

Examining Teacher Education Programs and Field Experiences in K-12 Online Learning Environments

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About Michigan Virtual Learning Research Institute

In 2012, the Governor and Michigan Legislature passed legislation requiring *Michigan Virtual University*® (*MVU*®) to establish a center for online learning research and innovation, and through this center, directed *MVU* to work on a variety of projects. The center, known formally as *Michigan Virtual Learning Research Institute*™ (*MVLRI*™), is a natural extension of the work of *MVU*. Established in 1998, *MVU*'s mission is to advance K-12 education through digital learning, research, innovation, policy and partnerships. Toward that end, the core strategies of *MVLRI* are:

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- Research – Expand the K-12 online and blended learning knowledge base through high-quality, high impact research;
 - Policy – Inform local, state, and national public education policy strategies that reinforce and support online and blended learning opportunities for the K-12 community;
 - Innovation – Experiment with new technologies and online learning models to foster expanded learning opportunities for K-12 students; and
 - Networks – Develop human and web-based applications and infrastructures for sharing information and implementing K-12 online and blended learning best practices.
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MVU dedicates a small number of staff members to *MVLRI* projects as well as augments its capacity through a Fellows program drawing from state and national experts in K-12 online learning from K-12 schooling, higher education, and private industry. These experts work alongside *MVU* staff to provide research, evaluation, and development expertise and support.

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For the past decade, K-12 online education has continued to gain mainstream acceptance as districts realize a number of advantages to offering coursework online. Students increasingly want flexible options to be able to take online courses for a variety of reasons. These might include credit recovery, personal illness, advanced placement, or sports obligations to name a few. Gemin, Pape, Vashaw, and Watson (2015) report that all 50 states and the District of Columbia offer some form of online learning experiences for K-12 students. The continued growth of online education, together with the fact that it is becoming an increasingly mainstream option for students, necessitates that teachers know how to teach in an online learning environment. Consequently, teacher education programs should prepare them to do so (Kennedy & Archambault, 2012). However, research has indicated that very few teacher education programs address K-12 online learning through a practical hands-on field experience component (Kennedy & Archambault, 2012). In 2010, a systematic review of teacher education programs in the United States found that only 1.3% of those responding demonstrated evidence of any type of field experience in an online or blended setting. The purpose of the current report is to examine how programs have evolved over the past six years and whether or not the implementation of an online field experience within teacher education has grown as a function of the expansion of online offerings for K-12 students.

Background

The number of students taking online courses at the K-12 level has continued to increase, particularly among traditional school districts, which represent the fastest growing sector (Gemin, Pape, Vashaw, & Watson, 2015). Practically all districts across the nation are offering online education options, with the majority representing supplemental courses that students take as part of their regular course load while attending a traditional school. This population, comprised of over 50 million students, is taking online courses for a variety of reasons. Offering online courses may provide a solution for schools to address scheduling conflicts, find a highly qualified teacher, access courses that may not be offered in a given area, offer elective or advanced options, provide flexibility for student athletes or those who are unable to attend school due to illness, pregnancy, or incarceration, and/or offer credit-recovery options (Gemin et al., 2015). Given the growing acceptance of online education as a viable alternative to traditional, face-to-face instruction, increasing numbers of students are taking online courses. With this increase comes the need for teachers who are prepared to be effective in an online learning environment. As a result, it is essential that teachers are prepared in their teacher education programs to serve the rapidly escalating number of online students. One of the ways to begin is to offer field experience placements and practica in online settings.

Field Experiences

One of the common practices of teacher preparation is requiring preservice teachers to participate in practica (Cattley, 2007). Throughout the past fifty years, teacher education programs have employed numerous models, such as observational learning (Koran, Snow, & McDonald, 1971), internships (Gardner & Henry, 1968), microteaching (Allen & Eve, 1968), field experiences (Zeichner, 1984), self-evaluations (Beijaard et al., 2000), reflection (Hatton & Smith, 1995), immersion (Wiggins, Follo, & Eberly, 2007), and mentoring (Ballantyne & Hansford, 1995). There is agreement, however, that despite the specific model, practica are a vital component of teacher

education programs (Aiken & Day, 1999; Buck, Morsink, Griffin, Hines, & Lenk, 1992; Harlin, 1999; Joyce, Yarger, Howey, Harbeck, & Kluwin, 1977; Wiggins & Follo, 1999). Practica are so critical that in the 1970s they were mandated by the state departments of education across the country as part of the teacher certification process (Moore, 1979). However, the vast majority of practica have traditionally occurred in face-to-face, brick-and-mortar classrooms. Very few programs have begun to offer field experiences in K-12 online learning. According to the last systematic look at this issue in 2010, only a small fraction of responding teacher education programs offered students the ability to complete a field experience online (Kennedy & Archambault, 2012). These programs, predominantly located in Florida universities, represented only 1.3% of those surveyed. In fact, during the past decade in which online learning at the K-12 level has grown in popularity, teacher education programs as a whole have made little progress in preparing preservice teachers for online settings (Kennedy & Archambault, 2012). What has been done is profiled in the following section.

