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**AN INTERNATIONAL PEER-REVIEWED
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Editor's Perspective



The March 31, 2018 edition of the Economist contains a special report on artificial intelligence and its use for product recommendations, targeted advertising, forecasting, and the tracking of human emotions, choices and interactions at work. Also, in the April 2018 issue of the Smithsonian, Stephan Talty recalls how a few dozen scientists and mathematicians gathered for a meeting on the campus of Dartmouth College to discuss a new discipline, so new, it did not have a name. They described the discipline as building a machine that could think.

In Hanover, New Hampshire, during the month of June, 1956, none of the scientists could envision how disruptive and pervasive artificial intelligence would become. Nor could they predict the giant economic value they were about to create for such companies as Google, Amazon, Microsoft, Apple, and IBM in North America or how quickly China would move to the forefront of artificial intelligence applications in companies such as Alibaba and Baidu.

Clearly, within the next ten years standardized tests will be obsolete in education since they can do no more than place a student in a position under a bell shaped curve that depicts how such a student performs on a single test in comparison to his or her peers. Who will care about such primitive information about the learning a child or student experienced? If artificial intelligence software in a small bracelet worn by a worker at Amazon can assess the moods and the quality of interactions this person is having with other workers and even predict decisions the workers will make, surely, students at school can use such devices to reveal where they are in a learning event to their teachers.

Imagine students at school revealing to their teacher's wrist band as they move within a play group activity, interact with peers, and respond to professional guiding prompts what they know and what they do not understand. By the choices students make and the mood or feelings they signal, teachers will know better how to help them learn. Currently, personalized learning is a concept managed with very primitive tools and neophyte software in our schools.

Rather than playing with primitive tools and very limited testing platforms that waste enormous amounts of learning time in our schools, we should be expanding the skills of our teachers. We should be opening our students to many diverse forms of learning in the arts, music, story telling, film, animation, science explorations and problem solving using mathematical techniques. Every child in school should have a guide for his or her personal learning curve who exhibits confidence in the child's capacity to learn.

No one in the second half of the 21st Century will care where a child is placed within a bell shaped curve of student performers on a single test. All service providers will use artificial intelligence to identify personal needs and preferences that guide responses to the individual supplicant seeking a product, experience or support. Schools across the nation with billions of dollars in textbook and technology purchases annually will be targets for entrepreneurs who employ artificial intelligence to advance personal learning. Educators will have to answer several critical questions to protect their students and to do no harm:

1. How will we ensure a humane world for our children?
2. How will the arts, dance, music, film, live theatre, human history, science and math enrich the lives of our students?
3. What ethical principles will we adopt to guide our work with children?

In this edition of the Journal for Leadership and Instruction, our authors explore instructional technology and the challenges to prepare students for college and career opportunities.

Patti Cantamessa, a nurse educator, who completed her research studies at Case Western Reserve University, reports on the current status of nurse educators' knowledge of the best practices in online pedagogy.

Wendy Gladstone-Brown, a college instructor of student teachers, presents a personal case analysis of how college faculty can practice and guide future educators in their preparation for co-teaching students with and without disabilities in a single classroom.

Margaret Laskowski, a researcher at Long Island University-Post, presents an interesting exploratory study of the use of technology supports for individuals in New York State. Her study points out many areas of research that should be undertaken to support people with disabilities in their daily lives.

In the section, From the Field, Charles Russo, superintendent of schools in East Moriches School District presents a case analysis of the collaborative efforts teachers and administrators undertook to prepare students to meet college and career ready standards.

We hope that you value the insights our authors offer. We encourage all professionals in leadership and instructional roles across the globe to submit their research for peer review and publication in our journal. Please submit your article to ccosme@scopeonline.us.

Robert J. Manley,

Editor-in-Chief

Nurse Faculty Knowledge of Best Practices in Online Pedagogy

By Dr. Patti Cantamessa, DNP, MS, RN

Abstract

The purpose of this cross-sectional, correlational study was to investigate nursing faculty knowledge of best practices in online pedagogy, and to examine the relationship among nursing faculty characteristics and use of best practices. The framework for this study was based on Roger's diffusion of innovation theory. A convenient sample of 154 nursing faculty participated in the study from a total sampling of 824 nursing faculty who teach in accredited nursing programs in New York State. An online survey was used to deliver the survey to study participants.

Nursing faculty reported that they have a moderate knowledge of the approaches and strategies used in the delivery of online pedagogy. There were no relationships between nursing faculty characteristics and best practices. Results from this study can be used in the creation of a faculty development program to assist nursing faculty members in the development and application of best practices for online pedagogy.

Background

Best practices in online pedagogy help to ensure that learners are receiving a high quality education that follows the standards of higher education and professional practice (Mancuso, 2009). The Institute of Medicine (IOM) recommends that nurses achieve higher levels of education to ensure the delivery of safe, patient-centered care across all settings (Institute of Medicine, 2011). Nurses who desire to obtain higher degrees have reported that barriers such as finances, family responsibilities, and increased age have prevented them from returning to school (Kovner, Brewer, Katigbak, Djukic, & Fatehi, 2012). Also mentioned as barriers to the pursuit of a higher degree in nursing were lack of time, lack of confidence, conflicting work schedules, and geographic location (Morganthaler, 2009). The American Association of Colleges of Nursing (AACN) commends the use of online pedagogy in nursing education as an accessible option for the working adult who is a typical student in undergraduate nursing programs (American Association of Colleges of Nursing [AACN], 1999).

The benefits of online education as a mode of delivery have been documented to include increased student motivation (Magnussen, 2008), mastery of learning (Kala, Isaramalai, & Pohthong, 2010; Legg, Adelman, Mueller, & Levitt, 2009), consistent delivery of curriculum (Patterson, Krouse, & Roy, 2012), as well as convenience (Du et al., 2013). Regardless of these advantages the integration of online education as a mode of delivery continues to challenge nursing educators (Kala et al., 2010) even though its use has been advocated for the last two decades.

Theoretical framework

Everett M. Rogers' "Diffusion of Innovation Theory" (Rogers, 2003) was used to guide this study. The core assumptions of innovation theory propose a causal chain between the conditions which will increase or decrease the likelihood that an innovation will be adopted and the adoptees' perception of the innovation (Rogers, 2003). Diffusion of innovation theory concepts allow for exploration of how new information is accepted or rejected by prospective users (Dearing, 2009).

The innovation-decision process is described by Rogers (2003) as, "an information-seeking and information-processing activity, where an individual is motivated to reduce uncertainty about the advantages and disadvantages of an innovation" (Rogers, 2003, p. 172). According to Rogers (2003) the knowledge stage is the beginning of the innovation-decision process. During this stage an individual learns about the existence of the innovation and begins the process of learning more about the innovation (Sahin, 2006). The main activity of the knowledge stage is cognition. Rogers (2003) also proposes that there are characteristics of an innovation that help to decrease uncertainty for the individual who may be considering adopting them. These characteristics include, (1) relative advantage, (2) compatibility, (3) complexity, (4) trialability and (5) observability. Sahin (2006) reports that innovations which contain all of these characteristics are much more likely to be adopted by faculty members (Sahin, 2006).

The second stage of the innovation-decision process is the persuasion stage. Rogers (2003) describes the individual as “forming a favorable or unfavorable attitude toward an innovation” (Rogers, 2003, p. 174) in the second stage of the process. During the persuasion stage the individual will actively seek out new information about the proposed innovation so that they may generate a perception of the innovation (Rogers, 2003). The main activity in the persuasion stage is affective. The third stage of the innovation-decision process is the decision stage. Rogers (2003) describes the decision stage as, “engaging in activities that lead to a choice to adopt or reject an innovation” (Rogers, 2003, p. 177). Rejection or adoption of an innovation essentially depends on individual perception of the usefulness of the innovation, however, culture may also influence an individual’s decision (Rogers, 2003). During the implementation stage an individual “puts an innovation to use” (Rogers, 2003, p. 179). During this stage reinvention also occurs. Reinvention is described by Rogers as, “the degree to which an innovation is changed or modified by a user in the process of its adoption and implementation” (Rogers, 2003, p. 180). The final stage of the process is the confirmation stage which describes that the individual, “seeks to avoid a state of dissonance or to reduce it if it occurs” (Rogers, 2003, p. 189).

The knowledge stage of the diffusion of innovation theory is particularly appropriate for this study as it explains how an individual gains understanding of how a new idea will function. It is necessary to identify the faculty member’s level of knowledge of best practices in online pedagogy. This information is necessary for the eventual creation of a faculty development program that will provide information to faculty about best practices in online pedagogy and assist nursing faculty members in the application of best practices in their distance education courses.

Review of the literature

The recent nursing literature is occupied with descriptions of web-based technologies used in nursing education (Billings, 1999; Billings, 2000; Billings, 2007; Du et al., 2013) as well as perceived barriers and benefits in the use of online pedagogy (Adams & Timmins, 2006; Billings, 2007; Billings & Rowles, 2001; Lu, Lin, & Li, 2009; McAllister & Mitchell, 2002; Yu & Yang, 2006), however, there is not enough evidence to support online pedagogy as being more superior to traditional modes of delivery (Bloomfield et al., 2010; Chiu et al., 2009; Lu et al., 2009; Levinson, Weaver, Garside, McGinn, & Norman, 2007). Randomized controlled trials (RCT’s) of online pedagogy in the nursing literature focus heavily on its effectiveness as a modality versus traditional methods of instruction on the acquisition of clinical skills (Bloomfield et al., 2010; Chiu et al., 2009; Fernandez Aleman, Carillo de Gea, & Rodriguez Mondejar, 2011; Lu et al., 2009). In the RCT’s reviewed, the acquisition and retention of knowledge in handwashing (Bloomfield et al., 2010), assessment skills (Chiu et al., 2009), intramuscular injections

(Lu et al., 2009), and medication administration, basic life support, wound care and related others (Fernandez Aleman et al., 2011) were evident. Similarly, they illustrate additional benefits to the use of online pedagogy which include student excitement about learning (Lu et al., 2009), more control over individual learning (Chiu et al., 2009; Levinson et al., 2007; Lu et al., 2009), and higher student satisfaction in the learning process (Bloomfield et al., 2010; Chiu et al., 2009; Fernandez Aleman et al., 2011). Negative discoveries universally describe challenges with technology for both learners and facilitators (Chiu et al., 2009; Lu et al., 2009), lack of human contact and feelings of isolation (Grant & Thornton, 2007; Kala et al., 2010), as well as increased time commitment (Grant & Thornton, 2007; Simonson, Schlosser, & Orellana, 2011).

Several studies link Rogers’ diffusion of innovation theory to nursing education, (Starkweather & Kardon-Egren, 2008; Melnyk & Davidson, 2009), as a framework for adoption of innovative pedagogy (Doran et al., 2010), as well as a model for organizational change (Melnyk & Davidson, 2009; Jeanette, Parker, Nadeau, Pelayo, & Cook, 2012).

Purpose of the study

The purpose of this study is to identify faculty knowledge of best practices in online pedagogy. This information is necessary for the eventual creation of a faculty development program that will assist nursing faculty members in the application of best practices in their distance education nursing courses.

Research questions

1. What are faculty member’s knowledge of best practices in online pedagogy?
2. Are there differences in the knowledge of best online pedagogical practices among faculty members who have more teaching experience compared to faculty members who have less teaching experience?

Methods

Research design

This study was conducted using a cross-sectional correlational design. This type of design allowed for the examination of relationships between two or more variables at one point in time (Polit & Beck, 2014). Correlational research provides an effective means for describing participant thoughts, opinions, and feelings (Shaugnessey, Zechmeister, & Zechmeister, 2002).

Setting

The setting for this study was the internet. Faculty members from accredited nursing programs in New York State according to the Office of the Professions and the

New York State Education Department (New York State Office of the Professions, 2014) were surveyed. The survey was internet-based and the study participants were able to access the survey from any device with an internet access.

Population and sample

The population for this study were nursing faculty members teaching in accredited nursing programs in New York State. The nursing programs had to be accredited by either the Accreditation Commission for Education in Nursing (formally the National League for Nursing Accrediting Commission; ACEN) or the Commission on Collegiate Nursing Education (CCNE). There are a total of 47 accredited nursing programs in New York State. From these programs, 824 potential participants who met the inclusion criteria were invited to participate in this study. Inclusion criteria for this study required nursing faculty members to be teaching in an accredited program and have experience teaching in the online environment. Teaching experience was defined for this study as having delivered any course content (synchronous, asynchronous, or blended learning) to a nursing student other than the traditional face-to-face format.

Instruments

Demographic and background data

The demographic data questions included age and ethnicity. The background data questionnaire included questions related to characteristics of respondents and characteristics of their faculty role.

