The purpose of this article is to examine and report on actions educational leaders are taking to address the transition from on-ground education to online education which is taking place across the country and around the world (Zhong & Wang, 2019). Opportunities for implementing proven education best practices and examples from universities and K-12 schools are discussed. A review of related literature for this paper included emerging trends, commitment by leaders in education to engage in best practices and opportunities for educators to incorporate technology tools into the online classroom. This paper will focus on addressing the obstacles, challenges and recommendations for professionals transitioning to virtual teaching.

Traditional pedagogy allowed instructors to transmit knowledge to learners. Approaches to education in the 21st century have expanded and instructors have since moved away from transmitting knowledge to inspiring and guiding students. The 2020 COVID-19 pandemic created a need for immediate change in the approach and delivery of learning and education. Teachers are shifting their approach from transmitting knowledge to sharing data and guiding learners. Prensky (2001) described the generation of people who have, "... grown up in an era of ubiquitous technology" as digital natives (p.2). Our digital natives are comfortable with shifting technologies, proficient in searching, researching and locating data in the digital world (Wagner, 2011). Pivoting to online instruction, brick and mortar educators have the opportunity to adjust from traditional lecture and note taking methods toward a focus on action-oriented learning (Camacho & Legare, 2015). Changes in the delivery of instruction, methods of communicating with students, and opportunities to host virtual live lectures are advancing the opportunities for remote learning. Kebritchi et al., (2017) described the challenges educators faced in introducing online learning and sharing education concepts in the classroom. While there is a need to educate the
youth, educators themselves may not be prepared to transition from on-ground to online learning. This paper will address the obstacles and challenges and present best practices and recommendations for professionals transitioning to teaching in a virtual setting.

2 | HISTORICAL PERSPECTIVES OF ONLINE LEARNING

Early distance learning such as correspondence courses or open admission practices were established to allow individuals to complete work and courses independently (Wedemeyer, 1981). Nontraditional learners were typically adults who enrolled in distance learning because of a variety of reasons which were financial, personal, or social, circumstances (Keegan, 1993). Nontraditional learning and distance learning have changed significantly since the 1970’s.

Correspondence courses and individually paced courses have been redeveloped and in the push for open access to education, many schools, organizations, and private institutions are now providing free education and training to the masses (Lee, 2017). Massive Open Online Courses (MOOC) initially drew limited attention from both higher educators and distance learners, but now serves as a learning space for high school students and adult learners (Laurillard, 2016). The COVID-19 pandemic has required a shift in the mindset about what education should "look like". The transition to nontraditional learning and the MOOC movement has invited a wide-range of viewpoints from scholars and educators around the world who have provided commentary on the benefits of offering nontraditional education, certificates, and degree programs (Lee, 2017). In many parts of the world, traditional education is virtually nonexistent as leaders are forced to adapt to the use of technology, tools and available remote learning practices to deliver education during the pandemic.

3 | TAKING ACTION: TRANSITIONING TO ONLINE LEARNING IN THE PANDEMIC

Traditional learning methods were disrupted in the spring of 2020 resulting in a transition from brick and mortar classroom learning to education taking place in a virtual classroom. The changes, brought about by the COVID-19 pandemic, disrupted learners from kindergarten to high school, undergraduate to doctoral students. In a traditional classroom, the instructor is present in the room and students become used to completing tasks and assignments in a set order based on the schedule for the day. In March 2020, educators for all grade levels were compelled to shift learning from the classroom to alternative learning. The following case examples describe the transitions that took place in March of 2020 at a K-12 school, Arizona State University Prep Polyttech (ASU Prep), and a Bachelor, Master and Doctoral learning program Grand Canyon University.