Field Experiences Specific to K-12 Online Learning

At the beginning of the 21st century, Irvine, Mappin, and Code (2013) began identifying the need for teacher education programs to address preparation for online environments, bringing awareness to the issue and leading the International Association for K-12 Online Learning (iNACOL) to acknowledge the need for teacher training in online pedagogy and support strategies (Lowes, 2007). Then, one of the major breakthroughs in the field was a Fund for the Improvement of Post-Secondary Education (FIPSE) grant awarded to Iowa State University (ISU). Known as Teacher Education Goes Into Virtual Schooling (TEGIVS) (Davis, Roblyer, Charania, Ferdig, Harms, Compton, & Cho, 2007), ISU created and researched a virtual school field experience conducted in the fall of 2007 (Compton, Davis, & Mackey, 2009). Within this first field experience of its kind, two preservice teachers were paired with one Iowa Learning Online (ILO) teacher. The ILO teacher supervised and assisted the preservice teachers within the K-12 online learning environment and implemented the use of guided observation. As part of a one credit course, the preservice teachers were responsible for maintaining a journal reflecting on the experiences, responding to discussion forum questions, and participating in interviews to document their experience. As a result of the field experience, they demonstrated expansion of their understanding and came to new conceptualizations regarding K-12 online learning as well (Compton et al., 2009).

Florida. In the spring of 2009, the University of Central Florida (UCF) and the University of Florida (UF) began offering field experiences in online environments. Collaborating with Florida Virtual School (FLVS), UCF focused on the preservice teacher level with a seven-week field experience, while UF was geared toward the graduate level with a four-week field experience. In addition to UCF and UF, the University of South Florida offered their first pilot of a virtual school field experience in fall 2009; by spring 2010, they had established a full-fledged college-wide program.

In recent years, models in Florida have continued to thrive. This is likely due to the advancement of the existing relationship between teacher education programs in the state and FLVS as well as state-level policy that is favorable to online learning, requiring that online options be offered to students. Within teacher education programs in Florida, preservice teachers have the option to

complete seven weeks of their field experience in a traditional, face-to-face setting, and then spend the other seven weeks with FLVS. Preservice teachers choose a junior-level or senior-level virtual school field experience. This provides preservice teachers specific, hands-on preparation and professional development for teaching in K-12 online learning environments (Gemin, Pape, Vashaw, & Watson, 2015; Kennedy & Archambault, 2012).

Given the backdrop of progress in teacher education to address online teaching, the purpose of the current study is to examine how U.S. teacher education programs have evolved to prepare preservice teachers for K-12 online learning, particularly when it comes to field experiences.

Data Collection and Analysis

The focus of this study was to compare the progress of field experiences in online learning environments using a Web-based questionnaire developed and validated as part of a previous examination (Kennedy & Archambault, 2012). The questionnaire consisted of both closed and open-ended items designed to elicit information regarding field experiences occurring in online school settings. While the survey was being updated and reviewed, the names, titles, and email addresses of field experience contacts were collected. A comprehensive list of teacher education programs was gathered from major organizations including the American Association of Colleges for Teacher Education (AACTE), the National Council for Accreditation of Teacher Education (NCATE), and the Teacher Education Accreditation Council (TEAC). Through compiling this list, a total of 1,017 unique institutions were identified. Approximately three contacts from each program, were generated, yielding a database of 2,271 individuals. Potential respondents were located by searching each institution's website for faculty or staff who could provide specific information regarding field experience placements, such as field experience office personnel, administrators in charge of teacher education programs, and/or technology education faculty.

Of the 2,271 possible respondents who were sent the electronic survey, a total of 445 responses were gathered, representing a response rate of 19.6% (445/2271). Because only 925 of the 2,271 possible respondents opened the survey email, we also calculated a cooperation rate, which subtracts noncontacts and refusals from the sample of potential respondents (Blair & Blair, 2015). The cooperation rate was 48.1% (445/925). Of the 445 gathered responses, 18 respondents were excluded from the analysis because their responses were incomplete, mostly because they included only institution and role and did not answer the critical question of whether or not their program offered any type of field experience in K-12 virtual/online school setting for pre-service teachers. After the exclusions, we yielded a total sample size of 427 individual respondents.

For analyses requiring information at the institution level, a separate spreadsheet was created in which duplicate responses, which occurred when more than one respondent provided data for an institution, were removed. All duplicate cases were merged to yield a single data line for each institution. In the rare case that there was a discrepancy in the information provided by the respondents for the same school, these were resolved by verifying the school information online via US News and World Reports College Profile listings (US News, n.d.). When multiple comments from the respondents at the same institution were present, all responses were retained but merged

together under the same data line. By removing the 64 duplicate cases, a final sample of 363 unique institutions resulted. Because 1,017 institutions were included in the initial sampling frame, our collected sample yielded a 37.0% response rate at the institutional level (363/1,017).

It should be noted that this was a non-random, purposeful sample used to gather as many responses as possible from teacher education programs across the United States (Patton, 1990). As such, it provides an updated snapshot but is not intended to be generalizable across all teacher education programs in the United States. As with the previous analysis, a mixed methods approach was used to gather and analyze both quantitative and qualitative data. Quantitative data were analyzed using descriptive statistical measures to examine teacher education programs offering virtual school field experiences. Qualitative data were gathered by asking open-ended questions. Thematic analysis was used to identify recurring themes within the qualitative data set (Hatch, 2002).

Results

Quantitative Data

To provide pertinent background information, data regarding the size and location of the institutions represented as well as respondents' roles within the teacher education program were collected. These results are reported in the next section. The distribution of responding institutions included all 50 states. The highest numbers were from New York (30), Ohio (22), North Carolina (20), and California (19) (Figure 1).