Quality Standards Inventory (QSI)

The Quality Standards Inventory (QSI) was a collaborative effort between Egerton and Posey (Egerton & Posey, 2002). It has five subscales; Instruction (7 items), Facilitation (6 items), Interaction (10 items), Self-Direction and Motivation (6 items), Assessment and Feedback (8 items) which are scored on a 4-point Likert scale format that scores from Always (4) to Rarely/Never (1). The reliability of the QSI was validated by Egerton (2007) in her developmental dissertation. The QSI exhibited a high psychometric reliability with an overall Chronbach's alpha score of .94. The inter-reliability of the sub-scale coefficients were: Instruction ($\alpha = .71$), Facilitation ($\alpha = .91$), Interaction ($\alpha = .80$), Self-Direction and Motivation ($\alpha = .87$) and Assessment and Feedback ($\alpha = .85$) which also indicate good reliability of the instrument. In this study the chronbach alpha co-efficient for the QSI was .94. The inter-reliability of the coefficient for each of the subscales was follows: Instruction ($\alpha = .79$), Facilitation ($\alpha = .87$), Interaction ($\alpha = .79$), Self-Direction and Motivation

($\alpha = .85$), and Assessment and Feedback ($\alpha = .81$). Permission to use this open access instrument was received from Dr. Emily Egerton.

Results

Response rate

A total of 154 nursing faculty members who teach in accredited nursing programs in New York State participated in this study. A total of 824 surveys were sent via the internet using the Survey Monkey software program. A total of 154 were received for a response rate of 18.7%. Of those 154 responses, 102 (12.4% of the total sample) were included in the data analysis. Fifty-two responses (33.7% of total responses) were excluded from the data analysis because the responses returned had more than 10% missing from the QSI.

Faculty members' knowledge of best practices in online pedagogy

The total mean score of the QSI in this study was 2.32 (SD = .45). The mean scores for each of the subscales were Instruction 2.43 (SD = .50), Facilitation 2.22 (SD = .62), Interaction 2.28 (SD = .44), Self-Direction and Motivation 2.26 (SD = .63) and Assessment and Feedback 2.39 (SD = .46). Results indicate that faculty knowledge of best practices vary equally across the QSI and the five subscales and that participants have a moderate level knowledge of best practices in online pedagogy.

Differences in the knowledge of best practices among faculty members who have more teaching experience compared to faculty members who have less teaching experience.

The average years of teaching experience was 14.75 (SD = 10.40) with a range from 1 to 45 years. A total of 102 participants were included. Group 1 (≤ 17 years of teaching experience) equals one to fifteen years ($n = 65$) and Group 2 (> 17 years of teaching experience) equals 18-45 years ($n = 37$).

The mean score of the QSI in this study was 2.29 (SD = .32), for faculty members who have more teaching experience. The mean score of the QSI in this study was 2.33 (SD = .52), for faculty members who have less teaching experience. To examine the difference between the two groups a *t* test was conducted on QSI by group (faculty members with more teaching experience versus faculty members who have less teaching experience). Results indicated that there is no statistical significance between faculty members who have more teaching experience ($2.29 \pm .32$) compared to faculty members who have less teaching experience ($2.33 \pm .52$), $t(100) = .415$, $p = 0.679$.

Discussion

Faculty members' knowledge of best practices in online pedagogy

The researcher found that faculty knowledge of best practices vary equally across the QSI and the five subscales. The results of this study indicated that faculty members perceive that they have a moderate level of knowledge of the approaches and strategies used in their delivery of online pedagogy. These results support the knowledge stage of Rogers (2003) diffusion of innovation theory which states that individuals can be exposed to an innovation but still lack complete information about the importance of the innovation in question. This type of awareness-knowledge or knowledge that an innovation exists (Rogers, 2003) is the first step in the creation of a faculty development program to assist nursing faculty in the enhancement and application of best practices.

This sample reported an average of 14.75 years of teaching experience spending greater than fifty percent of their time teaching in the online environment. It is interesting to note that regardless of the amount of time spent teaching in the online environment results across the subscales indicate that best practices are used moderately. This finding indicates that there is a need for ongoing faculty development in order for faculty to increase their use of best practices from a moderate level (2.2-3) to a higher level (3.1-4) in order for more active, student-centered instruction to occur.

The literature supports that students are able to create a deeper understanding of information when it is delivered using active, student-centered techniques which further promote student engagement and self-directed learning (Wolff, Wagner, Poznanski, Schiller, & Santen, 2015). The shift to an active, student-centered learning environment places the onus of learning in the hands of the student which encourages student ownership of their learning goals (Stevenson & Gordon, 2014).

The use and effectiveness of online pedagogy as a mode of delivery in nursing education continues to be scrutinized. The recent nursing literature is occupied with descriptions of web-based technologies used in nursing education (Billings, 1999; Billings, 2000; Billings, 2007; Du et al., 2013) as well as perceived barriers and benefits in the use of online pedagogy (Adams & Timmins, 2006; Billings, 2007; Billings & Rowles, 2001; Lu, Lin, & Li, 2009; McAllister & Mitchell, 2002; Yu & Yang, 2006). However, there is not enough evidence to support online pedagogy as being more superior to traditional modes of delivery (Bloomfield et al., 2010; Chiu et al., 2009; Lu et al., 2009; Levinson, Weaver, Garside, McGinn, & Norman, 2007).

Differences in the knowledge of best practices among faculty members who have more teaching experience compared to faculty members who have less teaching experience.

This study found no statistical difference in the QSI scores between faculty members who have more teaching experience compared to faculty members who have less experience. The literature supports that implementing technological change without a guide for adoption will interfere with the implementation process (Doyle, Garrett, & Currie, 2014). Faculty members who lack knowledge of the online environment are not able to create the supportive milieu that is required in the absence of a physical presence (Mancuso, 2009). Faculty perceive their teaching expertise at the novice and advanced beginner level of instruction regardless of the number of years of experience teaching in a traditional format (Ali et al., 2005; Johnson, 2008).

Limitations

Methodological limitations to this study include the use of a convenient sample in a cross-sectional study. Nursing faculty members in New York State may have teaching characteristics that are not representative of the population of all nursing faculty members. This limits the ability to generalize the study findings to nursing faculty members in other states.

Implications for education

Assessment of faculty knowledge of online pedagogy is the initial step in the creation of a faculty development program to assist nursing faculty members in the development and application of best practices. Faculty require knowledge, confidence, and skills in the online arena in order to enhance their teaching expertise, regardless of their years of teaching in the traditional format. The promotion and implementation of high quality practices in online pedagogy will improve knowledge and the likelihood of a deeper understanding and eventual implementation of the best practices. Faculty development is paramount as the success or failure of an innovation depends on the individuals responsible for implementing the change (Ali et al., 2005). Evidence to support faculty knowledge of best practices prior to a faculty development program allows for tailoring of content based on the strengths and weaknesses of program participants. The results of this study can be used as a framework for the development of specific strategies to increase faculty use of best online pedagogical practices from a moderate level (2.2 - 3) to a higher level (3.1 - 4). More student-centered instruction when faculty employ the best online pedagogical practices should lead to more active learning for nursing students.

References

- Adams, A., & Timmins, F. (2006). Students views of integrating web-based learning technology into the nursing curriculum - a descriptive survey. *Nurse Education in Practice*, 6(1), 12-21.
- Billings, D. (2000). A framework for assessing outcomes and practices in web-based courses in nursing. *Journal of Nursing Education*, 39(2), 60-7.
- Billings, D. M. (1999). The 'next generation' distance education: beyond access and convenience. *The Journal of Nursing Education*, 38(6), 246-247.
- Billings, D. M. (2007). Distance education in nursing, 25 years and going strong. *Computers, Informatics, Nursing*, 25(3), 121-3.
- Billings, D. M., & Rowles, C. J. (2001). Development of continuing nursing education offerings for the World Wide Web. *Journal of Continuing Education in Nursing*, 32(3), 107-113.
- Bloomfield, J., Roberts, J., & White, A. (2010). The effect of computer assisted learning versus conventional teaching methods on the acquisition and retention of handwashing theory and skills in pre-qualification nursing students: a randomized control trial. *International Journal of Nursing Studies*, 47(3), 287-294. <http://dx.doi.org/10.1016/j.ijnurstu.2009.08.003>
- Chiu, S., Cheng, K., Sun, T., Chang, K., Tan, T., Lin, T., ... Yeh, S. (2009). The effectiveness of interactive computer assisted instruction compared to videotaped instruction for teaching nurses to assess neurological function of stroke patients: A randomized controlled trial. *International Journal of Nursing Studies*, 46, 1548-1556. doi.org/10.1016/j.ijnurstu.2009.05.008
- Doran, D. M., Haynes, R. B., Kushniruk, A., Straus, S., Grimshaw, J., Hall, L. M., Dubrowski, A., Di Pietro, T., Newman, K., Almost, J., Nguyen, H., Carryer, J. and Jedras, D. (2010), Supporting evidence-based practice for nurses through information technologies. *Worldviews on Evidence-Based Nursing*, 7: 4-15. doi:10.1111/j.1741-6787.2009.00179
- Fernandez Aleman, J. L., Carillo de Gea, J. M., & Rodriguez Mondejar, J. J. (2011). Effects of competitive computer-assisted learning versus conventional teaching methods on the acquisition and retention of knowledge in medical surgical nursing students. *Nurse Education Today*, 31, 866-871. doi.org/10.1016/j.nedt.2010.12.026
- Grant, M. R., & Thornton, H. R. (2007). Best practices in undergraduate adult-centered online learning: Mechanisms or course design and delivery. *Journal of Online Learning and Teaching*, 3(4). Retrieved from <http://jolt.merlot.org/vol3no4/grant.htm>
- IJeanette, M., Parker, R. A., Nadeau, J., Pelayo, L. W., & Cook, J. (2012). Developing nurse educator competency in the pedagogy of simulation. *Journal of Nursing Education*, 51(12), 685-91. doi: 2098/10.3928/01484834-20121030-01
- Levinson, A. J., Weaver, B., Garside, S., McGinn, H., & Norman, G. R. (2007). Virtual reality and brain anatomy: a randomized trial of e-learning instructional designs. *Medical Education*, 41, 495-501. doi:10.1111/j.1365-2929.2006.02694.x
- Lu, D., Lin, Z., & Li, Y. (2009). Effects of a web-based course on nursing skills and knowledge learning. *Journal of Nursing Education*, 48(2), 70-77.
- McAllister, M., & Mitchell, M. (2002). Enriching learning using Web and computer technologies: how to throw caution to the wind. *Nurse Education in Practice*, 2(2), 125-132.
- Sahin, I. (2006). Detailed review of Rogers' diffusion of innovations theory and educational technology-related studies based on Rogers' theory. *The Turkish Online Journal of Educational Technology*, 5(2), 14-23. Retrieved from <http://www.tojet.net/articles/v5i2/523.pdf>
- Simonson, M., Schlosser, C., & Orellana, A. (2011). Distanced education research: A review of the literature. *Journal of Computing in Higher Education*, 23, 124-142. doi: 10.1007/s12528-011-9045-8
- Starkweather, A., & Kardon-Egren, S. (2008). Diffusion of innovation: Embedding innovation into nursing curricula. *International Journal of Nursing Education Scholarship*, 5(1), 1-11.
- Yu, S., & Yang, K. F. (2006). Attitudes toward web-based distance learning among public health nurses in Taiwan: a questionnaire survey. *International Journal of Nursing Studies*, 43(6), 767-774.



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Staging Co-teaching: An Investigation of College Faculty Leading a Course on Collaboration for Inclusion

By Wendy Gladstone-Brown, Ed.D

Abstract

The following qualitative auto-ethnographic study examined the experience of two co-teaching faculty, one in childhood education and one in special education, as they planned and implemented a co-teaching model to prepare teacher candidates for inclusion. As a result of the Individuals with Disabilities Education Act (1990), schools have implemented a greater number of inclusion settings and co-teaching models. This rise in co-teaching opportunities has increased the probability of new teacher candidates being placed in collaborative settings for their fieldwork experiences, student teaching placements, and eventually paid teaching positions.

There has been little research about how college instructors prepare teacher candidates for co-taught settings. Methods were reviewed by comparing and contrasting data, revealing trends as well as the confirmation of beliefs and practices. The main themes that emerged included the following: "Building Relationships", "Implementing a Co-teaching Pedagogy", "Modeling of Co-teaching Pedagogy", "Negotiating Roles, Responsibilities and Parity while Co-teaching", and "Setting the Stage and Using Space". The results of this study indicate that co-teaching faculty in a school of education who demonstrate and model how they negotiate building a relationship, roles and responsibilities, co-teaching pedagogy, and staging and space, provide teacher candidates with the opportunity to see co-teaching in action and provide opportunities to reflect upon, practice and better understand the complexities of co-teaching for faculty as well as for teacher candidates.

Introduction

This qualitative study examined the experience of two co-teaching faculty: one in childhood education and one in special education, as they developed and implemented a co-teaching model to prepare teacher candidates for inclusion. This study examined a model for teacher candidates learning about the necessary elements for an

effective co-teaching relationship in an inclusive classroom. Voltz and Elliot (1997) found a discrepancy between the actual preparation and the ideal preparation for collaborative inclusion that teacher educators would like to provide for pre-service level teacher candidates. They recommend that instructors of special education and elementary education methods teach collaboration and model efforts to co-plan and co-teach.

