



TONI JENNINGS EXCEPTIONAL EDUCATION INSTITUTE



UNIVERSITY OF
CENTRAL FLORIDA

TJEEI ANNUAL REPORT 2019-2020

Toni Jennings Exceptional Education Institute

Email: TJEEI@UCF.EDU
Website: <https://ccie.ucf.edu/tjeei/>

Tel: 407-823-6705
Address: 4221 Andromeda Loop
Orlando, FL 32816



UNIVERSITY OF
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OUR PURPOSE

The Toni Jennings Exceptional Education Institute (TJEEI) is an interdisciplinary research organization focusing on improving the lives and productivity of children and adults with disabilities. The TJEEI combines the resources of the university with local, state, regional, national, public, and private sector agencies and organizations to develop research, products, services, and programs for persons with disabilities

Our Mission

The mission of the Toni Jennings Exceptional Education Institute is through interdisciplinary research, practice and partnerships, is to facilitate the development of knowledge, skills, and supports necessary to provide educational and clinical services for individuals with exceptional needs and their families. TJEEI is working to develop and implement learning resources using technology and Universal Design for Learning.

Operating Highlights

This has been an amazing year of growth for the Toni Jennings Exceptional Education Institute (TJEEI). We have been working diligently to meet our goals that serve our mission to expand and disseminate research, find and support exceptional educators, and serve the community of children and adults with exceptional needs.

To support our goal to expand and disseminate research our staff and students increased the number of publications and conference presentations; increased our social media presence and excelled in meeting funded project obligations.



TJEEI is dedicated to preparing and retaining exceptional student education teachers and related professional educators who serve children and adults with special needs.

In collaboration with Central Florida partners TJEEI provides families of children with disabilities, UCF faculty and students, and educators access to current information, resources and opportunities. Through teaching and research clinics, UCF faculty and students associated with the institute offer services to students with disabilities and their families focused on assessment, behavior, reading, mathematics and community counseling.

“The institute is a life form, a moving evolving changing thing, so the mission evolves as well” Toni Jennings

What a year

Welcome to the TJEEI annual report. To highlight a few of our accomplishments, we added 3 new Ph.D. leaders in Exceptional Education, completed 2 major research projects, attended conferences, supported educators with workshops, supported families with screenings, provided clinic services, and disseminated research through journal publications. There are many projects in the works. As we look forward, you



can see that we are just getting started. We have expanded our staff which will allow us to expand our presence nationally through social media platforms, increase grants and research projects and increase our services to the community including our Applied Behavior Clinic and other support services. Now more than ever is a time that our students and families of children with disabilities need support to ensure they have the “right of individuals to participate in or contribute to society” as described by law.

As you review our progress this past year in this report, keep in mind the people behind the work. We have an amazing team and we will continue to work tirelessly to meet our goals which support our mission to facilitate the development of knowledge and skills necessary to provide educational and clinical services for children and adults with exceptional needs and their families through interdisciplinary research, practice, and partnerships.

Dr. Eleazar Vasquez

Director TJEEI



Dr. Vasquez presenting at FETC 2020 with Dr. Joan Freese, Senior Director of Educational and Digital Media, PBS

TJEEI TEAM



Our team



Eleazar Vasquez, Ph. D.
Professor and Director
Exceptional Student
Education, Toni Jennings
Exceptional Education Institute,



Kelly Schaffer, Ph.D.
Research Associate and
Associate Program Director
Toni Jennings Exceptional
Education Institute



Program Manager I
Toni Jennings Exceptional
Education Institute



Susan Kelly Ed.D
TPQ Resource Specialist



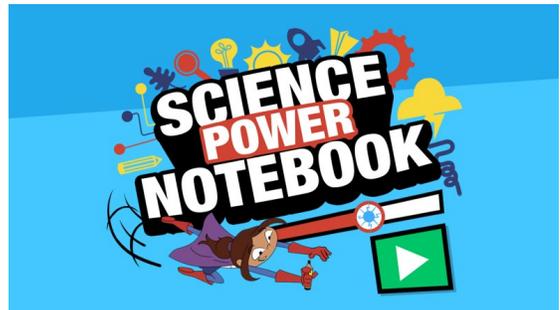
Ricardo Nunes Alcobia
Undergraduate Research
Assistant

RESEARCH PROJECTS

Current Research Awards



TableCraft is an award-winning virtual reality (VR) learning game designed to enhance middle-schoolers' relationships to and knowledge of Physical Science. It teleports players to a playful 3D treehouse lab full of interactable objects. This material is based on a \$70,000 award supported by the National Science Foundation under grant number 1913907.



