New Considerations and Best Practices for Training Special Education Teachers

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Chapter 12
Using the 21st Century Framework for a Global Education:
What Educators Working With Special Education Students Need to Know

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ABSTRACT

Special education has forged the path of innovation in education through the power of resources and strategies. This chapter will discuss the 21st Century Framework for a Global Education that informs school systems and institutes of higher education (IHEs), both general and special education teacher preparation programs. Issues of equity and inclusion demonstrated by culturally responsive teaching in the global education initiative will be discussed. This chapter is a synopsis of findings from the last five years of literature collected for a course in a special education program on cultural and technological awareness in the context of global education.

INTRODUCTION

Classrooms in many parts of the world have an increasingly diverse student population. International migration patterns have significantly changed the cultural make-up of many industrialized societies and, by extension, school-aged populations of children including students with disabilities (SWD). Such changes are particularly prevalent in countries like Australia, Canada, Germany, France, Italy, New Zealand, Spain, the United Kingdom, and the U.S. (Wiek, et al 2013). In this increasingly globalized landscape, schools face significant challenges, particularly in the area of special education where disability meets with culture and language barriers. Researchers have documented lower educational

outcomes like student achievement and graduation rates for immigrant and other marginalized students in most countries around the world (Volante, DeLuca, & Klinger, 2019). In order to address these issues, institutes of higher education (IHEs) must refocus the curriculum in teacher preparation programs to embrace the 21st Century Framework for a Global Education. This includes special education teacher preparation programs and it can be done while addressing the demands of accreditation.

IHEs often describe themselves in the literature as "in a critical stage and transition period" (Thelin, 2019, p, 1). Thelin (2019) pointed out that these same terms were used to describe IHEs in 1910 by Edwin Slogan in the anthology, *Great American Universities*. There is a constant tension between a professor's expertise and an evolving world. The notion of the "life-long learner" must apply to educators working in teacher preparation programs. Even when IHEs attract innovative students, the current pedagogical culture of many programs presents a barrier to encouraging creativity and change in the curriculum. Too often, the goal of IHEs is to get students to master a relatively narrow set of knowledge and skills that focus on outdated practices. This viewpoint tends to minimize new and different roles in education unless mandated by policy.

This narrowness is inadvertently encouraged by our current method of programmatic evaluation and accreditation processes. The increasingly prescriptive approach of program accreditation focuses on ensuring that all colleges and schools meet minimal yet detailed standards of competency. This approach discourages experimentation and innovation in education, which, in turn, stifles student creativity. Teacher preparation programs seem to encourage concentration on meeting a prescribed list of competencies rather than experiment with new and novel ways to educate students. This can be of special concern considering that a growing number of new programs use a check-box rubric design as the sole assessment platform for program designs (OCED, 2016; Svensson et al., 2012).

For example, this was true when adopting a course entitled "Cultural and Technological Awareness in the Context of Global Education," which was needed as part of an accreditation for the teacher preparation program I teach in. This course was meant to address a gap in the coursework for the areas of diversity and education technology. Though the accreditation looms large, the adoption of this course provided an important opportunity for teaching candidates and the instructor to be innovation and creativity using the 21st Century Framework for Global Education (Partnership for 21st Century Learning, 2017). This course is offered to future administrators, curriculum specialist, literacy coaches, school counselors, special education teachers, and technology specialists. This course has as the objective to increase knowledge and skills in the areas of culturally responsive instruction and digital/interactive technology in the classroom through the lens of global education.

The term "21st century" has become an integral part of the thinking and planning for the future of education around the world. Educators and administrators are actively searching for ways to prepare students for the future in an educational system that is evolving faster than ever (Nichols, n.d.). Twenty-first century learning requires an innovative support system to engage learners through applicable skills and knowledge, appropriate technologies, and real-world connections to make learning relevant, personalized, and engaging (Global Partnerships in Education, 2020). The 21st Century Framework for a Global Education requires a complete rethinking of current curriculum taught in America's public schools to meet its tenets (see Table 1). This must include special education.

Table 1. Tenets of the 21st century framework for a global education

Tenets	Curriculum	Student Skills
1. Effective and Scalable Teacher Supports, Resources, and Tools	Information Media & Technology Skills	Critical Thinking
2. New Approach to Language Instruction	Learning & Innovative Skills	Communication
3. Whole-School Models	Information Media & Technology Skills	Collaboration
4. Networking & Innovation	Life & Career Skills	Creativity
5. Global Experiences	Information Media & Technology Skills Learning & Innovative Skills	Thinking Skills & Content Knowledge

The literature states that the U.S. is a leading nation in the education of SWD (Diament; 2019). Common themes when considering the *21st Century Framework for a Global Education* concerning students with disabilities SWD can be found across the globe. Examples of this are the inclusive classroom (all children taught in the same educational setting) and communication/collaboration. Educators throughout the world are also seeking valuable ways to work with parents and teach all students with the best resources including practices in least restrictive environment (LRE). The vocabulary used by educators around the world may differ from those in the U.S.; however, the overarching concerns are very similar.