Future educators should have first-hand experience in collaborative planning and consultation with other professionals who may have a different educational lens. The research offered the teacher candidates an opportunity to see firsthand the modeling of co-teaching practices and how they may adapt those lessons and experiences when working with children identified with special needs.

Purpose of the Study

School law and implementation of inclusive practices have impacted how special education services are delivered and with whom special education and general education teachers instruct in elementary classrooms in the 21st Century USA. Inclusion continues to be a major challenge for most schools across the country. There is great debate about the effectiveness of inclusion and whether students identified with special needs have equal or greater success in inclusive classrooms than resource rooms. The difficulty is that few teachers have been adequately trained to work collaboratively or to teach in co-teaching situations (Pugach and Johnson, 2002).

To date, research efforts have focused primarily on co-teaching experiences from the elementary school setting, and co-teachers' perspectives of those elementary classrooms, but few are from a college faculty perspective. Little is known about how higher education instructors negotiate co-teaching as a way to teach and promote co-teaching.

This auto-ethnographic study describes the experiences of two instructors in a school of education who co-taught for the first time in a course devoted to co-teaching among other collaboration topics. The study took place in an undergraduate special education methods course.

One section of the course, which is traditionally taught by a single instructor, was taught by two instructors. The purpose of the study was to explore through the collection of multiple data the impressions and experiences of co-teaching faculty regarding how they prepared teacher candidates for inclusive settings.

Related Literature

According to Cook and Friend (1995), co-teaching occurs when two or more professionals jointly deliver substantive instruction to a diverse, or blended, group of students in a single physical space. Co-teaching means both professionals are coordinating and delivering substantive instruction, and both teachers have active roles (Gately and Gately, 2001).

Co-teaching does not mean two adults are present in a classroom at the same time or that the general education teacher plans and delivers all the lessons while the special education teacher circulates. Co-teaching allows teachers to better meet the diverse needs of students with a lower teacher-student ratio and expands the professional expertise applied to student needs (Hourcade and Bauwens, 1995).

There are advantages and disadvantages of co-teaching. The main advantage is that teacher candidates get to observe two experienced faculty teachers planning and teaching together. The presence of different practicing teachers with diverse styles and strengths lets teacher candidates get twice the support, resources and feedback. It is beneficial having a second teacher in the room to plan, manage behavior, and share ideas and resources to meet the varied needs of the teacher candidates.

Some disadvantages to co-teaching are that some teachers are more comfortable working alone and putting another teacher in the room can be challenging when forced. Co-teaching requires communication and a working partnership between the teaching professionals and administration. Both teachers have to share a common philosophy and approach to the instructional process.

Creating classrooms where teacher candidates can see two college faculty modeling co-teaching provides an opportunity to witness collaborative models first hand and discuss how co-teaching is negotiated. Darling-Hammond (1994) suggests that pre-service teachers should be placed in college and university programs similar to the tested medical models or teaching hospitals: learning experiences that can provide rigorous study, dialogue with master teachers, and in-depth interactions

with children, families, and colleagues. These clinical experiences would engage pre-service teachers in problem solving, observations, and studies of student learning, which would enable them to develop into reflective practitioners. Teacher candidates need time to reflect on the various roles and responsibilities teachers have in inclusive classrooms.

This research study was an auto-ethnographic study of a pre-service course that included modeling, reflective dialogue, defining the roles and responsibilities of co-teaching by college faculty in a teacher education program, and attempting to foster recommended practices for co-teaching in teacher candidates. A similar description of one collaborative partnership has been written by Kluth and Straut (2003), two professors in a pre-service, inclusive teacher education program in upstate New York. They implemented a collaborative model of teaching for four consecutive semesters. One specializes in the area of significant disabilities and the other has expertise in general education curriculum and instruction. Their model was developed and implemented in two core courses they taught collaboratively. They believed that by providing a collaborative model for candidates, they would be preparing teachers to function in diverse and progressive classrooms.

Both Kluth and Straut acknowledge that they were in a unique situation where there were few barriers to their collaboration. They teach in a program that stresses practices and values of inclusive education and they had administrative support for their work. They understand that colleagues in their own university as well as other institutions of higher education nationwide are interested in co-teaching, but struggle to do so because of social, financial, logistical, or ideological difficulties. This reality parallels the logistical difficulties with co-teachers in K-12 schools.

Another study that examines a collaborative model where a general education faculty member and a special education faculty member deliver coursework through a teaming model is called, "Collaborative Infusion" by Voltz (2005). "Collaborative Infusion" is defined as an approach that 'infuses' special education content throughout a teacher preparation program, rather than housing it in a separate course. Special education faculty and general education faculty deliver the coursework through a teaming model. Voltz examined collaborative infusion approaches in teacher preparation programs across the country.

The studies thus far have discussed and demonstrated that co-teaching in pre-service education courses help teacher candidates develop a realistic understanding of the strengths and challenges of the co-teaching model (Kluth and Straut, 2003), and that co-teaching in pre-service programs is an emerging trend (Voltz, 2005).

The research of Hwang and Hernandez (2002) also shows the growing awareness of co-teaching as an effective pedagogical tool in institutions of higher education.

Hwang and Hernandez (2002) organized a collaborative practice model and examined elementary teacher education students' thoughts, feelings and attitudes about university co-teaching. The researchers gathered data through formal and informal evaluations, overall perceptions of team teaching approaches and the students' understanding of course concepts and learning environments. The co-teaching effort was organized in a collegial structure where both professors worked together to teach an educational psychology course. They researched the topic of team teaching and committed to following a model designed by Bennet, Ishler, and O'Laughlin (1992).

They met once a week during the winter quarter to plan the team teaching course. After reviewing the curriculum, they specified goals and objectives and designed the syllabus, and course projects. Schedules were coordinated based upon the expertise of each faculty member. Both were present in every class, and formal and informal evaluations were administered.

Another study demonstrating a teaching partnership was conducted by Sprague and Pennell (2000). Sprague and Pennell (2000), two university faculty members at Christopher Newport University, and school personnel at a Middle School in Newport News Virginia created a pilot preparation program for pre-service teachers with a focus on inclusive classrooms. This was a result of feedback from program graduates feeling ill-prepared for the inclusive settings they were being employed in as novice teachers. University students received information about collaborative teaching presented by teachers who co-taught. The results showed that a concerted effort to prepare pre-service teachers for co-teaching can be enhanced when schools and universities work together.

Research Methodology

This qualitative auto-ethnographic methods study was initially designed as a case study but adjustments were made as it became more aligned with the design of an auto-ethnography, where I, acting as a full member in the research group or setting, engaged in a continuous cycle of data collection (Anderson, 2006).

The study was conducted during the spring 2008 semester, co-teaching a course titled Collaboration for Inclusion, that provided an opportunity to capture the experiences of two co-teaching faculty, as we taught pre-service candidates the methods of co-teaching.

Qualitative research allows the researcher to make knowledge claims based on constructivist perspectives or participatory perspectives (Creswell, 2003).

Instrumentation and Procedure

To obtain as complete a picture as possible of the participants' case study, the researchers employed multi-modal methods and approaches. A variety of data collection instruments were used to ensure better understanding and greater credibility of the findings (Merriam, 1998). Yin (1984) suggests six sources of evidence for data collection in the case study protocol: documentation, archival records, interviews, direct observation, participant observation, and physical artifacts. Not all need to be employed in every case study. I used these sources as evidence for data collection in this study including participant observation, interactive interviews, videotaping and field notes.

An inductive analysis and the constant comparative method were chosen as the process for refining categories and deriving themes, patterns or trends for this study from the collected data of discussions of our class sessions while reviewing videotape as well as my personal field notes. Results from the methods were reviewed by comparing and contrasting data, revealing trends as well as the confirmation of beliefs and practices in the data.

Findings

The results of this study indicate that co-teaching faculty in a school of education can demonstrate and model how they negotiate building a relationship, roles and responsibilities, co-teaching pedagogy, and staging and space. **Table 1** provides professors of teacher education and teacher candidates with the opportunity to see co-teaching in action. Reflections, practice and understandings of the complexities of co-teaching for faculty as well as for our teacher candidates appear in **Table 1**.

Table 1 represents the major themes and their operational definitions including the positive and negative experiences related to each theme.

Building a relationship throughout the semester by meeting and communicating frequently enabled us to co-plan co-teaching activities that involved the use of demonstrations and "think alouds".

We were able to make explicit our observations and improve practice as we observed films of our co-teaching. Our commentary about the films of our co-teaching efforts helped us to improve our own practice and realize how much training our student teachers needed to become effective co-teachers.

Table 1
Co-teaching Themes, Definitions and Positives and Negatives

Theme and Operational Definition	Positives	Negatives
Relationship Building Operational Definition-The progression of the attachment that formed between the faculty as they co-taught the course.	<ul style="list-style-type: none"> Earned trust and respect for each other's knowledge and experiences Network expands by two New perspective and lens Trust evolved as we learned more about each other personally and professionally We let the students be a part of our developing relationship by sharing our experiences 	<ul style="list-style-type: none"> We were strangers. Had to get to know each other during the experience, not prior to the experience. Early on she called me the wrong name. Students knew me better than she did. Prior relationships with teacher candidates and speakers from Advocacy Center may cause favoritism or a familiarity that one has vs. the other
Modeling of Co-Teaching Pedagogy Operational Definition- To produce a representation or simulation of a co-teaching model.	<ul style="list-style-type: none"> Reflective teaching Providing a living model to examine and reflect upon Visible and visual model Parallels real teaching experiences Able to watch the turnover of responsibility and joint agreements Able to think aloud and share our experiences as they unfold Frame our experiences in the lens of co-teaching and collaboration Provide a variety of Friend, Cook and Reisings Co-teaching models and how to plan and prepare when using them Heightened awareness of the varied models. A balcony view. Able to articulate and demonstrate commitment to planning together and negotiating who does or says what and when. 	<ul style="list-style-type: none"> May limit themselves to using only the models teacher candidates observed and practiced Need greater time to model two different approaches to the same content and then have teacher candidates compare Discrepancy from what we are modeling to struggling co-teaching settings in schools they do their field work in.
Negotiation of Roles, Responsibilities and Parity while Co-Teaching Operational Definition- The duty and obligation to perform a part or a function within a particular process.	<ul style="list-style-type: none"> Both able to check for understanding/assess Create and structure organization of class Model negotiation of roles, passing the chalk, time allotment, assigned duties, and distribution of materials Commitment to co-planning Voice-who says what, when Found a common language Bounce/Ping ideas off each other Routines and rituals are established, what we do at start and end of class are a result of class commitments we created together Agenda posted, allotted times and time management and pacing Develop class ground rules together Teacher/student ratio Assigned jobs Utilize each others strengths/ideas/lens One manages while one instructs Second pair of ears/eyes Ability to check/clarify/cue each other Trust Learning alongside our candidates 	<ul style="list-style-type: none"> Unbalanced work load between co-teachers Dominant vs. Submissive Roles Comfort level of sticking to traditional roles of generalist and specialist Letting go of responsibility and ownership Lens is focused on teacher to student interactions only and not on teacher to teacher interactions Hidden hierarchy-experience, special educator vs. content specialist Lack of accountability Dominant personality Uncomfortable taking lead when it is unfamiliar Both professor names listed on handout Grading difference

Table 1 (Cont'd.) Co-teaching Themes, Definitions and Positives and Negatives

<p>Setting the Stage and Using Space</p> <p>Operational Definition- The arrangement of the two instructors as far as distance between each other, teacher candidates and their materials within the classroom setting.</p>	<ul style="list-style-type: none"> • Fluid Positioning of teachers as we moved from team teaching to individual facilitator to a co-teaching model • Negotiate where we are in the room to guide teacher candidate focus • Moving up and down stage provided cues to co-teacher when they wanted to speak or pass the chalk • Model postures and organization of materials and easel • Demonstrate transitions • Provide greater accessibility, proximity to teacher candidates • Increased awareness of where we are in the room in order to bounce or ping off each other 	<ul style="list-style-type: none"> • Distractions • Learn to maximize or minimize movement • Lack of synchronization • Figure out if and where you fit • Get in each others way/stepping on toes • Distract attention and standing still can be challenging
<p>Co-teaching Pedagogy</p> <p>Operational Definition- The field of study that deals with the methods of teaching and learning co-teaching.</p>	<ul style="list-style-type: none"> • Time Allotment-setting time allotments and pace for each class • Learned through progression of classes each others teaching styles and strengths • Give and take between instructors, flexibility, trust • Create a common co-teaching vocabulary and verbal and non-verbal cues • Multi-task-one shows prop while other describes its purpose and use • Effective use of humor, similar sense of humor • Cues-we demonstrated a variety of visual, verbal and non-verbal cues that co-teachers can use when co-teaching • Began to mirror each other and blend our styles created a fluid team • Use of voice, proximity and staging to manage candidate behavior. • Overtly shared when we managed the class by proximity. If a group was noisy either one of us could move in close and redirect them. 	<ul style="list-style-type: none"> • Limits on teachable moments and flexibility • Inability to get through all the material in the allotted time when flexible and teachable moment occurs • Unequal roles and time "on stage" or facilitating • Increased time commitment for co-planning • No longer working in isolation, must be sensitive to schedules and conflicts • Turning over of responsibility • Visual cues can be confusing-need to be clear to teacher candidates who they should be directing their attention to. • Began to mirror each other and blend our styles and lose some of our individual style • At times it was hard to frame everything in the lens of a co-teacher and at times it was the lens of a general education teacher.