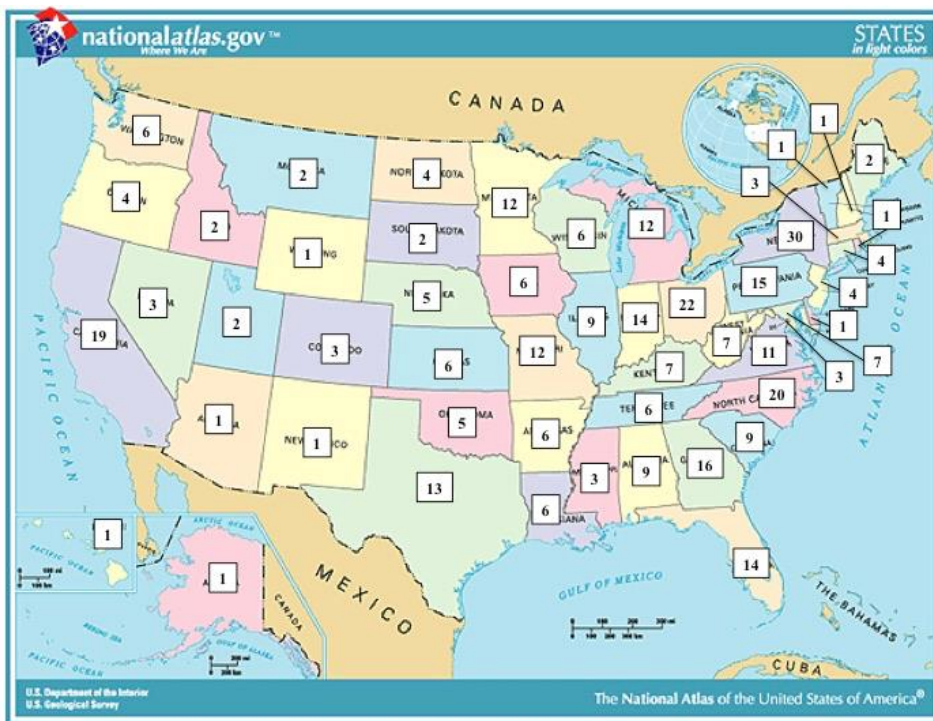


Figure 1. Locations of responding academic institutions by state, $n = 363$

Considering the size of universities that responded, smaller institutions were the most represented with 54.0% (196/363) having 0-5,000 students. Those with 5,000-10,000 students represented 17.9% (65/363), 13.5% (49/363) were institutions of 10,000-20,000, while 7.4% (27/363) had 20,000-30,000 students. Universities with 30,000 to 40,000 students comprised 4.1% (15/363) of the respondents, with the remaining 3.1% (11/363) representing the largest institutions – those that serve 40,000 students or more (Figure 2).

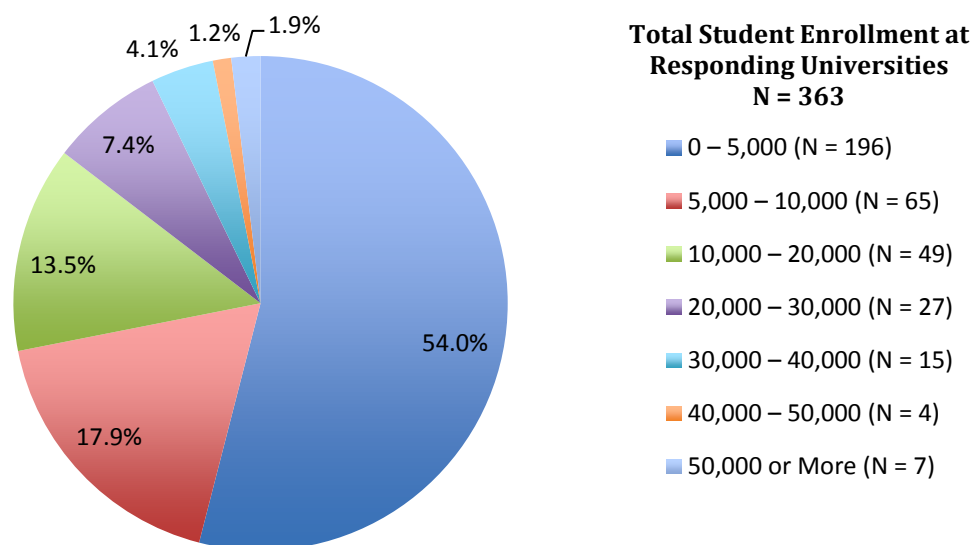


Figure 2. Student enrollment at responding universities

As far as the roles represented by individual respondents, which are reported at the individual level, administrative positions (dean, chair, director) made up the largest group at 36.8% (157/427), followed closely by placement coordinators at 32.6% (139/427). Professors at varying levels of tenure (assistant – 15.7% (67/427), associate – 19.7% (84/427), full – 11.9% (51/427)) were also represented, along with coordinators at various levels including graduate – 4.9% (21/427), undergraduate – 4.7% (20/427), and program – 3.3% (14/427), as well as adjunct faculty – 2.3% (10/427), support staff – 1.9% (8/427) and advisors – .5% (2/427). Individuals often indicated having more than one role (Figure 3 below).