3.1 | ASU preparatory academy

ASU Preparatory Academy (ASU Prep) is a K-12 charter school based on the ASU Polytech College Campus in Mesa, Arizona. In March of 2020, Governor Ducey shared an open letter to Arizona families and educators that outlined a plan to close on-campus learning from March 16, 2020 through March 27, 2020 (Ducey, 2020). ASU Prep was in the middle of the spring break when the number of COVID-19 cases was on the rise in Arizona. Dr. Anna Battle, Head of Schools at ASU Prep, a medium sized charter school with multiple locations, announced, "...Although our campuses will be unavailable, we do not want to impact our students’ abilities to learn" (Battle, 2020, p.1). In short-order, a plan for online teaching was borne. Effective March 17, 2020 ASU Prep transitioned from in-person learning to online instruction. ASU Preparatory Academy had the advantage of a direct affiliation with ASU Prep Digital Academy, a fully online charter school serving students in grades 7–12. Leaders announced the transition to online learning and teachers received one day of training on how to navigate online tools, the learning management system (LMS), and live collaboration tools (Zoom). ASU Prep instructors launched the first day of remote teaching the next day (R. Biggs, Personal Communication, March 16, 2020).

3.2 | Lesson learned

Students in K-12 classrooms traditionally study core subjects such as History, Math, English, and Science. Learners may also take electives such as Physical Education, art, foreign languages, music, STEM, and Technology learning/labs (Wilborn, 2017). Transitioning from on-ground learning to online learning required a commitment from parents and a dynamic approach from educators. Teachers at ASU Prep quickly learned that Zoom lessons would require a new style of classroom management (ASU Preparatory Academy, 2020a). The traditional six-hour school day was shortened to two to three hours of live instruction and the students were asked to complete homework and independent study outside of the Zoom live instruction meeting hours. After the first two weeks of online learning, lessons learned were used to develop a clear set of expectations that were emailed to all students and parents (ASU Preparatory Academy, 2020b). The expectations shed light on student expectations for attendance and behavior during the live lessons, requirements for independent learning, homework, grading, and testing. Teachers at ASU Prep began teaching online with only novice level training for hosting Zoom lessons. These educators continued to develop skill sets necessary to adjust classroom materials from paper to Google Classrooms or Canvas LMS through trial and error (R. Biggs, Personal Communication, March 16, 2020).

Parents and students wish for a continuity of learning, engagement with instructors/teachers, and a clear set of objectives and expectations for student learning. Several lessons were learned, from both educators and scholars, directly involved in the March 2020 transition
to online learning. Educators who are transitioning to virtual learning must create comprehensive plans for training both teachers and students to use online technologies. Leaders must focus on educating instructors sharing best practices and identifying opportunities to incorporate technology tools into daily teaching practices (Horvath et al., 2019). Bhamani et al. (2020) noted that teachers who pivot to online instruction must be aware of the need to build communities online by encouraging student interactions, creating learning groups to avoid isolation and actively engaging with learners to encourage collaboration. Personalization of education, taking into account visual, auditory, and sensory learning styles for example, is preferred to a one size fits-all approach as effective learning can only take place when an individual's learning style is addressed and utilized (Benedetti, 2015).

To address the technology learning curve, tutorials for using Zoom, Google Classroom, and submitting work in Canvas were created and a website was established to maintain all of the training information (ASU Preparatory Academy, 2020b). Linsin (2020) argued that class management training for instructors should include recommendations for live-lesson time management and suggestions on how to manage behavioral issues during virtual classroom meetings. At ASU Prep, teachers were provided coaching on how to work with and manage students in a virtual classroom (ASU, 2020). Educators were provided the opportunity to attend multiple school-wide training sessions to review best practices, discuss suggestions for managing small groups (in Zoom) and to complete a comprehensive training program for using Canvas (R. Biggs, Personal Communication, July 10, 2020). Managing an on-ground classroom and student behavior is quite different in a Live Zoom lesson than in a traditional classroom. While the tenets of discipline remain the same, managing online lecture or Zoom sessions require the teacher to be adept at the technology and ready to adapt to situations quickly. For example, in the online classroom when a disruptive student unmutes his microphone and begins talking over the teacher, the instructor must be able to adjust the technology, to remove the student from the class, while maintaining the calm and focus of the online lesson.