Table 2 presents our co-teaching commentaries as we observed our own films of our co-teaching efforts.

This is the first time we talked about creating simulations of co-teaching models as a part of our planning and instructional practice.

As a result we began to plan in a whole new way using the Friend, Cook and Reising's (1993) co-teaching models as our framework. This occurred early in the research while we were planning for our second week. Had we not been experienced educators we might not have used the metacognitive strategies and taken a 'balcony view' of our experiences.

Marlene and I might have missed or not reached the 'aha' moment about using the co-teaching models to deliver the course content much later in the course if we had not been trying to be reflective practitioners.

By the fifth session Marlene and I were working more cohesively as a team. In my field notes afterward I noted:

"Our conversations flowed smoothly and we both felt at ease extending each other's ideas. We used space better and were not a distraction by moving back and forth in front of each other locating materials. We are starting to learn each other's teaching style and pace."

Table 2 Participant comments based upon reviews of our filmed co-teaching efforts

<p>I said while viewing videotape session one:</p> <p>"I think the more we can make it clear, overt, explicit, and specific as to what are those practices that two people do when they are in a co-teaching role including those things they do not see us do behind the scenes, will help inform teacher candidates. As instructors we must clearly "think aloud" so that they know that it takes planning, flexibility, compromise and establishing roles and responsibilities in addition to what they are seeing modeled."</p>
<p>Marlene reflected from videotape session two:</p> <p>"I like the way that we've both been receptive to bouncing off each other's ideas and kind of playing off the strengths of each other. Since I haven't done this content umpteen times, it's nice to hear some of your ideas for playing with the content differently. You know what I mean, like just the introduction of the literature reading, I would have never thought of that. I would have thought of reading something that wasn't children's literature. I liked that and the students liked it, obviously."</p>
<p>In session two Marlene said:</p> <p>"I think when the teacher candidates start in with their family presentations and we have a little bit of time to plan, we might start thinking ahead about our co-teaching and whether we can simulate the models. That is an 'aha' moment for me right now. Why aren't we always talking about the models of co-teaching when planning our co-teaching class sessions for the candidates?"</p>
<p>I said while viewing videotape session five:</p> <p>"There has got to be a point where students are confronted with the reality of co-teaching. Right now there may not be many good examples of co-teaching in schools. It may be that either they're doing it truly as partners using team teaching, station teaching, parallel and some alternative teaching models, or they are saying they are team teaching but they are really taking turns instructing, or they are moving throughout two different physical spaces. Students are going to come to a point where they are going to realize they learned about one scenario and then see something very different in schools. We want them to make a shift where they do not embrace what is currently going in schools if co-teaching and collaborative efforts have been unsuccessful."</p>
<p>Marlene said while reviewing videotape session five:</p> <p>"One thing I noticed is that it seems more relaxed, our back-and-forth between each other, the dialogue that we are having, that kind of pinging effect and passing of the chalk and taking turns. We're communicating openly about the class and we have shared responsibility for planning. We use humor and the important thing, too, is we are using several different ways of measuring the students' progress, which is good."</p>
<p>I reflected while viewing videotape session six:</p> <p>"They know that co-teaching is this commitment to planning together, to deciding who is going to say what when. It takes open communication negotiating those roles and responsibilities. I think our prowess together as co-teachers has evolved as we learn to trust each other. I share with you that I've let the ego go and know that I do not have to control everything or feel the obligation to teach everything. Now I have another expert in the room and I have that trust in you. I understand that the students are going to have an exciting learning experience, even though I am not leading it. And at times I may be the facilitator, the assistant or leader of a small group, but other times I may be quiet and that is the role needed at that time."</p>

Conclusions

We learned from modeling co-teaching practices for the teacher candidates, filming and analyzing our own co-teaching efforts to appreciate the complexity of co-teaching. We shared observations of our co-teaching efforts with our students and when they modeled co-teaching for us, we were able to share open and constructive criticism.

We shared our experiences as we negotiated roles, responsibilities and parity so that teacher candidates could gain understanding as to how we made co-teaching work. We modeled co-teaching methods and groupings

so that teacher candidates had an opportunity to see them live and practice these methods prior to their student teaching semester. We discussed space and staging with each other as new co-teachers and with the teacher candidates as well.

We arranged ourselves, teacher candidates and our materials according to which co-teaching model we were demonstrating. Overall, we concluded that co-teaching had to be practiced live, filmed and critiqued to improve the practice.

Recommendations

Implications for future research as a result of this study include suggestions for more empirical studies for teacher candidates and co-teaching practitioners. Future research is needed that compares the teaching of a course on co-teaching using a single instructor model versus one co-taught using two instructors.

Research is needed to see how co-teachers negotiate the other teacher roles when modeling. Future studies may also want to look at the co-teaching relationship and what occurs over time as they continue to co-teach through a number of semesters or years.

Kluth and Straut (2003) recommend that researchers explore how student learning is affected when college teachers co-teach and engage in other types of collaboration including: actions, decisions in the field and what aspects of instructor collaboration have the biggest effect on student behaviors and decisions related to co-teaching.

Co-instructors may benefit from gathering data using Gately and Gately's Co-Teaching Rating Scale or adopting a common co-teaching vocabulary, negotiation of roles, responsibilities, parity and use of staging, space and a cueing system.

It would also be interesting to gather the teacher candidates' perceptions of the impact of the modeling demonstrations and whether they implemented them during their student teaching placements as well as to gather data from the school based educators and their perceptions of the teacher candidates' efficacy on co-teaching and collaboration.

References

- Anderson, L. (2006). Analytic autoethnography. *Journal of Contemporary Ethnography*, 35, (4) 373-395.
- Bennet, R.V., Ishler, M. F. and O'Laughlin, M. (1992). Effective collaboration in teacher education. *Action in Teacher Education*, 14, (1) 52-56.
- Cook, L. and Friend, M. (1995). Co-teaching: Guidelines for creating effective practices. *Focus on Exceptional Children*, 28, (3) 1- 16.
- Creswell, J. W. (2003). *Research design qualitative, quantitative, and mixed methods approaches*. California: Sage Publications, Incorporated.
- Darling-Hammond, L. (1994) *Professional development schools: Schools for developing a profession*. New York Teachers College Press.
- Gately, S. E. and Gately, F.J. (2001). Understanding co teaching components. *The Council for Exceptional Children*, 33, (4) 40-47.
- Gladstone-Brown, W. (2008). *Coteaching by example: An investigation of college faculty leading a course on collaboration for inclusion*. Education Doctoral. Paper 91.
- Hourcade, J. J. and Bauwens, J. (1995). *Cooperative teaching: Rebuilding the schoolhouse for all students*. Pro Ed: Austin.
- Hwang, Y.S. and Hernandez, J. (2002). Elementary teacher education student's perceptions of team teaching. *Education*, 123 (2) 246-252.
- Individuals with Disabilities Education Act Amendment of 1997, P.L. 105-117, 105th Congress, 1st session. (1997).
- Kluth, P. and Straut, D. (2003). Do as we say and as we do. *Journal of Teacher Education*, 54, (3) 228-240.
- Merriam, S. B. (1998). *Case study research in education: A qualitative approach*. San Francisco: Jossey Bass.
- Pugach, M.C. and Johnson, L. J. (2002). *Collaborative practitioners collaborative schools*. Second edition. Denver, Co. Love Publishing.
- Sprague, M. M. and Pennell, D .P. (2000). *The power of partners: Preparing preservice teachers for inclusion*. The Clearing House, 73, (3) 168-171.
- Voltz, D. L. (2005). Collaborative infusion: An emerging approach to teacher preparation for inclusive education. *Action Teach Education*, 25, (1) 5- 13.
- Voltz, O. L. and Elliot, R.N. Jr. (1997) Collaborative teacher roles in facilitating inclusion: Preservice preparation for general and special educators. *The Teacher Educator*, 33 (1) 44-59.
- Yin, R. (1984). *Case study research: Design and methods* (2nd edition). California: Sage Publications, Incorporated.
- Yin, R. (2003). *Case study research: Design and methods* (3rd edition). California: Sage Publications, Incorporated.
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Technology Supports for Individuals with Disabilities in New York State: A Survey of Current Status

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Abstract

This exploratory study examines the current use of instructional technology, and assistive technologies for support of individuals with learning disabilities as well as other disabilities in New York State.

The researchers used SurveyMonkey and postings on social media websites for various professional organizations to solicit responses to a questionnaire from individuals working with or caring for persons with disabilities. A small sample of responses (N=122) revealed barriers to the use of technology, as well as the preferred type and most convenient for persons with disabilities. School districts may want to use this survey with students, parents and community members.

Introduction

There is a rich history of the use of technology to support individuals with learning and other disabilities. Blackhurst (2005) described six specific types of technology impacting education, including the technology of teaching; instructional, assistive, and medical technology; productivity tools; and information technologies. Various forms of technology may be used in different ways. For example, the technology of teaching includes specific approaches such as direct instruction and applied behavior analysis. Instructional technology, defined as tools for the delivery of instruction, include computer-based instructional strategies like electronic books and use of the internet. Similarly, information technology provides access to knowledge and resources. Technology productivity tools include devices, software, and applications to help people work more efficiently and effectively. Assistive and medical technology incorporates specially-designed tools that may be used to help people with disabilities and medical issues to function, and even to stay alive in their current environments (Blackhurst, 2005).

Despite a thorough discussion of the various ways in which technology can impact those with disabilities, Blackhurst (2005) did not specifically address consumer technology as a source of potential supports. There have been recent significant advancements in the portability, usability, and affordability of consumer technology that have

greatly changed the landscape of technology supports available. A more recent look at technology trends in the education and support of people with disabilities reflects this updated perspective by looking specifically at the use of mobile devices. Newton and Dell (2011) describe mobile devices as having many advantages, including being appealing and relatively inexpensive. Additionally, modern consumer mobile devices such as tablets and smartphones are familiar to both teachers/support staff and students and are often fairly user-friendly and intuitive.

Stephenson and Limbrick (2015) offered evidence to support the use of touch-screen mobile devices (TSMDs) by people with disabilities. They found that the operation of TSMDs was not difficult for people with developmental disabilities, but that the use of various apps (software applications) appeared to present challenges. The cost of ownership of TSMDs was shown to be relative in terms of the potential benefits. They suggested that future research should explore the use of TSMDs for supporting independence, communication, and leisure for individuals with disabilities.

Although Blackhurst (2005), Newton and Dell (2011), and Stephenson and Limbrick (2015) provide good descriptions of types of technology that may be used to support individuals with disabilities, along with their benefits and drawbacks, they do not report on how these tools are actually being used. Okolo and Diedrich (2014) attempted to answer this question by conducting a statewide study of teacher knowledge and use of assistive technology. They found a surprisingly low incidence of use of technology, with several possible supporting factors. One finding was that students and parents were minimally involved in technology selection and use. According to the authors, students and parents were not viewed by teachers as critical to decision-making about the uses of technology. Additionally, teachers reported knowing little about the use of technology at home for their students. This likely indicates a further lack of cooperation and collaboration between families and schools on this issue (Okolo & Diedrich, 2014).

While there is a well-documented history of research showing that technology has been successfully used to support individuals with disabilities, barriers preventing technology availability and use continue to exist. Tanis (2012) presents evidence that there is increased use of readily-available consumer technology, such as computers, by individuals with disabilities, but difficulties with implementation continue to be observed. The most frequently reported barriers for any given device were cost, assessment, and information. Device users reported that they needed assistance in using a device and training on how to use their device. Devices would be underutilized, or not used at all, if support for technology was not comprehensive, systemic, and inclusive. Results of the Tanis study (2012) show that cost and training continue to present barriers to utilization.

The purpose of this study was to investigate how currently available technology is being used to support individuals with disabilities in New York State.

Method

Participants and Procedures

The target population is individuals having a disability, or those having a personal or professional relationship with a person with a disability. This population includes a broad cross section of Grades K-12 general and special education teachers, related service

personnel, administrators, technology coordinators, parents, guardians, and caregivers of individuals with disabilities, and individuals with disabilities.