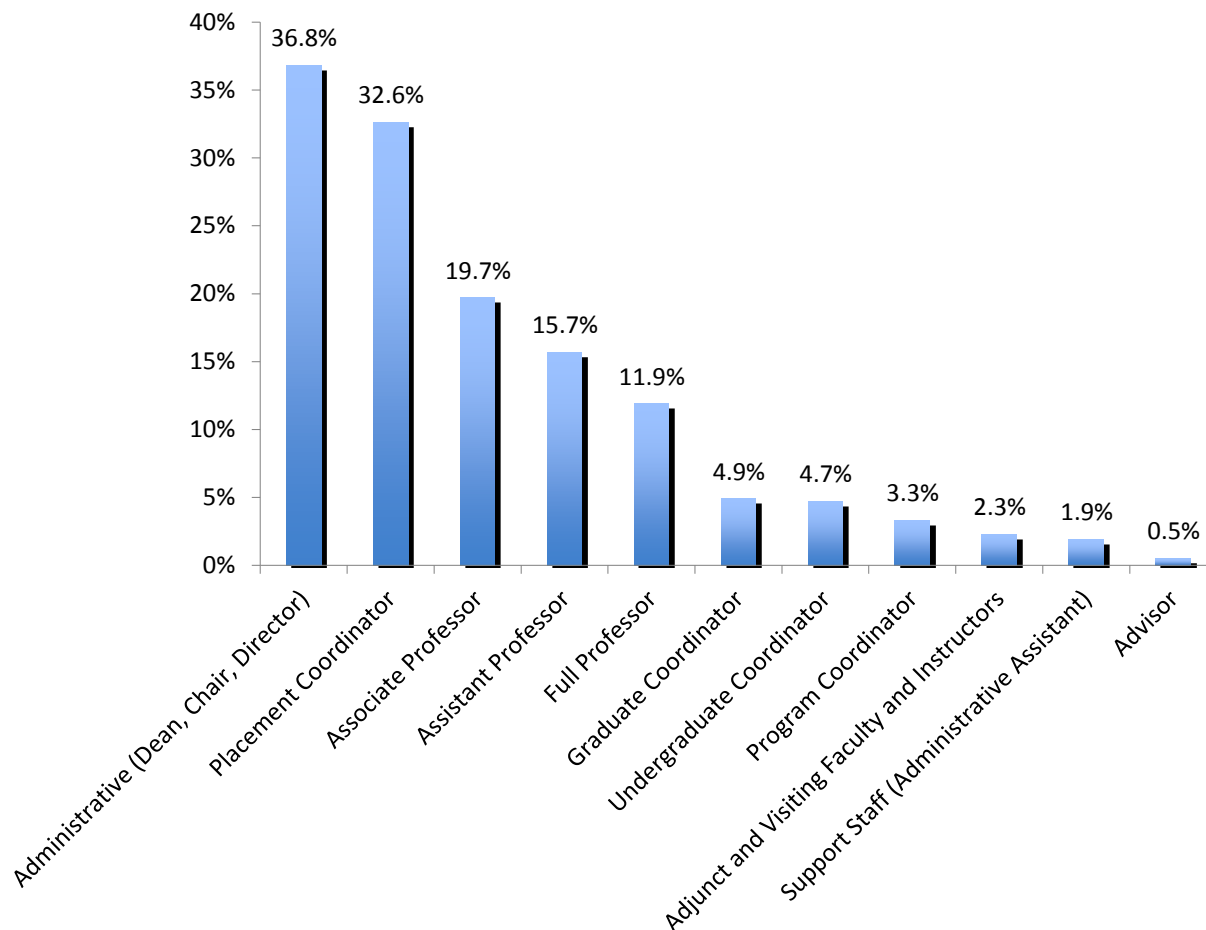


Figure 3. Roles of respondents ($n = 427$)

In examining how many teacher education programs reported having a field experience in an online environment, 88.2% (320/363) of programs indicated that they did not offer such an experience, while 11.0% (40/363) reported that they did. However, in examining responses, including actual descriptions of the field experience itself, only 4.1% (15/363) reported what was required of the preservice teachers during the placement and provided specific data. As a result, this is likely a more accurate depiction of the number of programs with some form of field experience offered in an online environment. Possible reasons for the non-response might be lack of time to provide detail or misinterpretation of virtual school field experience as will be discussed in a subsequent section. Figure 4 below shows the reported total student enrollment of each of the teacher education programs' universities.

