Student Perceptions of Accelerated Course Delivery Format for Teacher Preparation Coursework

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Abstract

Acceleration of courses has been documented to achieve an extended academic calendar, financial benefits to universities, time savings for professors, and provide more flexibility for students. The purpose of this study was to examine preservice teachers' learning experiences while enrolled in two accelerated teacher preparation courses. Results showed that students were dissatisfied with the accelerated course format and reported feeling stressed. Students noted challenges to meeting course expectations, but also indicated perceive benefits such as time management and realistic expectations for teachers. Additionally, students perceived they mastered the concepts from both courses. Although students did not prefer the accelerated course structure, the courses helped students gain the expected knowledge and skills. Based on conclusions of this study, recommendations include: (a) courses be reformatted back to the traditional semester delivery, (b) the curriculum design course be moved to the semester prior to the teaching methods course, and (c) universities should carefully review their entire teacher education curricula before adopting an accelerated class format.

Keywords: accelerated learning; curriculum design; preservice teachers; program evaluation; teacher education; teaching methods

Introduction and Literature Review

Teacher education in agriculture aims to prepare the next generation of agriculture teachers working in public schools throughout the country (Wardlow & Osborne, 2010). The goal of teacher

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education in agriculture has been described as "to prepare teachers who are competent in a variety of agricultural subject matter areas and who are effective in the methods and techniques of curriculum planning, instruction, and student and program evaluation" (Barrick & Garton, 2010, p. 32). To meet this goal, teacher education programs have required students to complete coursework in instructional design, teaching methods, and program planning.

In a review of selected agricultural teacher education programs in the United States, McLean and Camp (2000) discerned that variety existed in teacher education coursework offered, but the most commonly reported course was related to methods of teaching. Due to variation in courses offered, McLean and Camp (2000) categorized coursework into five areas including: (a) experiential components, (b) foundations, (c) program and curriculum planning, (d) teaching methods, and (e) teaching technology. The variety of curricular structure across institutions indicated that program offerings and design were created to align with the needs of students.

Phipps, Osborne, Dyer, and Ball (2008) asserted that agriculture education programs should seek to align with the needs of the local community. Similarly, agriculture teacher education programs may need to adapt program design and offerings according to needs of the institution and student population. As a means of increasing the strength of program design, Darling-Hammond and Bransford (2005) posited that strong teacher education programs address three major types of learning experiences to help preservice teachers gain experience developing curricula, including alignment with standards; instructional design process; and review and evaluation of curricula and lesson plans. Development of curricula often begins with the end outcomes in mind, while outlining the ideal means of achieving these end results (Wiggins & McTighe, 2005). Planning ahead can ensure connection and coherence across the teacher education program and that the program is employing the best design and delivery practices while supporting student learning (Darling-Hammond & Bransford, 2005).

Instructional delivery should be designed to best meet the needs of learners. The primary goal of adjusting or modifying delivery of instruction should be to seek out strategies to improve student learning performance (Ho & Polonsky, 2009). Not only is it important to enhance student learning outcomes, but it is essential to increase the marketability of programs in higher education (Hyun, Kretovics, & Crowe, 2006). Further research is needed regarding the most effective teacher preparation program design and delivery. Lynch (1996) suggested that major changes were necessary in the way teachers are prepared in career and technical education, and later Myers and Dyer (2004) asserted that further study of coursework configuration was required to identify experiences that best prepare future teachers. Knipe (2016) found that greater flexibility in the design of teacher preparation programs was needed to produce teachers who could work in a broad range of situations based on the rapidly changing needs of modern education. Such flexibly designed programs might be what Windschitl (2005) suggested when he emphasized that teacher education research should not be about which singular program model is most effective, but which models work best in given situations.

Teacher preparation programs have debated whether curriculum design and teaching methods courses should co-exist in the same semester or if one course should be taught prior to the other. Following the *Understanding by Design* (UbD) model (Wiggins & McTighe, 2005), students must know how to design curriculum based upon global outcomes in order to build curriculum with the end result being the creation of daily objectives and teaching strategies. Therefore, teacher preparation programs should teach students how to design curriculum first, followed by informing students on teaching methods. The strategy to best organize course offerings has become a focal point for preservice teacher preparation programs that have numerous transfer students who take three semesters on-campus prior to their student teaching internship. Nonetheless, following the

framework of UbD, there is a call for curriculum design to be taught prior to teaching methods. One adjustment to teaching courses on curriculum design and teaching methods is to allow for the completion of the two courses during one semester without overlap at an accelerated pace.