The researchers distributed the recruitment information via various social media outlets of professional organizations and centers (i.e., New York State Association for Behavior Analysis, New York State Speech-Language Hearing Association).

A 15-question online survey was administered via SurveyMonkey between June 1, 2016 and September 1, 2016. This setting prevented the collection of IP addresses from respondents. There were no internet location (IP) addresses collected and the survey did not ask for any personal or otherwise identifying information from respondents.

122 participants completed the required survey questions. Some survey questions were not applicable to some participants. **Table 1** shows how participant characteristics were represented across the respondents.

Data Analysis

Research Question #1: What is the current status in New York State regarding ownership of electronic devices and technology supporting individuals with disabilities?

Table 1. <i>Participants' characteristics</i>		
Characteristics	N	Percent
Nature of the disability(N=122)		
Cognitive or intellectual	57	46.27
Developmental	83	68.03
Physical	16	13.11
Other	11	9.02
Status (N=122)		
Self	11	9.02
Parent or caregiver	41	33.61
Professional	61	50.00
Other	9	7.38
Geographic region (N=65)		
Adirondacks	3	4.62
Western	2	3.08
Finger Lakes	1	1.54
Central	7	10.70
Capital District	5	7.69
Catskills	4	6.15
Metro NYC and Long Island	40	61.54
Lower Hudson Valley	3	4.62
Environmental setting (N=121)		
Pre-school	12	9.92
Elementary school	29	29.97
Middle school	17	14.05
High school	18	14.88
Vocational training	7	5.79
Higher education	7	5.79
Supported employment	2	1.65
Competitive employment	3	2.48
Day program	10	8.26
Other	16	13.22

Table 2. <i>Ownership of electronic devices and technologies.</i>		
Ownership	N	Percent
Electronic devices(N=121)		
Yes	74	61.16
No	47	38.84
Technologies (N=57)		
Personal purchase	36	63.16
Covered by medical insurance	6	10.53
Provided by government agency	4	7.02
Provided by school or service agency	20	35.09
Provided by school district	14	24.56
Gift or donation	6	10.53
Other	1	1.75

As shown in **Table 2**, over 60% of the participants owned electronic devices and purchased the related technologies by themselves. In the meantime, many participants also reported that technologies were provided by school or service agency (35.09%) and school district (24.56%). However, only 57 participants reported their ownership of technologies. The low response rate should be addressed in the future research design.

Research Question #2: What is the current status of the participants regarding the usage of electronic devices and technology supporting individuals with a disability?

Participants were asked to choose as many purposes as they used each of several types of devices to support themselves or another individual with a disability. There was a total of 191 responses across seven possible uses of technology. Most of the reported uses were for educational (N=39, 20.42%), leisure (N=37, 19.37%), communication (N= 34, 17.8%), and socialization (N= 34, 17.8%) purposes.

The type of device in most common usage across all categories of use was by far the tablet, ranging from 86.49% of leisure uses (N=32) to 42.86% of “other” uses (N=3). These results are illustrated in Figure 1.

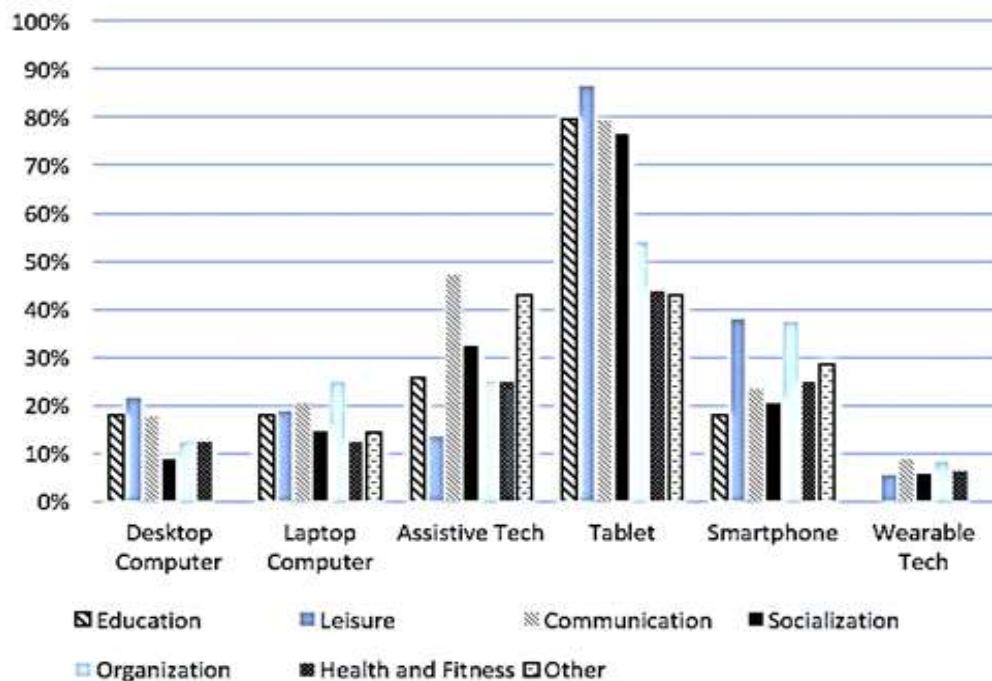


Figure 1. Types of use by device.

Smartphones and assistive technology were reported to be used second-most frequently for all purposes. Smartphones were reportedly used for 37.84% of leisure uses (N=14), 37.5% of organization uses (N=9), and 25% of health and fitness uses (N=4). Assistive technology devices were reportedly used for 25.64% of education uses (N=10), 47.06% of communication uses (N=16), 32.35% of socialization uses (N=4), 25% of health and fitness uses (N=4), and 42.86% of “other” uses (N=3). Wearable technology was reported to be used the least of all devices, with only a few responses indicating use for leisure (5.41%, N=2), communication (8.82%, N=3), socialization (5.88%, N=2), organization (8.33%, N=2), and health and fitness (6.25%, N=1).

Participants also were asked to report the “top three” apps in use across portable forms of technology, including tablets, smartphones, and wearable technology. These qualitative answers were analyzed by grouping apps according to the category listed for each in iTunes and are illustrated in **Figure 2**. Due to a very low response rate for apps for wearable technology (three answers were given, only one of which was found in iTunes as an app), only responses for apps used with tablets and smartphones were analyzed.

The majority of the apps reported (53.06%, N=26) fell into the category of Education, according to iTunes. 73.08% (N=19) of Educational apps were reported as used on tablets, and 26.92% (N=7) of Educational apps were

reported as used on smartphones. The next largest category of apps was Productivity, with 10.2% (N=5) of the apps reported falling into this category. 40% (N=2) of Productivity apps reported were for tablets, and 60% (N=3) were for smartphones. All apps categorized as Games were reported for use on tablets, but only 8.16% (N=4) of apps fell into this category.

Other categories of apps that were reported less frequently included Finance (6.12% of all apps, N=3), Social Networking, Special Needs, and Entertainment (4.08% each of all apps, N=2 each), and Reference, Communication, Shopping, Music, and Business (2.04% each of all apps, N=1 each). Distribution of apps across these lower-frequency categories is probably not meaningful due to very low numbers of responses. Overall, 14 apps were recorded 3 or fewer times in 9 categories. 57.14% (N=8) of these were reported for tablet use, and 42.86% (N=6) were reported for smartphone use.

Research Question #3: What forms of technology and for what purposes is technology desired to support individuals with disabilities?

Participants were asked to choose types of devices desired for each purpose to support themselves or another individual with a disability. There was a total of 106 responses across seven possible desired uses of technology. The type of device desired overall across all categories of use was by far the smartphone, ranging from

86.67% for leisure use (N=13) to 38.89% for organization (N=7) as illustrated in **Figure 3**. Tablets and wearable technology were reported to be the second-most often desired types of devices for all categories of use. Tablets were reported to be desired for educational (N=8, 47.06%), communication (N=6, 35.29%), socialization (N=5, 29.41%), organization (N=5, 27.78%), leisure (N=4, 26.67%), and health and fitness (N=3, 17.65%) purposes. Wearable technology was reported to be desired for health and fitness (N=8, 47.06%), socialization (N=7, 41.18%), communication (N=6, 35.29%), education (N=6, 35.29%), and leisure (N=5, 33.33%). Low response rates were noted for desktop computers and assistive technology across all categories

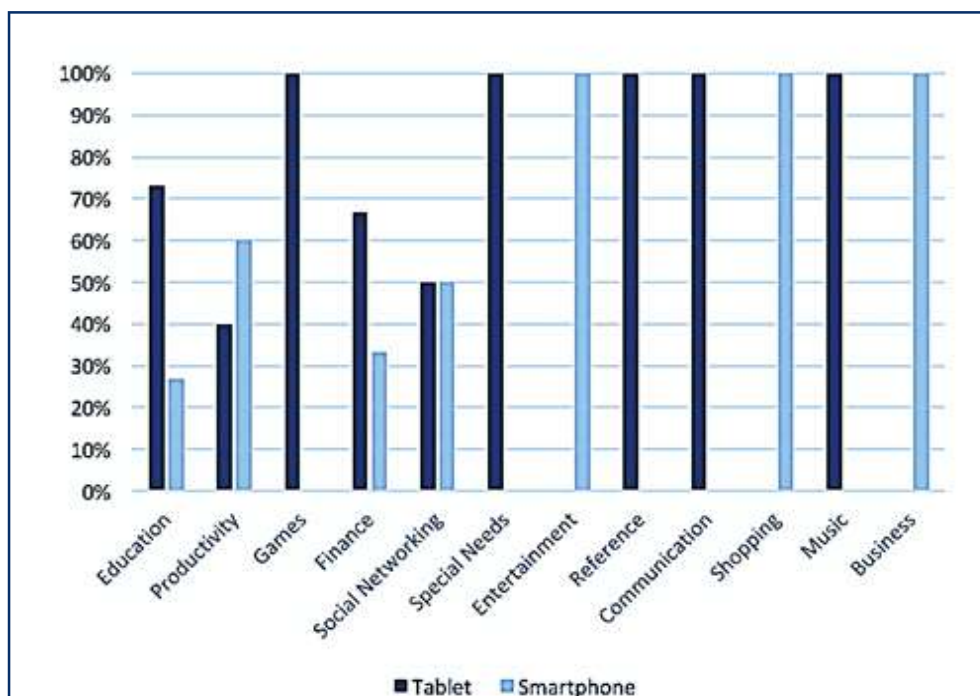
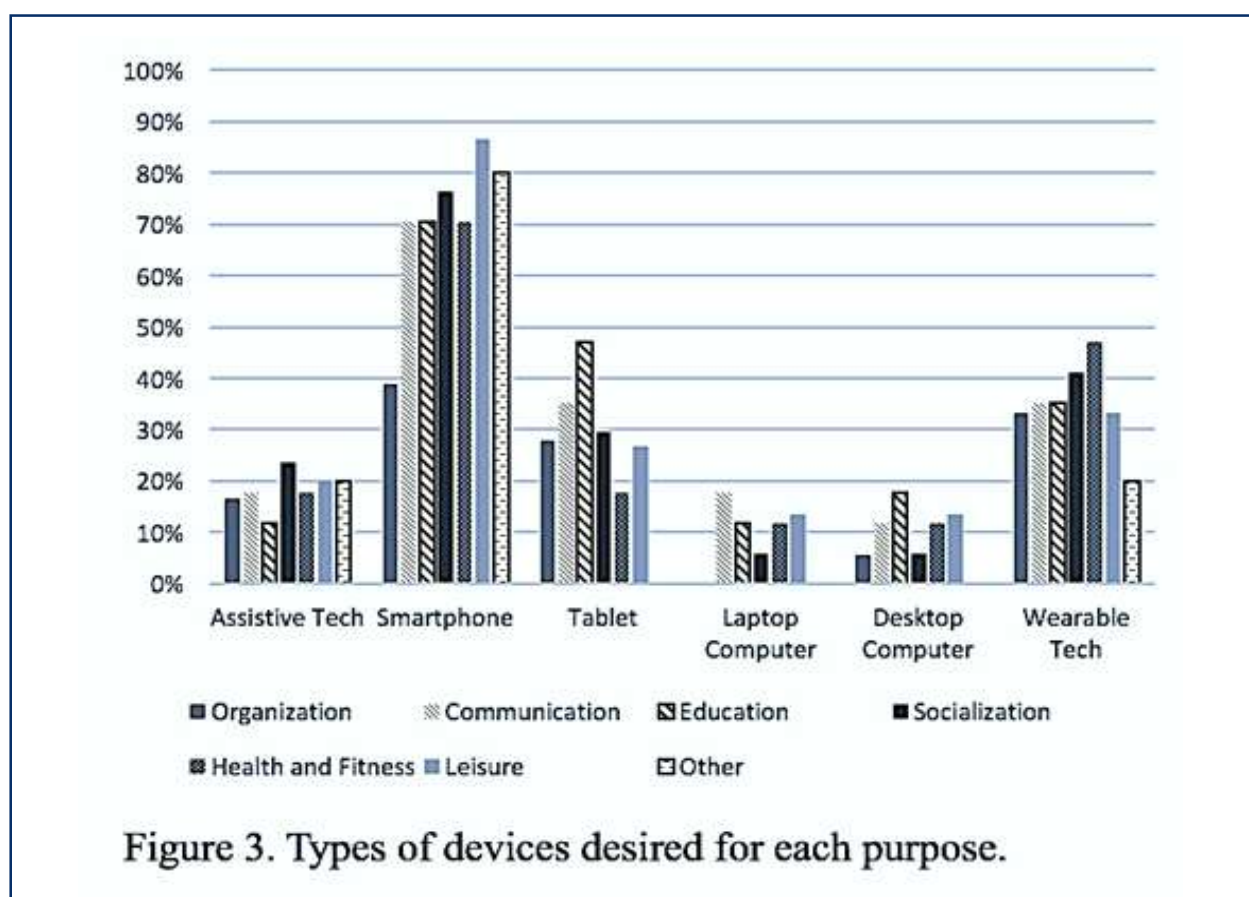


Figure 2. Categories of apps in use.



of desired uses. Assistive technology devices were found to be slightly more desired for socialization (N=4, 23.53%), leisure (N=3, 20%), health and fitness (N=3, 17.65%), communication N=3, 17.65%), and organization (N=3, 16.67%) than desktop computers. Desktop computers had the lowest response rate and were reported to be the least desired type of device desired for education (N=3, 17.65%), leisure (N=2, 13.33%), communication (N=2, 11.76%), and health and fitness (N=2, 11.76%).

