

NASET Special Educator e-Journal

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Special Education Legal Alert

Perry A. Zirkel

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This month's update identifies recent court decisions addressing IDEA issues arising during the extended pandemic period, warranting special consideration of districts' FAPE obligation. For related publications and earlier monthly updates, see perryzirkel.com.

In respective rulings on October 10, 2022 and November 7, 2022, the state appeals court (*In re Special Education Complaint 22-027C*) and the federal district court in Minnesota (*Skaro v. Waconia Public Schools*) addressed the various claims of the parent¹ of 3 children with IEPs and at least 1 with high health risk. When the District resumed in-person learning in the 2021–2022 school year without mandatory masking (after having provided virtual instruction various parts of the previous period due to the pandemic), the parent refused based on safety concerns. Insisting on virtual instruction without any direct contact with District personnel, the parent declined the District's various proposed alternatives,

¹ The term “parent” is used generically here for clarity, although one of the parents filed at least one of these claims and both parents filed the others.

including a separate special education classroom with specified mitigation features. A series of legal actions ensued. At a due process hearing under the IDEA for these 2 children, the parents contended that home-based virtual services would be the LRE rather than the District's "segregated" classroom, but the hearing officer decided in the District's favor. The parents separately filed a charge of discrimination under the state's civil rights law with the Minnesota Department of Human Rights, which concluded that there was no probable cause for their claim for home instruction. They filed a state complaint under the IDEA with the Minnesota Department of Education, which decided in their favor after an investigation, concluding that the IDEA obligation to "provide" FAPE meant that the child would "receive" the services specified in their IEP, not just have them available. Because Minnesota is one of the relatively few states that provide for judicial appeal of state complaint decisions, the District filed for judicial review in the appropriate state court. Finally, the parents separately filed a pro se (i.e., without an attorney) a lawsuit in federal court seeking 20 million dollars in damages.

The state appeals court reversed the state complaint decision, concluding that the plain meaning of "provided" in the IDEA and parallel state law is "offered," or made available.

The state's interpretation was not reasonable because (1) it is inconsistent with the statutory standard for awarding compensatory education; (2) parents have a "reciprocal obligation" for cooperation under the IDEA; and (3) requiring "receiving" when the parent refuses would impose liability for circumstances beyond the district's control.

The federal court dismissed the parent's various claims based on lack of subject matter jurisdiction for several threshold adjudicative reasons.

The parent (a) failed to appeal the due process decision within the allowable period, (b) is similarly time-barred with regard to the discrimination complaint; (c) is not allowed to relitigate the state court

	ruling in federal court; (d) failed to make service of process for some defendants; and (e) failed to “exhaust” any new claims.
This case illustrates the formidable challenges for parents and districts during and immediately after the pandemic that thus far have resulted in court rulings under the IDEA. The parents reportedly have already filed an appeal with the Seventh Circuit.	

On October 28, 2022, a federal district court in Pennsylvania issued an unpublished decision in *A.D. v. Upper Merion School District*, addressing IDEA issues in the wake of the pandemic. In this case, the child was a nine-year old with significant health problems and conditions affecting brain development, and the great grandparents (here referred to generically as “guardians”) had full legal custody since the child’s birth. In 2019–2020 before the school’s COVID-19 closure, the IEP provided for half of the school day in the regular kindergarten and the other half in a special education classroom; an aide and a BIP; and the related services of PT, OT, and SLT on a pull-out basis. During the state-mandated school closure, the District provided iPads and distance learning from March 30 to May 28, 2020, initially on an asynchronous basis and, after April 20, synchronously. Due to the guardians’ technological problems and the child’s behavioral problems, the District provided the guardians with tech support and substantial personalized assistance, but the guardians were uncooperative. They insistently requested having the school personnel provide the IEP services in-person at their home, which the District declined based on public health concerns. For 2020–2021, the District resumed in-person services at school on a phased basis. After 2 weeks of continued virtual instruction, the District invited selected special education students, including the child, to return for in-person instruction with various mitigation measures, such as social distancing, but the guardians refused based on concern for the child’s health. Due to heightened COVID concerns due to holiday travel, the District returned to virtual instruction between Thanksgiving and the

New Year, when in-person instruction resumed. The guardians and approximately a third of the other parents chose to continue virtual instruction, but for the child the technological and behavioral problems persisted at the expense of the child's attendance and progress. After the guardians filed for a due process hearing, the hearing officer decided in the District's favor, and they appealed to federal court. The court addressed both *Endrew F.* and compensatory education in these special circumstances with 4 successive conclusions.

As of March 2020, the court concluded that "it was reasonable to expect the child's guardians to implement the IEP in light of the substantial resources and assistance the District provided."	The court pointed out the District-wide provision of iPads and straightforward instructions for parents/guardians to have a "learning coach" role in addition to the extensive added assistance offered to the child's guardians based on their individual circumstances.
By May 2020, when it was reasonably clear that virtual instruction could not be successfully implemented for the child, any change in course would have to wait until the next school year.	Because the Third Circuit had established a long-standing precedent for a reasonable period for rectification of a denial of FAPE in the equitable calculation of the compensatory education, the court concluded that the guardians were not entitled to this requested remedy for this period.
For the 2020–2021 school year, the court ruled that the District satisfied its FAPE obligation by offering an appropriate IEP that the guardians opted against.	A key factor in this case was that although assessing the child and the guardians to be at high risk, the child's physician characterized the choice of keeping the child at home as being at their discretion rather than medically mandatory.
For the two limited periods of District-wide	Here, the reasonable rectification

virtual instruction, the District denied FAPE to the child.	deduction did not apply, because the District had the intervening summer to devise a reasonable alternative.
Overlapping with the previous case, this one illustrates the muddied waters during and immediately after the pandemic closure, when the individualized determination of whether the District met the substantive standard for FAPE under <i>Endrew F.</i> includes the special expectations for parents or guardians and the fact-based role of their choices.	

Buzz from the Hub

All articles below can be accessed through the following links:

<https://www.parentcenterhub.org/buzz-nov2022-issue1/>

<https://www.parentcenterhub.org/buzz-oct2022-issue2/>

<https://www.parentcenterhub.org/buzz-oct2022-issue1/>

RAISE the Standard

Culturally competent transition practices can play a significant role in improving post-school outcomes for youth with disabilities. The November issue of *RAISE The Standard* explores what it means to bring a culturally competent approach to transition planning and why it is vital to do so. Be sure to check out the great list of resources in the newsletter, such as the one listed below.

Life after High School: A Guide for Culturally and Linguistically Diverse Families of Youth with Disabilities

This guide is offered in nine languages: English, Arabic, Chinese, Korean, Russian, Somali, Spanish, Tagalog, and Vietnamese. Wow, eh? From Open Doors for Multicultural Families.

Addressing the Impacts of Parent and Caregiver Loss on Children

(Also available in Spanish: *Cómo afrontar el impacto de la pérdida de padres y cuidadores en los niños*)

This Dear Colleague Letter from the Administration for Children and Families (ACF) discusses the urgent need to support children and youth who've experienced the traumatic loss of a parent or caregiver. It also includes an astoundingly thorough list of programs and resources available to address the spectrum of needs a child or family might have, from economic supports to behavioral health, to kinship and family supports, and more.

How to Work With Your Child's School

Children with emotional or learning challenges are entitled to support from their schools. Who should parents talk to? This suite of articles from the Child Mind Institute can sure help! It includes 6 separate briefs, with titles such as Building Your Education Team, Supporting Trans and Nonbinary Kids at School, How to Get Assistive Technology for Your Child in School, How to Make the Most of Your IEP Meeting, and About Section 504 Plans. All are also available in Spanish.

Treating Symptoms of Trauma in Children and Teenagers

(Available in Spanish: Tratar los síntomas de trauma en niños y adolescentes)

The 2022 Children's Mental Health Report looks at the effects of psychological trauma on children and reviews the evidence for treatments aimed at helping them recover. From the Child Mind Institute, 15 pages.

Children's Mental Health: A National Family Guide

This 26-page guide from the RAISE Center is packed with helpful info about mental health and a multitude of resources for families. Topics discussed include what parents and professionals need to know about mental health, when to get help, diagnosis, medication, supports and services, schools and mental health, state agencies, and much more.

Sensory Processing Issues Explained

(Available in Spanish: Los problemas de procesamiento sensorial explicados)

This series from the Child Mind Institute delves into the many aspects of sensory processing issues in children, and can come in handy as we approach the chaotic holidays and social gatherings. The series includes such articles as Treating Sensory Processing Issues; How Sensory Processing Issues Affect Kids in School; Sensory-Friendly Party Ideas; and Tips for Going Places With Sensory-Challenged Kids. All are available in English and Spanish.

Food Allergies in Children

(Similar info in Spanish: Alergias a los alimentos en niños)

Holiday and everyday feasting can be very tricky if your child has a food intolerance or allergy. This article from Johns Hopkins Medicine describes the most common types of such allergies, how to find out if and what types of allergies your child has, symptoms, and treatment, including tips for dining out with food allergies.

Navigating Food Allergies During the Holidays

Food allergies don't have to dampen the spirit of the holidays. See tips for celebrating with allergy-free foods, so everyone has a place at the table.

Responding to Your Child's Bite

(Available in Spanish: *Maneras de tratar las mordidas de su hijo*)

Many toddlers and young children bite. Developmentally, most toddlers don't have enough words to express how they are feeling. Biting is one of the ways toddlers express their needs, desires, or feelings. This handout provides information on why children bite, what to do and what not to do, and when to seek professional help. From the National Center for Pyramid Model Innovations.

IEP Tip Sheet Series

Parents and family members are critical members of the IEP team and the IEP development process. It's important that parents understand the IEP and its parts, why the IEP is important, and the valuable role that parents play in creating the IEP. This series begins with IEP Tip Sheet for Parents: An Overview of the IEP and then offers 7 fact sheets about specific components of the IEP. From the Progress Center.

Related Services Providers: Important Contributors to the Accommodations Decision-making Process

This 4-page brief from the National Center on Educational Outcomes suggests strategies for supporting related services providers so that they can participate more confidently as members of IEP teams when decisions are made about instructional and assessment accommodations.

