Spotlight On Research

Editors' Message

We are living in an unprecedented time. Like many of you, we had to move to remote learning to complete the course delivery in the spring and for our summer courses. We greatly appreciate the understanding of our students as we are working with the challenges of delivery in remote learning and we hope you are staying safe and healthy.

This issue of *Spotlight on Research* features six doctoral students' dissertation studies. Topics addressed in these studies include student poverty, leadership team functions, work-study program, special education placement, generational differences, and STEM education.

The issue starts with Dr. Brumbaugh's case study which provided first-person account of experiences of those high school graduates who came from impoverished backgrounds but were able to overcome poverty themselves.

The second study featured in this issue is from Dr. Dail's dissertation that explored how school district leadership teams function in five areas, namely, a team's ability to trust, to commit, to handle conflict, to be accountable, and to be attentive to results.

We then present Dr. Hogue's study that examined a work-study program in a high school utilizing quantitative and qualitative data gathered from students, employers, parents, the instructor, and the principal who were involved in the program.

Next, Dr. Johansen analyzed the relationship between ninth-grade IEP eligible student placement and academic growth in the area of mathematics in his dissertation. The study brings further discussion on the academic benefits of special education placement.

Dr. Johnson's study explored how different generations of educational professionals perceived themselves and one another with regards to work ethic characteristics, teamwork abilities, and leadership abilities.

We end this issue with Dr. McKinnon's study that compared academic performance in reading, mathematics, and science among elementary school students who attended STEM and non-STEM schools in a large urban district.

We are hopeful the range of topics covered in this issue will capture interest and generate ideas and dialogues. Please feel free to share this issue with colleagues or to contact us or the authors about their research. Take care and stay well.

Dr. Bridget Sheng (Editor)
Dr. Carol Webb (Associate Editor)

A Study of the Educational Experiences that Can Disrupt the State of Poverty

Author: Adam J. Brumbaugh, Superintendent, Geneseo CUSD #228

Abstract
The purpose of this general qualitative case study was to analyze the educational experiences of students from impoverished backgrounds. The study identifies resources schools can offer to address the state of poverty that exists for students. In order to achieve this overall objective, the following research questions framed this study: 1.What factors influence a person from an impoverished background to improve their social-economic situation? 2. What educational resources, if any, influence a person from an impoverished background to improve their social-economic situation?

The school can be a mechanism to aid in the eradication of poverty for future generations if the school can incorporate programs, dedicate resources, and infuse a mentality that have assisted students in the past. Educational experiences can assist students who came from poverty. This study provides insight to educators who work with students from impoverished backgrounds. Through the examination of the past research and the findings of this study, there are 12 recommendations for educators and two recommendations for future research related to poverty and the resources schools can provide to address poverty for their students. The first six recommendations are made based on common themes jointly identified by the participants and the literature review. Six additional recommendations are made based on common themes identified by the literature review and the researcher's own experience of working in a school district that qualifies for the Community Eligibility Provision.

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Practical Implication
This study acquired first-person accounts from those who were impoverished, but now consider themselves out of poverty. The study identifies some of the obstacles that exist for those who come from impoverished backgrounds, from the perspective of the students who overcame poverty, and what they saw as being beneficial to them along the way. The review of the previous literature found research on the barriers that exist for impoverished students and the promising practices that aid in their journey out of poverty. However, the study found little on the personal experiences of those who overcame poverty. The hope is this study has combined the results of the previous research with the perceptions of what the participants felt was helpful to them so that schools can implement some of the suggestions to help their own students to remove poverty from their future lives.

Citation
Brumbaugh, A. J. (2018). *A Study of the Educational Experiences that Can Disrupt the State of Poverty.* (Doctoral dissertation). Retrieved from ProQuest Digital Dissertation Database. (Publication No. AAT 10787378).

Spotlight On Research

Effective Teamwork: Perceptions of School District Administrators

Author: Sara Dail, Assistant Superintendent, Sterling School District CUSD 223

Abstract

The mixed methods study examined the perceptions of school district administrators on their teams' ability to function in the constructs of trust, conflict, commitment, accountability, and attention to results. Additionally, this study sought to identify how team size, team gender ratio, and team members' age, position, and years of experience in administration affect perceptions in each of the team constructs. The study's participants were a selection of administrative teams in Illinois school districts. Survey and interview data were collected to explore how perception of team strengths and weaknesses present in school district leadership teams in light of the five team constructs.

Results indicated the wider the age range on the district leadership team, the lower the team perceives their ability to handle conflict, be accountable, and attend to results. When examining each of the five constructs, a participant's position on the team influenced their responses. Superintendents and assistant superintendents, in each construct, have a more positive perception of their team's function than do their district office staff and principals. Additionally, district office staff scored higher in each construct than principals. Results indicated team members' perceptions varied based on each member's position. Data analysis also revealed that administrative teams scored female superintendents higher in all five constructs than male superintendents.