Wlodkowski (2003) defined accelerated courses as being delivered in fewer contact hours over a shorter amount of time compared to traditionally delivered courses, which typically meet face-to-face between ten and fifteen times over the course of a quarter or semester (Daniel, 2000). Accelerated courses have also been described as *block mode, compressed course, and flexible mode* (Ho & Polonsky, 2009), *time-shortened courses* (Daniel, 2000), and *abbreviated courses* (Anastasi, 2007). Although originally designed to allow institutions to offer coursework within a restricted time frame (Ho & Polonsky, 2009), accelerated learning formats have been more recently offered to meet the needs of adult learners requiring flexible scheduling (Boyd, 2004; Collins, Hay, & Heiner, 2013; Daniel, 2000; Davies, 2006), as well as to meet the demands of budgeting concerns (Davies, 2006). Nontraditional students, typically defined as college students older than 24 years of age (Johnson et al., 2016), may also benefit from accelerated coursework, as they often have career, financial, and family responsibilities. Accelerated courses are often offered during summer sessions and can be useful for nontraditional students (Daniel, 2000). Utilizing accelerated coursework for teacher preparation programs can meet the needs of nontraditional students while allowing them to achieve their degree in a timely manner.

Traditional course delivery might not be best at meeting the needs of all students in higher education (Collins et al., 2013), including agricultural education programs. Thus, accelerated learning formats have become increasingly popular throughout the United States and around the world (Wlodkowski, 2003), but have been the subject of much criticism. Teaching faculty and administrators often hold the belief that accelerated courses are not as effective as traditional courses (Daniel, 2000; Scott, 2003), forsaking academic rigor for convenience.

Scott (2003) identified four major characteristics of high quality learning experiences within the context of an accelerated course: (1) instructor characteristics, (2) teaching methods, (3) classroom environment, and (4) evaluation methods. These characteristics were identified to have had strong influence over the experiences that students perceived when enrolled in accelerated courses. When these characteristics were present and positive, students were more likely to prefer accelerated coursework over traditional length courses, but when absent or negative, students described the accelerated course as becoming tedious and unpleasant. Characteristics that students desired from their instructors included displaying enthusiasm for the subject, incorporating student feedback regarding the course, and demonstrating care concerning student learning. Perceived effective teaching methods included using active learning methods, emphasizing depth versus breadth of material taught, incorporating small and large group discussion, and utilizing experiential and applied learning methods. In terms of the ideal classroom environment, students asserted they wanted close, trusting relationships with their peers and instructors, which would lead to increased participation. They also stressed that despite the intensity of the course, they preferred a relaxed, supportive, and nonjudgmental classroom environment. Finally, students stated that the structure of the course and types of assignments should be modified to be more easily completed in the shorter time frame, while allowing them the opportunity to apply the material in a personal way.

Although there have been suggestions for best practices of designing and delivering accelerated coursework, not much research has been conducted to help faculty understand how to best design curriculum to meet both the pedagogical needs of students and the time constraints of the compressed design. Research has found that faculty may make adjustments to the course according to the accelerated design, but these decisions were not always based on pedagogical

reasons, but rather the need to fit the course into a shorter time frame (Kretovics, Crowe, & Hyun, 2005). Hyun et al. (2006) concluded that faculty teaching accelerated coursework were concerned about the amount of material needed to be taught within a shorter time frame as well as how many courses students were allowed to take at a time. The faculty reported that students enrolled in accelerated courses were more focused, but had less time to internalize the material presented, which negatively impacted some students (Hyun et al., 2006). At the same time, faculty perceived that the nature of the accelerated course time frame might attract students of non-traditional backgrounds. However, Lee and Horsfall (2010) stated that students and faculty reported positive experiences, yet noted that students raised concerns about assessment tasks and workload. Collins et al. (2013) emphasized that faculty teaching accelerated courses need to be provided with professional development and training on how to appropriately prepare them to teach courses in a compressed format, and cited strategies that institutions could take at the department, course, faculty, and university levels.

Given that literature has cited appropriately designed and delivered accelerated coursework as effective, teacher educators at the University of Florida restructured two preservice teacher courses to be delivered in an accelerated structure. The purpose of this study was to explore preservice teachers' experience while enrolled in these courses.

Conceptual Framework

This study was guided by two primary theories. The design and delivery of the accelerated courses followed principles of the *Understanding by Design* (UbD) framework (Wiggins & McTighe, 2005). Outcomes were framed using Kirkpatrick's four levels of program outcomes (Kirkpatrick, 1994).

Using an UbD approach to curriculum development, curriculum writers begin with the end in mind, identifying what students should be able to know, understand, and be able to do at the conclusion of the instructional unit (Wiggins & McTighe, 2005). When establishing the desired results of instruction, designers identify appropriate enduring understandings, or the big ideas of a unit. They also list essential questions, which when posed to students, stimulate inquiry, provoke discussion, and support transfer of learning. Then, the curriculum designer determines what assessments will be used as evidence of students appropriately meeting the desired outcomes of instruction. Finally, as a last step, learning experiences and instruction are planned to be aligned with the end goal outcomes.