Five Required Pre-ETS Services

For students with disabilities who are eligible or potentially eligible for VR services, pre-employment transition services includes a specific set of activities by law: job exploration counseling, work-based learning experiences, counseling on postsecondary education opportunities, workplace readiness training, and instruction in self-advocacy. Want to learn more about each of these activities? Take advantage of this series from the National Technical Assistance Center on Transition: The Collaborative.

Webinar | The Transformative Power of Engaging Parents as Partners

This hour-long webinar was held in September 2022, and explores how one unified school district completely transformed its relationships with families, re-established trust, and even more importantly, improved students' learning experiences. Their intentional efforts to engage parents as partners also helped save the district millions of dollars in attorney fees and settlement costs. From CADRE, the TA&D's expert on dispute resolution.

U.S. Department of Education's Office for Civil Rights Reaches Agreement to Resolve Restraint and Seclusion Compliance Review of Southeastern Cooperative Educational Programs in Virginia

The U.S. Department of Education's Office for Civil Rights (OCR) today announced that the Southeastern Cooperative Educational Programs (SECEP) in Virginia entered into a resolution agreement regarding the use of restraint and seclusion and the provision of a free appropriate public education (FAPE) to students with disabilities.

Pursuant to the agreement, SECEP committed to take steps necessary to ensure that it does not use restraint and seclusion in a way that denies to students with disabilities the FAPE to which they are entitled under Section 504 of the Rehabilitation Act of 1973 and Title II of the Americans with Disabilities Act.

OCR identified concerns that SECEP may have denied FAPE to students with disabilities when it did not reevaluate students after multiple incidents of restraint and seclusion and when students missed significant instructional time.

"I thank SECEP for its commitment to reviewing the use of restraint and seclusion in its program, including reviewing the educational needs of students with disabilities, to ensure that SECEP is providing services that address those needs," said Assistant Secretary for Civil Rights Catherine E. Lhamon.

During its review, OCR investigated SECEP's use of restraint and seclusion by reviewing information about incidents in which SECEP restrained and secluded students with disabilities starting in the 2016-2017 school year.

OCR's investigation identified concerns that students who had multiple incidents of restraints and seclusions lost educational time and services and that SECEP did not re-evaluate those students to determine whether they should receive additional or different

supports and compensatory services. Additionally, OCR identified concerns with the adequacy of SECEP's procedures, training, and recordkeeping.

SECEP's agreement to change its practices with respect to the use of restraint and seclusion, and its commitment to examine and remedy prior instances where restraint and seclusion of its students may have denied them a FAPE, reflect SECEP's willingness to serve its students with disabilities.

SECEP's commitments to resolve the compliance review include:

- Formalizing its policy and procedures on the use of restraint and
- Modifying its recordkeeping system.
- Training staff on SECEP's revised policy and procedures and new recordkeeping system.
- Reviewing files of currently enrolled students who were restrained and secluded since the start of the 2016-2017 school year to determine, in part, whether any student requires compensatory education for educational services missed due to incidents of restraint and
- Developing and implementing an internal assessment tool to monitor and oversee SECEP's use of restraint

U.S. Department of Education's Office for Civil Rights Reaches Agreement with California's Davis Joint Unified School District in Investigation Regarding the Use of Restraint and Seclusion

The U.S. Department of Education's Office for Civil Rights (OCR) announced that the Davis Joint Unified School District in California has entered into a resolution agreement to ensure that its restraint and seclusion policies and practices do not deny students with disabilities a free appropriate public education (FAPE).

OCR examined whether the district's use of restraint and seclusion in the 2017-2018 and 2018-2019 school years denied its students with disabilities a FAPE in violation of Section 504 of the Rehabilitation Act of 1973 (Section 504), Title II of the Americans with Disabilities Act of 1990 (Title II), and their implementing regulations.

OCR determined that the district placed three of its students with disabilities in nonpublic school settings and violated their rights under Section 504 and Title II because the district:

1. Failed to ensure that district staff making placement decisions for these students had access to and carefully considered information obtained about the use of physical restraint and/or seclusion with these students.
2. Separately failed to ensure that those making decisions regarding behavioral interventions for these students were knowledgeable about each student, the meaning of the evaluation data, and the placement.
3. Failed to reevaluate these students to determine whether the repeated use of restraint and seclusion for these students denied them a FAPE and if additional aids and services were appropriate to provide a FAPE. And,

4. Denied a FAPE to all three students based on the above failures and resulting harms to the students.

“I am grateful for Davis Joint Unified School District’s commitment to take important steps to ensure that its students with disabilities are not denied a free and appropriate public education as a result of the use of restraint or seclusion whether they are placed in district schools or nonpublic school settings,” said Assistant Secretary for Civil Rights Catherine E. Lhamon. “The tragic death of a child subjected to prolonged and repeated restraint at a school placement through this district underscores the urgency for school communities everywhere to carefully examine their restraint and seclusion practices to safeguard children in their care, in addition to their obligation to satisfy the federal civil rights laws we enforce.”

Throughout the investigation, OCR found that one of these students died after being subjected to a prolonged restraint that was preceded by at least four other restraints by the nonpublic school of which the district was aware. It was further found that the other two students were subjected to repeated restraints and seclusions, costing each student multiple total days less classroom instruction than their peers who were not subject to such restraints and seclusions. OCR found that that district did not visit the nonpublic schools following notification of their repeated use of restraints and seclusions.

Compliance concerns that the district did not document all restraints and seclusions and may have failed to identify all students subjected to restraint and seclusion were also identified by OCR. These documentation concerns, coupled with district staff not having access to complete information about restraint and seclusions, raised a related concern that parents did not consistently have access to the information needed to participate meaningfully on the IEP teams for their children.

OCR did not find evidence that district schools used seclusion during the years reviewed, and, during these same years, OCR identified six district students whom district elementary

school staff restrained in a total of 12 incidents. OCR did not identify compliance concerns regarding the restraints of these students.

The district agreed to resolve the violations and compliance concerns OCR identified by making comprehensive changes to its policies, procedures, and training requirements with respect to the use of restraint and seclusion. The district's policies already prohibited the use of seclusion, and the district agreed to ensure that none of its students would be placed in nonpublic schools until their staff were trained on these policies and the duty to comply with Section 504 and Title II.

The district also agreed to remedy prior instances where restraint and seclusion of its students in non-public school settings denied or may have denied them a FAPE, and to develop a monitoring program to ensure that any future restraint or seclusion complies with Section 504 and Title II.

The steps the district committed to take in the resolution agreement include:

- Revising its policies for restraint and seclusion to promote its compliance with Section 504, Title II, and their implementing regulations.
- Distributing the revised policies to parents, faculty, administrators, staff, and any nonpublic school employees providing special education services to district students.
- Developing and implementing a process and form to create and maintain records about the use of restraint and seclusion of district students, including district students placed in a nonpublic school.
- Providing training on the revised policies and the FAPE-related requirements of the Section 504 regulation to all teachers and administrators and other district staff who are members of IEP and Section 504 teams for students with disabilities.
- Ensuring that staff at nonpublic schools where district students are placed receive training on the district's policies and the FAPE requirements of the Section 504.

- Providing an individual remedy for a student subjected to multiple instances of restraint and seclusion by convening a properly constituted IEP team to determine what compensatory services are appropriate for the student and by timely providing such services.
- Conducting a review to identify any district students who were restrained or secluded by staff at nonpublic schools from 2019 to the present, and to implement responsive remedies based on this review. And,
- Implementing a program to monitor the use of restraint and seclusion with students in district schools and nonpublic schools to safeguard their Section 504 and Title II.

U.S. Department of Education Launches New Initiative to Enhance STEM Education for All Students

The U.S. Department of Education (Department) will host the ***YOU Belong in STEM*** National Coordinating Conference in Washington, D.C. as a key initiative for the Biden-Harris Administration. The *Raise the Bar: STEM Excellence for All Students initiative* is designed to strengthen Science, Technology, Engineering and Mathematics (STEM) education nationwide. This new Biden-Harris Administration initiative will help implement and scale equitable, high-quality STEM education for all students from PreK to higher education—regardless of background—to ensure their 21st century career readiness and global competitiveness.

“Research shows how a sense of belonging in rich and rigorous classrooms is directly correlated to students’ long-term academic success. Moreover, the Department’s Civil Rights Data Collection continues to demonstrate that students of color and students with disabilities are disproportionately excluded from learning opportunities in STEM,” said U.S. Deputy Secretary of Education Cindy Marten. “Today, we are saying unequivocally to all students and educators that they belong in STEM and that they deserve to have rigorous and relevant educational experiences that inspire and empower them to reach their full potential as productive, contributing members of our nation’s workforce.”

The new initiative unites government, nonprofits, professional organizations, industries, philanthropies, and other community stakeholders to take bold action towards breaking down long-standing barriers for student success in the STEM fields. With the support of \$120 billion dollars dedicated to K-12 education in the American Rescue Plan (ARP) and all other federal education funds, the Department is galvanizing the broader education ecosystem to prioritize three goals for STEM education:

- Ensure all students from PreK to higher education excel in rigorous, relevant, and joyful STEM learning.
- Develop and support our STEM educators to join, grow, and stay in the STEM field.
- Invest in STEM education strategically and sufficiently using ARP and other federal, state, and local funds.

These goals provide strategic direction for the Department's STEM-related efforts to meet the most pressing needs of students and educators. Further, through this initiative, the Department calls on all states, districts, schools, and STEM-connected organizations and industries to make specific, tangible commitments aligned to these goals to provide all students with the experiences and resources they need to succeed in STEM and in life.

