Applying Research on Effective Schooling in the Elementary School

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Abstract

Using assessment is vital to the success of K-12 education. Many students enter third grade proficient in reading according to the end of second grade GAIR (Greater Aims in Reading) data. However, when they take the HCAT.20 (Higher Comprehensive Assessment Test) at the end of third grade their scores are below the proficiency ranges. Programs based on variables that are known to improve learning are being proposed for third grade students in an elementary school in an urban area in the northeastern United States. These include: teacher clarity, feedback, and teacher – student relationships. Teachers, district staff, school level administration, and the school principal, will be presented with data to assist them in specialized instruction and testing for tracking and modification. The goal is to raise the level HCAT.20 (Higher Comprehensive Assessment Test) scores of these students to equal or higher than the state average.

Applying Research on Effective Schooling in the Elementary School

Since 1969, NAEP (National Assessment of Educational Progress) assessments have been conducted periodically in reading, mathematics, science, writing, U.S. history, civics, geography, and other subjects. Between 1969 to the present reading and mathematics scores are still lagging behind in spite of some gains. The average reading scale score was 225, which was about five points higher than the national average. 35% of the students were proficient in reading, this was greater than the national average of 33%. We must begin preparing our students for success at a very early age. As the nation makes a shift towards common core standards we are even more compelled to be able to compete with the world and not just at the national level. The experience and education of successful elementary education teachers, especially those who mentor beginning teachers, can support in developing and identifying research based curriculum which will provide local schools and school districts with alternatives to traditional instruction.

Overview of the Context

The school district in this study is in an urban area in the northeast of the USA. It includes 23 elementary schools, 9 middle schools, 6 high schools, and 3 special schools. In 2011 1/4 of the elementary schools in this district scored below the state average. The state's parent educational level rate is low. 35% of their students do not graduate from high school.

The 2011-2012 School Grades Report indicates that while 62% of students are making learning gains in reading, only 55% of the lowest 25% are making gains in reading. The concern for student success has inspired a program that involves elementary teachers who have achieved outstanding learning results to use their skills as consultants for the district's 3rd graders with the goal of preparing them for increased academic achievement on the HCAT2.0. The specific

elementary school is within the district located in the urban, residential northeast area of the city. Student population is 350 with preschoolers comprising of 109 children; Ninety-four percent of students qualify for free lunch with 26.35% living below the poverty line.

The superintendent of schools, the board, and district administrative staff have dedicated themselves to improving the data results and are requiring data-driven research to be provided by school base staff in elementary schools. To achieve this goal as a veteran K-5 teacher and former reading coach, I have been asked to assist in creating, employing, and monitoring a research tested instructional model to achieve excellence in school and life for third graders. Using Hattie's 2009 (as cited in Huitt, Huitt, Monetti, & Hummel, 2009) criterion of effect size to establish which achievement teacher variables to consider for this project, it was determined teacher clarity (d = 0.75), teacher – student relationships (d = 0.72), and feedback (d = 0.73) should be employed to increase academic achievement for these third grade students.

Data Recommendations

Hattie (as cited in Huitt, Huitt, Monetti, and Hummel, 2009) identified the major categories of variables that impact student achievement including, home, school, district level personnel, and teachers. Of these factors, it is the teacher that had the most significant impact in improving student performance. Darling-Hammond (as cited in Huitt, Huitt, Monetti, and Hummel, 2009) pointed out classroom teachers are mainly responsible for student achievement. Hattie (as cited in Huitt et al, 2009) established that many school process variables related to student achievement. Those data in the form of formative evaluation be provided to teachers to help them in making decisions about classroom effectiveness. There is an old saying that it takes a village to raise a child. It is collaborative effort and all stakeholders are needed to implement programs that will raise student achievement, (Huitt, 1999).

Teacher Clarity

Teacher clarity may be defined as a way teachers present their information for student understanding Frymier and Wese (as cited in Rodger, Murray, and Cummings, 2007). Murray, Hines et al (as cited in Rodger et al, 2007) reported teacher clarity as a "set of specific low-inference teaching behaviors," (p. 92). Teacher clarity has consistent been shown to have positive results in student achievement.

