

Low achievement in a Problem Based Learning History class

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EDLD 517 Leadership for School Improvement
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Introduction ~ Common Core

With the implementation of Common Core State Standards (CCSS) and the upcoming Smarter Balanced assessments, educators across Michigan are instituting district wide adjustments to common instructional practices. In Social Studies, there is a growing concern over balancing the emphasis on the skills valued in the CCSS, the “content area crosswalks”, and delivering vast amounts of content to students.

As a teacher that has vast experience and advocates for 21st Century Teaching and Learning curriculum delivery, the CCSS will have little effect on my practices. However, I have further aligned my strategies to the CCSS in my World and United States History classes to include more primary source analysis, problem/project based learning, (PBL) and more argumentative writing.

I am concerned about adding more student centered, non-traditional learning strategies to my daily activities as there has usually been a clear achievement gap in my class grades. There are usually very few mid range (C to B-) grades at the end of every trimester as kids either do very well or fairly poor. So, with that in mind, my inquiry project problem/questions is:

Why do students have difficulty in 21CTL and PBL driven Social Studies classes?

Inquiry Questions

Sampling: I selected three classes from last year, one from each trimester, with the most students with D and E end of term grades. I also selected this year’s lowest performers on my pre-assessment of document based writing and the first unit’s summative grades. I started with 24 students as my sample size to begin my inquiry process. Ultimately, I had to exclude 5 other students as they were missing too much data in their records.

Hypotheses: After looking at demographic data, socio-economics, and special education patterns and not finding any significant patterns, I determined that it was time to challenge my original hunches/hypotheses.

1. With my lesson strategies centered on document analysis, self-directed learning, and problem based learning; do students that have the lowest levels of class grade achievement have low reading levels?

2. Do these students have a history of lower achievement scores on other skill based or social studies criterion state standardized tests?

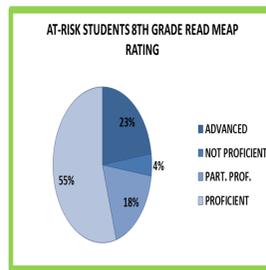


Figure 1. Pie chart represents the percentages of the 8th Grade MEAP Reading Assessment ratings for 22 out of 24 “At-Risk Students.”

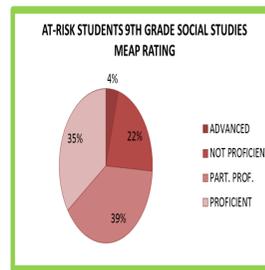


Figure 2. Pie chart represents the percentages of the 9th Grade MEAP Social Studies Assessment ratings for 23 out of 24 “At-Risk Students.”

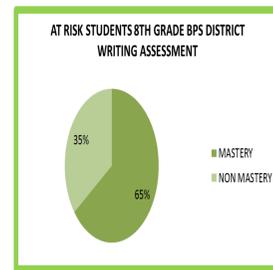


Figure 3. Pie chart represents the percentages of the BPS District Writing Assessment ratings for 17 out of 24 “At-Risk” Students. Scores on this assessment were aligned to Proficiency ratings for Standardized Test chart.

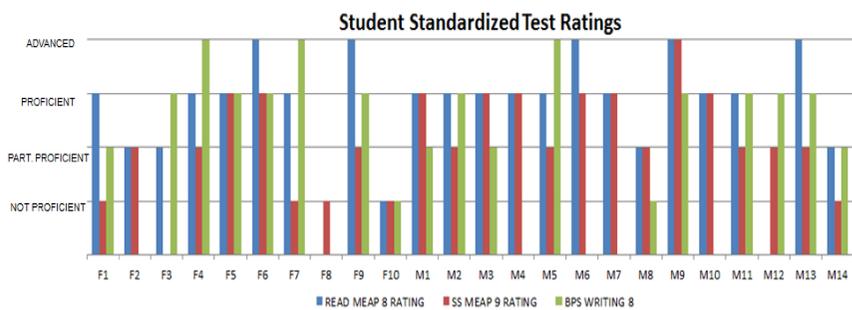


Figure 4. Bar chart represents the test proficiency ratings per student.

Repetitive Questioning of In Class Assessments

Step 4+: It became clear that more data was needed. What types of assessments were these apparently capable kids doing well on? What assessments types were they struggling with? What in those assessments were triggering the negative results? Figure 5 shows a comparative break down of averages for the “At-Risk” group by major assessment type. A summary of my findings after extensive numbers of differing data inquiries includes:

- All At-Risk students score relatively high on PBL projects when compared to summative content based assessments.
- At-Risk students scored moderately lower than peers on 21CTL Skills Rubrics that assess individuals and group’s formative and collaborative processes within collaborative group working times. Overall content portion of project grades on artifacts were much higher.
- Individual work and assessment scores are very low on independent writing assignments, especially in theme and content areas.