In support of the initiative and its goals, the Department has:

- Published a Dear Colleague Letter to state and district leaders outlining how federal education funds can be used to enhance STEM teaching and learning.
- Announced a partnership with Beyond100K through an MOU. Beyond100K will partner with the Department to identify the key challenges to fully staffing schools with STEM teachers who reflect the diversity of their students and create classrooms of belonging. Beyond100K will also partner with the Department and other stakeholders to better understand and predict the supply and demand of STEM teachers at the state and local levels. Additionally, Beyond100K will co-sponsor a series of national communities of practices to support states, school districts, and other education organizations in developing and implementing innovative solutions to the STEM educator shortage and improve equitable access to high-quality STEM instruction for all students, especially those most excluded from STEM opportunity.

Additionally, over 90 public and private sector organizations from across the country have made specific commitments to enhance STEM education. These commitments range from local grassroots efforts to initiatives that are national in scope. Several excerpts of example commitments include:

- **Data Science for Everyone** will assist 100+ school districts to leverage ARP and other funds for piloting and scaling data science education programs, impacting approximately 200,000 students, with a priority on serving Title I (~30%) and rural (~30%) communities; will launch working groups in 10 states to expand teacher training pathways into emerging technology education; will launch a research and development campaign for students with disabilities and other learning differences to engage in data science education by 2025.
- **DiscoverE** will create 10 million K-12 engineering experiences, 5 million of which will serve girls and underrepresented students.
- **New York Hall of Science**, through its STEM Equity Initiative, will engage over 300 three- and four-year-old students each year from the Corona community of Queens, New York, in its STEM-themed preschool through PreK program.
- **Smithsonian Science Education Center at the Smithsonian Institute** will provide professional development to over 100 K-12 STEM educators on Universal Design for Learning in STEM classrooms and on culturally based pedagogy in STEM classrooms; will also support 20 education entities representing over 10,000 STEM teachers with the goal of ensuring a diverse STEM teacher pipeline.
- **STEM Next Opportunity Fund** will expand the portfolios of Million Girls Moonshot partners to include local and regional STEM intermediaries and direct youth-serving organizations by investing an additional \$1.5 million a year through 2025 to the existing \$4 million planned; also by 2025 they will invest \$8 million in developing a research agenda to increase public awareness of out-of-school time as a critical component of ensuring a sense of belonging for youth in STEM.

A full list of the organizations can be found [here](#).

The ***YOU Belong in STEM*** National Coordinating Conference will welcome more than 200 STEM stakeholders from 30 states and territories in the Department's Lyndon B. Johnson building in Washington, D.C. Participants will collaborate and learn about the importance of belonging in STEM, connect with students and educators about their experiences in STEM education, and develop new partnerships and commitments. We invite you to join us

virtually for the opening (9 a.m. ET - 12:15 p.m. ET) and closing (4 p.m. ET - 4:45 p.m. ET) plenary sessions.

Today's actions and conference build on the progress school communities have made this year in helping students and families recover from the pandemic, as they respond to President Biden's call to enlist 250,000 adult volunteers to support student success. This past summer, the Department launched two national initiatives—the National Partnership for Student Success (NPSS) and Engage Every Student — that focus on innovative ways to engage students and schools and support academic achievement and student wellness.

Department of Education, Department of Justice, and Department of Health and Human Services Release First Report to Congress as Part of the Interagency Task Force on Sexual Violence in Education

The Interagency Task Force on Sexual Violence in Education (Task Force), created by the Violence Against Women Act Reauthorization Act of 2022 (VAWA 2022 Reauthorization), presented its first report to Congress today. As required by the VAWA 2022 Reauthorization, the report focuses on recruiting, retaining, and training the Department of Education's highly qualified workforce who investigate complaints and enforce Title IX of the Education Amendments of 1972 (Title IX) and section 485(f) of the Higher Education Act of 1965 (Clery Act). The reauthorization of VAWA and the work of this Task Force continue a long commitment to action by President Biden, who was the primary Senate sponsor of the original Violence Against Women Act, which was enacted in 1994.

The Task Force, which includes the U.S. Department of Education, U.S. Department of Health and Human Services, and U.S. Department of Justice, was established on Sept. 1, 2022. The VAWA 2022 Reauthorization required the Task Force's first report to be completed by Nov. 30, 2022, which is no later than 90 days after the Task Force's establishment.

"The Department of Education is fully committed to ensuring that every student has the right to learn in a safe environment free from harassment and sexual violence," said U.S. Secretary of Education Miguel Cardona.

"Sexual violence prevention, particularly in educational settings, is critical," said U.S. Secretary of Health and Human Services Xavier Becerra. "This report is the first step to providing critical information about gaps in federal law enforcement and resources. HHS looks forward to working across the federal government to advance trauma-informed health care and advocacy services for survivors."

As required by Congress, the report provides information from the Department of Education's Office for Civil Rights and the Clery Group within the office of Federal Student Aid on the following topics:

1. An assessment to identify gaps or challenges in carrying out such investigation and enforcement, which may include surveying the current investigative workforce to solicit feedback on areas in need of improvement.
2. An examination of issues of recruiting, retention, and the professional development of the current investigative workforce, including the possibility of providing retention bonuses or other forms of compensation for the purpose of ensuring the Department of Education has the capacity, in both personnel and skills, needed to properly perform its mission and provide adequate oversight of educational institutions.
3. An assessment of the benefits of outreach and training with both law enforcement agencies and educational institutions with respect to such workforce.
4. An examination of best practices for making educational institutions aware of the most effective campus sexual violence prevention, investigation, and response practices and identifying areas where more research should be conducted. And,
5. Strategies for addressing such other matters as the Secretary of Education considers necessary to sexual violence prevention, investigation, and responses.

In addressing the Department of Education's work on best practices and strategies for preventing campus sexual violence, the report highlights a range of the Department's programs, including its National Center on Safe Supportive Learning Environments (NCSSLE)'s recent Lessons from the Field webinars on engaging school communities in preventing gender-based violence. Both featured leaders of prevention programming who provided practical, ready-to-use strategies for preventing sexual violence and other gender-based violence on college and university campuses and in secondary schools.

Guidance Helps Schools Support Students with Disabilities and Avoid Disparities in the Use of Discipline

The U.S. Department of Education announced the release of guidance from its Office for Civil Rights (OCR) and Office of Special Education and Rehabilitative Services (OSERS) to help public elementary and secondary schools fulfill their responsibilities to meet the needs of students with disabilities and avoid the discriminatory use of student discipline. These newly released resources are the most comprehensive guidance on the civil rights of students with disabilities concerning student discipline and build on the Department's continued efforts to support students and schools through pandemic recovery.

The resources are listed below and can be found at:

<https://sites.ed.gov/idea/new-guidance-helps-schools-support-students-with-disabilities-and-avoid-discriminatory-use-of-discipline/>

- Letter from Secretary Cardona to Our Nation's Educators, School Leaders, Parents, and Students About the Importance of Supporting the Needs of Students with Disabilities.
- OSEP Dear Colleague Letter on Implementation of IDEA Discipline Provisions.
- Questions and Answers Addressing the Needs of Children with Disabilities and IDEA's Discipline Provisions.
- Positive, Proactive Approaches to Supporting the Needs of Children with Disabilities: A Guide for Stakeholders.

- Supporting Students with Disabilities and Avoiding the Discriminatory Use of Student Discipline under Section 504 of the Rehabilitation Act of 1973 (Section 504).
- Accompanying Fact Sheet.

Classroom Membership: What Does That Mean Exactly?

Dr. Katie Heath

Roberts Wesleyan College

*****Excerpted from Fall 2021 JAASEP**

Abstract

Classroom membership is essential in today's classrooms as students need to feel safe and secure in their participatory roles. Allowing a student's voice is essential in allowing them the opportunity to communicate with their peers. In this study, the author looked at how the use or non-use of the iPad (as a form of assistive technology) affected membership of students with disabilities. Findings showed that iPad integration played a vital role in increasing or decreasing participation through communication and the feelings of membership in the classroom. Ultimately, how the teacher plans and prepares for the integration of the iPad into the classroom ultimately affects the membership opportunities for students with disabilities. Included are the stories of four students and their use of the iPad.

Classroom Membership: What Does That Mean Exactly?

What does classroom membership mean? Why should students with disabilities want to be a member of the classroom? How does assistive technology use affect classroom membership? These are the questions that teachers in this study grappled with. To feel a sense of classroom membership, teachers need to set up a safe and respectful classroom community. A classroom community is essential when creating a space that encourages learning (Morgan, 2015). Classroom membership within the classroom community involves students having a voice in the educational process. This paper defines student

voice as “a term that honors the participatory roles (including communication) that students have when they enter learning spaces like classrooms” (Byker et al., 2017). Marginalization of students with disabilities is common in the classroom because of their needs and differing abilities, often times related to the way they communicate (Jorgensen & Lambert, 2012; Morgan, 2015). Teachers need to be in tune with what each of their students need and how to best support them within the classroom community.

Teacher planning and preparation are key components in the creation of a strong classroom community (Jorgensen & Lambert, 2012). Teachers’ awareness of the services, student needs, accommodations, and modifications for each student plays a part in the planning and preparation for students with disabilities. Teacher awareness of services is especially important when students with disabilities need an assistive technology (AT) device in order to succeed within the educational environment. One common form of AT device being used in schools is the tablet. Tablet computers provide the opportunity for independent learning (McClanahan, 2012). They have multiple built-in accessibility features such as screen magnification and text to speech/speech to text that allow students with disabilities to interact with the academic climate, seamlessly. These types of devices allow for instruction to become portable and affordable (Najmi & Lee, 2009). In this study, the author looked at how the use or non-use of a specific tablet, the iPad, affected membership with students with low incidence disabilities. The author also looked at what affects classroom community and participation with a focus on the use of AT integration. The inclusion criteria for this study included teacher participants who had students currently with a disability label that fell under one of the low incidence disabilities and someone who used an iPad in the classroom.

Theoretical Framework

The theoretical framework of this study is rooted in the social construction of disability, focusing specifically on the presumption of competence. Asch and Fine (1988) were the

first to define the social construction of disability. They determined that, "...it is the attitudes and institutions of the non-disabled, even more than the biological characteristics of the disabled that turn characteristics into handicaps" (Asch & Fine, 1988, p. 7). This perspective of disability includes a definition constructed by people who are not disabled (Jones, 1996). Having a social constructionist mindset on disability means that one celebrates the uniqueness of the individual and looks for ways to remove oppressive structures (Jones, 1996). It is within this mindset that technology use fits within the discourse on disability. Teachers need to remove accessibility barriers in the classroom and provide tools to students with disabilities that will help them individually succeed within the educational environment.