It is evident that every country has its own unique issues when trying to implement special education services. In Moscow, it is still socially acceptable to exclude a child with disabilities from any education (Valeeva & Kulesza, 2016). In Belize, teachers struggle to meet the needs of children with intellectual disabilities due to large class sizes. It is also evident in the literature that parents and educators throughout the world strive to provide the best learning environments for their children. In that regard, the U.S. is neither better nor worse than other countries (Battaglino, 2007). Throughout this chapter examples of the implementation of special educations services using the 21st Century Framework for a Global Education will be shared.

Brief Review of American Education Law

In 1817, the first special education school in the U.S., the American Asylum for the Education and Instruction of the Deaf and Dumb (now called the American School for the Deaf), was established in Hartford, Connecticut (Hyder, 2018; Kaufmann, 1981). The first special education classrooms in the U.S., which began in the late 1920s, were created for students who could not keep up with their peers in the general education class (Kaufmann, 1981). This type of education service for children with disabilities continued through the 1950s; however, as time passed, negative outcomes became apparent in these classrooms, including lack of materials and resources. There were no standards, regulations, or qualifications as to whom could and/or would attend these "special" classrooms. Mackie and Dunn (1954) found that, by 1952, 122 IHEs were providing special education teacher training, with some programs having been in existence for many years.

In 1954, *Brown v. Board of Education of Topeka*, 347 U.S. 483, the landmark case decision of the U.S. Supreme Court ruled that state laws establishing racial segregation in public schools was unconstitutional, even if the segregated schools are otherwise equal in quality (López & Burciaga, 2014). The decision stated that separate educational facilities are inherently unequal, therefore, violating the equal

protection clause of the 14th Amendment of the U.S. Constitution. Brown v. Board is considered the catalyst for change in how marginalized groups of people began to achieve equity.

The laws for people with disabilities is directly connected to laws concerning civil rights. America established the *Civil Rights Act of 1964*, the *Education of the Handicapped Act* enacted in 1966, the *Rehabilitation of Act of 1973*, and, finally, in 1975, the E*ducation for All Handicapped Children Ac*t. When preparing future teachers, it is vital to make sure these connections are made. An understanding that all students did not have the right to attend to school in the U.S. prior to 1975, and, access to special education is a relatively new reality in the U.S is important.

Changed to the *Individuals with Disabilities Education Ac*t, or IDEA, in a 1990 reauthorization, this law was last reauthorized in 2004, though periodically new regulations to address the implementation and interpretation of the law are added. In 2019-20, the number of students ages 3 to 21 who received special education services under IDEA was 7.3 million (14% of all public school students) (National Center for Education Statistics, 2020; National Research Council, 2012).

Among students receiving special education services, the most common category of disability (33%) is specific learning disabilities. Although the U.S. has a history of isolated pursuits in special educa-tion, the laws protecting SWD is less than 50 years old. In addition, the fourth most identified category, autism, only recognized as a stand-alone disability category since the 2004 reauthorization, is only 17 years old. Nevertheless, the U.S. is the global model regarding protections and rights for SWD. This is important to remember when analyzing special education services throughout the world.

In a review of disability laws and acts throughout the world, many countries aim to abolish discrimina-tion against persons with disabilities and eliminate barriers toward the full enjoyment of their rights and inclusion in society (United Nations Department of Economic and Social Affairs, 2021). These laws and acts contribute to progress toward the implementation of the United Nations' Convention on the Rights of Persons with Disabilities (CRPD) in the pledge of the 2030 Agenda for Sustainable Development to Leave No One Behind (United Nations Education, Scientific, and Cultural Organization, 2017). This pledge uses the language of the U.S.

Elementary and Secondary Education act (ESEA, 2007) and is influenced by the laws for public education and marginalized populations (minority groups including special education) protected by laws of America. The U.S. has the most laws to protect marginalized people (United Nations, 2021) throughout the world.

21st Century Framework for a Global Education Curriculum

Next, this chapter will provide an overview of the 21st Century Framework for a Global Education, a ratio-nale of how special education fits into this model and resources to assist in implementing the framework.