The March 2020 transition to online learning created challenges for teachers who had never used Google Classroom or Canvas. School leaders decided the best approach for the fall 2020 term start was to use one Learning Management System (LMS) and train all teachers on how to create course materials, assignments, rubrics, and discussion prompts using the Canvas LMS (ASU Preparatory Academy, 2020a). All stakeholders benefit from the use of a dedicated LMS. A dedicated LMS allows educators to create and maintain all course materials in one location, students may retain access to course materials, submissions and lessons term after term, and LMS features allow students and guardians to view student assignments, calendars, projects, discussions, due dates, and grades to date (Findik-Coşkunçay et al., 2018).

### 3.3 Grand Canyon University

Grand Canyon University (GCU) is a Private Christian University offers courses online and on-campus. Effective March 23, 2020, the school transitioned on-ground classes into an online format using the proprietary learning system to GCU called Loud Cloud (Vacek, 2020). Loud Cloud is an LMS platform that maintains course information such as lectures, videos, case studies, and any information that would otherwise be shared in an on-ground classroom. Students are able to log into LoudCloud, view all course materials, due dates, review and submit assignments, participate in classroom discussion forums, and access grading notes left by instructors (Grand Canyon University, 2020). GCU planned for students to resume fall 2020 classes online September 8, 2020 and transitioned from online to on-campus learning on September 25th, 2020 (Muller, 2020). If at any point in the semester students are unable to return to campus the school administrators have plans in place to continue learning online (Kilen, 2020). Administrators at GCU prepared tutorials for instructors to learn LoudCloud, provided assistance in setting up the virtual classrooms and created a Supplemental University Policy Handbook for instructors to reference (Grand Canyon University, 2020). With LMS resources, training and support already established, GCU was one of many universities that had the capability of quickly and seamlessly transitioning all courses online.

### 4 MOVING ONLINE: THE CHOICE OF LEARNING MANAGEMENT SYSTEM

Preparing for new ways of teaching and working with students requires forward-looking leaders. Online instruction has been available for more than 20 years and has gained in popularity. The pandemic has shifted the demographics of online students. College Atlas (2017) reported that forty percent of online college students are between the ages of 18 and 30, and seventy percent are female. After March 2020, all student learners could be considered online students and as such educators must consider the best way to develop, design and deliver educational materials to our students.

During the transition of learning from on-ground to online in March 2020, school administrators were able to move learning online using Google Classrooms, Zoom meetings. Institutions that already had a Learning Management System (LMS) in place were able to quickly pivot to learning online. A Learning Management System (LMS) is a software application that can be utilized to maintain educational information in one location. Canvas, Blackboard, Moodle, and Brightspace are examples of LMS utilized by online instructors and educators who teach in a hybrid platform. Benefits of using an LMS include the ability to add lecture materials, videos, assignments, course materials, and roll this information to multiple instructor shells term after term—removing the need for each teacher to create lectures and materials term after term (Khotimah et al., 2020). Instructors can place schedules, materials, and coursework into Canvas, Brightspace, Blackboard or any other online learning platform. LMS such as Canvas have reporting capabilities to track attendance, time spent online, and specific engagement metrics specific to each school (Baldwin & Ching, 2019). Instructors may rely on specific data gathered in the
LMS to measure student engagement, mastery of concepts, and attendance. Google Classroom is another option for sharing information with students and leading an asynchronous classroom. Instructors can place resources, videos, and links in the Google Classroom or create tabs for students to reference each week. Google classrooms can be created, at no cost to the user, and access to the course and materials can be granted to hundreds of student users (Google, 2020).

4.1 | Discussion boards

ASU researchers described the benefits that students and instructors may experience with the use of online discussion forums (EDx, 2020). Students can review the main topic, have time to research, reflect and then post their thoughts for review by teachers and peers. Quieter students may be less inhibited to share their thoughts in the discussion board. The forums allow for students to be part of a supportive learning community. “Building a sense of community amongst your learners in an online course can offer great benefits to your learners and their persistence in your learning experience while also creating a rich, dynamic, and inclusive learning experience with lasting benefits beyond the timeframe of the course” (Pilbeam, 2020, p.1).