Hero Elementary. Working with Twin Cities PBS developers from TJEEI created two complete games and three other projects all having to do with next generation STEM standards. The games are based on the upcoming PBS franchise called Hero Elementary, an up-beat look into super powered children learning that the real superpower is science! U.S. Department of Education Award Number U295A100025, CFDA No. 84.295A.

Model Me



The Model Me \$2,000,000 NSF Funded Grant is about using AAA (Triple A) quality game design and art combined with NDA to create a game to teach LD students how to conceptualize fractions. The TJEEI development team is working closely with Jessica Hunt, UCF alumni and special education program coordinator from North Carolina state university to bring cutting edge curriculum and technology to the forefront of special education. Award #H325D180022.

Game Design Team



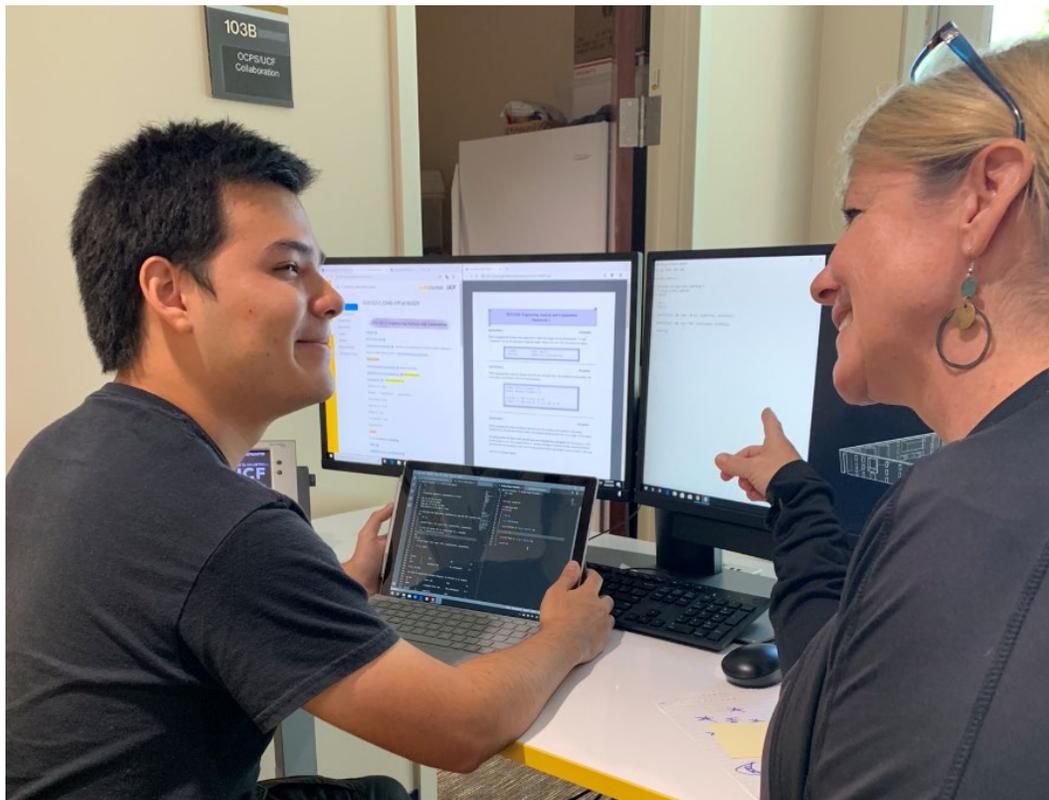
Completed Awards

RET

Our RET site program at UCF exposed middle school to high school science and math teachers to various aspects of IoT technologies from design to manufacturing in an effort for them to experience the complete lifecycle of hardware and software, i.e., building blocks of IoT. The teacher participants gained a new insight into this cutting-edge engineering research through the application of scientific knowledge, hands-on experiments, and development of their teaching modules, which will enrich their classroom teaching. Award Number U295A100025, CFDA No. 84.295A.