Key 21st Century Themes

It is imperative that countries examine and revise current curriculum and graduation requirements that support all students to be prepared for today's world. The 21st Century themes essential to student suc-cess should be considered as overarching concepts guide for curriculum development in key subject areas. Those themes are:

- Learning and Innovation Skills

● Information, Media, and Technology Skills
● Life and Career Skills

The key subject areas include:

● English, reading, or language arts
● World languages
● Arts
● Mathematics
● Economics
● Science
● Geography
● History
● Government
● Civics

In order for students' understanding that no concept or skill stands alone, teachers must promote an understanding of academic content by weaving interdisciplinary themes using the key subjects. This can be accomplished using the following integrations:

● Global awareness (World Languages, Arts, Geography)
● Financial and Entrepreneurial literacy (English, Mathematics, Economics)
● Civic literacy (English, Civics, Government)
● Health literacy (English, Science)
● Environmental literacy (English, Geography, Science)

Learning and Innovation skills separate those students who are prepared for increasingly complex life and work environments in today's world. These skills include:

● Creativity and innovation
● Critical thinking and problem solving
● Communication
● Collaboration

We live in a technology and media-driven environment marked by access to an abundance of information, rapid changes in technology tools, and the ability to collaborate and make individual contributions on an unprecedented scale. All students must be able to use a range of functional and critical thinking skills, such as:

● Information literacy
● Media literacy
● Information, communication, and technology (ICT) literacy

Today's students need to develop thinking skills, content knowledge, and social and emotional competencies to navigate complex life and work environments. Essential life and career skills include:

- Flexibility and adaptability
- Initiative and self-direction
- Social and cross-cultural skills
- Productivity and accountability
- Leadership and responsibility

Next, this chapter will discuss each of the tenets and how special education programs can support a 21st Century Framework for Global Education. The first area addressed is Effective and Scalable Teacher Supports, Resources, and Tools. An example of special education supporting the framework is in the area of assistive technology (AT).

Technology

In 2020-21, school systems across the U.S. had to end in-person learning due to the COVID-19 pandemic. As school systems moved to the use of technology to continue instruction, the federal Department of Education provided guidance for service delivery for students with IEPs and 504 plans. The legal question surrounding Free and Appropriate Public Education (FAPE) and implement I.E.Ps. was needed clarification. Established in the *Rehabilitation of Act* of 1973 and the 1975 *Education for All Handicapped Children Act*, the question posed for school systems across the U.S.:

Can special education service delivery be carried out through online instruction?

By March 20, 2020, the Office of Civil Rights (OCR) and Office of Special Education & Rehabilitative Services (OSERS) issued the following statement:

The Department's Office for OCR and the OSERS first must address a misunderstanding that circulated within the educational community. As school districts nationwide take necessary steps to protect the health and safety of their students, many are moving to virtual or online education (distance instruction).

Some educators, however, have been reluctant to provide any distance instruction because they believe that federal disability law presents insurmountable barriers to remote education. This is simply not true. We remind schools they should not opt to close or decline to provide distance instruction, at the expense of students, to address matters pertaining to services for students with disabilities. Rather, school systems must make local decisions that take into consideration the health, safety, and well-being of all their students and staff. To be clear: ensuring compliance with the Individuals with Disabilities Education Act (IDEA), Section 504 of the Rehabilitation Act (Section 504), and Title II of the Americans with Disabilities Act should not prevent any school from offering educational programs through distance instruction. School districts must provide a free and appropriate public education (FAPE) consistent with the need to protect the health and safety of students with disabilities and those individuals providing education, specialized instruction, and related services to these students. In this unique and ever-changing environment, OCR and OSERS recognize that these exceptional circumstances may affect how all educational and related services and supports are provided, and the Department will offer flexibility where possible. FAPE may

include, as appropriate, special education and related services provided through distance instruction provided virtually, online, or telephonically. (Department of Education, 2020)

It was the pioneering work of AT from special education that supported both general and special education's move to online instruction during the COVID-19 pandemic. Additional research into how families are utilizing technology at home to help students is needed and forthcoming (Pew Research Center, 2021). Special education has been a pioneer of service delivery in public education, driving innovation with a focus on access and equity for students in the classroom through the use of assistive technology (AT; Parikh, 2015). In the early 1990s, access to technology (low and high) for students with disabilities began with parent and teacher advocacy efforts to provide accommodations and resources like computers and laptops through individual education plans (IEPs). Today, many school districts across the country provide every student with technology for access and engagement in instruction. It is also evident that special education can be found throughout the world accessing AT as part of the 21st Century Framework for a Global Education.

Prior to the Covid-19 pandemic, many school systems had online platforms like Google Classroom or Microsoft Teams. The Zoom platform is now part of every educator's and student's vocabulary. Special education programs struggled with online learning and missing in-person teaching just like general education and IHEs. The biggest dilemma was how to meet the requirements for SWD receiving accommodations/modifications. Once it was determined that online instruction was acceptable for all students including SWD, the logistics of implementing special education services was still a dilemma.