In addition to developing the enduring understandings, essential questions, and forms of assessment, it is vital that the educator accounts for the "scope and sequence" of the topics being delivered through the curriculum. Although high quality teaching and assessment might be developed, if they are not delivered in an appropriate order or pacing, effective learning will likely not occur. Wiggins and McTighe (2005) asserted that "sequencing the learning, mindful of performances and big ideas that recur, is as important as the quality of the curricular elements – perhaps more so, if learner engagement, understanding, and productivity are the criteria for judging the sequence" (p. 291).

UbD was used to design the teacher education program. All courses in the teacher education program contributed to the program's mission statement and student learning objectives were aligned with the state's educator performance standards. Two courses were redesigned into 8-week long condensed courses using UbD principles. In accordance with delivering instruction in an appropriate sequence (Wiggins & McTighe, 2005), the first course to be delivered was the

program's curriculum design course, followed by the delivery of the second course, instructional methods.

Kirkpatrick's (1959; 1994) four level model has been highly used as an evaluation tool for organizational training (Lin, Chen, & Chaung, 2011; Smidt, Balandin, Sigafoos, & Reed, 2009; Tan & Newman, 2013) and educational programs (O'Neil, Wainess, & Baker, 2006; Praslova, 2010; Rouse, 2011). The four criteria levels included in Kirkpatrick's model are reaction, learning, behavior, and results. When applied to formal educational settings, the first level of the model, reaction criteria, includes student perceptions of the design and delivery of the educational program. Learning criteria, which is level two, includes measures of student performance, such as knowledge tests or skill demonstrations. The third level, behavioral criteria, refers to students' transfer of knowledge or skills beyond the context in which the initial learning occurred. The last level, results criteria, when applied to educational programs, describes long-term outcomes such as career success, personal stability, and service to society (Praslova, 2010).

The first two levels of Kirkpatrick's model were the primary focus areas of the course evaluations because they were measureable within the timeframe of the study. Students' reactions toward the learning experience, in addition to learning outcomes, are foundational measurements to evaluate educational programs. Students' reactions and attitudes toward the design and delivery of learning experiences are commonly used for program evaluation (Dysvik & Martinsen, 2008; Jones, 2017) and have been shown to influence learning outcomes (Armbruster, Patel, Johnson, & Weiss, 2009; Eom, Wen, Ashill, 2006).

Purpose and Objectives

The purpose of this study was to examine preservice teachers' learning experiences while enrolled in two accelerated teacher preparation courses. The objectives were:

1. Describe preservice teachers' perceptions of an accelerated course structure.
2. Describe preservice teachers' perceptions of content mastery and confidence while enrolled in two accelerated courses.

Method

A mixed-methods approach was used for this study. Mixed-methods research is useful when one research method cannot fully examine the phenomenon alone (Creswell & Plano-Clark, 2011). This type of research method has become more common in recent years to address complex problems in agricultural education (Epler, Drape, Broyles, & Rudd, 2013; McCubbin, Paulsen, & Anderson, 2016; Walker, 2010; Witt, Doerfert, Ulmer, Burris, & Lan, 2013). Specifically, a convergent mixed-methods design was employed (Creswell & Plano-Clark, 2011). This design collects and analyzes quantitative data and qualitative data separately and independently from one another. The two data strands are not converged until the interpretation of the results (Creswell & Plano-Clark, 2011).

This study was conducted in the fall semester of 2016 at the University of Florida. The population was agricultural education preservice teachers enrolled in both teaching methods and curriculum design. In the past, these courses had been offered simultaneously and lasted the entire semester. The accelerated course design separated the semester in half. During the first eight weeks, preservice teachers were enrolled in the curriculum design course and were taught by an Associate Professor of Agricultural Education. The students were taught by a different Professor of Agricultural Education the second eight weeks in the teaching methods course. Each course met

for six, 45-minute periods each week for a duration of eight weeks. Two of the six periods were dedicated to lab time. There were 34 students enrolled in both courses ($N = 34$); 15 juniors, 16 seniors, and three master students. Data for this study were collected after the conclusion of the spring semester at a preservice teacher meeting. Twenty-seven students ($n = 27$; 79% participation rate) attended the meeting and agreed to participate in the study.

Qualitative methods were used to address objective one. Focus groups were utilized because they allow participants to express ideas and opinions in a social environment, which is reflective of how attitudes are formed in everyday settings (Morgan, 1998; Perloff, 2013). Students were asked to participate in one of two focus groups at the end of the spring semester, one for junior-level students and one for senior-level students. This approach was selected because the seniors were completing their student teaching internships, and their availability was much more limited. The juniors were enrolled in a different agricultural education course and were much more accessible. To help encourage unbiased and honest answers from the students, a researcher not involved in the delivery of the courses moderated the sessions. A semi-structured moderator's guide was utilized, and students were asked about overall satisfaction of the accelerated course experience, perceptions of the lecture and lab structure, and attitudes toward the accelerated timeline for assigned coursework.