Also, within a social constructionist mindset, teachers need to learn how to presume the competence of all their students. Biklen and Burke (2006) explain the presumption of competence as allowing others to reveal their thinking without assuming what they do or do not know. There is a connection between the presumption of competence and the intellectual capacity of a student, specifically, the student's ability to verbally communicate (Biklen & Kliever, 2006). When teachers presume competence, they discover how to meet the needs of their students. They can tailor their instruction to enhance the opportunities of students with disabilities (Biklen, 1990; Blatt, 1999; Kliever, 1998); this is where the intersection between technology and disability comes into play. In schools, the presumption of competence is often related to the educational approaches available (Biklen, 1990; Blatt, 1999; Kliever, 1998), thus either hindering or promoting the use of technology. Educational approaches employed in a classroom are grounded in presuming the competence of the students in the classroom (Jorgensen & Lambert, 2012). Teachers plan activities and lessons around the idea that they can instill knowledge and learning into their students. The presumption of competence opposes the idea of making judgements about students due to their level of capacity or performance (Jorgensen & Lambert, 2012). It ensures that teachers' educational approaches are conducted with high fidelity and high expectations (Jorgensen & Lambert, 2012). Teachers face the challenge when students with more significant disabilities are not able to show their knowledge in the same way as other

students, by speaking, writing, or typing (Jorgensen & Lambert, 2012). Jorgensen and Lambert (2012) explain that it is important to remember,

Even if students never show that they have mastered all that they have been taught, it is far more dangerous to presume that students will never learn and then find out that they might have, had they been provided with high quality instruction and assistive technology to support their communication and literacy skills (as stated in Jorgensen, 2005, p.29).

As authors Biklen and Kliever (2006) state, competence is socially constructed. The authors continue to explain this idea by stating, “This is by way of saying that disability categories are not ‘given’ or ‘real’ on their own. Rather, autism, mental retardation and competence are what any of us make them” (Biklen & Kliever, 2006, p. 182). Therefore, to change this way of thinking, teachers must inherently change their mindset on students with disabilities.

Presentation of Problem

AT devices are commonly found in conjunction with students with disabilities and are commonly used in today’s classrooms due to Federal mandates. The Individuals with Disabilities Education Act (IDEA) also known as the Individuals with Disabilities Education Improvement Act (IDEIA) mandated the consideration of AT devices and services when creating a student’s Individualized Education Program or IEP [IDEIA, 2004], 20 U.S.C. & 1401 (251)]. The Federal definition for AT is, “any item, piece of equipment or product system, whether acquired commercially or off the shelf, modified, or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities” [IDEIA, 2004], 20 U.S.C. & 1401 (251)]. Students with disabilities rely on AT devices to access the curriculum and other educational opportunities (Gray et al., 2011).

One common tablet, the iPad is used as an AT device because it is more affordable, portable, and versatile than other types of specialized AT devices, such as augmentative and alternative communication devices (Najmi & Lee, 2009). More students are familiar

with the functions of an iPad or iPhone because of the commonality of these devices. Therefore, the learning curve for a specific tablet or Smartphone is shorter than if students used a specialized device (Rodriguez et al., 2013).

The issue being seen is that even though these devices provide ample opportunities for accessing materials and providing assistance in areas of need, teachers are not using them to their potential. Students use devices in other ways like game-playing (Flewitt et al., 2015) and not for the IEPs intended purpose. Device use ultimately affects the student's membership in the classroom (Byker et al., 2017). Therefore, students receive fewer educational opportunities. The challenge arises when students with low incidence disabilities cannot participate to the fullest extent because they are unable to show their knowledge in the same ways as students without disabilities (Jorgensen & Lambert, 2012). As a result, students need supports in place to become valued members and equal participants in the classroom (Jorgensen & Lambert, 2012; Morgan, 2015). These supports come in the form of accommodations, strategies, and interventions that technology can assist in creating opportunities for participation in the general education classroom (Morgan, 2015). In this study, the author looked at four different participants' stories and how the use of their required devices affected the opportunities they had in the classroom.

Review of Literature

Technology integration influences students in a multitude of ways, including the membership and participation of the student. Membership can be defined as being a part of a group. Taking part or participating in group activities is essential for students with disabilities because it helps them to make progress within the general education curriculum. Jorgensen and Lambert (2012) found that when teachers used the Beyond Access Model to plan for supports for students with disabilities, consequently the students' membership, participation, and learning were influenced positively. The Beyond Access Model's planning process consists of five questions that teachers need to answer prior to instituting classroom lessons:

1. What is the general education instructional routine?

2. What are students without disabilities doing to participate in the instructional routine?
3. Can the student with the disability participate in the same way in all components of the instructional routine or does the student need an alternate way to participate?
4. What supports does the student need to participate using alternate means?
5. Who will prepare the supports? (Jorgensen & Lambert, 2012, p.24)
- 6.

Classroom Community and Participation

Student inclusion directly relates to classroom community and participation (Jorgensen & Lambert, 2012). Jorgensen and Lambert (2012) stated that effective inclusion requires a student with a disability to not only be physically present within a classroom but also to be engaged academically with the other students. This type of inclusion encourages the teacher to plan instruction purposefully for every lesson (Jorgensen & Lambert, 2012). However, personal beliefs and practices may impact the planning decisions of a teacher (Sileo et al., 2008). Teachers need to plan not only for their instructional processes but plan participation opportunities for students with disabilities (Jorgensen & Lambert, 2012; Sileo et al., 2008). Many schools have a variety of technologies at their disposal, but the readiness of teachers to integrate technology plays a factor (Inan & Lowther, 2010). The practices of the teachers, whether that be choosing to use technology or not, affect the participation and membership of the students in the classroom.

AT is one form of support and/or service that affords students with disabilities the ability to increase their opportunities to be academically successful by heightening participation opportunities (Morgan, 2012). AT can be an asset to the communicative needs of students with disabilities. Authors Byker and colleagues (2017) explain that technological tools and devices assist students with disabilities. “With new modes of communication available through digital tools and devices-email, messaging, blogs, websites, not to mention various apps and programs-there seems to be great potential to increase opportunities for students to engage with their teachers” (Byker et al., 2017, p. 121). Their study found that “student voice” was associated with the opportunities for communication of student opinions

(Byker et al., 2017). Thus, teachers need to utilize technology to empower “student voice” opportunities (Byker et al., 2017).

Assistive Technology Integration

AT is a term associated with students with disabilities. This term was first defined in 1988 by the Technology Related Assistance for Individuals with Disabilities Act, which secured funds for students with disabilities for technology-related services (Nepo, 2017). Later, the Individuals with Disabilities Education Act (IDEA) focused on AT use for students with disabilities and made the term more wide-spread (Jones & Hinesmon-Matthew, 2014).

The goal of matching AT to a specific student is to make accomplishing a specific task easier and level the playing field for students with disabilities (Parette & Peterson-Karlan, 2007). Multiple authors agreed that AT provides students with supports and scaffolds instruction to promote participation (Bouck et al., 2011; Caverly & Fitzgibbons, 2007; Judge et al., 2008). Researchers also explained that AT promotes membership in the classroom by promoting cooperative learning (Alexandersson, 2011), ultimately affecting classroom participation.

Using AT. Technology, especially AT, can enhance classroom learning and affect membership and participation in the classroom. Researchers, Murray and Olcese (2011) found that through the use of technology, visual, auditory, and tactile tools promote multi-modal education. They also explained that teachers can use devices for tutoring, exploring, and communicating (Murray & Olcese, 2011). The United States Department of Education promotes the use of technology and its ability to help students learn in a variety of methods, specifically assisting students with diverse needs (IDEIA, 2004).

In schools, teachers may use technology as an instructional and/or assistive tool (Douglas et al., 2012). Schools and teachers use iPads for both purposes. iPads are popular devices currently used in classrooms because they can support individualized instruction (Rodriguez et al., 2013). They are practical, non-stigmatizing, portable, affordable, and have built-in accessibility features (Najmi & Lee, 2009). iPads offer one-to-one, self-paced,

tailored instruction when the user uploads the appropriate applications (McClanahan, 2012). Students with disabilities benefit from one-to-one, tailored instruction that meets their needs and the ability to learn at their own pace (McClanahan, 2012).

iPads provide endless options for learning through the variety of apps available for communication, emotional development, sensory and visual perception, visual and auditory, language development, and life skills (Etherington, 2011). There is evidence that students with disabilities respond positively to the responsive nature of the iPad and the immediacy of feedback from the device (Flewitt et al., 2015). Unfortunately, few researchers have explored iPad use with students with disabilities, in special education (O'Malley et al., 2013; Reichle, 2011). As explained by Reichle (2011), many of the AT devices used with students with disabilities involved non-tablet devices. One specific study by O'Malley and colleagues (2013) found that iPads positively affected student engagement, interest, and independence within instruction. Students with disabilities who require a specific form of AT, as stated in their IEP, need the technology integrated into the classroom in order to succeed in their education. Teachers need to remember that there are both positive and negative effects of integrating this form of technology and that their beliefs and practices also bring about these effects (Sileo et al., 2008). Personal values and beliefs impact the decisions teachers make (Sileo et al., 2008), thus ultimately affecting the use of the device as planned for by the teacher and the limitation of full membership such as the ability to communicate with others. As a result, there needs to be a direct connection between the matched device, student, and student needs (O'Malley et al., 2013).