Practical Implication

Overall results emphasized the importance of fostering teamwork and developing collaborative skills for each team member. Results indicated a need for teams to focus on the constructs of trust, conflict, commitment, accountability, and attention to results. Recommendations from the research support longevity in the superintendent position in order to foster all five constructs. When comparing previous research and the results of this study, one of the most surprising results was the value of conflict within each team. Successful teams valued conflict as a positive in order to better their ideas and unsuccessful teams, as measured by perception data, viewed conflict as negative and unwelcome.

Citation

Dail, S. J. (2018). *Effective Teamwork Perceptions of School District Administrators* (Doctoral dissertation). Retrieved from ProQuest Digital Dissertations Database (Publication No. AAT 10641526)

Spotlight On Research

Understanding Perceived Benefit for Students, Employers, and Parents Who Participate in Work Study Program

Author: Darryl Hogue, Superintendent, River Bend CUSD#2

Abstract

This case-study was conducted to understand why students participate in the Community Involvement work-study program, why employers continue to host students, and what the parents' perceptions are of their son or daughter's experience. The study gathered qualitative and quantitative data from students, employers, parents, the instructor, and the principal. Qualitative data included open-ended surveys, interviews, focus groups, and student artifacts. Quantitative data included analyzing Likert-type surveys, as well as GPA, attendance, and postsecondary enrollment plans of seniors both involved and not-involved in the work study program from 2015 through 2018.

The research demonstrated that students, employers, parents, the instructor, and the principal all found benefit by participating in the Community Involvement work-study program. The qualitative information collected highlighted the value found in the career exploration activities, lessons learned about day to day responsibilities of specific careers, lessons about postsecondary planning, and the development of meaningful relationships with the employer hosts. The quantitative portion of the study confirmed the positive impact on GPAs was a full letter grade higher for those enrolled in the Community Involvement program. The Community Involvement students missed on average seven days as compared to the non-Community Involvement students who missed on average 11 days. The Community Involvement Students were twice as likely to attend a two-or four-year college after high school when compared to those students not enrolled in the Community Involvement program.

Practical Implication

This study noted that students, parents, and employers all found benefit when participating in a work-study program. Both the qualitative and quantitative data support high schools that offer work-study type programming. Workforce development is a critical issue across the nation as employers see their workforce aging and few replacement options. Students get to experience a day to day view of potential careers. Students also learn a great deal about the training needed for specific careers. It is a school district's duty to help students prepare for their future. Work-study programs, such as this, are providing measurable benefits that school districts across the nation can replicate as they prepare students for future employment and assist employers with workforce development. Students, employers, and the school district all benefit when local schools and employers join forces.

Citation

Hogue, D. (2018). *Understanding, Perceived Benefit for Students, Employers, and Parents Who Participate in Work-Study Programs.* (Doctoral dissertation). Retrieved from ProQuest Digital Dissertations Database (Publication No. AAT 10934225).

Spotlight On Research

Least Restrictive Environment and Academic Growth: A Quantitative Study Exploring the Relationship Between Special Education Placement and Academic Achievement

Author: Kurt A. Johansen, Assistant Principal, Glenbard High School District #87

Abstract

The purpose of this study was to identify if there is a relationship between student placement within the special education continuum and academic growth in the area of mathematics at the ninth-grade level. In order to achieve this overall objective, the study gathered growth data from Northwest Evaluation Association's (NWEA) Measure of Academic Progress (MAP) over the course of a three-year period (2015-16, 2016-17, and 2017-18 school year). The MAP mathematics data were collected from ninth-grade IEP-eligible students in self-contained and integrated classrooms.

Descriptive and inferential statistics were utilized to determine if the academic growth observed in each of the settings (self-contained and integrated) was statistically significant in the area of mathematics. Additionally, the study examined if a relationship existed between special education placement and academic growth. The results of this study demonstrated that IEP-eligible students in both an integrated and self-contained mathematics classroom experienced significant growth when comparing fall to spring NWEA MAP assessment data. However, there was not a statistically significant difference in academic growth when comparing IEP-eligible students between settings.

Practical Implication

The results of this study did not definitively prove which special education setting provides the greatest opportunity for academic growth. However, it has on a limited scale provided data to show that ninth-grade IEP-eligible students are growing at a more rapid pace than the average ninth-grade student, regardless of the classroom placement. The impact of this growth raises additional questions as to how each cohort within this study was able to grow at a more rapid pace when being compared to NWEA's ninth-grade national norms in the area of mathematics. Furthermore, this study also brings to light the academic growth that can occur within both an integrated and self-contained setting. These results have the potential to create meaningful dialogue surrounding the academic benefits associated with special education placements, thus eliminating the perceived negative stigma associated with the idea that a self-contained mathematics class lacks academic rigor.
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The stark reality of these findings further enhances the need to truly base special education placement decisions on what is actually best for the student. Placement decisions should not be predetermined based on perceptions, nor should they be predetermined based on the desire to increase IEP-eligible students' enrollment in the regular education setting. There are many factors to consider when deciding which special education placement is right for students, but as this research demonstrates, the disparities in academic rigor may not be as wide as one may perceive.