Even before the COVID-19 pandemic, there was high growth and/or adoption of education technology. Global "edtech" investments reached approximately US$18.66 billion in 2019; the overall market for online education is projected to reach US $350 billion by 2025 (Li & Lalani, 2020). Whether it is language apps, virtual tutoring, video conferencing tools, or online learning software, there has been a significant surge in the use of technology since the COVID-19 pandemic.

A NEW APPROACH TO LANGUAGE INSTRUCTION

When it comes to new approaches to language instruction, special education has been at the forefront. One of the first "services" offered in special education was speech and language (Duchan, 2002) Speech and language could support dual language education as it is widely supported by research as a highly effective bilingual education approach. It is associated with significant academic and linguistic benefits, as well as amplified sociocultural and socio-emotional competencies or "21st century skills" (Guerrero & Lachance, 2018).

Teacher preparation programs are increasing efforts to develop new or expand on existing coursework and pathways for specialized credentials in dual language education (Howard et al., 2018). Nearly one-third of all early elementary school children in the U.S. come from a household where at least one parent speaks a language other than English. Therefore, K-12 teachers and those working in teacher preparation programs must embrace dual language education (Park, Zong, & Batalova, 2018).

Dual Language Education of New Mexico (DLeNM) recognizes the need for a set of standards that will provide guidance to teacher preparation programs and seeks to establish National Dual Language Education Teacher Preparation Standards (NDLETPS, 2018). The framing of these standard characteristics are anchored to the Council for the Accreditation of Educator Preparation (CAEP) that guide the majority

of teacher preparation accreditation. Guerrero and Lachance (2018) states that aligning the NDLETPS to CAEP is intentional to leverage a supportive stance from IHEs in the need for dual language education.

Research has shown that there is no cognitive barrier to second language development (Genesee et al 2004; Paradis et al, 2010). In addition, all students can make progress in a target second language with appropriate support from the classroom teacher (Arnett, 2013). The foreign language classroom can be more accessible to a wider range of student interests and motivations for language study. The recommended best practices in foreign language teaching correspond to strategies that are often included in special education documents for providing student support (Arnett, 2013).

It has been a common assumption that acquiring the skills of a foreign language is a challenge for students with a specific learning disability, especially those who have been identified with a reading disability or condition like dyslexia (Guerrero & Lachance, 2018). There is limited research on this topic. However, Schwarz (1997) suggested that students who have difficulty with foreign language have problems with phonological awareness in their native language, which is a characteristic of students with dyslexia. Yet this is not necessarily a barrier! The 21st Century Framework for a Global Education encourages a change from the introduction of a foreign language in high school to offering foreign language instruction through dual language and immersion schools at the elementary grades. Regarding middle and secondary levels, the American Council on the Teaching of Foreign Languages recommends the Foreign Language Standards of Learning (ACTFL, 2020) set reasonable targets and expectations for what students should know and be able to do by the end of each course. Schools are encouraged to provide instruction that exceeds prescribed standards to meet the needs of all students including students with disabilities (ACTFL, 2020).

Special education regulations do not address foreign language course offerings; however, they do mandate a Free Appropriate Public Education (FAPE) for all SWD. School divisions are required to take steps to ensure that SWD have the same variety of educational programs and services available to them as their non-disabled peers, including foreign language courses. Under IDEA, the primary vehicle for providing FAPE is through an appropriately developed IEP based on the individual needs of the student. An IEP must consider a child's present levels of academic achievement and functional performance, the impact of that child's disability on his/her progress in the general education curriculum, goals statement, accommodations and/or modifications, participation in the assessment system, and location of services (Wehmeyer, & Schwartz, 1997). The IEP and its components can apply to foreign language courses. Foreign language teachers could be involved in the development of the student's IEP. They should also be informed of their specific responsibilities related to implementing the IEP (specific accommodations, modifications, and supports that shall be provided for the child in accordance with the IEP).

As the world is an increasingly inter-connected global community, skills in multiple languages is a highly valued asset for all individuals, regardless of their plans after high school (Mitchell, 2017). As such, foreign language programs across the U.S. must reframe language programs to ensure that students who need or wish to study in the foreign language classroom have opportunities to grow those skills in meaningful ways. In many situations, this means that language programs be made increasingly accessible to students who have been historically excluded from this learning context. In recognition of the new concept of foreign language proficiency, the ACTFL (2015) advocates an additive model (what the student can do) rather than a deficit model (what the student lacks). This is taken directly from the special education research on how to write goals for the IEP (Rowkowski, 2020).