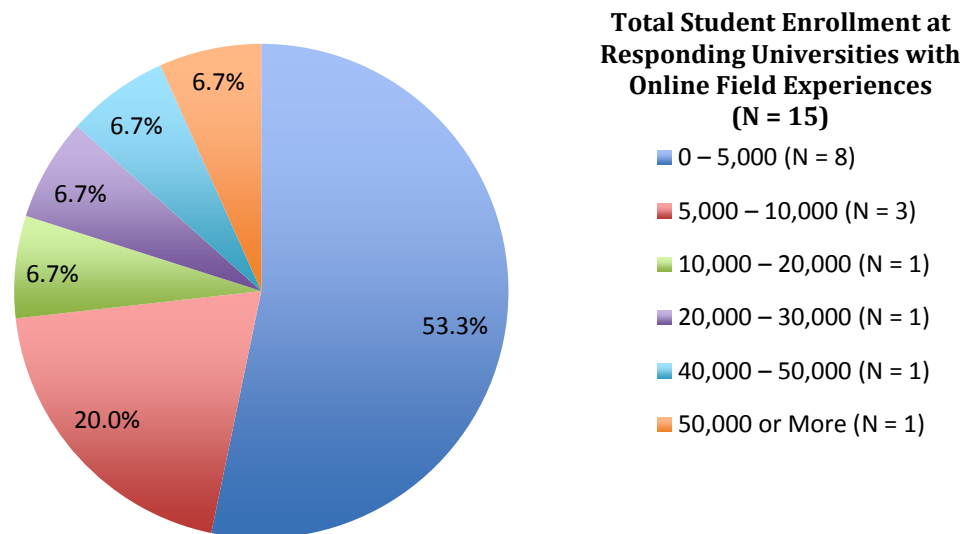


Figure 4. Student enrollment at universities reporting virtual school field experiences

For respondents who reported not offering field experiences in online settings, we asked if they felt their program should. This analysis was done at the respondent level because when institutions had multiple respondents, often their answers differed for this question. Every respondent did not answer this question ($n = 352$). A total of 40.6% reported yes (143/352) while 59.4% indicated no (209/352). When asked if their teacher education program was currently planning such an experience, 358 responded, with 8.7% reporting yes (31/358) while 91.3% indicated no (327/358).

Programs Reporting an Online Field Experience. Teacher education programs reporting an online field experience were located in a variety of states including Florida, Georgia, Kansas, Louisiana, Michigan, New York, North Carolina, Ohio, and Pennsylvania. While one Florida program has offered its online field experience component for more than five years, the majority of programs have been offered for less than three. The number of students participating also varies, with the greatest number of students reported as being between 50-75 students, coming from institutions in Florida. A summary of the characteristics of each of the programs reporting an online field experience is presented in Table 1 below. Each program is labeled by the program's state abbreviation followed by a number to distinguish it.

Table 1. Breakdown of Models Reporting Field Experience in an Online Setting

Program (state, number)	Grade levels	# of years online field experience	# of preservice teachers participating	Cooperating and preservice teachers matching	# of weeks experience is offered	# of hours required	Standards used to design the online field experience
FL 1	K-12 and Adult Ed	1-3	25-50	Not Reported	12-16	0-4	Not reported
FL 2	6-12	5+	50-75	Subject-specific, Grade-specific	12-16	Not reported	Not reported
GA 1	6-12	1-3	Not reported	Subject-specific	4-8	Not reported	Not reported
KS 1	K-12	1-3	30	Subject-specific, Grade-specific	0-4	4-8	iNACOL
KS 2	K-6	3-5	30-40	Subject-specific, Grade-specific	8-12	8-12	Not reported
LA 1	K-5	1-3	6	Grade-specific	More than 16	0-4	Not reported
MI 1	6-12	1-3	20-25	Subject-specific	8-12	Not reported	Michigan Virtual University
MI 2	6-12	0-1	50	Not reported	Not reported	Not reported	Not reported
NY 1	K-5	0-1	5	Grade-specific	8-12	0-4	QM
NC 1	Not reported	1-3	1 preservice, 2 in-service	Subject-specific	More than 16	8-12	iNACOL
OH 1	K-12	0-1	15	Random assignment	4-8	0-4	QM
OH 2	K-12	1-3	5-10	Subject-specific, Grade-specific	4-8	Not reported	iNACOL, Ohio standards for teaching, INTASC
OH 3	K-12	Not reported	8	Subject-specific, Grade-specific	0-4	Not reported	iNACOL
OH 4	9-12	0-1	1	Subject-specific	12-16 weeks	Not reported	Not reported
PA 1	K-12	0-1	3	Random assignment	4-8	8-12	QM

In addition to garnering an overall sense of the characteristics of teacher education programs related to size, grade-level, duration, and implemented standards, we also analyzed the types of learning activities students were asked to do as part of their field experience in an online component. Figure 5 summarizes preparation activities in online environments by percent frequency across programs. The majority of programs had teacher education students participate in communicating with students (73.3%) as well as communicating with parents/learning coaches (53.3%), facilitating class discussion forums (66.7%), delivering synchronous instruction (66.7%), evaluating student work (66.7%), completing required paperwork (66.7%), tracking student progress (53.3%), and attending professional development sessions (53.3%).