Student Learning Problem Conclusion

After an extensive review of last year’s portfolios and grades, it was clear that what I did find was a “2 Birds and 1 Stone” learning problem. A significant number of my lowest performers did have low writing assessment scores; and their class grades for PBL projects are significantly higher than individually measured skills and criterion based summative assessments. Although I was holding them accountable via a rubric on 21CTL skills, these findings suggest the cooperative learning nature of the PBL structures is shifting the personal responsibility on knowledge and content away for some, and my lowest performers actual achievement was obscured. It could be possible that partners were editing their writing and/or completing significant amounts of assignments; therefore, low performer summative assessment achievement levels were much lower than the rest of the class while project grades were much higher. Also, another significant negative side effect is the loss of opportunity to practice and develop better writing skills with more accurate assessment and feedback from me..

Data Inquiry & Many New Questions

Step 1: I began my data analysis by accessing each student’s testing history in our grade book program. My first target of analysis was their most recent standardized testing reading scores and ratings (Fig. 1). To my surprise, my initial and strongest “hunch” was immediately disproven.

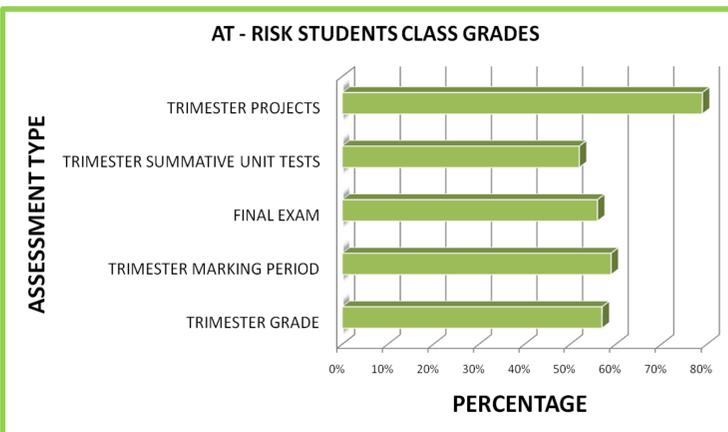
- There was only five students out of 22 that was rated as “Not Proficient” or “Partially Proficient”.
- Only one student of this sample was receiving special education services for reading support and had passed the class with a solid D.

Step 2: To test my second assumption, I analyzed the scores and ratings of the sample group’s performance on the 9th Grade Social Studies MEAP Assessment. (Fig. 2). The data revealed that 61% of the 23 students with test scores in the low proficiency categories seems to suggest that student assessment history or interest in Social Studies may be a moderate causal/indicating factor. Many of these students had expressed their preference for my style of teaching history over past experiences, and a closer review of the series of test data per student slightly weakens this inference as well (Fig. 4).

- Only 2 of the Partially Proficient readers were rated similarly.
- Only 1 Not Proficient S.S. student rated in Low Proficiency for reading.
- All others were rated as Proficient or Advanced readers with one student rated as Advanced in both assessments.. This student had failed my class.

Step 3: I began to wonder about the performance aspects of my class especially in terms of writing. A look at data from an 8th Grade Writing Assessment from our district revealed only 2 students that had multiple low proficiency scores, and only one of those students had the lowest rating level in all three. The 8th grade writing data shows that 35% of these students were rated with low proficiency/non mastery achievement levels.

Figure 5. The bar graph represents the class grades & assessment type averaged data for 18 students from last year’s completed graded terms.



SMART Goal Statement

By the trimester end, Mr. Duncan will improve every student’s learning in his US and World History courses and raise achievement levels of “At – Risk” students as evidenced by:

Goal 1:

- An overall average of a 10 percentage point increase occurs on the end of course Summative Assessments when compared to the early summative assessments.

Goal 2:

- An increase in student performance by 10 percentage points on the end of course Student Project/Problem Based Projects and Argumentative, document analysis based assessments when compared to the early similar in type assessments.

Root Cause Analysis

A Fishbone Diagram revealed the following possible causes for low course assessment scores in the PBL centered class:

- Learner Self-Efficacy
- Engagement with Content and Processes
- Instructional Methods (PBL Structure)
- Time On Task
- Accommodating Various Learning Styles
- Understanding of Learning Objective
- Assessment Scores
- Teacher Monitoring of Progress
- Grading Practices

An Interrelationship Digraph was used to analyze the connections of these traits and it was determined that my current frameworks of instructional methodology on PBL was fostering the low work ethic/output, low engagement, and less time on task for the student and leading to poor assessment scores. The analysis also showed that I need to find more efficient and meaningful ways to formatively monitor progress during PBL projects, and reflect/research on assessment / grading practices.

Beginnings of the Action Plan

➤ Research and examine other models of PBL to foster more self efficacy, engagement, and have proven to raise academic achievement levels (i.e. “Productive Failure” by Kapur, Buck Institute on Education, and Lucasworks’ Edutopia).

➤ Use more research based formative assessment strategies for PBL to create a set cultural artifacts of daily performance and productivity. For example: develop a Group Work Contract, Task Reporting, and Daily Log system for students when working on Projects.

➤ Research assessment strategies for 21CTL and evaluate current assessments for validity and reliability. Successful Argumentative Writing strategies must be researched and piloted.

➤ Develop a weekly Project Leadership Meeting when every group must be represented to discuss issues and progress of projects.

➤ Continued focus on criterion driven, inquiry strategies using primary source analysis with argumentative writing structures for individual student growth.