Upon completion of the focus groups, the moderator recited key themes of the discussion back to participants and asked the participants if it was an accurate summary or if they would like to add anything else. This use of member-checking ensured the accuracy and completeness of the information with the participants to account for credibility (Lincoln & Guba, 1985). Two audio-recorders were used in each focus group, and the tapes were transcribed to aid in analysis. Glaser's (1965) constant comparative method of analysis was used to identify central themes related to preservice teachers' perceptions of the accelerated course design.

A subjectivity statement for the coder has been included to help understand any biases or assumptions that may have influenced the validity of this study (Merriam, 1998). The coder was an agricultural education doctoral candidate in the program who also served as a teaching assistant for the courses. The coder had completed a bachelor of science degree in agricultural and extension education degree at another university, and a master of science degree in agricultural education at the institution under study. Additionally, the coder worked as a school-based agriculture instructor in a different state for six years. The coder acknowledged the importance of the two courses and believed students will need to be able to manage their time and balance a heavy workload as future agriculture teachers. The coder acknowledged the importance of considering students' perceptions of their class experiences along with the content knowledge gained and believed that students with a more positive experience are more likely to transfer their learning into their future classrooms.

A peer debriefer was used during analysis of the qualitative data to play the role of *devil's advocate* and to help improve the credibility of the findings (Holloway, 1997). The peer debriefer had served as the moderator from the focus group and had no connection to the courses. An audit trail of the analysis codes as themes were identified, condensed, and were kept to increase the dependability of the findings. A detailed description of the students, courses, and instructors were provided to increase the study's transferability (Lincoln & Guba, 1985). Pseudonyms were used to ensure the confidentiality of the students and instructors.

Prior to the focus group sessions, the students were asked to complete a 30-item questionnaire. The items were designed to assess the preservice teachers' perceptions of content mastery and confidence that were reflective of course objectives. A 15-item, 5-point Likert-type scale was used to measure content mastery and confidence for the instructional design course (1 =

strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, and 5 = strongly agree). Similarly, 15-items, using a 5-point Likert-type scale were used to measure content mastery and confidence for the teaching methods course (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, and 5 = strongly agree). A panel of experts reviewed the questionnaire prior to distribution to address face and content validity and both scales were reliable with a Cronbach's alpha greater than .70 (Field, 2013). Descriptive analysis of the data were used to address objective 2.

Data convergence was completed after the conclusion of the study. As per the convergent parallel design, both the qualitative and quantitative strands were analyzed independently (Creswell & Plano-Clark, 2011). The quantitative data provided a general understanding for the students' confidence and content mastery, while the qualitative data provided a more in-depth understanding of the students' perceptions of an accelerated course design. The two data sets were integrated and related to one another in the conclusions to provide a holistic understanding of preservice teachers' learning experiences while enrolled in two accelerated teacher preparation courses.

Results

Objective one sought to describe preservice teachers' perceptions of an accelerated course structure. Themes which emerged included stress, challenges, and benefits.

Stress

The students in the junior focus group shared a consensus that they experienced "more stress" in this course than other university classes they have taken. The seniors also recognized the stress they experienced in the courses. Shelly (Sr.) stated, "I think it was a lot more stressful on us than it really needed to be. … [It was] a very large stress on my life." The students attributed a lot of the stress to issues with the time frame in which they learned the material and completed assignments. Their comments focused on the amount of time spent on class, the amount of time spent on assignments, and the turn-around time on assignments.

Students felt the pressure of the condensed course structure. Jen (Sr.) said, "… having them crammed into a six-week time span was a headache." Additionally, the students thought that the amount of time required of them for the condensed classes was excessive.

> That was the consensus of why it was a little frustrating, because we had a lot of class time especially with the condensed eight weeks. We were meeting a lot during the week. We were meeting for four hours for lecture, and then plus we were meeting for two and a half hours for lab, so we were on campus for five and a half to six hours for this class every week, on top of you know, an online portion (Ben, Jr.).

While the juniors focused on the amount of time which was spent on assignments associated with additional elements of the course and observation hours, the seniors honed in on the amount of time which was required to produce daily lesson plans in the amount of detail expected.

> I also think that just the amount of content that went into the lesson plans itself, it was more stressful because we all had other classes that we needed to worry about, and the lesson plan took up a majority of my time. And so I wasn't focusing on any other class, it's just on that one specific lesson plan (Luke, Sr.).

The seniors compared the lesson plans that they were expected to complete for these courses with the lesson plans they completed during their student teaching.

> We are not creating that quality of lesson plans during our teaching experience so we really didn't have to have that. Yes, we're having to create lots of lesson plans but I don't know if I'm just speaking for myself but I don't think the quality of my lesson plans were anything like the quality of lesson plans we turned in for class (Hannah. M.S.).

Another student mentioned, "In a real-life situation, when you're in the classroom setting like that, you don't have time to plan out every single lesson in that much detail" (Casey, Sr.).