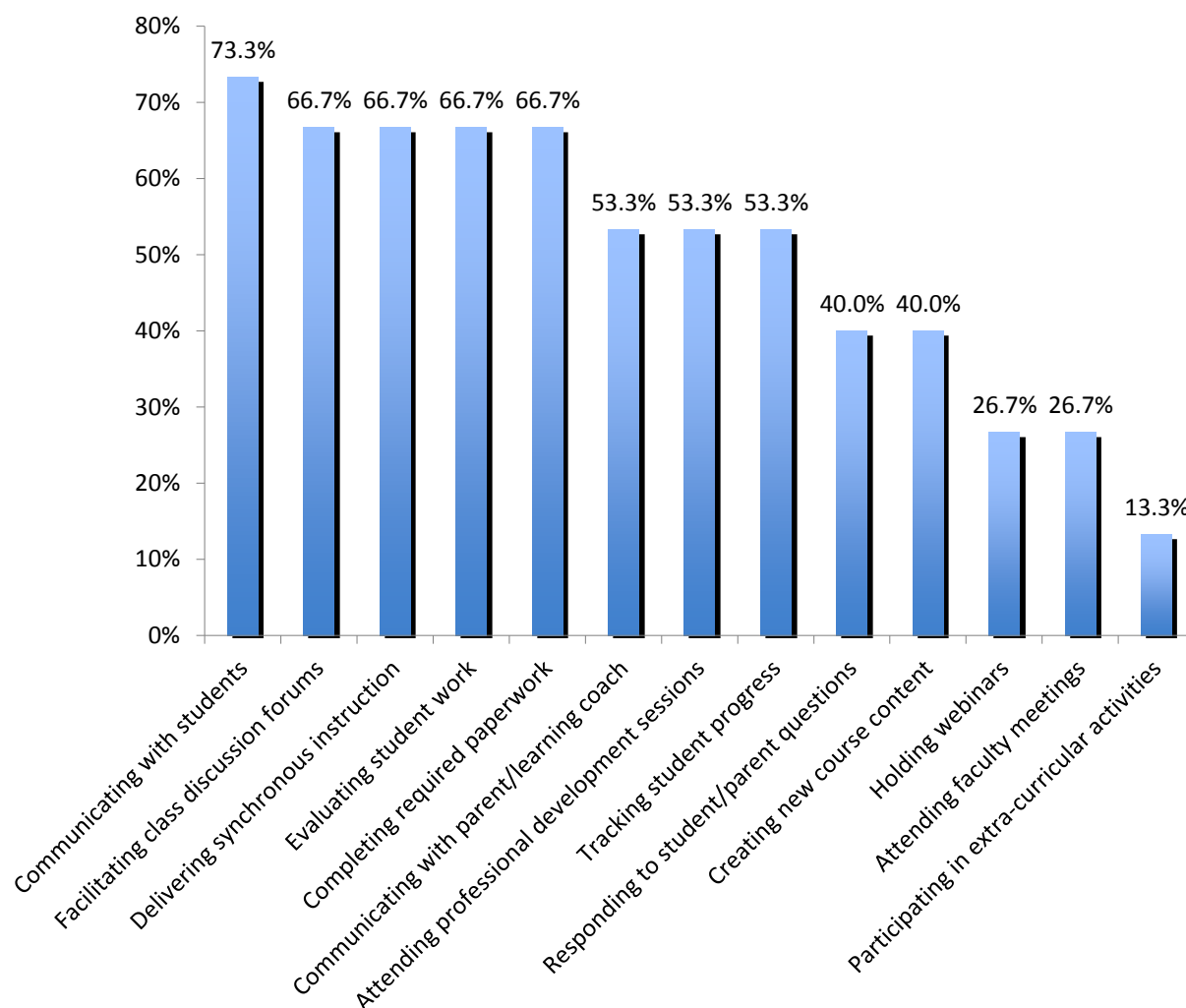


Figure 5. Preservice teacher activities in online field experiences by percent frequency ($n = 15$)

Qualitative Data

In addition to the quantitative survey results, there were 318 (111 skipped) responses to the following open-ended question: “If your teacher education program is NOT offering K-12 online/virtual school field experiences for its pre-service teachers, do you think it should? Why or why not? Please elaborate.” There were eight themes. The second most frequent theme - “Misunderstood - virtual field experience” (89) - is not included in Table 2 below because the responses were not in line with the subject of the survey. This number represented 28% of responses. For this theme, respondents mistook online/virtual school field experiences for field experiences in virtual reality settings and alluded to the need for “real” teachers and “real” students. Thus, percentages in Table 2 are the frequency of the theme divided by 229 (318 minus the 89 responses, excluding the theme “Misunderstood - virtual field experience”). The following is an example quotation to illustrate the excluded theme: “The students that they will teach in the future will be real people, not avatars or other virtual experiences.” Additionally, there was one response that didn’t fit into any of the themes and is considered miscellaneous and only included numerically below in the table. That theme is “Closing of the teacher education program” and is represented by one response in which the respondent shares that her/his teacher education program is closing.

Table 2. Themes from Open-ended Data

Theme	Frequency	Percent of total responses (N = 229)
Future of teaching/reality of change	97	42.30%
Face-to-face vs. online	51	22.20%
State & local area considerations	33	14.40%
Program considerations	30	13.10%
Unsure/ not informed	15	6.60%
Developmental considerations of K-12 students	2	0.87%
Closing of TEP	1	0.44%
Total	229	100%

The rest of this section provides a brief overview of the themes addressing whether or not participants thought that their teacher education programs should provide a field experience in an online environment for preservice teachers. While a short summary is provided, each theme will be further explored in a forthcoming journal publication.

Future of Teaching. The first theme is “Future of teaching/reality of change” (97 out of 229) where respondents acknowledge the need for more teacher education programs (and often their own) to move in the direction of offering a field experience in an online setting. They convey that they see the need for preservice teachers to “be prepared to teach in a variety of delivery formats” and relay that they see a growth of online learning in K-12 in their area.

Face-to-face vs. Online. Out of 229 comments, 51 were related to respondents expressing that they feel face-to-face field experiences are superior to field experiences in virtual schools. One quote that is representative of this theme is “I don't believe a virtual/online school field placement experience

would prepare our candidates for the teaching profession adequately. I also think it would be a disadvantage for their resume when applying for a classroom position.”