Participants also reported on why some forms of technology were not used. The top five reasons were: 1. too expensive (N=20, 35.1%); 2. other reasons (N=18, 31.6%); 3. don't know how to use it (N=16, 28.1%); 4. too distracting (N=11, 19.3%); and 5. not accessible (N=10, 17.5%).

Figure 4 illustrates these findings. Among the 18 responses of "other reasons," we did not observe a predominant reason.

Discussion

The current survey expanded on the work of Okolo and Diedrich (2014) by including individuals having a disability as respondents for themselves, as well

as families or other supports, in addition to educational professionals involved with the individual with a disability. We also explored types of technology being used and categorized it as either assistive or a type of consumer technology. In addition, we wanted to discover what type of technology is desired for future use by people with disabilities and their support networks. Based on the results of the data analysis, the key findings are:

1. Most technology used by individuals with disabilities was personally purchased;
2. Tablet computers are the most widely used device;
3. Education applications were the most widely used across all device types; and
4. smart phones and wearable technology were the most highly desired types of devices.

An analysis of the results of this survey helped us to identify possible key barriers to the use of technology to support individuals with disabilities in New York State. The following possible key barriers identified were: funding issues; device size; and app discoverability.

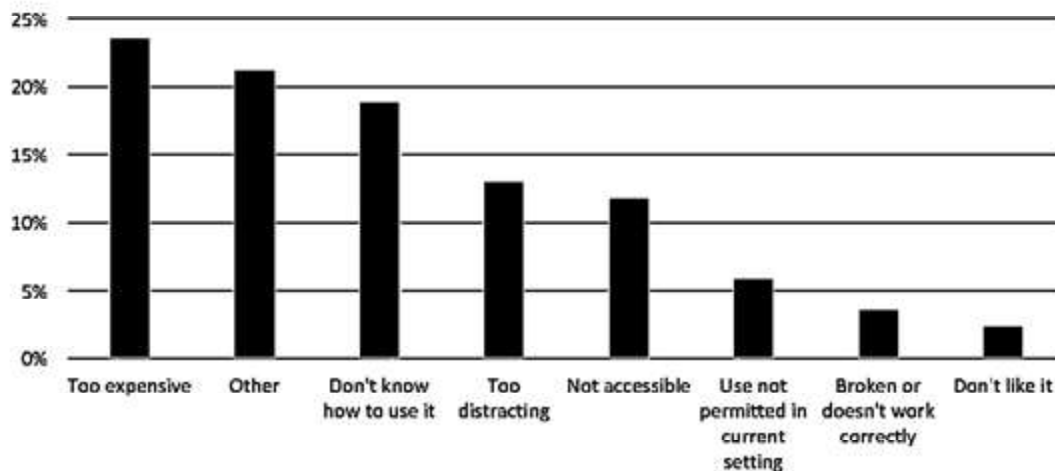


Figure 4. Reasons technology is not being used.

Key Barriers to the Use of Technology:

Funding issues

We asked how the device was purchased or obtained by the individual with a disability, as the funding for the purchase of assistive technology has been a serious and complex barrier to the use of technology for many years (Okolo & Diedrich, 2014).

The results show that personal purchase was the predominant means of acquiring technologies by the respondents (60%). The acquisition and use of technology might be greater if respondents were more aware of the various sources of funding that are available. According to the Assistive Technology Industry Association website [<https://www.atia.org/at-resources/what-is-at/resources-funding-guide/>] there are a wide variety of funding sources available to assist individuals with disabilities to acquire technology appropriate to their needs. This is an additional area that should be explored to understand the impact of the availability of funding support information on technology acquisition and use by this population.

Survey respondents indicated that smartphones and wearable technology were the most highly desired device types. These also tend to be the most expensive. Additional monthly costs associated with smartphones, such as data plans, impose an additional source of funding stress for smartphone use. With these costs in mind, it is easy to see why tablets currently would be the most popular “go to” device due to their affordability. It should be noted that many applications developed for individuals with disabilities are priced much higher than other applications. These higher costs would create an additional impediment to acquisition and use.

Device size

Even the casual observer of portable technology can see that the size of devices continues to decrease as the sophistication of these devices increases. Consumers have migrated from desktop computers to laptops, and from laptops to tablets and smartphones. Clearly, consumers value portability and size convenience. The emergence of smart watches, fitness bands, and virtual or augmented reality vision-wear are more evidence of the trend to smaller wearable devices. While our findings show that tablet computers are by far the most frequently used type of device across all areas of use, respondents expressed a preference to use smartphones and wearable technology. As in each evolution of consumer technology as more of these devices and the software that makes them useful come to market, prices will fall and adoption will increase. There is no reason to suspect that the adoption of these technologies by people with disabilities would not follow closely. The only impediments may be in the affordability of the hardware and a lag in the development of appropriate software applications.

App discoverability

We were interested in knowing what “top three” apps are being used across portable forms of technology, which includes tablets, smartphones, and wearable technology. We then categorized these per the iTunes Store category designation. We found several irregularities in the categorization of the apps disclosed in the study. Examples of these irregularities in categorization include the following:

- Behavior World Reward Chart: Class and Chore Tracker (\$2.99) is listed under “Education.” This is an application geared toward behavior modification and habit development. Other apps related to this are categorized under “Productivity.”
- Proloquo2go (\$249.99) is listed under “Education” but it is a symbol supported communication app.
- Talk Tablet NEO AAC (\$79.99) is a speech app for people with autism, aphasia, and other speech conditions, yet is it categorized under “Education.”

These examples call into question the discoverability of appropriate and useful applications by individuals with disabilities and those that support them. This discoverability is a likely barrier to the expanded use of technology by this population.

Other Considerations

There are a few conditions/constraints regarding the findings of this study that should be considered: first, the sample size was relatively small given the nature of this project, possibly because it was only distributed through social media. In future studies, researchers might consider other avenues of distribution to increase sample size. Another limitation was that the majority of survey respondents were from the metro New York City area. Even though there are proportionately more individuals with disabilities living in this area, greater survey participation in other areas of the state would provide a better assessment of this topic for the state overall. Finally, providing images or video clips as examples of technologies mentioned in the survey might help to ensure comprehension of survey questions in future studies.

Questions for Future Study

This study leaves many interesting avenues open to explore. As funding is a well-known barrier to the use of technology, it would be useful to know how aware this population is of the financial resources available to them. The availability of technology solutions and software applications that are useful to this population is a two-fold concern. Additional research is warranted to determine which helpful technology solutions and applications currently exist that are not clearly identified (i.e., categorized, described, indexed, etc.) or are difficult to discover. Next, what strategies can be used to encourage the development of more technology solutions and applications targeted to and aligned with the needs of this population? Finally, more study is needed to determine the difference between what individuals with disabilities and those that support them need and desire and what currently is used.

References

- Assistive Technology Industry Association. (2017). AT Resources Funding Guide. Retrieved from <https://www.atia.org/at-resources/what-is-at/resources-funding-guide/>
- Blackhurst, A. E. (2005). Perspectives on applications of technology in the field of learning disabilities. *Learning Disability Quarterly*, 28, 175-177.
- Martin, S., Diaz, G., Sancristobal, E., Gil, R., Castro, M., & Peire, J. (2011). New technology trends in education: Seven years of forecasts and convergence. *Computers & Education*, 57, 1893-1906.
- Newton, D. A. & Dell, A. G. (2011). Mobile devices and students with disabilities: What do best practices tell us? *Journal of Special Education Technology*, 26, 47-49.
- Okolo, C. M. & Diedrich, J. (2014). Twenty-five years later: How is technology used in the education of students with disabilities? Results of a statewide study. *Journal of Special Education Technology*, 29, 1- 20.
- Stephenson, J. & Limbrick, L. (2015). A review of the use of touch-screen mobile devices by people with developmental disabilities. *Journal of Autism & Developmental Disorders*, 45, 3777-3791.
- Tanis, A.E., Palmer, S., Wehmeyer, M., Davies, D.K., Stock, S.E., Lobb, K., & Bishop, B. (2012). Self-report computer-based survey of technology use by people with intellectual and developmental disabilities. *Intellectual and Developmental Disabilities*, 50, 53-68.



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***From the Field:
Practical Applications of Research***

A Case Analysis of a School District's Transition to College and Career Ready Standards

By Charles Russo, Ed.D.

Abstract

The following study closely details how the East Moriches Union Free School District made the transition to college and career-ready standards (CCSS), the impact that change had on reading scores for students, and the alteration in attitudes of parents and teachers to the shift in standards. Specifically, this report focuses on the male students who began Kindergarten in 2011, 2012, and 2013, as these were the cohorts that experienced the curriculum shift to one that was fully aligned to Common Core State Standards (CCSS). When appropriate, these cohorts were compared to older groups to establish a baseline.

Male students were a focus for this study because they lagged behind their female counterparts in reading and ELA scores for many years and anecdotally seemed to have shown improvement and increased interest in the subject after changes to align ELA curriculum to common core state standards according to their teachers.

This case analysis shows that despite some initial concerns and problems surrounding the changes in standards, assessments, and curriculum, the teachers and district successfully moved beyond disagreements and missteps toward an environment where reading was continuously encouraged and students visibly improved. As detailed in the report, there are some caveats to this conclusion, but the consensus remains the same: In this case study, an alignment of curriculum, materials, and instruction to common core state standards (CCSS) lead to improvement in student reading and literacy ability.

Introduction

When the CCSS were rolled out district leadership provided guidance for faculty, giving them the opportunity to focus on learning and using the CCSS and their supporting materials, prior to making curricular and instructional adjustments that would meet the needs of their district's culture and students. This mixed-methodology

study was commissioned through High Achievement New York to ascertain the results of the implementation of the CCSS at the East Moriches School District and analyze its effect on student achievement and student disposition, quantitatively as well as qualitatively, through the lenses of parents and teachers.

The District had a particular interest in the effect of the CCSS implementation on male students. Their concern was borne of a dialogue in educational research about gender equity, wherein girls seem to be steadily outperforming boys in school nationally. The district had anecdotal data that suggested a hypothesis: CCSS help close the student achievement gap between male and female students. This study was designed to see if the hypothesis was accurate and to identify data-informed actions to enhance their efforts and is part of an ongoing effort by the East Moriches Board of Education, administration, faculty, staff, and community to ensure that the students under their care are, in fact, college and career-ready.

Statement of Purpose

The purpose of this preliminary study was to assess male student engagement since the promotion and implementation of CCSS. The project's scope focused on student cohorts who began Kindergarten in 2011, 2012, and 2013. Internal and external quantitative and qualitative data sources were analyzed for notable patterns. The district chose to view each cohort individually and each cohort was contrasted with each other to see if any pre- and post-CCSS patterns could be discerned.

This study should contribute to the District's continued efforts to examine academic and social outcomes, particularly of male students, through multiple lenses, informing curriculum, instruction, and professional development within its schools.

Research Questions

The following research questions were used to inform this study.

1. Has the Lexile level of male students changed, compared to female students, before and after the implementation of the CCSS curriculum revisions and aligned instructional practices?
2. How has the performance of male students compared to female students changed on the Grade 4 NYS Assessments before and after the implementation of the CCSS curriculum revisions and aligned instructional practices?
3. Has there been a decline in male student behavioral referrals before and after the implementation of the CCSS curriculum revisions and aligned instructional practices?
4. What are the perceptions of parents about the performance of their male children since the implementation of the CCSS curriculum revisions and aligned instructional practices?
5. What are the perceptions of teachers about the performance of their male students since the implementation of the CCSS curriculum revisions and aligned instructional practices?