Alec (Jr.) underscored how the condensed structure created a pace which was difficult. He said

> we met so often, but the eight weeks condensed it so much that it was like get into class and we're already by the first week we're two to three weeks ahead just like that, and it was hard to keep pace with that because by the time we got to the second half of methods, it was like first week of lab you already have a presentation to do and we just started the class.

Ally (Sr.) talked about the short turn-around time between learning and application. She said

> we had class Monday [and] Wednesday and then we would learn the new content on Monday and those of us who were teaching on Tuesday would have to turn around in less than 24 hours and produce the quality that they wanted in less than 24 hours, while other students had until Thursday or the following week to get it done.

Hannah (M.S.) noted how the short time frames impacted the work quality. "It was all just crammed together. We didn't really have time to put in quality work for either of the classes." Additionally, Adam (Sr.) highlighted the difficulties in getting feedback from assignments in time for other assignments. "A lot of our assignments we would finish it and then we would have three or four days before the next one's due, before we'd ever get feedback. We can't do this lesson without the feedback to do the next one."

Students spoke of the impacts of the stress on their lives and how they chose to cope with the stress. Two of the seniors admitted to experiencing panic attacks during the course. For example, Kelly (Sr.) said, "I did have several panic attacks. It was not good to(sic) my mental health for sure. It was a pretty traumatizing experience." When asked how they dealt with the stress many students admitted to just not doing their work. "I just didn't do it" (Maria, Jr.). The juniors' focus was on not completing the online videos required in the flipped classroom portion of the teaching methods course. "I just quit watching the online lecture" (Maria, Jr.). "I tried to watch as many of the videos as I could …We would have a lot of times where a lot of people in the class the next day would be like we didn't see the video" (Jackie, Jr.). However, the seniors admitted to not completing lesson plans for the teaching methods course.

> Because of the panic attacks, after the first lesson plan, I didn't turn in any other lesson plans. My grade suffered and I barely skimmed by, but I did not turn them in because I had more things that I needed to take care of (Ally, Sr.).

David (Sr.) followed up on that thought. "I didn't do one of them too and it was because it's like I could spend five hours trying to make the perfect lesson plan or I could just not do it,"

Another senior addressed how the amount of classwork impacted his physical health.

> I was staying up until three, four in the morning, getting up at seven, being at class, going to work, staying up until four or five o'clock, and I got sick four times last semester and I don't get sick. Because I was run down so much, I was sleeping two to three hours a night and that was it (Adam, Sr.).

Another senior talked about the impact of the stress from the courses on her home-life. "I know there's a few of us too that have families, like little kids, and all that suffers. Everything suffers because you're trying to concentrate on this and your family suffers and everything" (Ann, Sr.).

Challenges

Students in both focus groups discussed issues related to clarity of expectations, schedule of coursework, types of assessments, and rapport with professors. Several students identified issues with clarity in expectations which stemmed from ineffective planning and communication. Shelly (Sr.) said, "I don't think it was very well thought out." Mia (Jr.) also noted, "I believe 4202 [curriculum design] had a direct point of what the goal was, which was writing curriculum. … 4200 [teaching methods] to me was not as clear about what we were supposed to gain." Morgan (Jr.) expanded on the previous response saying,

> [It's] not like the way it [curriculum design] was taught was bad, but it was very scattered, was a good way to put it. Like, lectures in person, lectures online, quizzes online, teaching different inquiry-based learning and then different sections that we were teaching I felt like it wasn't quite as clear that this is exactly what we wanted. It's not like this is the right way to do it, this is the wrong way to do it, so it was kind of like stumbling, not stumbling through the dark, but you just have to stumble through the dark a little bit.

Another student remarked,

> I think planning from the very, very top has kind of caused most of these issues. And if the entire class had been planned and thought out a little bit better then maybe the communication, maybe the grading, maybe the expectations and everything would've been better (Claire, Sr.).

Hannah (M.S.) stated, "I didn't see the connection from professor to professor. Dr. Smith tried his best. Dr. Jones tried his best. But not communicating hindered that."

They noted inconsistencies in expectations between the two courses. Aaron (Jr.) shared his confusion.

> The goal of it, I feel, was to take what we had done in the curriculum class and then put it into use in the methods class. And, that worked except some things in the methods class weren't the same that we were learning in the curriculum class and vice versa so it threw us off a little bit. But, it helped that we had the same TA so we could work out those problems.

Another student noted the challenges of unclear expectations. "I thought that it was difficult because we were developing curriculum, but then we didn't know exactly how they wanted us to teach it" (Tanya, M. S.).

Several of the students underscored issues with when the coursework was offered during their program of study. The juniors, who were mostly transfer students, felt ill-prepared to take these courses during their first semester in the program and at the university. "I just feel like it was my first semester here and I've never taken teaching classes before. It was a lot. In the second or third week we had to have pretty much our whole curriculum done" (Abigail, Jr.). Another student remarked,

> There were a lot of the seniors that we were taking that class with that had addressed to me that these were the hardest classes that they had taken at UF the whole time that they had been here. And we're taking them as our first class. And a lot of them are transfers too. Some of them came in as freshmen, but myself and the transfer students, it was my first class at UF and I have the seniors saying it's the hardest class they have to take (Aaron, Jr.)