Why iPads? iPads provide a benefit to schools and classrooms because they are more affordable, versatile, mobile, and customizable (Etherington, 2011; Hu & Garimella, 2014; Shuler, 2009b). The iPad is a tablet PC that came to the market in 2010 by Apple Corporation and has seen much of its use within the educational context (Hu & Garimella, 2014). Apple has sold over 20 million iPads in the United States and out of all tablets sold, 99.8% used are iPads (Etherington, 2011). In a manuscript by An & Alon (2013) the reasoning for iPad usage was explained: "iPads equipped with applications, otherwise known as 'apps,' purport to be educational, tend to keep children occupied, and appear to

help motivate children to learn, thus encouraging many K-12 schools to invest funds for the purchase of iPads and apps” (An & Alon, 2013, p.3005). iPads provide customizable instruction through the App Store (Shuler, 2009b). An app is short for application; the definition of an app is software that extends the capabilities of a phone or tablet that allows users to accomplish and perform specific tasks (Purcell et al., 2010). Teachers can embed apps into the learning process to meet the needs of their students (Shuler, 2009b). For teachers to meet the needs of their students, Rodriguez and colleagues (2013) explained that there needed to be a strong fit between the iPad usage and instruction. This included purposeful planning and allowing the students to use the iPads in different settings and environments (Rodriguez et al., 2013). Rodriguez and colleagues (2013) further explained the connection between technology and instruction as a strong focus on student needs through the specific usage of apps.

Researchers have found multiple benefits to iPad usage with students. Benefits of integrating iPads included not only increased learning academically, but also benefits in communication, visual attentiveness, reaching, and activating (Campaña & Ouimet, 2015). As a result, students were able to take responsibility for their learning, learn through an alternative path, and personalize their learning (Gray et al., 2011). Research by Flewitt and colleagues (2014) found that iPads provided multiple benefits for students with disabilities because they allowed for effortless touch and provided immediate rewards, which in turn increased engagement. The researchers specifically looked at how teachers adapted iPads to suit the needs of students with disabilities (Flewitt et al., 2014). The focus of the study was on how teachers embedded iPads into classroom settings to build upon communication and literacy. The researchers discovered that the sensory and kinesthetic performance of touch technology from the iPad enabled and motivated the students to reach independence in their literacy skills (Flewitt et al., 2014). Increased independence then led to increased inclusivity within the classroom because students with disabilities took part in classroom activities through small group iPad instruction due to their portability and size (Flewitt et al., 2014).

In this study, the author researched how students with low incidence disabilities use technology, particularly if the technology was used as the IEP stated. The author also focused on if teacher planning and student use ultimately affected the membership and participation of the student. This is important to understand in order for schools and teachers to provide positive educational opportunities for all students.

Methods

For this article, the focus was specifically on the use or non-use of a tablet device, specifically how an iPad affects membership in the classroom. The methods addressed the following research question in the kindergarten through sixth-grade settings:

1. How does use or non-use of iPads, as an assistive technology device, affect the membership and participation of students with disabilities?

Research Design

Qualitative research design provided a basis for this study. The research strategy involved a combination of systematic design and constructivist design with open coding conducted with the data. Access to participants came from different data collection methods including semi-structured interviews, observations, document analysis, and tracking tool. The interviews allowed the researcher to gain a better understanding of the teachers' thought processes when integrating technology. Consequently, the data from the observations and tracking tool provided information regarding whether what the teachers stated actually occurred. The research involved careful, in-depth studies of the individuals and situations (Johnson & Christensen, 2008). Once IRB approval was gained, the author identified four participant groups, which included the corresponding teacher(s) and student. These participants were observed and interviewed to see how they implemented iPads in their inclusive setting.

Participants. The setting included four different school sites across a large northeastern state, presented using pseudonyms. Three of the schools were elementary schools and one

was a middle school. Recruitment occurred by contacting administrators, such as the Director of Special Education, in the hopes of finding teams that already integrated iPads into their classroom (purposive sampling). Then, conversations were held with familiar administrators in the area in which they suggested certain teacher teams that they knew had students that utilized iPads. During recruitment, administrators identified the teams already integrating technology and iPads into the classroom. Once identified, contacts were made to see if the teachers were willing to participate in an interview and multiple observations. The selection of teachers led to a specific student. If the student fit the criteria (had a low incidence disability) and the parent consented, then he/she became a participant. Interviews and observations involved each student and teacher participant.

For teachers to fit within the participant criteria, they had to have a student who used an iPad and had a low incidence disability. Once the participants fit the criteria, they were both interviewed and observed. For this study, the author used the definitions of low incidence disabilities from IDEIA in conjunction with the definition from CAST (Center for Applied Special Technology). Students with low incidence disabilities vary from students with high incidence disabilities because of the prevalence of students falling under each category (Jackson, 2005). IDEIA (2004) places students with low incidence disabilities in Category C. Category C students are students with low incidence disabilities, thus requiring highly specialized teachers to know how to meet their needs (IDEIA, 2004). Section 1462 of IDEIA (2004) states,

Preparing personnel in the innovative uses and application of technology, including universally designed technologies, assistive technology devices, and assistive technology services—

(i) to enhance learning by children with low incidence disabilities through early intervention, educational, and transitional services; and

(ii) to improve communication with parents.

Table 1 depicts the different disability categories that fall under low incidence disabilities versus the categories that constitute high incidence disabilities from both IDEIA and CAST.

Table 1

Low Incidence Disabilities (LI) vs. High Incidence Disabilities (HI)

IDEIA (LI)	CAST (LI)	IDEIA (HI)	CAST (HI)
Intellectual Disability	Blindness	Speech and Language Disability	Communication Disorders
Hearing Impairment	Low Vision	Specific Learning Disability	Specific Learning Disability (including ADHD)
Orthopedic Impairment	Hard-of-hearing	Emotional Behavioral Disorder	Mild/moderate Intellectual Disability
Visual Impairment including Blindness	Deaf-blindness		Emotional or Behavioral Disorders
Deaf-blindness	Significant Developmental Delay		
Deafness	Complex Health Issues		

Other Health Impairments	Serious Physical Impairment
Autism Spectrum Disorder	Multiple Disabilities
Traumatic Brain Injury	Autism
Multiple Disabilities	

The four student participants used in the present study, came from different grade levels and different school districts. The four student participants were Mike, Billy, Theresa, and Ben (pseudonyms). Mike was a sixth-grade student who received educational instruction within a co-taught classroom in the Everly District (pseudonyms). He used his iPad for visual access but did not use this device during his interview. One of his IEP goals related to vision due to his visual impairment. The technology allowed him visual access to complete assignments and/or tasks. He had access to an iPad throughout his entire school day, and he was the only student in a class of nine girls and 12 boys who had access to an iPad. His two math co-teachers, Mr. Pine and Mrs. Perry (pseudonyms), also participated in the study through interviews and observations. His case manager, Mrs. Mallard, also provided an interview.

The second student interviewed and observed for this study was Billy. Billy provided a verbal interview. Billy was a 2nd- grade student in the Wellington District (pseudonym). All students in this second-grade class had iPads for individual use. Billy used the iPad to support various areas of need. Billy's two co-teachers participated in the study (pseudonyms). Mr. Pintak was the special education teacher who provided special education supports in Billy's general education classes. He also provided Billy with support in a resource room setting. Mrs. Credence was Billy's 2nd-grade general education teacher. Both Mr. Pintak and Mrs. Credence provided interviews and were observed.

Theresa was the third student participant in this study. She attended school in the Littleton District (pseudonym). She was a 5th-grade student who had both a general education teacher and special education teacher who taught together. Theresa rarely spent any instructional time in the general education classroom. During Theresa's interview, she used a communication board. One interview occurred with Mrs. Mellet (pseudonym), Theresa's special education teacher. On the other hand, both interviews and an observation of Mrs. Chancy (pseudonym), the paraprofessional, occurred. Theresa was identified with Autism Spectrum Disorder and her IEP stated that an iPad was needed for her to access the general education curriculum. The other students, in class with Theresa, had access to laptops but only used them sporadically. Theresa's mother also answered interview questions regarding Theresa's iPad use at home and school.

Ben was the last student to be observed. He was a 4th-grade student at the Cedar District (pseudonym). Ben had autism and had an iPad provided to him for communication purposes. All the other students in his class had iPads for individual use. Mrs. Tindle (pseudonym), Ben's general education teacher, also provided an interview. Only two observations occurred due to limited access.

For this study, three student participants had the identification of Autism Spectrum Disorder and one had a visual impairment. There were three special education teachers, four general education teachers, and one paraprofessional. Finally, there was one parent and one case manager who agreed to be interviewed. The author initiated interviews with all parents and guardians of the students, but only one consented to participate. The interviews and observations of the students, teachers, and parent participant provided data on iPad use to support student needs. Table 2 depicts the participant data.

Table 2

Participant Profiles

School One	School Two	School Three	School
Everly District	Wellington District	Littleton District	Four Cedar District

Student	Mike			Billy		Theresa		Ben
Grade	Sixth grade			Second grade		Fifth grade		Fourth grade
Eligibility Category	Visual Impairment			Autism		Autism		Autism
Parent						Mrs. Fairfield		
Teacher	Mrs.	Mr.	Mrs.	Mr.	Mrs.	Mrs.	Mrs.	Mrs.
Position	Mallard	Pine	Perry	Pinta	Credence	Mellet	Chancy	Tindle
	Case Manager	SPE D	Gen. Ed	SPED	Gen. Ed	SPED	1 to 1 aide	Gen. Ed.

Data collection. The data collection methods included interviews, observations, and data from the IEPs. Each data collection method provided necessary information about the “how” and “why” of iPad integration, thus helping to inform the researcher about a student’s membership and participation in the classroom. The data included four schools. The students, teachers, and parent from each school participated in observations and interviews. Figure 1 includes information on the participant selection procedure and data collection measures.