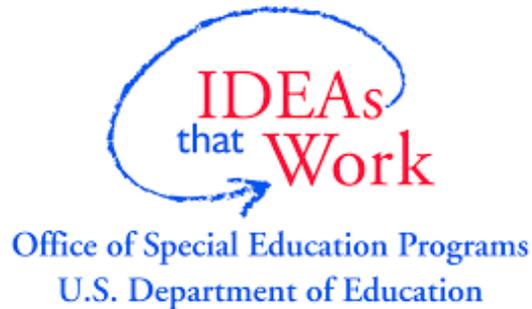
Project ACCESSS

Project Adapting College Classrooms to Equally Support Science Students (Project ACCESSS) took an important and significant step towards increasing the impact of improved instruction in active learning courses, particularly for students with executive function disorders such as attention deficit/hyperactivity disorder or autism spectrum disorder. Project ACCESSS will identify barriers and supports experienced by students with executive function disorders in science courses using active learning. Furthermore, the project will help instructors develop strategies based on a Universal Design for Learning (UDL) framework that lead to improved learning for students with disabilities, as well as students overall; measure the effects of training on faculty implementation of these strategies; and disseminate successful strategies for supporting the learning of students with executive function disorders in active science classes.



PREPARING NEXT GENERATION SPECIAL EDUCATION LEADERS

Student Funding Awards



Project ASD 5 and 6

Project ASD is an innovative federal grant project through the Office of Special Education Programs leading to a master's degree in Exceptional Student Education or Communication Sciences and Disorders, and a Graduate Certificate in Autism Spectrum Disorder (ASD) that meets requirements for a State Endorsement in Autism. The project is designed to recruit high-quality graduate level scholars including those from traditionally underrepresented groups who have potential to become highly effective special educators and speech-language pathologists for students with ASD and prepare scholars in an evidence-based interdisciplinary (exceptional education and speech-language pathology) program including field experiences in urban low SES settings and leading to a Graduate Certificate in ASD and Florida State Endorsement in Autism. This grant was funded through the Office of Special Education award number H325K150201.



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urban low SES settings and leading to a Graduate Certificate in ASD and Florida State Endorsement in Autism. This grant was funded through the Office of Special Education award number H325K150201.

TJEEI Fellows

The TJEEI fellows are highly skilled doctoral candidates supported in part by the institute. Their mission is to provide quality support for the institute and contributing to the support of our mission. These fellows are selected based on their high quality of work and experience.



Morgan Diaz



Jennifer Caton

TJEEI Fellows



Jonathan
"Nick" Solomon



Teleports Scholars

The University of Central Florida - Technology Enhanced Learning Enabled by Partner Organizations, Research, and Teaching Success - UCF TELEPORTS

This project prepares special education personnel at the doctoral level with specific skills in the area of teaching, research, and service with effective leadership skills suitable for university positions. The focus of this program will be to prepare scholars to assume leadership roles in (a) local, state, and national levels with expertise in innovative technologies for students with disabilities (e.g., autism, learning disabilities, intellectual disabilities). Scholars will specialize in technology-enhanced instruction for secondary students. They will focus on effective transition practices that lead to college and career readiness. Award #H325D180022.



Teleports
Scholars



Kiera
Anderson



Rohana
Swihart

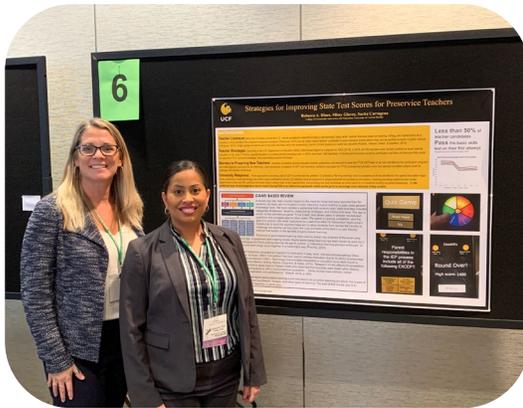


Jacob
Brewer

“The support offered in the cohort model is like working with a strong team. We are all working together to support our purposeful goals.” Kiera Anderson, First year Teleports Doctoral Scholar.