Students did not feel that the assessments used were the most accurate. For example, when referring to quizzes based on the online lecture, one student said, "… [The professor] was expecting us to come regurgitate in a memorization pattern which is not okay for a student to try and learn the material and synthesize it" (Mia, Jr.). Another student said,

> That class [teaching methods] didn't offer really a proper assessment to how we were learning. … I also felt that the quizzes [in curriculum design] that we were given were unfair because the quizzes didn't properly assess what we were talking about or learning. So for example, a lot of the quizzes were very short answer type questions, and they were multiple choice. We never really would kinda go back to those assessments and talk about what was the right answer, what should've been on that. So I just felt like there were challenges to both classes but they were both a little bit different (Tim, Sr.).

Some students commented on the lack of rapport they had with one of the professors.

> I know some of us felt that it was kind of awkward going from a professor that we know so well and knows us so well to a professor that we've seen in passing. Getting to know professors better I think might have been a little bit easier, but going from one class and then jumping into one where you don't really know the professor is kind of like, who are you and why are you telling me what to do? (Jen, Sr.)

Mia (Jr.) shared similar thoughts.

> Not once, I don't think and I'm going to be completely honest, that I think Dr. Smith offered to meet with any students or try to watch our presentations, see how we were doing in the class, ask if we were adequately understanding or even getting anything out of his videos. So that's why I think a lot of us felt that disconnect and had issues with the class.

In response to the previous comment another student replied, "I mean it's hard to put in that many hours a week when you feel like your time isn't appreciated at all" (Maria, Jr.).

Benefits

The students did acknowledge benefits they recognized from the condensed course structure. Benefits included, learning good time management skills, realizing the amount of time it took to create lessons, the amount of information they learned, and the value of the laboratory experience. Jackie (Jr.) highlighted the first two benefits in one statement.

> I think the class definitely helped us learn a little bit of time management tools, and the amount of time that it takes to make lesson plans and curriculum maps and all of that good stuff. So, in that sense I think it did a good job at preparing us for the time challenges we'll have to meet when we're actually in the field.

The students realized that they learned a lot through the semester.

> The curriculum development part of the class, was really, really good. I feel like I learned a tremendous amount from where to find certain things, how to structure it, why things are structured the way they are, and how to incorporate different teaching methods in a lesson plan. Why you should leave the sub plans that are very easy to read, like that kind of stuff. I really learned a lot (Maria, Jr.).

Jen (Sr.) offered similar thoughts.

> I know for a lot of us, whenever we went into it, whenever we were talking about teaching and making lesson plans, and we had to make lesson plans for other classes, we thought about the activity and then matched it with something that you would teach in that class. And because we had the curriculum class and then the teaching methods class, they made us flip our brains around where you have to look at your standards and then plan from there. So I felt that was advantageous especially when you did the internship and getting classes that maybe you haven't taught before, you really have to look at those standards and then match something that the students would enjoy.

Casey (Sr.) shared another account.

> I feel it was pretty well stressed to us like she said, start with your standards, then come up with your objectives, that's something that stuck in my mind, when throughout my internship when I was creating a lesson plan I would identify my objectives first and then I would worry about what am I going to do with these. So I thought that was something I took away from it.

The laboratory periods associated with the courses were valued by the students. Although they acknowledged that they were "not like a real-life classroom" (Beth, Sr.), they acknowledged that "the labs were really helpful, especially since we got to provide feedback to one another, and hear from our classmates. … it's still great that you get to go through the practice of going through your whole entire lesson" (Beth, Sr.). Tanya (M.S.) said, "I liked watching each other teach and the way that we taught in front of our peers and were able to have that safe environment to help each other and learn different strategies and techniques from each other."

Objective two sought to describe preservice teachers' perceptions of content mastery and confidence while enrolled in two accelerated courses. Table 1 reports the means for each learning objective identified in the instructional design course. The learning objectives with the highest means, indicating the highest level of preservice teachers' perceptions of content mastery and confidence, were *create a course syllabus for a class* (*M* = 4.52; *SD* = 0.58) and *successfully and independently develop a unit plan for a course* (*M* = 4.44; *SD* = 0.58).