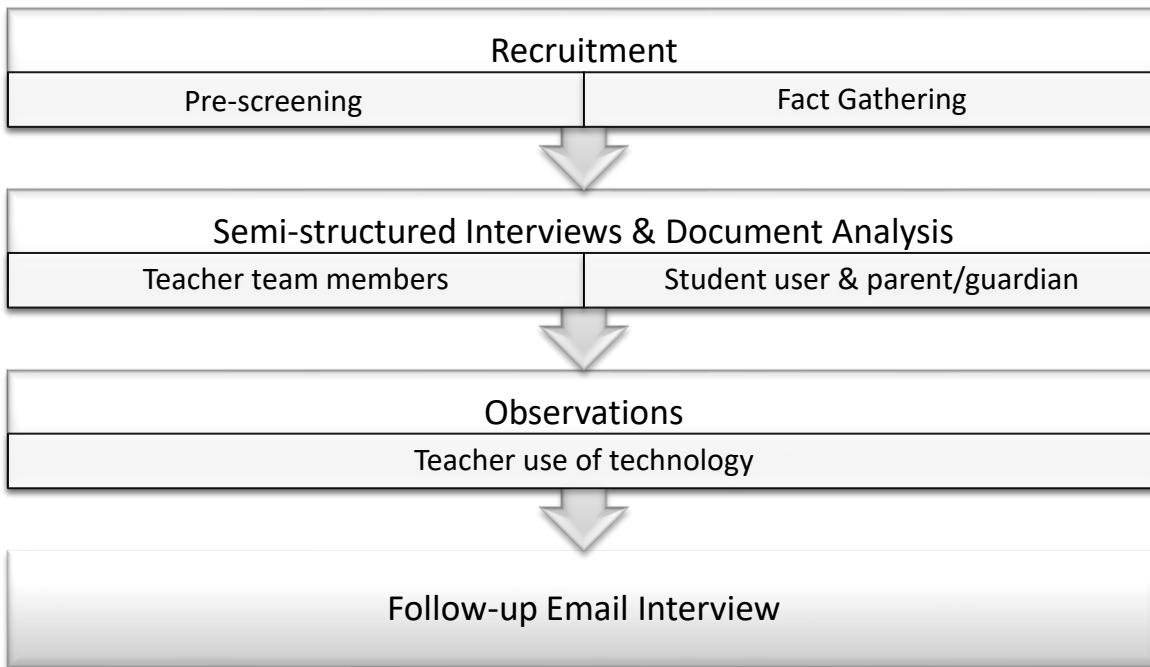


Figure 1: Participant Selection Procedure

The semi-structured interviews occurred at the beginning (in person) and then through email at the end of the study. The interview questions focused on what support looked like and the meaning of support, what integration of an iPad means and looks like, how iPads support student needs, and how iPads provide access to classroom activities. Additionally, the parent interview included questions about the child's AT acquisition process and the child's use of the iPad. Interviews occurred with three of the student participants and these questions focused on using technology in school.

The observations occurred throughout various points in the day. During the observations, use of the iPads with the students and the interactions between the student and the teachers were the focus. The iPad tracking tool provided information about iPad use. It reported the use location, who implemented the device, the activity, a description of the use, and the duration. The author then filled in the related goal from the IEP for any student that used the iPad during the observation. The observations occurred over six weeks and

included six to seven observations for three of the participants and two observations for one student.

Data were also collected through the document analysis of student IEPs. Both parents and school districts provided consent for accessing all IEP documents. There was access to two IEPs from the Wellington and Littleton District. In the Everly District, the case manager verbally described the IEP. The IEPs were highlighted according to the services the students received and their goals.

Instrumentation. The interviews occurred before and after observations. Questions for participant groups were similar, although framed to fit the participant and the context. Teacher questions included information about themselves as teachers, their experiences with AT, how iPads helped students in the classroom, and what factors most influenced iPad integration. The interview guide for the parent/guardian included questions regarding the AT acquisition process, how iPads helped their child access the curriculum, and what the parent would do differently regarding AT integration. The interview guide for the student users included questions on the types of technology they liked to use in school, how these tools helped them succeed in learning, and the specific experiences they had with iPads in the classroom. During the observation, data collection focused on how iPad use and activities related to specific student needs. The observation tool helped correlate classroom activities with student’s instructional and communication needs and individual goals. The tool helped to track whether or not the instructional activities and lessons that occurred when the iPad was in use supported specific goals and needs.

Data analysis. To analyze the data from the interviews and observations, the author evaluated the transcripts and field notes. The author coded the transcripts and field notes looking for pertinent ideas and themes. These themes can be found in Table 3. Open coding provided codes that reappeared throughout the data previously not captured with the initial codes (Bogdan & Biklen, 2007). These became the categories and sub-categories.

Table 3

Data Codes

Initial Codes	Codes & Sub-codes from Data	Coding Themes	Codes not Related to Technology Use
Types of Technology	-Experiences with AT AT used Technology used AT Knowledge	-Visual Access Uses in Different Settings Universal Use Individual Use Visual Stimulation Motivation Playing for Fun Occupying Time Non-use Distraction -Teacher Practices versus Teacher Beliefs Pedagogy of Competence Individualized Learning Repetition & Reinforcement Pedagogy of Participation Teaching Strategies	-Choosing Teaching - Characteristic s of a Teacher -Teaching Strategies
Influence of	-Promotion of Inclusivity		

Technology	<ul style="list-style-type: none">-Why not to use Technology Teacher Perceptions Learning Curve Distraction Involves Planning Ahead-Benefits of Technology How Technology Supports Student Access Engagement Motivational
iPad Use	<ul style="list-style-type: none">-How iPads are Used Reinforcement Game Playing Repetition Universal Use Visual Models Individualization Promotes Independence Provides Accommodations-Form of AT

Trustworthiness. Guba, as stated in the research of Shenton (2004), considered four criteria to ensure trustworthiness in a study. The four criteria included credibility,

transferability, dependability, and confirmability. Regarding credibility, the author ensured an accurate representation of their experiences (Shenton, 2004) through different data gathering methods such as interviews with different participants, observations, detailed descriptions of what occurred, and a reflective commentary as researcher. The different sources of data also helped with triangulation (Mawson, 2007). Trustworthiness and transferability included applying this study to other situations and accumulating data across settings and in multiple environments (Shenton, 2004). The different settings included collecting data in suburban and rural schools throughout kindergarten-sixth-grade environments. The study's participants taught in any inclusive classroom environment whether that be a homeroom classroom or a content area classroom, which created a stronger transferability in order to gain a more inclusive, overall picture. The author addressed dependability through the detailed process of the study (Shenton, 2004). The research included in-depth coverage of the methods, including the planning and execution, as well as the evaluation of the effectiveness of the process (Shenton, 2004). Finally, the author addressed confirmability of the study to determine that the findings were a result of the experiences and thoughts of the participants (Shenton, 2004). By addressing the four criteria presented in the article by Shenton (2004), reliability and validity were addressed through the concept of trustworthiness.

Findings & Discussion

After reviewing the categories, major themes appeared. The major themes included visual access, universal use, playing for fun, non-use, and teacher practices vs. teacher beliefs. Table 3 depicts the themes of the larger study. The focus of this paper was on the participation aspects of each student. The author found that the integration of the devices affected student membership and participation. Through these stories and experiences, the use or non-use of devices proved to affect their educational participation and membership.

Inclusionary Participation and Membership

Out of the four students observed, the use of the iPad by two students positively affected their membership in the classroom. On the other hand, there were two students where non-use of the device resulted in limited membership and participation. The observations

of Mike and Billy exhibited strong membership and participation in the classroom. Mike's teachers provided access to the curriculum through technology for Mike. The teachers integrated the iPad into Math class, daily. As a result, Mike was able to engage in the classroom content and participate in each math activity. On the other hand, device integration had not yet occurred in other settings or with other teachers. During Math class observations, when the teachers integrated the iPad, Mike's participation and membership increased. He had the same opportunities to engage with the content as did all of the other students.

Billy's use of the iPad also promoted his membership and participation in the classroom. The way his teachers integrated the device allowed for heightened learning experiences and increased participation opportunities. For example, Billy's teachers used the iPad to help him learn the content through different learning styles. Billy was able to interact with the content through a virtual, hands-on method by using the iPad. Billy benefitted from this type of use because it allowed him the opportunity to engage in repeated practice of the content material, as stated in his IEP. Thus, Billy's teachers created a classroom in which he could be included by offering opportunities for membership and participation. For both Mike and Billy, the teachers showed their expectations for the students and expressed in interviews that best practice for technology integration includes the integration of the iPad during learning experiences.

Exclusionary Participation and Membership

Exclusion occurred for Theresa and Ben with the non-integration of the iPads into the learning environment. Theresa and Ben encountered a sense of physical separation from their classmates because they were unable to use their devices for the intended purpose of communication. However, most of the time, they were using the devices for entertainment purposes other than for purposes stated in their IEP. As a result, their membership and participation decreased, and the students experienced exclusion from learning with their peers, as well as interacting with them. In the end, the teachers made the final decision whether or not to integrate the device into classroom activities and when they did not

integrate the device, they contradicted the IEP requirements. As a result, they affected the students' membership and participation in the classroom.

Teacher Practices vs. Beliefs

Through the interviews, findings showed that each of the teachers believed that overall technology integration was important, but only two were using the devices with the participants. This demonstrates that there was disconnect between belief and practice. Their understanding of "use" was different than the research's definition. Use goes beyond interaction and involves purposeful planning and incorporation into learning activities (Rodriguez et al., 2013). Rodriguez and colleagues (2013) define use with regard to video modeling and communication. As a result, the iPad inadvertently affected the membership and participation of each student either positively or negatively.

The findings from Theresa and Ben's teachers show that their willingness to integrate a device affected the membership and participation in the classroom for the two participants. In this study, the device of choice was the iPad, but the findings generalize to the use of any tablet device. Often a teacher's philosophy reflects the willingness to employ certain practices (Inan & Lowther, 2010). A teacher's philosophy involves personal ideas and beliefs about students and teaching. Thus, ultimately affecting their personal beliefs on the importance of AT integration. When a teacher does not practice the importance of integrating technology that is needed for the student, the teacher is showing that this is not a priority in his/her teaching philosophy. While authors deemed technology integration as important, many authors found various barriers to implementing technology devices.