The U.S. has a history of poor access to the study of languages other than English. The U.S. does not societally value the learning other languages (Abbott, 2018). An individual's future depends on their

ability to engage with the rest of the world; however, Americans have a tough time achieving that task if learning a second language does no become the standard. The shortcomings are glaring in "critical-need languages" like Arabic or Chinese (Abbott, 2018). These critical languages are considered crucial to national security; however, they are among the least commonly taught and are considered the most difficult to learn. While fewer U.S. residents speak Arabic, census data indicate that it is the nation's fastest-growing language (Abbott, 2018). Spanish and Chinese come in second and third. Arabic is also the second-most spoken home language for English-language learners in the nation's K-12 public schools, trailing only Spanish, and followed by Chinese (NCES, 2020). This would indicate that many SWD are living in dual language household.

Most international schools in the U.S. are private schools. Some schools can be considered an "international school" based on its diverse population. For example, Fairfax Public Schools in Virginia has over 200 languages in the schools (https://www.fcps.edu/). In comparison, California has 60 languages and New York City has 176 languages spoken in the public schools (https://www2.ed.gov/datastory/el-characteristics/index.html). It no longer matters whether there are intentional "international schools" as part of public education. The cultures and languages are here; therefore, school systems should take full advantage of this opportunity to celebrate diversity.

Historically, countries and regions throughout the world have stigmatized learning difficulties. Special education services can be difficult to receive and the implementation can be wide ranging throughout a school system and very different all over the world. This is rapidly changing across the world as many schools have adopted school-wide approaches to promoting inclusivity. Unlike private international schools, inclusion of SWD in public schools in the U.S. is required by law through FAPE regulations (National Council on disabilities, 2018). It is this convergence of civil rights and special education laws with the immigration of students from other parts of the world that makes public schools in the U.S. the most diverse in the world. Whether by accident or a happy coincidence, many American public schools are functionally international schools.

The U.S. has over 3,000 dual language/immersion public schools in 35 states (NCES, 2020). Over 90% of these schools are Spanish/English programs. These schools have differing models: (1) two way (English/Spanish); (2) Spanish immersion (no English); and (3) specific courses taught in Spanish or English (United Nations Education, Scientific, and Cultural Organization, 2017). There are also a growing number of Chinese/English and Japanese/English public schools. Most of these school are application/acceptance schools, which negatively impacts the number of SWD who attend (https://www2.ed.gov/datastory/el-characteristics/index.html).

WHOLE-SCHOOL MODELS

Transformation models for low performing schools are a part of the Whole School model (Rule, 2006). The model for low performing schools has been a pressing topic in the research literature in the U.S. since *A Nation at Risk* was published in 1983 (www.ed.gov/archive). Discussions of the seminal work on American public education continue to surface.

Over subsequent decades, the concerns raised in A Nation at Risk framed most discussions about education in the United States and inspired numerous reforms at the local, state, and federal levels. But despite these efforts and some positive changes—average SAT scores rose modestly between 1983 and

2018, and more Americans than ever go to college—few would say that the U.S. educational system is delivering satisfactory, let alone stellar, results. American students routinely rank well below students from other developed countries in highly publicized international assessments, and a sense that the United States is not keeping up, particularly in math and science education, continues to be pervasive (Bipartisan Policy Center, 2019).

In 1983, the special education law, P.L. 92-142, was eight years old. Special education was peripherally mentioned in *A Nation at Risk*. It included the lack of teachers for the handicapped, the need for more time to teach to the special needs of slow learners, and the following funding recommendation:

The Federal Government, in cooperation with States and localities, should help meet the needs of key groups of students such as the gifted and talented, the socioeconomically disadvantaged, minority and language minority students, and the handicapped. In combination these groups include both national resources and the Nation's youth who are most at risk (A Nation at Risk, 1983).

A full discussion of the transformational school platforms and programs in the U.S. is too large to fit into this chapter. Since 1983, many of the transformational school (school reform) policies have been attached to evaluation and funding. Since the reauthorization of the Elementary and Secondary Education Act of 2001, the *No Child Left Behind,* there has been a push to tie teacher evaluations to student achievement.

The Association of Supervision and Curriculum Development's (ASCD) mission adopted a "whole child" approach, which "empowers educators to achieve excellence in learning, teaching, and leading so that every child is healthy, safe, engaged, supported, and challenged." (ASCD, 2014, p. 11) The Whole School, Whole Community, Whole Child (WSCC) model uses an integrated, collaborative approach to address barriers and supports related to learning and health. This model gained significant traction with schools across the country as it provides a framework designed to help school districts and schools address the needs of students by strategically and systematically focusing on the whole child. Districts and schools are using it to rethink and restructure approaches to learning and health. In addition, the WSCC model is designed to help educators and other school-related stakeholders understand, adopt, and implement the model (WSCC, 2014). Resources specific to the adoption of a whole school model are beginning to emerge (Bipartisan Policy Center, 2019). These include many valuable tools and resources. This resource could be used to assist educators and parents across the nation in their concerns with students' academic loss and mental health in light of the COVID-19 pandemic (Smith, et al, 2020).