Citation

Johansen, K. (2018). *Least Restrictive Environment and Academic Growth: A Quantitative Study Exploring the Relationship Between Special Education Placement and Academic Achievement* (Doctoral Dissertation). Retrieved from ProQuest Digital Dissertation Database. (Publication No. AAT 10973852).

Understanding Multi-Generational Perceptions of Educational Professionals

Author: Carl E. Johnson, Superintendent, Colona School District #190

Abstract

The purpose of this mixed methods study was to explore how different generations of educational professionals perceived themselves and one another, framed into the context of work ethic characteristics, teamwork abilities, and leadership abilities among and between three generations of educators: Baby Boomers, Gen Xers, and Millennials. The study's participants were K-12 public educators sampled from three regions of Illinois: the Northwest, Northeast, and Southeast regions of the state. This sample also provided a diversity of demographics.

This mixed methods study followed the explanatory sequential design by first analyzing quantitative data in an online survey format, then conducting individual interviews. It was guided by three research questions inquiring about workplace perceptions among generations: 1. What are the perceived work ethics of the various generations? 2. What are the perceived abilities of the various generations to work as a team? and 3. What are the perceived leadership abilities of the various generations? The results of this study allow educators to effectively highlight the differences and similarities in perceptions, thereby identifying strengths and weaknesses of the three generations.

The study found the way generations view themselves does not always align with the perceptions of other generations. Similarly, two generations may view a third differently in the workplace characteristics described in the research questions. Additionally, the variable of job type had significant findings when administrator responses were compared to all other educators. Several consistencies emerged in the data, particularly that of Millennials having a significantly higher self-perception when compared to the responses of Gen Xers and Baby Boomers. Results indicated Baby Boomer and Gen X responses were generally in agreement about both Millennials and one another.

Practical Implication

The results from this mixed methods study may assist future educators in identifying the strengths and weaknesses exhibited in the workplace as perceived by different generations. The qualitative data reinforced the quantitative survey findings, providing insights for both conclusions and future recommendations. Utilizing the findings from this study will allow educators of all generations to examine what it is we think about one another and provide educators the opportunities to improve inter-generational relationships.

Citation

Johnson, C.E. (2018). *Understanding Multi-Generational Perceptions of Educational Professionals* (Doctoral Dissertation). Retrieved from ProQuest Digital Dissertation Database. (Publication No. AAT 10811383).

Spotlight On Research

The Effect of STEM Education on Elementary Student Achievement

Author: *Felicia Renee McKinnon, Director of School Performance, Union County Public Schools, North Carolina*

Abstract

Using *ex post facto* research design, this study compared the educational outcomes of students attending 16 STEM and 16 non-STEM schools in a large urban district in Texas. The total sample included 1,337 fifth-grade students. The purpose of this study was to provide a quantitative analysis of reading, mathematics, and science achievement data for a three-year period. This study served as an extension of previous studies that generated insight into the impact of STEM education by examining achievement data in elementary schools.

Descriptive statistics were generated to compare student achievement as measured by state assessments of reading, mathematics, and science. Multiple analysis of variance statistical models were utilized to analyze data by school type, ethnicity, and gender. While most results showed proficiency and gain was comparable between STEM and non-STEM schools, there were some differences in proficiency showing statistically greater achievement in STEM-focused schools: (1) Fifth-grade students in STEM schools had significantly higher reading achievement than non-STEM peers, (2) Male students in STEM schools had significantly higher reading and mathematics achievement than their non-STEM peers, and (3) Black students in STEM schools performed significantly higher in mathematics compared to non-STEM peers. These results showed that STEM education may be an impetus for addressing disparity across minority and male subgroups in elementary schools; however, findings did not show that minority student achievement in STEM schools reached parity with White counterparts. Although STEM school students had higher average science proficiency, there was not a significant difference by school type, ethnicity, or gender.

Practical Implication

STEM education is a national education and workforce development priority, and there is a need to increase diversity in the STEM workforce. One strategy to increase the pipeline is to introduce STEM programs in elementary schools. While the findings from this study were not intended to substantiate a specific model of STEM education, findings are a catalyst for providing STEM experiences earlier and enhancing K-12 STEM programs.

The research methods utilized in this study may serve as a tool for educational leaders to examine results and identify performance indicators, which will be important for replicating STEM practices across multiple schools. Educational leaders may also explore ways to strengthen educators' professional learning opportunities and licensure requirements when expanding STEM education to elementary schools. While there were mixed results, educational leaders may be prompted to examine long-term student achievement effects of students who attend STEM schools at multiple levels of K-12 education.

Citation

McKinnon, F.R. (2019). *The Effects of STEM Education on Elementary Student Achievement* (Doctoral dissertation). Retrieved from ProQuest Digital Dissertation Database. (Publication No. AAT 10981603)