Barriers

Much of the literature pointed out that while there were benefits to integrating technology, barriers existed within schools that deterred teachers from integrating the devices effectively. According to ABLEDATA, an online database of assistive technology, there are over 20,000 available different AT devices (Bausch & Hasselbring, 2004), but educators are ill informed about these devices and allocation (Beyerbach et al.,

2001; Bushrow & Turner, 1994; Kurtts et al., 2012). These hurdles lead to the barriers seen in schools relating to technology integration. School-wide barriers include access and availability of devices, support/training for teachers, lack of knowledge on how to integrate the device, and lack of time (Alper & Raharinirina, 2006; An & Alon, 2013; Bausch & Hasselbring, 2004; Beyerbach et al., 2001; Flewitt et al., 2015; Inan & Lowther, 2009).

Benefits

Through this study, the author found that a teacher's philosophy about pedagogy and planning impacts the successful implementation of a device. The iPads, when connected to content and communication, provided a means of different ways to engage in the classroom, and the teachers believed that these devices provided their students with benefits. In the interviews, the teachers expressed their feelings about device usage and how this type of technology supported students with low incidence disabilities in inclusive settings. Specifically, the teachers responded about how assistive technology provided benefits.

Mrs. Credence: I think what it allows them is a pacing alternative...It gives them practice and exposure.

Mrs. Tindle: ...it's the voice for many of them. Now they can communicate.

Mrs. Chancy: ...it gives them more visuals.

Mrs. Mellet:...I think it can help them with communication.

Mr. Pintak: ...having a tool to quickly get your thoughts out has been fantastic to really get kids to realize that they do have a voice and they can have a reciprocal conversation back and forth even if that's one picture, one word.

Mr. Pine: ...I really loved it because it differentiated instruction for everyone at the same time. And so kids that had disabilities in math or needed extra practice, they

could work at their own pace and students who excelled and needed more challenges could move on and go onto the challenge problems.

Overall, the teachers believed that iPads provided multiple benefits for students that included: hands-on learning, incentives, motivation, engagement, independence, reinforcement, and supporting the lesson.

Multiple studies referenced in the literature also expressed that the use of iPads provides benefits to student users. One study, in particular by Johnson and colleagues (2013) found that iPad use positively affected student engagement, helped to reinforce core curriculum, and helped students with disabilities increase communication and social skills, which is supported by these findings. Not only did the teachers in this study see the same benefits, but they also explained that iPads provided a way for teachers to differentiate instruction, make learning easier and quicker, and create a more interactive learning opportunity, all while not making the student feel different than everyone else.

The above quotes and context provided insight into the teacher's beliefs that technology helped students with disabilities. The question is if they believed that these devices helped, then why were these devices not used in these ways during classroom instruction? It came down to the teachers exhibiting their presumption of competence in the classroom for these students. There appeared to be a disconnect between beliefs and practices. The teachers in this study focused on individualized learning/differentiation and repetition and reinforcement as key strategies to increase student participation and knowledge.

Through the literature review, it was found that successful implementation occurs when there is a parallel between technology use and teacher knowledge on instructional planning (Connor & Beard, 2015; Jorgensen & Lambert, 2012). This includes teachers being able to integrate technology in various ways so that students have to learn through many different avenues. Connor and Beard (2015) found a connection between teacher knowledge and AT use. They stated that when teachers possess the necessary knowledge

about a specific device and feel comfortable using the device there is a higher likelihood of integrating the device into the classroom (Connor & Beard, 2015).

Positives of iPad Integration

What happens when teachers integrate iPads in a positive way? There are multiple positive consequences to iPad integration found in this study which are supported by the literature. The integration of iPads in the classroom not only allows for access to the curriculum, but also provides educational benefits such as increasing engagement, satisfaction, and overall teaching effectiveness (Rodriguez et al., 2013). During the interviews, the teachers expressed how beneficial they saw the iPads in allowing their students to access the classroom environment and increase membership. The teachers in this study explained that the iPads allowed students to access not only the curriculum but also access other students in group situations. As such, these devices (whether it be iPads or any tablet) provide an alternative way for the students to be more engaged and allows for them to become more independent with their learning and social interactions. The iPads provided a means of communication for some students that they otherwise would not have had. Being able to independently communicate with their peers provided them with a social component that was previously missing. Both Duhaney and Duhaney (2000) and Alexandersson (2011) found that using assistive technology in this manner not only promoted cooperative learning, but also allowed students to take control of their learning. The devices brought together students instead of creating stigma or separation.

As found in the literature, it is not always easy to meet the needs of your students without the necessary tools. Some studies provided tips for learning more about the students and what they need as it relates to AT devices like the iPad (Coleman, 2011; Judge et al., 2008; & Runyan, 2013). For one, there is great importance of knowing the student's instructional requirements so that individual needs could be met. For example, Coleman (2011) provided a checklist for matching students to technology. The checklist addressed what services the student might need, psychosocial, cultural, and environmental factors, curriculum access needs, and specific curriculum area needs and may help to address the different areas of the child and where their weaknesses might fall. Judge and colleagues

(2008) also guided teachers on how to meet the needs of all students in the classroom. They worked with teachers to create an AT toolkit in their classroom that supported students' needs. By creating an AT toolkit, teachers plan ahead for all students and, further, by anticipating the learning, language, motor, and sensory needs of students, teachers can create a toolkit of various AT devices appropriate for any student at any time (Judge et al., 2008). As a result, children can gain immediate access to the content and experiences of the classroom while also participating in classroom activities more effectively (Judge et al., 2008). This study supports the use of this checklist because it promotes the planning and preparation for the integration of assistive technology into the learning environment.

Few researchers have written about the benefits of iPad integration with regards to membership and participation. Runyan (2013) found that technology integration helped students access the curriculum, increased social engagement and interaction, and increased participation. Debele and Plevyak (2012) found that if teachers knew their content and integrated technology into the content areas, content delivery changed. With Mike and Billy, the integration of the iPad enhanced the curriculum resulting in positive outcomes and increased inclusion. This study thus contributes to the literature about membership and participation through the use of a tablet device given that findings suggested through the interviews and observations that iPads helped students with disabilities access the curriculum and heighten membership through increasing competency, individualized learning/differentiation, and repetition and reinforcement.

In summary, the interviews and observations of each individual case study showed that successful integration of a technology device can lead to increased membership in a classroom. As a result, the iPad allowed a student who could not initially participate to their fullest extent to now have the opportunity to increase participation and become a member of their classroom community while benefiting from the use of the iPad in multiple realms. The teachers that chose not to integrate the iPads with their students showed lower expectations for their students. Theresa and Ben, according to their IEPs, needed the iPad as a means for communication. Their teachers preferred that they communicate verbally, instead. As a result, the teachers' beliefs resulted in the non-use of the device.

To become an accessible classroom, teachers must receive the necessary resources to overcome the barriers that impede implementation. The study concluded that there are a multitude of factors affecting accessibility and integration and these factors play a vital role in how to heighten membership in the classroom and the research supports these findings.

Limitations and Areas of Further Research

There were limitations to this study that helped to bring about ideas for future research. For this study there was a specific participant pool which limited the number of participants. Out of only four participants that fit the inclusion criteria, there was a limited view of disabilities since only two out of the 13 different IDEA disability categories were represented. For future studies, researchers might want to include multiple disability categories and a larger participant pool.

Another limitation of the study was the focus on iPad technology. This study focused on how iPads affected membership and participation when it could have looked at how any piece of technology, such as other tablets, could affect these areas. iPads are only one form of technology now being used in schools, so this was a missed opportunity to involve a wide range of students. Consequently, future studies could focus on a wide range of technologies available to classrooms and students.

The last limitation revolved around the data collection period. Even though the effects of iPad use on membership and participation occurred, for Ben, there was a limited amount of observations. Also, the observation periods occurred throughout various points in the day, which could provide for skewed data on when the devices were used. For any future study, it would be beneficial to spend more time with all of the participants during the same time of the day to collect data on patterns.

Conclusion

The membership and participation opportunities for students with disabilities are critical in promoting an inclusive classroom. Providing opportunities for participation through the integration of an AT device is one way that membership can be positively affected. For this to occur, teachers need to take the initiative to integrate the devices used based on student

needs. In this study, it was found that teacher beliefs ultimately affected the integration of iPads.

It is imperative that schools not only provide the needed supports and training about technology and technology integration but also work to improve teachers' beliefs. Teachers need to be willing to alter their beliefs in order to support student needs and take the time to ask themselves these questions:

- Do I believe that students with disabilities cannot succeed like my students who are not disabled?
- Do I believe that there is one right way to do something?
- Am I hesitant to integrate technology with students with disabilities in order to help them achieve their goals?
- Do I have lowered expectations for my students with disabilities?

If teachers answer “yes” to any of these questions, then schools need to address the larger issue at hand. When teacher beliefs do not align with the acceptance of student needs, then technology integration for students with disabilities will suffer. The results of this study showed that there are benefits to integrating devices successfully as well as negative effects associated with non-use or superficial use. Teachers must create a connection between their integration techniques and the needs of their students. As teachers, it is important to question individual practices and decisions, and ask the question “How can assistive technology best be used to meet the needs of the students with disabilities, thus heightening their membership and participation?”

References

Alexandersson, U. (2011). Inclusion in practice: Sofia's situations for interaction. *International Journal of Special Education*, 26, 114-123.