> For example, Hines et al. (1985) measured specific teaching behaviors through teacher observations and reported that high clarity teaching behaviors strongly related to learner achievement and satisfaction included using relevant examples during explanation, reviewing material, and teaching in a logical, step- by-step manner. Other teaching behaviors reflecting teacher clarity and having an impact on student outcomes include signaling topic structure (Lorch et al., 1993; Murray, 2001), putting an outline on the board, using concrete examples, giving multiple examples, repeating difficult ideas, pointing out practical applications, and stressing important points (Murray, 1983), (Rodger et al, 2007, p. 92).

In a study conducted by Land and Smith (2001) confirmed that students taught with clear conditions achieved higher than the students with unclear conditions. The findings were statistically significant.

Teacher–student Relationships

Adults play a vital role in the cognition and development in the early childhood years. The quality of teacher- child interactions and relationships can either make for a positive or a negative experience and positive interactions may serve as a "buffers" or protective factor, (Office of Head Start, 2008). Building strong positive adult-child relationships as well as peer

ones can have a positive outcome on school readiness, life- long relationships, and academics. The promotion of adult-child relationships are important for three interconnected reasons: (1) social relationships is the base for life- long learning (2) social competence and academic success is interrelated, and (3) prevention of behavior and academic difficulties is more effective than remediation (Office of Head Start, 2008). Children who are "motivated and connected" to others in the early years of schooling are more likely to "establish positive trajectories" of development in both social and academic domains (Hamre & Pianta, 2001; Ladd, Birch, & Buhs, 1999; Pianta, Steinberg, & Rollins, 1995; Silver, Measelle, Essex, & Armstrong, 2005 as cited in Pianta, La Paro, & Hamre, 2008).

According to Kinchelo and Thayer-Bacon (as cited in Gordon, 2009), knowledge is not just sitting out there waiting to be discovered, but rather is constructed by people in their interaction with the world. This point brings to mind the constructivist theorist, Vygotsky and his theory the Zone of Proximal Development (ZPD) which indicates collaboration between the teacher and the student. This interaction with peers as well as with adults is an effective way of developing skills and strategies.

Positive relationships are important for the well-being of children. Teachers that provide many opportunities that indication the teachers and students enjoy warm, supportive relationships with one another is a highly effective teacher, (Pianta, La Paro, and Hamre, 2008). Teachers and children are comfortable with one another and enjoy spending time together will learn from each other. There are frequent smiles, laughter, and enthusiasm during the learning process. The teacher and students show mutual respect for each other in the display of their mannerism and language. Positive relationships with their peers are important as well. When

children form friendships with their peers it is very special to them, (Bukatko and Daehler, 2001).

Feedback

The last and most important variable to be considered when introducing a new research - based instruction model is Hattie's (as cited in Huitt et al., 2009) variable on feedback as a learning instrument. Hattie and Timerley (2007) defined feedback as a "consequence" of performance." The authors further states that feedback is conceptualized as information provided by an agent (e.g., experience, self, parent, book, teacher, peer) regarding aspects of one's performance or understanding. Providing feedback from experience can be in the form of activating someone's background knowledge or to add information. Self-talk (Pianta, can help clarify information. A teacher or parent can provide corrective information; a book can provide information to make things clearer. Perkins, (as cited in Huitt, Monetti, and Hummel, 2009) recognizes 4 instructional practices of instructional theory should include: clarity, practice, feedback, and motivation. First, instructions should be clear to the learner. Second, there must be multiple opportunities for the learner to practice the skills. Third, the learner must receive clear and explicit feedback. Finally, student must experience the behavioral aspect of reinforcement for doing well, effort, or succeeding. Such motivation can take the form of intrinsic or extrinsic. Intrinsic, "because they are very interesting and engaging in themselves, "or extrinsic, "because they feed into other achievements that concern the learner" Perkins (as cited in Huitt, Monetti, and Hummel, 2009, p.2).

The teacher gives students opportunities to try the learning, provide specific feedback and a chance to retry or refine the activity or lesson. As stated by McTighe, (as cited in Laureate Education, n.d.) instruction is not a one shot deal; wherein you teach, give the test and you are

done. Instead, the students must be given multiple opportunities with explicit feedback to really understand and learn the assignments. "They do not come from research or theory, but from our own lives and own experiences," McTighe (as cited in Laureate Education, Inc. n.d.). Vygotsky suggested that teachers use cooperative learning exercises where students that need support can receive feedback from more competent students. Vygotsky's belief that when a student is at the ZPD for a certain task, providing the appropriate help will give the student the confidence needed to complete or achieve the task.