Mandernach and Holbeck (2016) found that online college professors, “Spend approximately 37 min per day in the discussion forums and post an average of 6 times per day per class in the asynchronous discussions” (p.8). Instructors can post multiple discussion topics for considerations to cover a broader scope of the materials during the timeframe. The discussion forum allows for everyone to see all responses, which may reduce or eliminate the need to respond to the same question or topic multiple times. In the absence of face-to-face discussions in the classroom, there are several options for instructors to engage with and encourage student participation in the virtual classroom. Educators must focus on developing robust discussion questions, engaging with students on the discussion boards and providing additional resources to encourage additional learning.

Best practices for creating discussion boards focus on student engagement and instructor presence. By means of example, instead of posting a traditional essay question, the instructor can ask students to share what they know about the concept and how they can apply the materials in their school/home/work life (Camacho & Legare, 2016). In some instances, discussion boards can include role play activities or opportunities to debate a topic. For example, a discussion board might address a specific topic such as legalizing drugs; students whose names begin with A-L would argue for drug regulation; the remainder of students would present arguments against drug regulation. After the main discussion prompt is answered, the instructor can influence the discussion board by sharing follow up questions to prompt a discussion on the alternative perspectives; potentially creating controversy while allowing students to reflect on alternative trains of thought. Community building is possible in the threads— instructors can assign students work on smaller discussion groups to help build camaraderie within the threads. Finally, the discussion board is an ideal location for students to reflect upon their learning and share thoughts with their peers. Additional opportunities for student engagement in the online discussions would include role play activities. For example, students would view a short video titled “The Trolley Problem.” In this scenario, a trolley is out of control; there are two sets of tracks on the trolley. One set of tracks has one person on the tracks; the other set of tracks has six people on the track. The students will decide which track the trolley will take in order to begin a discussion of ethics and critical thinking.

4.2 | Supporting new instructors

Colleges and Universities across the country have launched free or low-cost training to help support instructors who are transitioning from on-ground to online (Arizona State University, 2020a; CSU, 2020; SNHU, 2020). CSU Global offers a number of free and low cost self-study trainings on the best practices in Online Teaching for Adult Learning and K-12 Best Practices for Online Teaching (CSU, 2020). Arizona State University held a connected Faculty Summit in July of 2020 to discuss teaching methods, best practices and opportunities for instructors to use technology in the classroom (Arizona State University, 2020a). Participation in the summit was free and resources were posted to the ASU website for future reference. Arizona State University also created and manages a web resource for K-12 teachers, the resource is updated weekly and free for all who access the materials (Arizona State University, 2020b). Participation in the summit was free and resources were posted to the ASU website for future reference. Arizona State University also created and manages a web resource for K-12 teachers, the resource is updated weekly and free for all who access the materials (Arizona State University, 2020b). Scholars, educators, and curriculum designers are now promoting open access to resources (Lee, 2017). Sources such as Share my lesson, a forum “by educators, for educators” offers lessons plans by educational level (Share My Lesson, 2020). Every Learner Everywhere created and shared a resource titled, “Delivering High-Quality Instruction Online in Response to COVID-19-Instructor Playbook” for instructors to access (Everylearner, 2020). The instruction playbook was designed to help instructors navigate from on-ground to online line learning with a focus on course design, teaching, and learning in online environments. In July 2020, Arizona State University offered a three-day comprehensive training program to prepare instructors to transition and be successful online. The three-day course was free of charge and offered to all Arizona teachers (ASU, 2020).

Educators seeking out advice from experts may rely on information in academic literature, from blogs, videos, or communities established within their schools (Lierman & Santiago, 2019). One university, Southern New Hampshire (SNHU) has created a space where online instructors can connect with one another (SNHU, 2020). SNHUconnect is the private communication portal to interact with other instructors, Team Leads and staff. Spaces such as SNHUconnect provide a resource where instructors can ask questions and receive feedback from the entire SNHU instructor/Team Lead community.
4.3 | Best practice: Student outreach

Remote learners may rely upon family members or friends for advice, instead of reaching out to the instructor, success coaches or student services. Khotimah et al., (2020) noted the most significant challenges in pivoting to online learning included access to the internet, financial limitations, the absence of necessary technological devices, and the lack of emotional support. Findings from the Khotimah et al., (2020) indicated that while learning remotely is challenging, if given the proper support and infrastructure students will be successful. Learners come to the classroom with different learning styles such as visual, kinesthetic, auditory, reading/writing, or a combination of one or more styles (UIS, 2020). Systems in place such as success coaches, student advisors, small-groups can improve student engagement and student retention.

