Effect of Blended Learning on Assessment Results for the Severly Disabled Student in New Jersey

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Introduction

Education in the United States continues to be a social, political, and economic issue (Picciano & Seaman, 2007). Inclusionary opportunities and practices have expanded over the past quarter century as social demands against the separation of the disabled student from the regular setting have gathered positive support (Odom, Buysse, & Soukakou, 2011). The successful inclusion of all students requires meaningful participation in the regular education setting supported through innovative options for success (Trotter, 2008). As schools increase the use of educational technology to enhance instruction and serve students in and out of the classroom, online learning in various configurations have been looked at by some as one possible answer (Cavanaugh & Hargis, 2010). Online learning has been defined as within the K-12 environment as “education that is content and instruction delivered primarily over the Internet” (Greer, Rowland, & Smith, 2014).

The growth of online education has also sparked questions as to which students benefit from its application (Lyons & Arthur-Kelly, 2014). How the country handles growing concerns surrounding the delivery of educational content to students will require an understanding of the populations that are being instructed (Odom et al., 2011). One method of instruction that has, in the past two decades, gained considerable attention as an anticipated answer is Blended Learning (Horn, 2015). Picciano and Seaman (2009), in support of Christensen, Horn and Johnson (2011), never questioned the sizeable role that blended learning will have in the approaching educational landscape; their disagreement was with the projected date.

With the increase in inclusive educational practices for students with severe disabilities (Justice, Logan, Lin, & Kaderavek, 2014), this research paper seeks to answer the question: Are the standardized assessment results of students with severe disabilities higher on New Jersey state mandated test when blended learning is used in an entirely inclusive program?
Statement of the Problem

The growth of blended learning continues to impact the changing delivery of knowledge to students in all education settings (Hashey & Stahl, 2014). The majority of the research as to the effectiveness of use has been centered on Higher Education (Dziuban & Picciano, 2008). The potential benefits for students in K-12 programs has more recently been addressed in the use of blended learning (Johnson, Adams Becker, Estrada, & and Freeman, 2015). The growth in inclusionary practices makes the question of outcomes assessment relevant and imperative for those dealing with students with severe disabilities.

Purpose of the Study

The purpose of this quantitative study will be to test the theory of Disruptive Innovation Education that examines the effect of blended learning on academic achievement of students with severe disabilities.

The independent variables BL instructional methods will be defined as “combining face-to-face instruction with computer-mediated instruction.” (Bonk, Graham, Cross, & Moore, 2006). The dependent variable state assessment results will be defined as academic achievement. (State of New Jersey: Department of Education, 2014).

The principal purpose of this study will be to compare the academic assessment outcomes for students with significant disabilities in full inclusive programs using blended learning against those in a strictly face-to-face full inclusive setting. Full inclusion school settings (urban, rural or suburban in New Jersey); age groups as determined by grade equivalent New Jersey state testing (3rd, 4th-8th, 9th-12th); student Individualized Education Plan determination for placement and assessment; and assessment results on state testing will be compared.

Theoretical Framework
The theorists Vygotsky, Gardener and Wenger and Lave in their development of theories on constructivism, multiple intelligence and situated learning offer a theoretical framework for supporting inclusion of students with disabilities in blended education (Gardener, 1983; Vygotsky, 1978; Wenger & Lave, 1991). The disruptive education theory (Christensen, 2011) adds a call for “customized learning in student-centric classrooms” with tailored learning practices in education as an answer to technology innovations shifting delivery options in schools (p.37).

**Research Question**

What effect does blended learning have on the assessment results on the subgroup of students identified as significantly disabled in full inclusive public schools in New Jersey?

**Null Hypothesis**

Blended learning, in the state of New Jersey does not significantly increase assessment results for the subgroup of students with significant disabilities in full inclusive public school settings over strictly face-to-face instruction.

**Hypothesis**

The use of BL in fully inclusive schools in New Jersey will increase state assessment results for students with significant disabilities over those in a placement using strictly face-to-face instruction.

**Independent and Dependent Variables**

Independent Variable: Use of blended learning with subgroup of students with significant disabilities in fully inclusive schools.
Dependent Variable: State assessment scores for subgroup of students with significant disabilities in fully inclusive schools.

Significance of the Study

With some researchers estimating blended learning to provide 50% of the educational routes for high school by the year 2019 (Christensen, 2011), how the student with a significant disability within this situation is addressed requires a clear plan of action to increase the possibilities of gains in academic obtainment. This research will meet the void in the research literature on this area by focusing on the current data for inclusionary practices of students with significant disabilities framed in an accounting of the percentages accruing in public schools within the state of New Jersey providing full inclusive practices. New Jersey as demonstrated in the states 2010 census, is in line with the population changes by ethnicity with the remainder of the country. This research poses that results of this study would be similar within states of like size and population dynamics, thereby, proving an impetus within the research literature to effect change to our current system. The need for future research to replicate this study would be enhanced through the inclusion of data including the entire United States.

Statement of Resources

A correlational study using data collected from New Jersey state records on the number of full inclusive education programs currently serving students with significant disabilities will be gathered. A secondary level of data will be assembled on the use of blended learning in those schools meeting the criteria stated in the first round of data collected, including the subgroup in blended learning practices. Lastly, data from the state formal assessment measures The Partnership for the Readiness for College and Careers (PARCC) and the Dynamic Learning Maps (DLM) are the state approved assessment measurements for all students. Dynamic Learning Maps has been provided as the alternate New Jersey measurement approved to assess significantly disabled students identified as not appropriate for the regular test with accommodations within their Individualized Educational Plan. All available students’
results from both measures in New Jersey will be analyzed using statistical software and compared to the results in relation to those found within the specific groups of full inclusive settings, BL programs, and students with significant disabilities participating in BL programs.

Methodology

Philosophical Framework

A post-positivist philosophical framework, as described in Creswell (2014) will be the base for this study. The results will also test the theories of Situated Learning (Lave & Wenger, 2003), and Disruptive Innovation Education (Christensen, 2011) as a framework for instructional decisions supporting students with significant disabilities in inclusive settings.

Research Approach and Design

A correlation study research approach will be employed to determine the relationship between the variables; effect of blended learning on student assessment results, and students with significant disabilities New Jersey state assessment results to determine the correlation coefficient. The state of New Jersey assesses all students in grade levels 3rd to 8th in the areas of English Language Arts, and Mathematics with Science being assessed at the pivotal grades of 4th, 8th, and 10th. This provides for a substantial pool of participants supporting the acceptable amount of data to analyze for effect size.

Research Method

To ascertain the effect of blended learning on the assessment results for students with significant disabilities in full inclusive education environments. The assessment results from the state testing measures, PARCC and DLM which were initiated in the 2014-15 school year, will undergo analysis for the two-year span over which the information is accumulated 2014-2016. The data will be gathered at the completion of the yearly Spring testing cycle in 2015 and again in 2016. The results of all students determined valid will be tabulated. Utilizing a culling system based on adherence to the acceptable results
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guidelines approved by the state of New Jersey. The use of a statistical analysis computer program will be used to compare volume of data. A correlation coefficient from -1.00 to +1.00 will be used to weigh the results.

References

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