Limitations of Study

The review and analysis of localized data has its limitations, given the limited cohort data available pre-implementation of the CCSS and the availability of data from only two K-4 cohorts post-implementation. Students who began Kindergarten in 2011 represent the only full set of K-4 data available through AimsWeb which preceded the CCSS and the district's full implementation process.

Students who entered Kindergarten in 2011 entered Grade 1 in 2012, Grade 2 in 2013, Grade 3 in 2014, and Grade 4 in 2015 had informal exposure to the CCSS and would likely have benefitted from curricular and instructional changes more in the later grades. From a faculty standpoint, in 2011 teachers were digesting and experimenting with the new CCSS and had just begun to consider curricular and instructional shifts necessary to comply with the new NYSED requirements. There were no requirements to implement the CCSS with the 2011 cohort, though some teachers may have been "experimenting" with the new standards as they were learning them. Students who entered Kindergarten in 2012 and 2013 were fully exposed to the CCSS in Grades K-4. Therefore, there are only two K-4 cohorts of students-2012 and 2013-that were completely exposed to instruction aligned to the CCSS starting in Kindergarten. While this is a serious limitation in the quantitative aspect of this study, the patterns are nonetheless noteworthy and informative.

Methodology

This study used a mixed methodology which included both quantitative and qualitative analysis of a variety of data sources. NYS assessment data was reviewed for each cohort. A review of localized, spring-to-spring Lexile levels as recorded in AimsWeb was also used to compare the performance of three cohorts of students who represent pre- and post-implementation of the CCSS. All district students received this ELA measurement system by taking AimsWeb, a school-administered universal screening data management system.

In addition, parents were invited to respond to a survey on SurveyMonkey when they attended their fall 2017 "Meet the Teacher Night." The school psychologist was interviewed and asked to review "discipline" through multiple lenses, including the district's Response to Intervention (RTI) behavioral referrals, which detail interventions made to support students with significant academic or behavioral issues. Her qualitative findings are included in the Teacher Focus Group discussions.

To document the findings, researchers examined the results of annual AimsWeb literacy assessments and the Grades 3-8 NYS ELA exams, conducted focus groups with district teachers, surveyed district parents, and reviewed academic and behavioral referrals with the district's psychologist.

The data were collected and triangulated through collection points that included parent and teacher surveys, Grade 4 NYS ELA Assessments, and student discipline data. As part of this study, using data in AimsWeb, the spring reading Lexile levels of K-4 students were examined as cohorts who began in 2011, 2012, and 2013. Their cohort data were compared within each and across cohorts. All the collected data informed this study that sought to investigate whether the data supported the directional hypothesis that male student engagement increased with the CCSS implementation.

Findings

1. Has the Lexile level of male students improved, compared to female students, before and after the implementation of the CCSS curriculum revisions and aligned instructional practices?

Data tracking in AimsWeb was initiated in 2011. The first Grades 1-4 cohort that had comparable data began in 2011. However, 2011 was the year that teachers were learning about the CCSS, auditing curricula and attempting to experiment with the common core state standards. Spring 2012 is the first Grades 1-4 cohort that was formally instructed using the CCSS with fidelity. The lack of a clear dichotomy of use of the common core standards among data sets, as well as the limited data sets make this data somewhat contaminated with common core standards

under implementation for one group and fully implemented for the other two cohorts. However, there are patterns showing an increase in the level of achievement in males and females which are valuable for discussion. It is also noteworthy that this data compares different cohorts of actual children and speaks to the growth of the teachers post-CCSS. Through this lens, as limited as it is, the data are impressive. Looking vertically at each grade, the growth trends in student achievement are positive.

Table 1.1 indicates Lexile growth by cohort across spring benchmarks beginning with Grade 1 and continuing the examination through spring of Grade 4 for each cohort. The progress of male student Lexile growth is noted in bold, as that was the focus of this study. Table 1.1 presents significant growth of female students as well. Examining the data horizontally, the males are showing solid growth and there is evidence that the males are now performing well in comparison to the females. In essence, there is evidence of gender equity beginning to emerge.

The data suggest a developing trend toward a plateauing effect of the NYSED's emphasis on professional development, observed by Michael Fullan (2001), who described the phenomenon as evidence of an "implementations dip." Looking at the quantitative data presented in this study, supplemented by the information provided by the focus groups, the summative conclusion supports Fullan's observations. A possible solution is more focused and highly aligned professional development, which the district continues to address.

2. Has the performance of male students improved, compared to female students, on the Grade 4 NYS Assessments before and after the implementation of the CCSS curriculum revisions and aligned instructional practices?

In viewing the data from year to year, it is often possible to miss the big picture. Looking at the data through the lens of Lexile Levels, ELA 3 and 4 combined, the story is positive for both males and females. Although the percentage of females scoring a Level 3 or 4 started and ended higher than the males, the males also show a positive trend upward. In 2016, there was equity between males and females scoring a Level 3 or 4. On the 2017 assessment, girls showed a larger gain compared to the males while male growth percentages were not statistically different from the females. Since the goal of the school district is proficiency or higher for all students, this is a promising trend.

There are a few caveats that must be noted when trying to compare one cohort of students to another using Grade 4 ELA assessment scores. This data reveal some significant patterns and trends that are more likely the result of the process the district has used to learn and implement the CCSS and the teachers' responses to those interventions. This data must be viewed in the context of the other sources of information within this research design.

It is also important to note for this analysis that unlike the data for Lexile levels, there is more ELA assessment

TABLE 1.1: Lexile Growth over Time by Average Number of Correct Words per Exam per Student in Cohorts 2011 (Pre-CCRS*), 2012, and 2013 (Post-CCRS)							
Cohort	Grade 1	Grade 2		Grade 3		Grade 4	
2011	Spring '11	Spring '12	Grade 2 Growth	Spring '13	Grade 3 Growth	Spring '14	Grade 4 Growth
Female	96.97	122.97	26.81%	142.98	16.26%	157.17	9.93%
Male	75.07	111.21	48.14%	124.81	12.23%	138.91	11.30%
2012	Spring '12	Spring '13	Grade 2 Growth	Spring '14	Grade 3 Growth	Spring '15	Grade 4 Growth
Female	90.10	133.69	48.39%	148.78	11.29%	166.39	11.83%
Male	87.38	130.13	48.91%	141.41	8.67%	152.19	7.63%
2013	Spring '13	Spring '14	Grade 2 Growth	Spring '15	Grade 3 Growth	Spring '16	Grade 4 Growth
Female	104.05	141.29	35.79%	151.54	7.25%	170.36	12.42%
Male	89.40	121.58	35.99%	134.98	11.02%	149.57	10.81%
*Note: While the 2011 cohort began before the formal Pre-CCRS implementation, all students from Grade 2 onward also benefitted from the CCRS formal implementation.							

data available to detect patterns. There were no consistent Lexile data for students who began Kindergarten in 2010. There were Grade 4 ELA data available for this cohort as they were tested in 2014 on the new CCSS assessments. Since this data are instructive, the data have been included in this analysis of outcomes.

The "opt-out movement" is a compounding variable which influences this data and its analysis. The East Moriches Schools have been affected by the boycott of the Grades 3-8 NYS Assessments. Fourth-grade students taking the new CCSS-based NYS ELA assessments dropped by approximately 50 percent since 2014. Since the implementation of the CCSS assessments, there have been parents who objected to the CCSS and chose to opt their children out of the NYS assessments. This movement grew statewide in New York, peaking in 2015 and 2016, and last year well over 200,000 students state-wide declined to take the State assessments.

Cohorts 2010 and 2011 took the Grade 4 ELA Assessment in spring 2014 and 2015, respectively. These cohorts, particularly in the earlier grades, had limited access to the full implementation of the CCSS. It is notable that these two cohorts of students had teachers who had some training by the time these students reached the intermediate grades. Cohorts 2012 and 2013, tested in 2016 and 2017 respectively, had exposure to faculty who fully implemented the CCSS beginning with Kindergarten. The results of these assessments form the baseline for our comparison of cohorts starting in 2010, 2011, 2012, and 2013. **Table 2.2** presents growth in Level 4 performance for males and females.

3. Has there been a decline in male student behavioral referrals before and after the implementation of the CCSS curriculum revisions and aligned instructional practices?

A review of Response to Intervention (RTI) behavioral referrals for the period covering the years 2011 through 2017 is statistically unremarkable. Referrals of male students occur more often than female students. However, on average there are a total of 11 RTI referrals per year for this period. In 2012, there was a jump in referrals overall to 23 (13 males and 10 females), but this number seems an anomaly. This is likely related to the newness of the revised curriculum and emerging expectations and metrics. During the 2012-2013 school year, the first year of implementing the CCSS, we witnessed a rise in student referrals for interventions and things went back to "normal" in 2013-2014. Starting in 2015, the number of student referrals for interventions overall declined, and male referrals for interventions steadily declined.

4. What are the perceptions of parents about the performance of their male children since the implementation of the CCSS curriculum revisions and aligned instructional practices?

Parents were invited to answer a nine-question survey through SurveyMonkey as they attended "Meet the Teacher Night." Eighty-five parents took the survey during two night meetings. Of the 85 parents, 54 respondents indicated they had male students and 55 had female students.

TABLE 2.2: Number of Students Tested by Cohort and Level

	Cohort 2010	Cohort 2011	Cohort 2012	Cohort 2013
Progressions	2014	2015	2016	2017
Females L1	4	3	0	2
Males L1	12	4	3	2
Females L2	18	9	7	4
Males L2	19	10	9	8
Females L3	13	9	7	11
Males L3	10	8	11	6
Females L4	6	2	5	8
Males L4	4	0	1	7
Female L3 and 4	19	11	12	19
Male L3 and 4	14	8	12	13
Total Tested	86	45	43	48

Two parents declined to state the gender of their child. For the purposes of our research, the following data isolates the feeling of parents of males currently in Grades 4, 5 and 6.

The analysis begins with Question 3, which reflects parent perceptions of their male student's feelings in Grades 4, 5 and 6 and school post CCSS Implementation. It is notable that parents perceive that their child feels no less successful as a result of the Standards implementation. More significant is that almost one-third of parents see their males as more successful.

From the parents' perspective, they overwhelmingly see more success in their children in the areas of ELA and mathematics.

About one-third of parents felt that their male children are doing "about the same" as they did before implementing the CCSS. It is important to note that this question does not reveal the quality of the child's performance in these subjects. For instance, a child with a 100% average in math who has retained this grade might be viewed as doing the same. As a result, the data are not as useful as those revealed by Questions 5 and 7.

Parents were asked about participation in the NYS Assessments. Among those parents who chose to not have their male children participate in the NYS assessments, the majority of parents relied on observation to monitor their child's progress, which may or may not be aligned to the learning standards. There is clear reliance on teacher feedback and personal observations to track academic progress as well.

5. What are the perceptions of teachers about the performance of their male students since the implementation of the CCSS curriculum revisions and aligned instructional practices?

Elementary and middle school faculty were invited to attend one of two focus group sessions to inform this study. Two teacher focus groups were formed to discuss their impressions of the East Moriches School environment and student achievement before and after the implementation of the CCSS. All participants in the focus groups were from the elementary school. The same script and question pathways were used for both groups. Of special interest were the teacher's thoughts about their male students.

Question: What specific interventions implemented in 2012 and beyond do you think contributed to the growth in average student Lexile levels?

Initially, after the CCSS were mandated in 2009 and the ELA and math modules were released, the district provided in-service to teachers on the Equip Tri-State Rubric. As part of this study's scope, the pre-CCSS curriculum was reviewed using the rubric to compare the ELA shifts.

There is an indication of some trepidation on the part of the teachers. Upon looking at the Modules and their current reality, one teacher said her initial response was, "Yeah, right! It is now cool to see what the students are capable of."

It is fair to say that since that time, the teachers interviewed have become believers in the standards. They came to realize early into the implementation that "student capacity was beyond prior expectations." The expected level of difficulty was "significant" but the students enjoyed the challenges. Students understood the challenges and approached their new learning with a "growth mindset." Teachers reported an "uptick" in vocabulary and the expectations that teachers have of students, and students have of themselves.

Question: Of all these interventions, which had the greatest impact on the growth of student achievement?

Across the board, the greatest impact was a renewed emphasis on reading, particularly in the non-fiction genre and skill development. Reading logs were implemented for students requiring more parental involvement and supervision. Instructional emphasis was placed on reading fluency, which was new to them. Data was used more consistently to influence instruction and AimsWeb allowed teachers to track student achievement and growth. Students are more aware of their own progress and have greater awareness about the assessments, protocols and assessment terms, all of which hold the student more accountable. Many faculty members cited that students are writing more, particularly writing more analytically, even in math.