Teacher clarity, teacher-student relationships cannot happen without concrete feedback. According to McTighe and O'Connor (2005), all types of learning, whether recreational or academic requires feedback. Wiggins (as cited in McTighe and O'Connor, 2005) reported that in order for feedback to serve a meaningful purpose it must meet four criteria: It must be given in a timely manner, specific, the receiver must be able to understand it, and fashioned to allow the student to self-adjust to it. First, feedback on strengths and weaknesses needs to be expeditious for the learner to improve. Waiting for more than two or three weeks to find out the outcome of an assignment does not help the student learning.

In addition, being specific is essential to helping students understand their successes and failures. McTighe and O'Connor (2005) stated that many educators consider grades and numerical scores as feedback. It may make a student feel proud, but it does not advance their learning. Specific feedback gives examples and explanations on how the student can improve the assignment to make it better. For example, a teacher might say "your paper contains good information, but it lacks organization." Then the teacher explicitly explains what is meant by lack of organization, by perhaps offering an outline for the student or some graphic organizer.

Hattie and Timperley's (2007) research into the meta-analysis that studies feedback concluded that it is one of the most powerful influences on learning and achievement. The feedback referred to here is of an informational nature. Kulhavy (as cited in Hattie and Timperley, 2007) stated that the feedback becomes new information rather than correction of the task.

Implementation

The three variables of teacher clarity, feedback, and teacher – student relationships have been selected for assistance in preparing Mazion Elementary School students for success in obtaining proficiency on the HCAT.20 (Higher Comprehensive Assessment Test2.0) at the end of third grade. Data have been presented to assist best practices in cultivating student learning with the goal of employing a more effective program. In order to achieve this success, all stakeholders such as, district officials, administrators, principals, and most importantly, the teachers must be involved in the process. Epstein, and Sanders, Henderson and Mapp, Roehlkepartain, Benson, and Sesma (as cited in Huitt, 2011) suggested that when a positive bond between the wider community and considers the home environment, the impact for preparing students for school and life is greater.

Tracking

According to Rodger et al, (2007) teacher clarity does not have a checklist or assessment measure. However, Pianta et al, (2008) has a tool called CLASS (Classroom Assessment Scoring System) that measures student-teacher interactions. In terms of accountability over a one- to two-year period the most obvious indicator of student success would be raising the third grade FCAT2.0 level scores to be equal to or higher than the district average. If the previously cited data are any indication, this can be accomplished within a short period of time after teacher

clarity, feedback, and student-teacher relationships are correctly implemented (Hattie and Timperley, 2007).

CLASS observational tool is based solely on interactions between teachers and students in classrooms. The observer observes the classroom for 20 minutes then leaves the classroom and score. The observer then returns to the classroom and observe for another 20 minutes, leaves and score. At the end of the day, the observer will meet with the classroom staff to discuss the observation. The observer will provide feedback on strengths and areas that need improvement. (Pianata et al, 2008). Another method of tracking would be to formulate a checklist for teacher clarity and the observer would perform observations in the classroom using the teacher clarity instrument. Raising the level scores on the HCAT.20 at the end of third grade, principal evaluation are the most effective evaluation of success or failure of teacher clarity, feedback, and teacher-student instruction methods. The school would perform the observations, encouragement from parents, the community, and support from the teachers and students.

Conclusion

Data-driven research is a powerful tool in helping to transform schools. With the ever evolving changes in education, such as common core it is crucial to prepare our young people for middle, high school, college, vocational education to be able to compete in the challenges of the 21st century. As an instructor in elementary education I have made a recommendation to reform K-3 grade curriculum which concentrates on variables proven to have a positive impact in improving education: teacher clarity, teacher-student relationships, and feedback. If properly implemented, these factors should improve learning achievement that can be confirmed through regular observations and evaluation. The backing from the teachers and the support from the administration staff in this endeavor is essential for its success.

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