Schools may offer student assistance for writing, tutoring, coaching, mentoring, or career placement. Scarpin, Mondini, and Scarpin (2018) noted that instructor led student outreach efforts resulted in higher retention and student satisfaction. Student outreach efforts can be accomplished using traditional methods of phone calls, text messages, or by sending messages directly through the LMS. Canvas, BrightSpace and Blackboard LMS systems for example allow for instructors to send emails directly from the class (or class list) to currently enrolled students. Best practices recommend that outreach and connection messages are sent throughout the duration of the course directly to students to make an online connection, share instructions or coursework details or for retention outreach (Cox & Naylor, 2018).

4.4 | Collaboration tools

Group work is still possible in remote learning. Students can rely on applications or websites such as Free Conference call, Skype, and Zoom to connect and collaborate with peers. Additional tools such as Google phone numbers, Google Hangouts, Zoom chat, and Skype instant messaging allow instructors and students to connect, to record and retain messages and video records. Tools such as Kahoot allow instructors to administer live pop quizzes during synchronous meetings; these quizzes are also available for students and parents when the class is not in session. Educators can use these tools to ask brief questions to make sure students are on track. Questions could focus on level of comfort with regard to the course materials. One strategy that might be used to measure student comfort with the learning platform and the course materials could include questions using a five-point scale where students can report one for “no confidence” and five for “confident” Davidson, 2020). Teachers can use this strategy to send students notes each day to ensure that the students feel comfortable—and that they are not left behind. This type of check-in will also help students to understand their metacognition skills where they will learn to “think about thinking” through quick instructor/student check-in activities (Yeh et al., 2019). In addition to individual check-in activities, Whiteboards can be used where teachers can ask questions and students can write or type answers into the online white-board—all students can see the submissions from their peers and the tool helps promote community based learning. Weaving in “Ted Talks” into lectures or discussions and sharing case studies can help students understand the materials and how to apply the lessons into work or life. Relying on ubiquitous technology, personalizing instruction and focusing on the skill set of each student may lend to increased student engagement and retention (Camacho & Legare, 2016).

4.5 | Best Practice: Personalization and building community

Senge (1990) observed that while students remember only a fraction of what they hear they remember a majority of what they do. Active learning techniques include activities such as online scavenger hunts or searching for keywords in a news article. Students can participate in active learning by researching a topic and creating a video to share findings. Free video creation tools, such as FlipGrid, YouTube, or Loom.com allow instructors to create personalized messages to students and to save these messages on the respective servers for later reference. Active learning exercises provide the student the opportunity to organize and reflect on the materials which may reinforce learning.

Instructors may also rely on video tools to create personalized introductions for daily or weekly discussion topics, announcements to outline the objectives for the week or to briefly note their personal/work experiences that relate to the materials covered for the week. Loom provides a tool which allows the instructor to demonstrate a task or share his or her screen while also capturing the instructor’s face. Personalized messages and videos may help students feel more a sense of community in the classroom and video messages may be used to share personalized video feedback to create a connection with the student (Scarpin et al., 2018). “Technology in the 21st century allows instructors to incorporate active learning techniques such as web-based scavenger hunts, problem-based learning, cooperative learning, group discussion, and peer-reviewed and structured-learning groups into the classroom” (Camacho & Legare, 2016, p.2). Instructors who rely on educational technology (such as a whiteboard or live polling tools) to create an active learning environment show improved student engagement, and students reported developing a deeper understanding of the lessons (Donovan & Loch, 2013).