Lead IT Scholars

LEAD IT is a doctoral program designed to prepare highly competent special education leadership personnel, from culturally and linguistically diverse populations, for university faculty positions or for service in training positions in agencies or school systems. "Preparing scholars to Lead Inclusion & Transition" Award H325D160071.



Lead IT Scholars



Eileen
Glavey



Whitney
Hanley



Amanda
Lannan



Sacha
Cartagena



Timara
Davis



Annette
Romualdo



Phillip
Sasse

LEAD Next Scholars

LEAD NEXT will prepare the next generation of special education leadership personnel to address shortages in state and national identified need for personnel preparation in special education. The focus of this federally funded project is to support educators to become national experts in (a) teaching, research, and service to support marginalized students with disabilities in Learning Sciences and evidence-based practices (b) collaborating and conducting research with State and local education agencies; (c) preparing future teachers and collaborating with families; (d) using technology and Learning Sciences to impact learning; (e) working collaboratively with colleagues in content areas and Learning Sciences; (f) conducting program evaluations; and (g) improving outcomes for students with disabilities by influencing policy and practices. "Preparing Next Generation Special Education Leadership Scholars" Award H325D180102.



Lead
Next
Scholars



Molly Greer



Chelsea
Pierce



Lynn Scott

Ph. D. Scholars



TPQ Scholar



Lindsey Pike

Scholars supported by the government of Saudi Arabia



Abeer Ali

UCF Faculty Scholar



Jennifer Tucker



Sami Algethami

TJEEI AFFILIATED FACULTY

These amazing affiliated faculty come from across the UCF campus and the country. We thank them for their continued support of our mission.



Dr. Lauren Jones
Prodigy



Dr. Jeanette Garcia
Sport & Exercise Sci.



Dr. Joseph LaViola
Computer Science



Dr. James Basham
Special Education KU



Dr. Kaustubh Kale
Aventusoft LLC



Dr. Jacki Chini
Physics



Dr. Cherie Yestrebky
Chemistry



Dr. Roger Azevedo
Learning Science



Dr. Hyoung Jin Cho
Engineering



Dr. Melissa Dagley
UCF STEM



Dr. Lisa Dieker
Exceptional Edu.



Dr. Charles Hughes
Computer Science



Dr. Maya Israel
Special Education



Dr. Lori Walters
History



Dr. Matthew Marino
Exceptional Edu.



Dr. Rebecca A. Hines
Exceptional Student
Education



Dr. Mark Rapport
Psychology



Dr. Daniel Barber
Prodigy



Dr. Damla Turgut
Computer Science



Dr. Greg Welch
Healthcare Simulation



Dr. Yanjie Fu
Learning Sciences



Dr. Michelle Taub
Learning Sciences

TJEEI PARTNERSHIPS

TJEEI has formed amazing partnerships in the areas of research, education and community service. Please join us in saluting these amazing partners.

Research Partners



wonder
workshop



TWIN
CITIES
PBS



Office of Special Education Programs
U.S. Department of Education



Not Suspicious LLC

Education Partners



Community Partners



ORANGE BLOSSOM
FAMILY HEALTH



UCF Creative School for Children



COMMUNITY IMPACT

Publications

Basham, J. D., Marino, M. T., *Hunt, C. & *Han, K. (2020). Considering STEM for Learners with Disabilities and Other Diverse Needs. In C., Johnson, M., Mohr-Schroder, T., Moore, & L., English (Eds.). *Handbook of Research on STEM Education* (pp. 128-137). Philadelphia, PA: Routledge. ISBN: 9780367075606, 0367075601

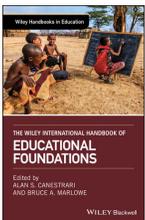


Basham, J. D. & Vasquez, E., (2019). Technology and innovation supporting learners with Autism. In Lam. C. S. C., Ho, F. C., Sam, K. L. S., (Eds.) *Promoting collaborative learning cultures to help teachers support students with autism spectrum disorders*. Springer

Love, T. S., Roy, K. R., & Marino, M. T. (2020). How can instructors make appropriate accommodations and modifications while maintaining a safer teaching and learning environment for ALL students and themselves? *International Technology & Engineering Educators Association Journal (ITEEA)*, 79(5), 23-27.