Table 1

Preservice Teacher Confidence in Instructional Design After Completing An Accelerated Course

Item	Mean	SD
Create a course syllabus for a class	4.52	0.58
Successfully and independently develop a unit plan for a course	4.44	0.58
Write daily instructional plans for a course	4.37	0.79
Create behavioral objectives according to Bloom's Taxonomy	4.30	0.72
Select appropriate formative assessment strategies	4.30	0.72
Create a grading rubric for a course assignment that effectively measures student performance	4.26	0.81
Create a written assessment	4.23	0.91
Successfully create essential questions that guide course planning	4.19	0.88
Incorporating differentiated instructional strategies to meet a variety of learners	4.15	0.66
Use the Understanding by Design process to create course curriculum	4.11	0.64
Generate appropriate student feedback	4.11	0.80
Create a curriculum map for a course	3.96	0.71
Create a classroom management plan	3.89	0.85
Utilize student data appropriate to inform curriculum decisions	3.78	0.85
Explain Roberts and Ball's (2009) model for agricultural subject matter	3.11	1.01

Note. Scale range was (1=strongly disagree to 5=strongly agree)

Table 2 reports the means for each learning objective identified in the teaching methods course. The learning objectives with the highest means were *use lecture as a teaching technique in my lessons* (*M* = 4.59; *SD* = 0.50) and *use an interest approach or activity design to stimulate student interest in my teaching* (*M* = 4.48; *SD* = 0.64).

Table 2

Preservice Teacher Confidence in Teaching After Completing An Accelerated Course

Item	Mean	SD
Use lecture as a teaching technique in my lessons	4.59	0.50
Use an interest approach or activity design to stimulate student interest in my teaching	4.48	0.64
Use demonstration teaching techniques in my lessons	4.44	0.70
Summarize a lesson while teaching in a classroom	4.37	0.57
Use questioning as a teaching technique in my lessons	4.37	0.69
Use student-centered learning activities appropriately while I teach in the classroom	4.30	0.54
Use cooperative learning activities when I teach in the classroom	4.30	0.54
Use teacher-centered learning activities when I teach in the classroom	4.30	0.47
Apply characteristics of good instruction and teaching when I teach in the classroom	4.26	0.71
Identify factors affecting individual learner differences	4.04	0.90
Effectively use case studies as a teaching technique in my lessons	4.00	0.69
Use inquiry teaching techniques while teaching in a classroom	4.00	0.83
Prepare lesson plans that address diversity in student populations	3.96	0.85
Use educational technology while I teach in the classroom	3.85	1.13
Effectively manage student behavior while teaching in a classroom	3.63	1.18

Note. Scale range was 1=strongly disagree to 5=strongly agree)

Conclusions, Recommendations, and Implications

Based on the results, several conclusions can be drawn. First, students were largely dissatisfied with the accelerated class format. They reported feeling stressed and noted many challenges to meeting course expectations in the accelerated format. However, they did note some benefits like time management and realistic expectations for teachers. Similar student challenges were identified by Hyun et al. (2006) and Lee and Horsfall (2010). Concerns raised by students regarding instructor characteristics, teaching methods, and evaluation methods align with the perceptions of students in Scott's (2003) description of attributes of high-quality intensive learning experiences. Based on student perceptions in this study, these courses did not meet Scott's criteria.

Secondly, students perceived they mastered the concepts from both courses. Although they did not prefer the accelerated course structure, it appears to have been successful in helping students gain confidence in necessary skills. From a UbD perspective (Wiggins & McTighe, 2005), the courses were successful. However, it is important to note this was self-perceived mastery and confidence, not actual demonstration of mastery or knowledge. Additionally, a pre-test of confidence in content was not collected to determine how the students' confidence changed after completion of the courses. Another influence on the students' perceptions of content mastery was that data were collected a full semester after the courses were completed. The seniors may have

gained confidence in their abilities through their supervised teaching experiences, and the juniors may have gathered confidence during their spring courses.

Overall, based on results of this research, it is recommended that the courses be reformatted back to the traditional semester delivery until additional data can be collected. The original motive was to sequence the delivery of the courses so students take the curriculum design course prior to the teaching methods course. It is recommended that the curriculum design course be moved to the semester prior to the teaching methods course. Other universities exploring the accelerated course structure should consider affective and cognitive outcomes. Additionally, universities should carefully review their entire teacher education curricula before adopting an accelerated course format. An experimental design could explore differences in students' learning, confidence, and satisfaction between the traditional and accelerated course format through a longitudinal study over two to three years. This may provide more accurate justification for using one course design over another.

The results from this study cannot be generalized; however, the findings should provide guidance to educators who offer accelerated courses. Ensuring open and transparent communication between students and instructors can help to decrease stress levels and perceptions of challenges. Also, if accelerated courses are to be taught in tandem with different instructors, care should be taken to ensure the connection and coherence of course content and assignments (Darling-Hammond & Bransford, 2005). A final recommendation is to adjust the teaching methods, assignments, and evaluations to be appropriate for the accelerated pace (Scott, 2003). Although initial feedback from students was not positive, they did perceive to have mastered concepts from both courses. Future research could follow-up with students after some time has passed to see if they still have similar perceptions of the format. Additionally, students' actual performance during their student teaching internships could be a better indicator of content mastery.

