

Research on Effective Schooling

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Abstract

This proposal focuses on three of the variables described by Hattie (2009) for improving student achievement, namely, reciprocal teaching, goals, and feedback. The location is a junior high in Utah, the main foci are math and reading classrooms, but the micro-teaching approaches will be taught and applied school-wide for coherence.

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Education is a constantly evolving system, with different theorists, ideas, and approaches (Driscoll, 2005). With so many choices and options, it can be difficult to make reforms that will provide the most effective means of student achievement. Sometimes, the best approach could be changing elements in the classroom that prove to have the most direct affect and not overhauling the entire system. As a teacher educator, this proposal will focus on the methods described by Hattie (2009) of reciprocal teaching, goals, and feedback, and how the teachers can implement them effectively for student achievement and progress.

Context and Role

Every school and every district is unique. The specific school that will be the focus of this proposal is a junior high (Grades 7 to 9) in Murray, Utah. The population of the school is majority Caucasian (65%), with about 35% being ethnic minority students (i.e. Hispanic, African American, Asian). There are many students on free-or-reduced lunch, the school is Title 1, and there are a lot transitory students because of the apartments that make up a majority of the school boundaries. Some parents are active in school associations, but some do not have a presence in the school, and are often not available when discipline or academic issues arise. The teachers and administrators are a range of experience levels, with the principal being new this year, to some of the teachers almost to the 30-year mark. The newer teachers seem to be open to changes, as they haven't had the time to become oriented to a certain method or approach, the older teachers will require more convincing. The principal is open to changes to increase Adequate Yearly Progress (AYP) on the standardized assessments, and will support initiatives going forward.

As far as academics, the students are high to average on science and English standardized test results; however, they fall below the national average on reading and math skills. The role of the teacher educator is to present variables from Hattie's work as a proposal and micro-teaching approach, with the aid of other research-based methods, that will be incorporated into the math and reading classrooms, in order to raise the yearly test scores (2009). While the methods are oriented towards the math and reading classrooms, all teachers will be part of the training and implementation because of the research-based support for the variables and the benefit of coherence throughout the school (Hattie, 2009).

Recommendations

The training method for the teachers will allow them to practice the three variables and then recognize ways to implement the strategies in their own classrooms. Each variable selected from Hattie's meta-analysis of 800 variables (as cited in Huitt, Huitt, Monetti, and Hummel, 2009) was chosen because of its perceived importance to middle school teachers. Reciprocal teaching is a method of comprehension that pairs up students and teachers, or students and students and uses questioning, predicting, summarizing, and clarifying on texts, content, or media (Burke, 2003). This method was shown to have a large effect size ($d = 0.74$) and will be demonstrated to the teachers, in conjunction with the other two variables (Huitt et al., 2009). The other two variables of goals and feedback work with each other and help students to make claims and take ownership for learning, then to receive the necessary feedback to either continue or correct learning behaviors. The reason these three were chosen is because goals and feedback are a necessary behavior for students to learn and use, while utilizing the strategy of reciprocal learning. Both variables of goals ($d = 0.56$) and feedback ($d = 0.73$) also have a high effect size (Huitt et al., 2009).

One important element in making reforms and changes is that they are research-based and being implemented where data supports change (Flowers & Carpenter, 2009). In the case of the junior high, the data acquired through standardized testing shows a lack of progress and understanding in the math and reading areas. However, the idea of using goals, reciprocal teaching, and feedback in all content areas and classrooms is supported by the theory of coherence and the positive results of students having connections across the curriculum (Oxley, 2008). Therefore, all teachers will utilize these techniques and ideas, after in-service practice, when developing lesson plans.

The micro-teaching lesson will have teachers paired up (this will also include the present administration) and being given an article from *The New Yorker* about genetically-modified mice and identical behaviors that form in groups of the mice (Marcus, 2013). The first step is to make sure there are clear objectives and that each person is deciding what they will get out of it. Part of making goals is about reaching attainable milestones. For example, in this exercise, one possible goal is to be able to fill out a graphic organizer of main idea and supporting details after reading, or to be able to take and pass a short quiz after. Always have a plan and goal in mind when delivering an assignment or exercise, make sure participants know why they are to complete it and what to expect out of it. Then model the methods of reciprocal teaching. Pairs can start by reading the title and predicting what the article is about or maybe what the scientific discovery was. Then they question as they go along: What do I know? What is the author saying? What are the main ideas? How does this relate to other articles I've read? It also helps to summarize and clarify meaning as the pairs read. The best method is to switch off, where one person reads, and the other is utilizing the comprehension skills. As pairs are working together, the teacher moves around to each pair and listens to interactions, giving specific feedback to

prompt deeper cognitive understanding. After the reading is done, there should be discussion between the groups and the teacher, where comprehension and understanding is assessed further and additional feedback can be given. Participants need to know they are on the right track to meeting the goal, which is why feedback given throughout and at the end is vital. At the end, participants can decide if they met the goal. If they did, it is a good idea to celebrate and move forward; if not, discuss how to reach goal or how to create goals that are attainable while still gaining the necessary skills and try again.

Once the activity is complete, the teacher educator can talk with the teachers about how each element is important and how they work together to increase comprehension and learning. It is also important to give examples of how this can be used in different content-area classrooms and why coherence is important. For example, in a math class, have the students read through the lesson plan on ratios and use the skills of reciprocal teaching to test knowledge with a partner; or in an English class, have students read a chapter from *The Giver* and discuss in pairs or as a class.

The final step is to discuss how to monitor for progress and success. Checking comprehension on the information presented through questioning and testing, having students apply knowledge to a different activity, or creating some type of artifact are additional methods for students to show they reached the goal and gained a competency, are a few examples. It is important that the assessment fits the activity and goal. If students are supposed to be able to recite the first stanza of “The Raven,” then the assessment is the recitation. Goals, reciprocal teaching, and feedback need to work together and each element can be worked within daily lesson plans. This not only allows students to become adept at a multitude of skills like questioning, predicting, problem solving, and application, but also creates connections between

students' courses throughout the day. In any academic subject, if a student makes goals for the lesson, utilizes reciprocal teaching to gain comprehension of the text, and receives constant feedback, he will do well that discipline. Now consider if the student goes to his next course, science, and he follows a similar format but with the content focus on cells, he will still do well and he will be motivated because of a familiarity and success with the steps (Oxley, 2008).

“Research on human motivation also suggests that coherent programs of study promote learning” (Oxley, 2008, p. 3). This coherence between instructional and curricular protocols will allow students to gain more control over their learning and start to develop skills necessary for success in multiple content areas.

While the final step of the training is to discuss progress monitoring and assessment, truly, the final step moving forward is for teachers to begin applying these variables towards their own classrooms. One important element is the continuing support from administration with additional professional development, review, and praise. One idea presented by Oxley (2008) was for interdisciplinary teacher teams to be created, this could be another layer of support for teachers who are having difficulties or questions on the protocols and practice. The goal of this approach is to aid students to be more successful and to gain a deeper understanding of the content, and this becomes more attainable when all stakeholders are invested.

Through this proposal, teachers will be taught and able to practice through micro-teaching, three variables that when implemented, will help to build comprehension and increase standardized test scores. Reciprocal teaching, goals, and feedback are all important elements of a lesson and the students' abilities to develop an understanding (Hattie, 2009). “One of the greatest benefits is that you make better decisions because they're based on informed reflection” (Flowers & Carpenter, 2009). Using research-based approaches and variables to focus teaching

strategies, along with methods for assessing results, will enable teachers to get the right kind of data and make informed decisions for the good of the students. Consider this proposal and the process within.

References

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