Marino, M. T., Israel, M., Vasquez, E., *Fisher, K. M., & *Gallegos, B. (2019). Teaching and learning with technology. In A. S. Canestrari, & B. A. Marlowe (Eds.), *The Wiley International Handbook of Educational Foundations* (pp. 245-261). Hoboken, NJ: Wiley Blackwell. ISBN: 978-1-118-93180-6



Mrstik, S., Pearl C., *Hopkins, R., Vasquez, E., & Marino, M. T. (2019). Combating special educator attrition mentor teachers' perceptions of job satisfaction, resiliency and retention. *Australian Journal of Special and Inclusive Education*, 43(1), 27 - 40. <https://doi.org/10.1017/jsi.2018.20>



Schereffler, J., Vasquez, E., Chini, J., James, W. (2019). Universal Design for Learning in postsecondary STEM education for students with disabilities: A systematic literature review. *International Journal of STEM Education* 6(1), 8



Smith, S. J., Rao, K., Lowery, A. K., Gardner, J. E., Moore, E., Coy, K., Marino, M. T., & Wojcik, B. (2019). Recommendations for a national research agenda in UDL: Outcomes from the UDL-IRN preconference on research. *Journal of Disability Policy Studies*, 1-12. doi 10.1177/1044207319826219.



Vasquez, E., & Marino, M. T. (2020). Enhancing executive function while addressing learner variability in inclusive classrooms. *Intervention in School and Clinic*.



Presentations, Webinars, Conferences, and Events



Coaching as a means to enhance executive function for postsecondary STEM majors.

A five-year PLS-SEM study of postsecondary STEM majors.



126th Annual American Society for Engineering Education Conference & Exposition

June 2019

Collaborative multidisciplinary design experience for teachers (CoMET) Train the trainer model of supports.



Lessons learned implementing intensive interventions in high needs schools.

Project ASD's quality indicators for classrooms serving students with ASD.

Preparing teachers to implement intensive interventions in high-needs schools.

Intervention specialists: Providing evidence-based Intensive interventions to support students with high intensity needs.

Teaming and collaboration monograph 6: Building and sustaining partnerships- what works? Invited presentation.

The effectiveness of shared storybook reading interventions: A meta-analysis. Poster presentation.



Hero Elementary: Designing Accessible Digital Experiences to Promote STEM Equity.



Changing students' lives with personalized executive function mentoring. 2019 UDL IRN Summit.

Changing Students' Lives with Personalized Executive Functioning Mentoring. Proceedings for the UDL-IRN international summit.

Universal Design for Learning in Video Games. UDL-IRN Virtual Summit. UDL-IRN & CAS.

Universal Design for Learning in Virtual Environments. Unconference. Sponsored by the U.S. Department of Education Institute of Education Sciences, CAST, & Benetech. Washington, D.C.

Infusing Universal Design for Learning in Virtual Environments. Lunch with Leaders.

Project Directors Meeting. Office of Special Education Programs, U.S. Department of Education. Washington D.C.



Preparing special educators and speech language pathologists in evidence-based practices for autism spectrum disorders.

Preparing teachers to implement intensive interventions in high-needs schools.

Tools for teachers serving students with autism spectrum disorders: evidence-based practices.

Intervention specialists: Providing evidence-based Intensive interventions to support students with high intensity needs.

Conference on Research Innovations in Early Intervention

Feasibility of SEE-KS with teacher candidates: Social emotional framework for engaging all children. Poster presentation.



Defining collaboration around language issues to guide practice and research.

Life partners' understanding of affective, behavioral, and cognitive reactions experienced by their partner who stutters.

Young minds, young readers: An analysis of language effects of dialogic reading.

Partnering with paraprofessionals: Expanding preschool children's responses through dialogic reading. Poster presentation.

Looking beyond the book: Variance in paraprofessional reading practices following a dialogic reading training. Poster presentation.



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**Early Childhood Summer Institute, University
of Central Florida.**

Autism spectrum disorders: Increasing understanding of communication challenges and learning evidence-based practices for teaching young children with autism spectrum disorders.

Tools for teachers: Evidence-based practices for working with young children with ASD.

UConn UNIVERSITY OF CONNECTICUT

31st Annual Postsecondary Disabilities Training Institute (PTI)

Changing students' lives with personalized executive functioning mentoring.