Question: How would you best describe your instructional environment now versus before the CCSS interventions? How do you think the parents would describe it and students?

Prior to the curriculum audit and significant "valuable professional development", classrooms were "less focused." Teachers acknowledged that it was hard "to give up control" of the classrooms and curricula. There was little time left for teachers' "pet topics," and their favorite literature and books. In particular, teachers cited that the professional development provided teachers with usable tools that could be readily implemented in their classrooms.

Teachers stated that their classrooms became more structured and that more students were exposed to a curriculum that was more relatable, especially for the males. They acknowledged the significantly greater rigor noting little "down time" during the day. Teachers admitted that it took time to "embrace" the new CCSS instructional models.

Teachers acknowledged that curriculum, instruction and assessments were more aligned within each grade and progressively from grade to grade. Teachers also agreed there was more instructional equity in every classroom and teachers understood that what was going on in each classroom across the grade was more "predictable"

through the lenses of pacing, content, and expectations. This allowed more pertinent “team meetings” where teachers discussed upcoming strands and shared materials and pedagogy.

Question: Have you noticed any difference between the engagement of females and males since the CCSS interventions were instituted? If so, how has engagement in learning changed?

There seemed to be strong agreement that there are more “male readers” than ever before. The boys are “drawn to non-fiction” and the increased availability of non-fiction text in the classroom encouraged them to read. They noted there were more male “faces in books” than ever before. One teacher formed a “Guys Read” club in her classroom.

Teachers recognized the increased equity in the CCSS structure and materials. With an emphasis on non-fiction, teachers saw more literature that was “relatable to boys.” They also saw the diversity in characters as a means of creating different access points for wider groups of children. Male and female children continually ask for more books when they find a topic that interests them.

A discussion came up within this question about the value of reading logs to encourage reading at home. According to some, parents “all” complain about the reading logs and with the “peer pressure” among parents to fill them out. Questions arise about the validity and helpfulness of the reading logs. Teachers use a variety of incentives and disincentives to promote compliance with the reading logs. This is an area that seems to require additional discussion and guidance.

Question: What more can the district do to enable you to continue on the path of continued growth and professional achievement?

Respondents indicated that before the official implementation of the CCSS in the East Moriches School District, their principal was “relentless” about the need for the teachers to learn and follow the CCSS “modules” with “fidelity” and no modifications in year one. The teachers alleged that this was significantly different than other districts where teachers picked and chose the aspects of the modules that they liked without regard to instructional continuity.

In year two of the implementations, after teachers had used the modules without deviation in year one, they understood them more deeply. As a result of deeper understanding of the CCSS, principals and faculty identified gaps in the modules as well as where redundancies existed. This knowledge allowed for the development of supplemental materials, curricular revisions, and pedagogical adaptations to occur.

Within the modules, the strongest emphasis is on ELA and math with science and social studies relegated to certain domains depending on grade levels. Going forward teachers want balance and believe it may be time to revisit the modules, domains, and skills.

There was further conversation about the reduced focus on science and math in Grades 3 and 4 with the primary emphasis being on ELA and social studies. There is a perception that there is little time for doing fun experiments or prolonged social studies projects.

There was also concern that writing skills and conventions (grammar, punctuation, parts of speech, etc.) are no longer emphasized. However, teachers acknowledge a willingness to sacrifice some content in science, math and even writing conventions in exchange for having students read for meaning and understanding. They now have the skills and abilities to learn new things that were not present pre-CCSS.

It is fair to state that teachers were not willing participants in the first year; however, they now report an appreciation in the original design, which has resulted in professional pride. The teachers have had to set aside their long-held beliefs about what their students are capable of achieving as they witnessed their continuous growth in a more rigorous instructional environment. They report now how they appreciate the instructional continuity they have created.

Perhaps one of the most telling statements teachers made was references back to the old days, where on the first day of a new school year, a teacher knew exactly who a child’s prior year’s teacher was based on the skills the child possessed. Now, all students have had equal access to the same curricula and rigor when they enter the classroom on day one of a new school year.

Conclusion

This study identifies many positive trends that quantitatively and qualitatively demonstrate how the East Moriches School District is moving in the right direction instructionally with solid growth in multiple measures of student success.

On the quantitative side of this study, the Lexile data is clear. Since the district’s implementation of the CCSS, student reading levels have grown considerably for both male and female students. Growth in Lexile levels is especially interesting in that the focus of the CCSS reading requirements and strategies is on the non-fiction genre.

The knowledge, skills, and dispositions required of students reading non-fiction are considerably more challenging than that required in the fiction genre which used to dominate reading programs nationwide.

Success in reading and working within the domains of non-fiction, in particular, are required if students are truly to be “college and career ready” in the 21st century. The gains here are particularly impressive.

Teachers confirmed they were universally satisfied with their students’ interest and abilities within the non-fiction genre. Of great interest to the stated purpose of this investigation is how teachers indicated that the male students, in particular, were motivated more than ever before to read when the emphasis shifted to non-fiction.

Looking at student performance on the 4th grade NYS ELA Assessment, positive trends are emerging as well. The percentage of students achieving proficiency or higher (levels 3 and 4) has grown since the implementation of the CCSS. While females are still outperforming male students, trends are positive for both.

As stated, the ELA state test data are problematic to use for the purpose of making any significant changes in curriculum and instruction. There are many variables skewing this data, including the number of students refusing to take the test, the changes in the NYS scoring rubrics, and the changes in form and format of the assessment itself during multiple annual administrations.

One of the more data-rich environments of this research was the focus groups with teachers. While some of the faculty members were reticent at the start of the CCSS implementation, they report observations of the benefits in the CCSS implementation process.

Teachers noted an increased interest in vocabulary and readings and using information within the non-fiction genre. Tales of “boys” reading more than ever before were particularly encouraging and illustrative of one of the major instructional shifts espoused by the CCSS. Equally, and possibly more encouraging, was that the “girls” were equally engaged in the non-fiction and critical thinking.

The majority of parents of both male and female students who responded to the survey sensed that the children were doing about the same or better in the post-CCSS era. Their positivity was particularly evident in ELA. Student achievement in math seems to mirror the more universal concern among many parents that needs to be investigated further and addressed.

The last aspect that is noticeable concerns referrals through RTI for behavioral issues. Positive trends were noted, particularly since 2015. Often discipline referrals are the result of student frustrations in class with subject-matter, lack of success, frustration, or other factors. Given that the CCSS has higher expectations for instructional rigor and relevance, the downward trend in RTI referrals for discipline is impressive. In other words, as rigor goes up, more students appear to be engaged and excited about learning and RTI referrals are down. One might expect the opposite. This is worth celebrating.

This report details the following key findings:

- By 2017, male students in the 2012 and 2013 cohorts generally showed improvement in literacy both within each cohort’s progression—showing gains of at least 7.63%—and over the baseline 2011 cohort by a significant margin.
- Since the rollout of CCSS, the district teachers interviewed have increasingly supported the changes, noting that “student capacity was beyond prior expectations” and there are more “male readers” than ever before.
- Teachers reported a number of important factors that attributed to greater student success, including a greater emphasis on “close reading” and reading more non-fiction; growth in “sophisticated” student vocabulary; a more collaborative, student-centered environment; and more regular and improved parental engagement.
- Female students in the grades of study showed improvement in English Language Arts (ELA) proficiency and literacy, showing clear improvement within each successive cohort in each year’s test and growth of at least 7%. As a result of this fairly even pace, the ability gap between females and their male counterparts remained relatively constant.
- The focus of the new standards and curriculum was highly regarded by parents of the study participants. In spite of opting out of the Grades 3-8 New York State (NYS) Assessments, parents indicated that Mathematics and ELA were the subjects of greatest improvement for their children.
- School psychologists likewise saw a reduction in academically-related referrals since the implementation of CCSS, especially among male students, indicating a reduced need for interventions.

Recommendations

The lack of consistency and perceived reliability of the NYS assessments is a source of frustration for parents and educational professionals alike. The district should consider creating standards-based “aligned assessments” for all grades and subjects that create greater instructional continuity between and among all teachers and grades. The resultant data set would be more reliable and actionable for teachers and parents.

Given the high number of parents opting out of the state assessments, the district should consider widely dispersing the findings in the study so that parents have a stronger sense of what children are capable of doing within a culture of higher expectations and increased academic rigor.

To have a district's standards, assessments, and curriculum operate in concert with one another and to promote literacy skills, it may be necessary for each district to create a culture of collaborative change for itself and shield all stakeholders from the volatile political climate at the state level where constant exam changes and shifting priorities can result in a lack of steady, actionable data.

Achieving collaborative change requires significant buy-in from all key members of the school community, as well as the time to make all the necessary changes with limited educational disruption. Additionally, school and district leaders have to ensure faculty and parents have regular time to reflect on the successes and failures of curricular and instructional efforts and make necessary modifications needed to foster continued improvement for all.

References

Fullan, M. (May, 2011) Choosing the wrong drivers for whole system reform, Center for Strategic Education, Melbourne, Victoria, Canada, pp 1-17.

Fullan, M. (2001). *Leading in a Culture of Change*, San Francisco: Jossey-Bass.

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Book Review

Gorbachev: His Life and Times

By William Taubman, Biographer

On November 9, 1989, my colleagues and 21 students from West Babylon High School were awaiting the arrival of 21 students and their teachers and administrators from Moscow at John F. Kennedy Airport. The students were engaged in the first high school student exchange sponsored by medical doctors in Moscow under the theme, "Children are the Creators of the 21st Century." From 1989 until 1999, the students of both communities enjoyed the cultural and historical exchange of ideas, aspirations and friendships.

Eighteen years later, one wonders how to help USA students of World History appreciate how history unfolds and their place in its unfurling. Having lived with Russian host families in Moscow for several weeks in 1993, 1995 and 1997, I found Amherst College Professor Emeritus William Taubman's life of Mikhail Gorbachev a fascinating experience of the changing landscape in the soviet system and of the European and American exchanges. Professor Taubman's book and writing style that incorporates extensive research and interviews with participants in perestroika and glasnost enables the reader to experience events as if one is a witness.

Every aspect of Mikhail Gorbachev's life is examined with careful detail and personal descriptions. His early years as a child and schooling are presented with a sense of being a student with him. His university experience and marriage to Raisa and their partnership and parenting are a theme of deep human emotions known among young parents across the globe. His ascent in political life and his doubts and aspirations are explored as well as his dramatic effect on the world stage with other national leaders such as Ronald Reagan and Margaret Thatcher.

Teachers may struggle with methods to bring history alive in their classrooms. One way to help students experience history is to bring quality biographies into the classroom. A collaborative and cooperative learning endeavor can help students use their critical thinking

skills in new ways and enable them to digest a 700 page biography of Gorbachev while they learn a portion of the history of Russia in the last half of the 20th Century. Gorbachev's life and work helps every reader understand how Russia came to be what it is now and how its people may evolve.

I spoke with a few high school students about a method to address a large and scholarly biography in school. I offered that students might be divided into groups of four and assigned a segment of the book dealing with themes or periods of the person's life. Each group of students would be expected to read 75 to 100 pages very carefully and contrast the story line of Gorbachev's Russia with happenings in the USA available in magazine, newspaper and film archives.

Students would be expected to present the major themes and important insights available in the biography and to contrast them with events in their own country. In a PowerPoint presentation, students could summarize what they learned, insights they acquired and new knowledge they gained and even illustrate their points with film clips.

If teachers managed these presentations on Fridays twice a month, students could participate in developing questions that they wished the next group to address as they proceeded to read the chapters of Gorbachev's life. My student advisors thought that this would be a "fun way to learn."

So, for educators who wish to examine history with their students, Professor Taubman's biography of Mikhail Gorbachev offers a lively examination of the second half of the 20th Century and insight into the first half of 21st Century Russia and world politics.

Reviewed by Robert J. Manley, Ph.D., retired Superintendent of West Babylon Public Schools and Professor of Education Administration.

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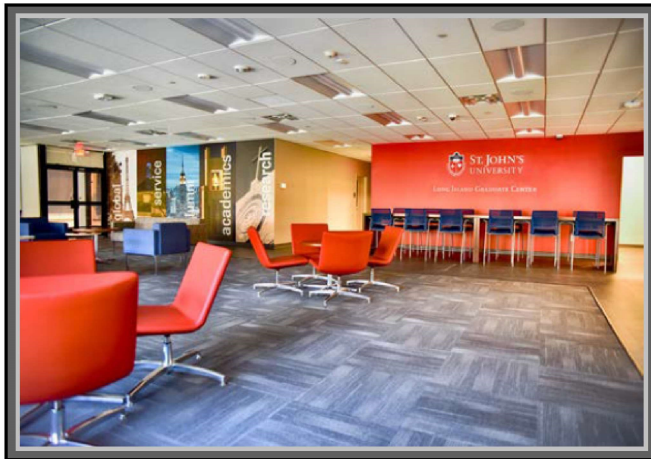


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