Many private companies have been given lucrative federal and state contracts to reform public schools. The Knowledge is Power Program (KIPP Academies) is currently in 20 states and Washington, DC. In 2019, KIPP had 740 students (Pre-K through grade 12) and was awarded $124,030,696 of its total budget of $154,582,174 from the federal government (ed.gov). KIPP uses a lottery system for admission. It has an extended school day and requires teachers to be available evenings and weekends to assist students with school work (kipp.org). KIPP has been criticized in the past few years due to teacher attrition rates, punitive discipline policies, and limited results. High school graduation and college admission rates are commensurate to the general population of public schools (Rizga, 2016). KIPP schools have significantly fewer special education students and English language learners than public schools (ed.gov).

Another program that has gained significant media attention is the Microsoft K-12 Education Transformation Framework (not to be confused with the Bill & Melinda Gates Foundation). There are three

specific areas of concentration linked to the program: (1) holistic; (2) global; and (3) research. First, the holistic approach is the education of the whole child, which requires a complex integration of numerous functions of a school system. Successful transformations are both holistic and systemic. Second, global is the identification of successful initiatives and strategies from education institutions around the world. Third, the program is grounded in research from policymakers and academics where learning transformation initiatives have made dramatic improvements. (Rigza, 2016). The Microsoft K-12 Education Transformation philosophy is that the change and/or reformation happens through policy and resources for the education community (http://education.microsoft.com). There is, in fact, an alignment between the framework and the 21st Century Framework for a Global Education. The Microsoft K-12 framework embraces global education while meeting all of the tenets of the 21st Century Framework for a Global Education. The core learning principles in the 21st Century Framework for a Global Education are critical thinking, communication, collaboration, and creativity. Of all the transformational school models reviewed, only the Microsoft K-12 Education Transformation specifically addresses special education through models of instruction and specially designed instruction (https://education.microsoft.com/en-us/resource/d20f4726). As noted, this is not an exhaustive review of programs claiming to be whole school transformation models. Rather, it is a brief description of two well-known, yet different, systems that could easily include SWD.

NETWORKING AND INNOVATION

With networking and innovation we come back to the world view discussion started at the beginning of this chapter. An education network is a collection of people and/or institutions with common goals, resources to achieve the goals, and a single control center. It can be assumed that the network formation, which is created for the sharing of resources to achieve a goal, could involve the interaction of different educational institutions (Riley & Russell, 2020). Network interactions of educational institutions is a variant of pedagogical interaction based on shared resources and joint activities of children and adults. A direct or indirect impact of the subjects of this process on each other generates their mutual relationships. This can lead to the opportunity to influence each other, making real changes in cognitive, emotional, volitional, and personal spheres. Networking can define the interactions of its participants on the principles of trust and creativity, parity, and cooperation. It considers the personal characteristics of the interacting subjects and provides development of social skills. Networking can contribute to the establishment of a relationship, interaction, support, and trust. Networking and innovation in the 21st Century Framework for a Global Education considers the differences in education systems across the world. The ability to provide resources within respective education systems in other countries may be very different from what we would expect in the U.S. Remember, there is no other country in the world that protects the rights of SWD to the extent of the U.S.

Russia has a long history of not recognizing the rights of SWD (Valeeva & Kulesza, 2016). Russia is attempting to define "networking" and provide a less restrictive system of education for SWD (Chernova & Zakharova, 2011; Fedotova, 2014; Shieh & Demirkol, 2014). In Russia, networking is the interaction of educational institutions attempting implementation of accessible education for SWD as a strategic objective of educational policy. This is a very localized attempt as the Russian state does not provide policies or laws in the area of special education and inclusion. In an analysis of the existing Russian

models of network interaction between special (correctional) and general education institutions, IHEs, and administration of educational networks, Fedotova (2014, p. 10) found:

Increasingly necessary is the development of such models of management in special education that will allow us to consider an educational network not as a collection of isolated groups of educational institutions, and as a whole system, capable to concentrate resources in order to meet the diverse educational needs of children with disabilities. There is a significant chance a student with disabilities in Russia will not receive a quality education or an education, at all. Many of those who do receive an education are segregated from other students at special schools for disabilities, often far away from their families and communities. Others are isolated in their homes with visits from teachers only a few times a week. Tens of thousands of SWD live in state orphanages and face particularly severe obstacles to obtaining any formal education.