Alper, S. & Raharinirina, S. (2006). Assistive technology for individuals with disabilities: A Review and synthesis of the literature. *Journal of Special Education Technology*, 21(2), 47-64. <https://doi.org/10.1177/016264340602100204>

- An, H. & Alon, S. (2013). iPad Implementation Models in K-12 School Environments: An Exploratory Case Study. In R. McBride & M. Searson (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2013* (pp. 3005- 3011). Chesapeake, VA: Association for the Advancement of Computing in Education (AACE).
- Asch, A. & Fine, M. (1988). Introduction: Beyond pedestals. In M. Fine and A. Asch (Eds.), *Women with Disabilities: Essay in Psychology, Culture, and Politics* (pp. 1-37). Temple University Press.
- Bausch, M. & Hasselbring, T. (2004). Assistive technology: Are the necessary skills and knowledge being developed at the preservice and inservice levels? *Teacher Education and Special Education, 27*, 97-104. <https://doi.org/10.1177/088840640402700202>
- Beyerbach, B., Walsh, C. & Vannatta, R. (2001). From teaching technology to using technology to enhance student learning: Preservice teachers' changing perceptions of technology infusion. *Journal of Technology and Teacher Education, 9*, 105-127.
- Biklen, D. (1990). Communication unbound: Autism and praxis. *Harvard Educational Review, 60*, 291-314. <https://doi.org/10.17763/haer.60.3.013h5022862vu732>
- Biklen, D. & Burke, J. (2006). Presuming competence. *Equity and Excellence in Education, 39*, 166-175. <https://doi.org/10.1080/10665680500540376>
- Biklen, D. & Kliever, C. (2006). Constructing competence: Autism, voice, and the 'disordered' body. *International Journal of Inclusive Education, 10*, 169-188. <https://doi.org/10.1080/13603110600578208>
- Blatt, B. (1999). Man through a turned lens. In S. J. Taylor & S. D. Blatt (Eds.), *In Search of the Promised Land: The Collected Papers of Burton Blatt* (pp.71-82). American Association on Mental Deficiency.

- Bogdan, R. & Biklen, S. (2007). *Qualitative research for education: An Introduction to theories and methods*. Allyn and Bacon.
- Bouck, E., Flanagan, S., Heutsche, A., Okolo, C., & Englert, C. (2011). Teachers' initial and sustained use of an instructional assistive technology tool: Exploring the mitigating factors. *Journal of Educational Media and Hypermedia*, 20, 247-266.
- Bushrow, K. & Turner, K. (1994). Overcoming barriers in the use of adaptive and assistive technology in special education. In Montgomery, Diane, Ed. *Rural Partnerships: Working Together. Proceedings of the Annual National Conference of the American Council on Rural Special Education*.
- Byker, E., Putman, S., Handler, L., & Polly, D. (2017). Educational technology and student voice: Examining teacher candidates' perceptions. *World Journal on Educational Technology*, 9, 119-129. <https://doi.org/10.18844/wjet.v6i3.1687>
- Campaña, L. & Ouimet, D. (2015). iStimulation: Apple iPad use with children who are visually impaired, including those with multiple disabilities. *Journal of Visual Impairment & Blindness*, 109(1), 67-72.
<https://doi.org/10.1177/0145482x1510900110>
- Caverly, D. & Fitzgibbons, D. (2007). TechTalk: Assistive technology. *Journal of Developmental Education*, 31(1), 34-35.
- Coleman, M. (2011). Successful implementation of assistive technology to promote access to curriculum and instruction for students with physical disabilities. *Physical Disabilities: Education and Related Services*, 30(2), 2-22.
- Connor, C. & Beard, L. (2015). Increasing meaningful assistive technology use in the classrooms. *Universal Journal of Educational Research*, 3, 640-642.
<http://dx.doi.org/10.13189/ujer.2015.030908>
- Debele, M. & Plevyak, L. (2012). Conditions for successful use of technology in social studies classrooms. *Computers in the Schools*, 29, 285-299.
<https://doi.org/10.1080/07380569.2012.703602>

- Douglas, K., Wojcik, B., & Thompson, J. (2012). Is there an app for that? *Journal of Special Education Technology*, 27, 59-70. <https://doi.org/10.1177/016264341202700206>
- Duhaney, L. & Duhaney, D. (2000). Assistive technology: Meeting the needs of learners with disabilities. *International Journal of Instructional Media*, 27(4), 393-401.
- Etherington, D. (2011). *Apple's enterprise reach growing thanks to iPad and iPhone*. <https://gigaom.com/2011/05/13/apples-enterprise-reach-growing-thanks-to-ipad-and-iphone/>
- Flewitt, R., Messer, D., & Kucirkova, N. (2015). New directions for early literacy in a digital age: The iPad. *Journal of Early Childhood Literacy*, 15, 289-310. <https://doi.org/10.1177/1468798414533560>
- Gray, T., Silver-Pacuilla, H., Brann, A., Overton, C., & Reynolds, R. (2011). Converging Trends in Educational and Assistive Technology. In T. Gray & H. Silver-Pacuilla (Eds.), *Breakthrough Teaching and Learning: How Educational and Assistive Technologies are Driving Innovation* (pp. 5-24). Springer. https://doi.org/10.1007/978-1-4419-7768-7_2
- Hu, H. & Garimella, U. (2014). iPads for STEM teachers: A Case study on perceived usefulness, perceived proficiency, intention to adopt, and integration in K-12 instruction. *Journal of Educational Technology Development and Exchange*, 7(1), 49-66. <https://doi.org/10.18785/jetde.0701.04>
- Inan, F. & Lowther, D. (2009). Factors affecting technology integration in K-12 classrooms: A Path model. *Education Tech Research Development*, 58, 137- 154. *iPad bootcamp for teachers*. (n.d.). <https://doi.org/10.1007/s11423-009-9132-y>
- Individuals with Disabilities Education Improvement Act, Amendments of 2004, 20 U.S.C. § 1400, 1401.
- Jackson, R. (2005). *Curriculum access for students with low-incidence disabilities: The promise of universal design for learning*. Wakefield, MA: National Center on Accessing the General Curriculum. (Links updated 2011).

<http://aem.cast.org/about/publications/2005/ncac-curriculum-access-low-incidence-udl.html>

Johnson, B. & Christensen, L. (2008). *Educational research: Quantitative, qualitative, and mixed approaches*. Sage Publications, Inc.

Johnson, G., Davies, S. & Thomas, S. (2013). iPads and Children with Special Learning Needs: A Survey of Teachers. In Jan Herrington et al. (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2013* (pp. 1022-1026). Chesapeake, VA, United States: AACE.

Jones, S. (1996). Toward inclusive theory: Disability as a social construction. *NASPA Journal*, 33, 347-354.

Jones, V. & Hinesmon-Matthews, L. (2014). Effective assistive technology consideration and implications for diverse students. *Computers in the Schools*, 31, 220-232.
<https://doi.org/10.1080/07380569.2014.932682>

Jorgensen, C. & Lambert, L. (2012). Inclusion means more than just being “In:” Planning full participation of students with intellectual and other developmental disabilities in the general education classroom. *International Journal of Whole Schooling*, 8(2), 21-36.

Judge, S., Floyd, K., & Jeffs, T. (2008). Using an assistive technology toolkit to promote inclusion. *Early Childhood Education Journal*, 36, 121-126.
<https://doi.org/10.1007/s10643-008-0257-0>

Kliewer, C. (1998). *Schooling children with Down syndrome: Toward an understanding of possibility*. Teachers College Press.

Kurtts, S., Dobbins, N., & Takemae, N. (2012, January/February). Using assistive technology to meet diverse learner needs. *Library Media Connection*, 30(4), 22- 24.

Mawson, B. (2007). Factors affecting learning in technology in the early years at school. *International Journal of Technology and Design Education*, 17, 253-269. <https://doi.org/10.1007/s10798-006-9001-5>

- McClanahan, B. (2012). A breakthrough for Josh: How use of an iPad facilitated reading improvement. *Tech Trends*, 56(3), 21-28. <https://doi.org/10.1007/s11528-012-0572-6>
- Morgan, P. (2015). General and special education high school teachers' perspectives of full membership for students with disabilities. *Values and Ethics in Educational Administration*, 11(3), 1-9.
- Murray, O. & Olcese, N. (2011). Teaching and learning with iPads, ready or not? *Tech Trends*, 55(6), 42-48. <https://doi.org/10.1007/s11528-011-0540-6>
- Najmi, A. & Lee, J. (2009). Why and how mobile learning can make a difference in the K-16 classroom?. In I. Gibson et al. (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2009* (pp. 2903-2910). Chesapeake, VA, United States: Association for the Advancement of Computing in Education (AACE).
- Nepo, K. (2017). The Use of technology to improve education. *Child Youth Care Forum*, 46, 207-221.
- O'Malley, P., Lewis, M. E. B. & Donehower, C. (2013). Using tablet computers as instructional tools to increase task completion by students with autism. Paper presented at *2013 American Educational Research Association Annual Meeting* in San Francisco, CA, United States. <http://files.eric.ed.gov/fulltext/ED541157.pdf>.
- Parette, H. & Peterson-Karlan, G. (2007). Facilitating student achievement with assistive technology. *Education and Training in Developmental Disabilities*, 42, 387-397.
- Purcell, K., Entner, R., & Henderson, N. (2010). *The rise of applications culture*. Washington, DC: Pew Research Center's Internet and American Life Project. Retrieved from <http://www.pewinternet.org/2010/09/14/the-rise-of-apps-culture/>

Reichle, J. (2011). Evaluating assistive technology in the education of persons with severe disabilities. *Journal of Behavioral Education, 20*, 77-85.

<https://doi.org/10.1007/s10864-011-9121-1>

Rodriguez, C., Strnadová, I., & Cumming, T. (2013). Using iPads with students with disabilities: Lessons learned from students, teachers, and parents. *Technology Trends: Intervention in School and Clinic, 49*(4), 244-250.

Runyan, M. (2013). Seeing is believing! *Learning and Leading with Technology, 40*(5), 12-17.

Shenton, A. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information, 22*, 63-75.

<http://dx.doi.org/10.3233/EFI-2004-22201>

Shuler, C. (2009a). *iLearn: A Content analysis of the iTunes application store's education section*. Joan Ganz Cooney Center at Sesame Workshop.

<https://joanganzcooneycenter.org/publication/ilearn-a-content-analysis-of-the-itunes-app-stores-education-section/>

Shuler, C. (2009b). *Pockets of potential: Using mobile technologies to promote children's learning*. Joan Ganz Cooney Center at Sesame Workshop.

<https://joanganzcooneycenter.org/publication/industry-brief-pockets-of-potential-using-mobile-technologies-to-promote-childrens-learning/>

Sileo, N., Sileo, T., & Pierce, T. (2008). Ethical issues in general and special education teacher preparation: An Interface with rural education. *Rural Special Education Quarterly, 27*(1/2), 43-54. <https://doi.org/10.1177/8756870508027001-208>

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