not sure NI= No idea

9. Plans:
   a. ___ I have a good idea of what career I want to pursue
   b. ___ I know what requirements I need to meet in order to pursue my career
   c. ___ I know what skill sets works best for my future career
   d. ___ Making money is the primary purpose of a career
   e. ___ Enjoying what I do is the primary purpose of a career