State and Local Considerations. Thirty-three of the 229 responses concentrated on “state and local area considerations” where respondents share the state-level and local district considerations they considered when thinking about whether their program should offer field experiences in K-12 online and blended learning environments. The following quote is an example of a response for this theme: “At the current time, these settings do not exist in our service area, i.e., schools with which we have relations. There are some online courses available to students but not at a level that would warrant moving in this area. Once this occurs, we will make adjustments in our program.”

Program Considerations. This theme represents 30 out of 229 responses. An example is, “We prepare educators to meet the needs of the schools in our community (and beyond). With such a high demand for qualified teachers in our K-12 public schools, training for K-12 online/virtual school field experiences does not seem as relevant.”

Unsure/Not Informed. The theme “Unsure/Not Informed” centered on respondents who shared that they were not sure about how their program should or should not prepare their preservice teachers for K-12 online learning and/or they were not sure if this type of teaching even existed and who was engaging in work along these lines. A sample quote from this set is “Uncertain of good educators who are teaching in this manner, unsure of who to contact for MOA [Memorandum of Agreements] agreements.”

Developmental Considerations of K-12 Students. Data from the theme “Developmental Considerations of K-12 Students” focused on respondents and their concern that the online learning environment is better for older learners and not those who are in early childhood and elementary school. Here is a sample quote from this data: “While the online environment will work for older learners, it is not an optimal environment for novice learners. They are neither self-regulating or metacognitive enough to thrive in the virtual environment.”

Spotlight on Michigan

One of the inaugural tasks assigned to the *Michigan Virtual University*® (*MVU*®) through Public Act 60 of 2013, to be fulfilled by the *Michigan Virtual Learning Research Institute*® (*Institute*) was to, “in collaboration with the department [Michigan Department of Education] and interested colleges and universities in the state, recommend to the superintendent guidelines and standards for a new teacher endorsement credential related to effective online and blended instruction.” Following that initial year, the directive changed to “in collaboration with the department and interested colleges and universities in this state, support implementation and improvements related to effective digital learning instruction.” In the years since 2013 when the directive was first given to *MVU*, the *Institute* has worked in collaboration with the Michigan Department of Education (MDE), the Consortium for Outstanding Achievement in Teaching with Technology (COATT), Michigan Association for Computer Users in Learning (MACUL), and the Regional Educational Media Center Association of Michigan (REMC) around the topic of effective digital learning instruction.

Initial efforts by the working group sought to better understand the landscape of teacher preparation in Michigan specifically. The group concluded that the state of Michigan addresses educational technology standards for teachers both at the entry and supplementary levels. Michigan recently adopted the Interstate Assessment and Support Consortium (InTASC) Model Core Teaching Standards (Council of Chief State School Officers, 2013). The InTASC standards are comprised of ten standards that cover four broad realms: the learner and learning, content knowledge, instructional practice, and professional responsibility. According to CCSSO (Council of Chief State School Officers), technology is purposefully woven throughout the descriptions of each of the standards and detailed in the performances, essential knowledge, and dispositions. However, blended and online learning are not explicitly covered in the standards aside from suggesting online courses for professional development and teacher capacity building. The embedded or implied technology approach of the standards serves to free it from constraints of time and continuous technological innovation, but also neglects to cover new and ever expanding educational models. As with previous teacher standards, technology is regarded as a tool for instruction and learning. However, in online classrooms, technology is no longer a tool or enhancement to teaching and learning, but the vehicle through which those things are made possible.

The working group also found that educational technology is addressed in the existing Michigan Educational Technology Endorsement (endorsement code NP). The endorsement was developed out of a recognized need to adopt a set of standards for the preparation of teachers in the area of educational technology. The standards are based on and aligned with the International Society for Technology in Education (ISTE) technology literacy standards developed in 2000. In 2006, following the creation of the Michigan Merit Curriculum that required an online course or learning experience for all students, the educational technology endorsement was expanded to include online teaching and learning components; these changes constitute standards 4, 5, and 6 of the endorsement.

Although the educational technology endorsement was amended in 2006 to include online teaching standards, the additions are somewhat inconsistent with the aims and standards specified when the endorsement was created. The educational technology endorsement was created to ensure that teachers were prepared to teach in the digital age. The original three standards of the educational technology endorsement focus on training teachers to appropriately select, operate, and facilitate the use of a vast array of technology in face-to-face classrooms. The original standards also place explicit emphasis on training teachers to be technology leaders in their schools and districts. These original aims are still well reflected in the descriptions of the endorsement programs at colleges and universities in Michigan. For instance, the University of Michigan-Dearborn states that the endorsement is primarily designed for K-12 teachers who desire to “provide leadership and expertise in the effective use of educational technology” (Michigan Educational Technology Endorsement, n.d.). Michigan State University echoes this sentiment in their program offerings indicating that the endorsement “signifies advanced learning in educational technology” and that it distinguishes a teacher as qualified to teach with technology and dedicated to leadership as an “educational technology professional” (NP Endorsement, n.d.). Further, the MDE offers a detailed

breakdown of classes that can be taught by holders of each endorsement; with respect to the educational technology endorsement, the Department lists computers, computer literacy, keyboarding, word processing, computer applications, web design, and introduction to the Internet (MDE, 2012). In stating that teachers holding the educational technology endorsement are well-prepared to teach the courses listed, there is no mention of online teaching. Reviewing rhetoric and policy around the NP endorsement is not intended to negate the necessity of educational technology knowledge and training for both entry level and certified teachers; rather, it is intended to highlight the over-emphasis of the original three standards at the cost of the standards specific to online teaching.