4.6 | Online learning and plagiarism

Transitioning from on-ground to online teaching may be useful for instructors who wish to monitor originality of submissions—most LMS platforms include interface capability to originality checking tools (Findik-Coşkunçaç et al., 2018). Colorado State University-Global and Arizona State University include the option for instructors
to check all submissions through Turnitin.com. Grand Canyon University asks students to confirm the authenticity and originality of each paper and the LoudCloud LMS is connected directly to the plagiarism checking tool, Lopes Write. Instructors at both universities have instant access to originality scores and data (Grand Canyon University, 2020).

Instructors teaching at all levels must understand their role in communicating and enforcing the originality policies. The role of faculty in coaching students to avoid plagiarism should include requiring student adherence with originality policies/plagiarism reporting tools (Eaton, 2020). One proven best-practice is to allow students to use reporting tools in advance of submitting assignments for grading. At a small private college, students in two classrooms were provided with access to originality checking tools—turnitin.com prior to submitting work to the instructor for grading. Of 20 students, only 1 originality issue arose during this course. The instructor was able to use the originality report as a coaching tool (D. Camacho, Personal Communication, July 1, 2020). All students should be coached and trained on plagiarism and the importance of relying on original work. Appendix includes example correspondence for students who do not meet the originality threshold.

### 4.7 Closing remarks

Adoption and use of online education programs requires a shift in mindset of what constitutes a traditional approach to learning to a more flexible perspective. The demonstration of learning moves away from a time-based paradigm to focusing on measuring the acquisition of skills and abilities—free of the traditional time-constraints approach. Best-practices for online education continue to be developed as students’ progress through the newly designed virtual learning programs (Bhamani et al., 2020).

The purpose of this article was to contribute to the growing body of research that focuses on the changing landscape of education. The literature review for this paper included perspective of online education, examples that demonstrate commitment by leaders in education to engage in best practices and opportunities for educators in K-12. Future research investigating online education should focus on education regulations, competency/objective measurement, program design, and best practices. Administrators, business leaders and educators and students may find insights into the merits and applications of applying best practices in approaching online education.

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### CONFLICT OF INTEREST

There are no conflicts of interest.

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APPENDIX

EXAMPLES OF CORRESPONDENCE TO STUDENT REGARDING PLAGIARISM

Example 1
Dear Student,
To maximize your score for all areas of your projects/papers you will want to rely on your original words/thoughts. The originality in your paper helps to demonstrate your mastery of the materials and your critical thinking on the topics.
Instead of using direct quotes how could you paraphrase? Please review these links which include specific tools for addressing originality: [http://unitproj.library.ucla.edu/col/bruinsuccess/03/11.cfm](http://unitproj.library.ucla.edu/col/bruinsuccess/03/11.cfm); [http://owl.english.purdue.edu/owl/resource/619/01/](http://owl.english.purdue.edu/owl/resource/619/01/); [http://www.plagiarism.org/plag_article_how_to_paraphrase_properly.html](http://www.plagiarism.org/plag_article_how_to_paraphrase_properly.html)

Example 2
Dear Student, Your work matches other resources (word for word) and cannot be accepted for grading. Please make sure to review the Originality report if there was a high match. Any information that is taken verbatim, or close, should be placed in "quotation marks," and cited in-text per APA rules.
Please see my notes below regarding originality—then you will want to review, revise, and resubmit your work for grading.
ORIGINALITY: Please keep in mind that no more than 20% of your work can come properly cited direct quotes and other sources. Please paraphrase and use your words.

Example 3
When comparing your paper and the student paper your work matches to, the information in the paper is very similar and words have been changed so the papers are not an identical match. In addition, when reviewing the word document for your week 3 assignment the author shows as @Big and the document shows 0 editing time. Your work matching to another student and your word document showing 0 editing time leads to some concerns about the originality of your work.
I wanted to reach out to you and ask you to address some questions, so I can better determine how to move forward with this plagiarism concern.

1. Can you please tell me how you approached writing this assignment? For example, do you take notes, do you write several versions of your work or do you like to complete your final paper all at once.
2. Please provide your thoughts as to how your paper is so similar to other students' work.
3. Please provide your insight into whether your word document is showing a different author and that your document shows 0 editing time.

I appreciate your assistance with this matter. Please respond to the questions above by 11a.m. on DATE. If you have any questions please do not hesitate to reach out.