Assistive Technology Industry Association Annual Conference.

*UDL town hall for the Technology & Learning
Connections Project.*

Downtown Developmental Summer Screening Event

The Downtown Developmental Screening Event was a huge success with 65 children connected to developmental screenings at the Callahan Community Center in downtown Orlando. Along with our partners we were able to offer screenings such as, hearing, speech, developmental and others, along with, staff and volunteers time and materials at no cost to our families.



Down Syndrome Foundation of Florida Events

The Down Syndrome Foundation of Florida partnered with the TJEEI to offer children and families opportunities to connect, learn, and share experiences including college prep, yoga, mindfulness, and physical activities. These monthly experiences included k-12 children with specific programs for different age groups. Parents also had the opportunity to meet with experts and share experiences.

Down Syndrome
FOUNDATION
OF FLORIDA



APPLIED BEHAVIOR ANALYSIS CLINIC

Serving the Community

The TJEEI clinical program is designed to combine support for children, student learning and research. We typically serve children from 0-7 years old presenting with deficits in communications skills. Our targeted practice consists of Applied Behavior Analysis and Verbal Behavior Training. All services are supervised and monitored by

Board Certified Behavior Analysts and the overall operations supervised by several Board-Certified Behavior Analysts – Doctoral level.



Applied Behavior Analysis Graduate Certificate

An applied behavior analysis graduate certificate, a Verified Course Sequence, is now available at UCF. Stand out as an educator with highly specialized credentials,

or work toward becoming a Board-Certified Behavior Analyst. This new program is designed to provide specialized coursework for students in education, psychology, communication disorders and related fields. The program meets coursework requirements of the Behavior Analyst Certification Board® Fourth Edition Task List.



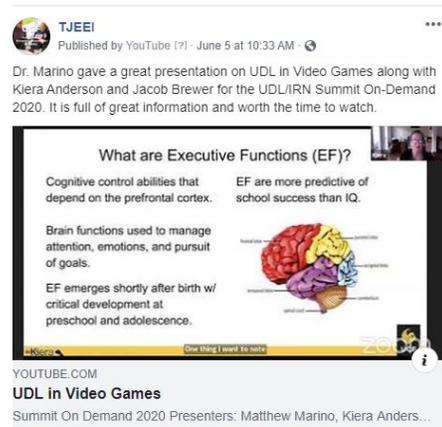
“I love being able to provide support to families while learning and growing professionally!” Chelsea Pierce, First year Lead Next Doctoral Scholar.

SOCIAL MEDIA

In the past year TJEEI has increased its social media presence to further the discussion and dissemination of knowledge to the larger exceptional education community. A concerted effort of monthly postings has increased our followers, likes and shares consistently. This presence is expected to increase as the targeted posts become weekly campaigns to improve readership.

Facebook Postings

@TJEEIOfficial



Twitter activity increasing monthly

@OfficialTJEEI



The TJEEI Email list has increased from 100 to over 2000 contacts and is growing steadily. All our core areas of research, education, and community service have increased steadily as we work to increase communication to our communities. We can now target our messages and disseminate knowledge appropriately.

The Future

We have travelled a long way this past year. We are proud of our accomplishments, but we know there is still more to be done. Looking forward we will continue fund raising through external grants and look for other fund-raising opportunities. Our research and development program will increase with recent grant funding for programs such as the technology-based projects Model Me. We will continue supporting community partners work such as DSF and UCP and design creative programs in light of the Covid-19 pandemic. The new EF coaching program will begin in the fall as well as R and D on EF assessments and treatments. The ABA services to community will be provided and expanded. We will continue to support future educators with the recent submission of Project ASD 7.

We look forward to the opportunities this next year will bring. If you would like to find out more information about any of these programs or help us in our mission, please contact us at tjeei@ucf.edu.

COVID-19 IMPACT

The Covid-19 pandemic has presented unique challenges for society. The disruption to schools has been unprecedented but will provide opportunities for much needed changes. We at the TJEEI have been working to support educators and students with the necessary tools to provide learning opportunities in a variety of modalities. Using the framework of Universal Design for Learning, we are supporting educators by providing technology-based tools to allow students to learn wherever they are. We continue this work with the added lens of how education may change due to the challenges of Covid-19.