The Russian government states that it is undertaking substantial legal and policy changes with goals of guaranteeing access to a quality education for all students, including SWD (Valeeva & Kulesza, 2016). For these policies to succeed, the changes should fundamentally transform the educational approach by ensuring that SWD are not excluded from the general education system on the basis of disability and that students can access an inclusive, quality, and free public education on an equal basis with other students in the communities in which they live. The government should ensure the provision of reasonable accommodation in the forms of supplementary aids and services to allow all students to achieve their full potential, based on the needs of the individual student. Russia must consider that implementation of inclusive education requires effective cooperation between the current institution model and the goal on schools that believe in inclusion. It has taken advocacy of the Russian people to get the government to even discuss inclusion and SWD. Time will tell if this networking of resources leads to a whole school model reform.

GLOBAL EXPERIENCES

There are hundreds of travel abroad programs for educators and students (CITE). For most of us, these experiences are unattainable. The good news for school leaders, teachers, and students is through language development, technology, networking, and the globalization of school environments it is possible to provide a global experiences. You must, however, be intentional about your actions and attempt to create coherence within your school around the notion of global competence. Being global goes beyond cultural festivals, flags in the hallways, or family nights featuring international cuisine (Wiley, 2014). Schools have made a compelling case for global competence by consistently using a vision, mission, and community-shared beliefs to guide daily decisions (DeVillar & Jiang, 2012. Educational leaders who believe in a global education engage the community in the development of a mission statement that provides real-world learning.

It is undeniable that the globally focused education I received has prepared me for the challenges I will face both in college and eventually in my career. There are not enough people in the world today who are passionate about enacting global change and have the facilities and capabilities to do so. Going to

my school taught me that it is not enough to simply understand world issues, you have to take action to rectify them (Student from GOAL Academy, 2020).

At the heart of preparing students to be globally competent is a desire to help them develop the skills and mindset necessary to compete, collaborate, and adapt in a changing world (Wiley, 2014). By helping students investigate questions of local and global significance, understand various perspectives, communicate with diverse audiences, and take action to make a difference, schools prepare them for a world that is yet to be defined. This stance is quite different from the traditional belief that schools should teach a body of knowledge and expect students to perform on a set of uniform measures. Instead, it promotes curiosity, creativity, and innovation. It fuels students to want to understand the world around them more deeply with the hope of making it better (Mansilla & Jackson, 2011).

While the term "global" may seem abstract or vague, schools around the world have begun to put concrete structures and practices in place to enable students to develop global competence, defined as the capacity and disposition to understand and act on issues of global significance. Mansilla and Jackson (2011) stated that there are four competencies of global students' abilities:

1. Investigate the world beyond their immediate environment
2. Recognize others' perspectives and their own
3. Communicate ideas effectively with diverse audiences
4. Take action to improve conditions

Through clear and purposeful leadership from both classroom teachers and school leaders, the school can gain an intentional focus on global's look, sound, and feel. Schools can transform curriculum, instruction, assessment, and organization by developing a coherent vision and strategy to focus their schools on global education and the incorporation of these four competencies. In an inclusive environment, this means that SWD have voice in these decisions.

For example, the International Studies Schools Network (ISSN) is now part of the Community Catalyst Partners (CCP), and the Asia Society is part of the CCP network as the global organization efforts to strengthen relationships and promote understanding among the people, leaders, and institutions of the United States and Asia. The Asia Society is partnered with several large urban school districts, the New York City Department of Education, the Los Angeles Unified School District, and the Charlotte-Mecklenburg Schools to create ten small, internationally themed secondary schools that purposefully include SWD. The concept is to develop schools whose mission and purpose is to prepare high school graduates to be both globally competent and college and/or career ready (https://www.communitycatalystpartners.org/).

RECOMMENDATIONS

This last section of the chapter will provide recommendations from the students who completed the course discussed earlier in the chapter, *Cultural and Technological Awareness in the Context of Global Education, during* the last five years. Table 2 has organized those recommendations through the lens of the 21st Framework for Global Education.