There are efforts currently underway to update and revise the NP endorsement to reflect online teaching standards released or revised since 2006, and to better clarify the aim of the NP endorsement given the state-wide adoption of the InTASC teaching standards and a growing sense that technology integration is becoming foundational teaching knowledge, not just elective or supplementary for a small subset of highly motivated teachers.

Identifiable Trends and Implications for the Field

From the current data, there are identifiable trends related to field experiences in K-12 online learning environments. First, in the past six years, there has been limited but marked expansion of teacher education programs providing field experiences in online or blended settings. Relatively speaking, there were few program expansions resulting in an increase – from seven programs, representing 1.3% of responding programs in 2010 to 15 programs, representing 4.1% of the 2016 sample. While teacher education programs within Florida remain consistent as the longest providers of field experiences in online learning environments, additional programs that have added such opportunities include Georgia, Kansas, Michigan, New York, North Carolina, Ohio, and Pennsylvania. These experiences range in length from zero to four weeks to more than 16 weeks and require students to complete common activities such as teaching synchronous lessons, providing feedback, and participating in discussion forums. Although the growth may be limited, it does show progress in the area, with the number of programs with such opportunities doubling since 2010. As a percentage of the number of teacher education programs as a whole, however, this still represents a minor fraction overall.

What is encouraging is the increase of programs within states that recognize the value in offering field experiences in a variety of learning contexts, including online and blended settings. It appears that these expansions are happening in states such as Georgia and Michigan, for example, in which there is a strong K-12 online presence and existing partnerships with K-12 online education providers. Teacher educators are beginning to identify online and blended instruction, with 42% of open-ended responses acknowledging the need to move in the direction of offering field experience opportunities that expose students to online/blended learning. During the past six years, there appears to be a greater recognition of the need for preservice teachers to be ready to teach in a variety of learning environments.

Despite this progress, work still remains within the field of teacher education to help a greater number of faculty recognize a need for providing field experiences in online and blended educational settings. For those faculty who reported their programs not offering such an opportunity for students, only 40.6% indicated that they thought their programs should. This is a decrease from the 2010 survey in which 49% said that their programs should. One of the major factors appears to be the conflict between “virtual” and “real” – a constraint that was documented in the previous report in which faculty indicated that they thought programs should be preparing students to teach “real students in real schools.” This tension appears to remain, along with the sentiment that the focus of teacher education programs should be preparing future educators for traditional, brick and mortar schools. Also, online education seems to many faculty to represent the need or interest of a small segment of the student population and is not yet a mainstream focus to which all students need to be exposed. Certainly the number of qualified online teachers necessary to offer online courses will continue to grow with the expansion of online education, both at the higher education level and as part of school choice within secondary education environments (Archambault, Kennedy, Freidhoff, J. R., Bruno, DeBruler, & Stimson, 2015).

Finally, given the relatively few programs reporting a field experience in an online environment (4.1%), together with the number of teacher education personnel who either misunderstood the question (28%) or who were unfamiliar with online teaching at the K-12 level (6.6%), what is evident from the current study as well as the landscape in Michigan, is that there is not a clear path toward teacher preparation when it comes to online and blended environments. Even for the few programs offering online field experiences, some use iNACOL’s Standards for Quality Online Teaching¹ as the basis, others implement Quality Matters², while still others focus on a local, state, or regional set of standards. There is a significant amount of discrepancy in what is being done to address teaching across modern platforms and in varying contexts. In addition, the need for preparation in this area, while prevalent in some states, such as Florida, is still not as widespread as once predicted (Christensen, Horn, & Johnson, 2010). For teacher education programs that are in closer proximity to large K-12 online schools, relationships and partnerships have been forged to provide future teachers with the opportunity to complete field experiences within the online school. As a result, it may be the market force at play, in which both the online school and the teacher education program realize the benefit of providing such an experience where the potential exists for future teachers to be hired into the online educational setting. Although the field of online education continues to grow, especially at the local district level (Gemin, Pape, Vashaw, & Watson, 2015), without outside forces playing a role, it seems unlikely that the ingrained vision of the traditional field experience will be transformed. However, as evidenced by the current follow up study, slow and targeted growth is possible, particularly when and where expansion of online education has occurred.

¹ <http://www.inacol.org/resource/inacol-national-standards-for-quality-online-teaching-v2/>

² <https://www.qualitymatters.org/g6-12-rubric-standards-0>

Conclusion

While the growth of field experiences in K-12 online learning environments may be limited, it is present, particularly in contexts in which partnerships have formed between teacher education programs and K-12 online providers. We continue to maintain that the need for K-12 online teachers is likely to increase, and with it, the demand for preservice teachers who are well-qualified and who can be hired directly from their teacher education programs. Teacher education programs have continued to struggle with preparing candidates for 21st century teaching and learning environments (Kennedy & Archambault, 2012). What is clear from revisiting the issue six years later is that while pockets of progress have been made, significant work still remains. In future iterations of this study, the instrument should provide background on the growth of online learning in primary and secondary settings to provide greater context for the survey itself. This might reduce the number of responses that had to be excluded.

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