Table 2. Student recommendations

Effective and Scalable Teacher Supports, Resources and Tools	
1	Establish a 21st century vision for learning environments in the public school system and university
2	Empower the "people network" in learning environments through collaborative activities
3	Develop a robust group of stakeholders both in and outside the program to assist with implementation, feedback, and continuous improvement
A New Approach to Language Instruction	
1	Learn how to speak and understand a second language through immersion
2	Actively communicate with each other in languages other than their first language
3	Teach language concepts in small chunks as needed to meet a particular communication (not grammar first when it has no meaning)
Whole-School Models	
1	Create specific self-advocacy and self-determination IEP goals
2	Require student involvement in the IEP and transition processes younger than 16
3	Require students to connect to agencies/networks for experiences that promote goals
4	Provide opportunities to self-advocate and develop the skills needed to navigate life's challenges
Networking & Innovation	
1	Identify informal international collaborations (personal and/or small professional collaboratives)
2	Identify when an informal collaboration could move to a formal collaboration when looking to share institutional-level resources
3	Use technology resources and join existing collaboratives with a shared vision
4	Ensure accountability to key stakeholders (e.g., community, members/supporters, the wider movement, founders)
Global Experiences	
1	Schools must have an environment policy, including topics like recycling, saving water and energy, and using fair-trade and local products
2	Students and teachers, as well as others in society, must be presented with different opinions and taught how to civilly disagree
3	Strengthen efforts in international basic education, including advancing the United Nation's mission on international basic education with explicit support for inclusive early childhood education, children and youth with disabilities, girls, children and youth in crisis settings, and marginalized groups

Prior to the COVID-19 pandemic, the National Research Council (NRC, 2012), highlighted the following skills needed for all students to succeed in the 21st century: (1) transferable skills; (2) critical thinking and problem solving; (3) collaboration; (4) communication; and (5) growth mindsets. There were discussions about general and special educators determining which of these skills were most lacking and most needed for the future success of all students including SWD (Gross & Parsi, 2018).

Another example is in the area of self-advocacy. Defined as a set of skills based on self-knowledge, including awareness of personal strengths and limitations, knowledge of one's rights, and the ability to communicate this understanding (Daly-Cano, et al, 2015). Self-determination is an empowered state in which individuals take charge of their lives, make choices in their self-interest, and freely pursue their

goals (Daly-Cano, et al, 2015)). While every student needs these skills and capacities, one does not need to think long to identify why they are especially important for SWD. SWD in a post-secondary classroom without the benefits of a dedicated individualized education program (IEP) team will need to learn to be a self-advocate for their accommodations. Similarly, navigating what types of accommodations are needed in the workplace and approaching a supervisor to request these supports takes a great deal of self-determination (Gross & Parsi, 2018). Research about goal setting in self-advocacy is another example of special education leading the way.

SUMMARY

On June 29, 2020, it was announced that Kazan, Russia would host the 12th Special Olympics World Winter Games in 2022 (https://www.specialolympics.org/our-work/games-and-competition/world-winter-games-kazan-2022). It will mark the first time that Russia has hosted the Special Olympics. The mission of the International Special Olympics games is:

a global movement of people creating a new world of inclusion and community, where every single person is accepted and welcomed, regardless of ability or disability. …"

This chapter aims to give an overview of the 21st Century Framework for a Global Education, provide examples of the framework in action for current and future teachers, and demonstrate how special education is leading the way to implementing each idea presented. It is evident that resources are available to design and implement a global education curriculum. The resources are always expanding and changing at a rapid pace to meet the needs of the world. Global competence is vital for all students, including SWD, to thrive in a world without leaving people behind. SWD need the skills to be competitive and ready for a new world of work. In addition, these students must develop the capacity to analyze and understand global and intercultural issues. It is important that all students including SWD develop social and emotional skills, as well as values like respect, self-confidence, and a sense of belonging. Embracing a 21st Century Framework for Global Education means believing in the importance of creating opportunities for all students, including SWD.

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KEY TERMS AND DEFINITIONS

Apps: Software that can be downloaded on a cell phone or tablet.

Assistive Technology: Any item, piece of equipment, or product that increases, maintains, or improves functional capabilities of individuals with disabilities.

Culturally Responsive Teaching: Pedagogy that recognizes the importance of including students' cultural references in all aspects of learning: positive perspectives of parents and families, flexible assignments, and global perspectives.

Diversity, Equity, and Inclusion: A diverse, equitable, and inclusive group, community, or organization is one in which a variety of social and cultural characteristics exist and is given the same treatment, opportunities, and advancement.

Dual-Language Instruction: A form of bilingual education in which students are taught literacy and content in two languages.

Effective and Scalable: Adapting an innovation successfully to increase usage in a wide range of contexts.

Global Education Framework: Knowledge, skills, attitudes, and values that when successfully applied to affect all people, and have deep implications for current and future generations.

Networking and Innovation: Enhanced process culture that values collaboration with multiple partners to share ideas and resources.

P21 Curriculum Framework: Skills and knowledge that is needed to succeed in work and life, as well as the support systems necessary for 21st century learning.

Whole-School Models: Focus on all aspects of learning with the common goals of developing healthy, safe, engaged, supported, and challenged students.