References

Anastasi, J. S. (2007). Full-semester and abbreviated summer courses: An evaluation of student performance. *Teaching of Psychology, 34*(1), 19-22. doi: 1080/00986280709336643

Armbruster, P., Patel, M., Johnson, E., & Weiss, M. (2009). Active learning and student-centered pedagogy improve student attitudes and performance in introductory biology. *CBE Life Science Education, 8*(3), 203-213. doi: 10.1187/cbe.09-03-0025

Barrick, R. K., & Garton, B. L. (2010). Frameworks for agriculture teacher preparation. In R. M. Torres, T. Kitchel, & A. Ball (Eds.), *Preparing and advancing teachers in agricultural education* (pp. 30-41). Columbus, OH: The Ohio State University.

Boyd, D. (2004). Effective teaching in accelerated learning programs. *Adult Learning, 15*(1-2), 40-43. doi:10.1177/104515950401500111

Collins, A., Hay, I., & Heiner, I. (2013). Start with the end in mind: Experiences of accelerated course completion by pre-service teachers and educators. *Australian Journal of Teacher Education, 38*(10), 1-20. doi: 10.14221/ajte.2013v38n10.4

Creswell, J. W., & Plano-Clark, V. L. (2011). *Designing and conducting mixed methods research* (2nd ed.). Thousand Oaks, CA: SAGE Publications.

Daniel, E. L. (2000). A review of time-shortened courses across disciplines. *College Student Journal, 34*(2), 298-309. Retrieved from https://www.questia.com/library/p1917/college-student-journal

Darling-Hammond, L., & Bransford, J. (Eds.) (2005). *Preparing Teachers for a Changing World: What Teachers Should Learn and Be Able to Do.* San Francisco, CA: John Wiley & Sons, Inc.

Davies, W. M. (2006). Intensive teaching formats: A review. *Issues in Educational Research, 16*(1), 1-20. Retrieved from http://www.iier.org.au/iier.html

Dysvik, A., & Martinsen, L. (2008). Accreditation and institutional research: the traditional role and new dimensions. *New Directions for Higher Education, 141*, 69-76. doi: 10.1002/he.294.

Eom, S. B., Wen, H. J., & Ashill, N. (2006). The determinants of students' perceived learning outcomes and satisfaction in university online education: An empirical investigation. *Journal of Innovative Education, 4*(2), 215-235. doi: 10.1111/j.1540-4609.2006.00114.x

Epler, C. M., Drape, T. A., Broyles, T. W., & Rudd, R. D. (2013). The influence of collaborative reflection and think-aloud protocols on pre-service teachers' reflection: A mixed methods approach. *Journal of Agricultural Education*, *54*(1), 47-59. doi: 10.5032/jae.2013.01047

Field, A. (2013). *Discovering statistics using IBM SPSS statistics* (4th ed.). Thousand Oaks, CA: SAGE.

Glaser, B. G. (1965). The constant comparative method of qualitative analysis. *Social Problems, 12*(4), 436-445. Retrieved from http://www.sssp1.org/index.cfm/m/325

Ho, H., & Polonsky, M. (2009). Exploring marketing students' attitudes and performance: A comparison of traditional and intensive delivery. *Marketing Education Review, 19*(3), 41-47. doi: 10.1080/10528008.2009.11489086

Holloway, I. (1997). *Basic concepts for qualitative research*. Oxford, UK: Blackwell Publications.

Hyun, E., Kretovics, M. & Crowe, A. (2006). Curriculum characteristics of time-compressed course in a U.S. higher education institution. *Educational Research and Review, 1*(2), 29-39. Retrieved from http://www.academicjournals.org/journal/ERR

Johnson, M. L., Tassoobshirazi, G., Clark, L., Howell, L., & Breen, M. (2016). Motivations of traditional and nontraditional college students: From self-determination and attributions, to expectancy and values. *Journal of Continuing Higher Education, 64*(1), 3-15. doi: 10.1080/07377363.2016.1132880

Jones, F. (2017). Comparing student, instructor, classroom and institutional data to evaluate a seven-year department-wide science education initiative. *Assessment & Evaluation in Higher Education, 43*(2), 323-338. doi: 10.1080/02602938.2017.1343799

Kirkpatrick, D. (1959). Techniques for evaluating training programs. *Journal of the American Society of Training Directors, 13*, 3-9.

Kirkpatrick, D. (1994). *Evaluating training programs: The four levels*. San Francisco, CA: Berrett-Koehler.

Knipe, S. (2016). Innovation in course design. *Australian Journal of Teacher Education, 41*(3). doi: 10.14221/ajte.2016v41n3.4

Kretovics, M. A., Crowe, A. R., & Hyun, E. (2005). A study of faculty perceptions of summer compressed course teaching. *Innovative Higher Education, 30*(1), 37-51. doi: 10.1007/s10755-005-3295-1

Lee, N., & Horsfall, B. (2010). Accelerated learning: A study of faculty and student experiences. *Innovative Higher Education, 35*(3), 191-202. doi: 10.1007/s10755-010-9141-0

Lin, Y., Chen, S., & Chuang, H. (2011). The effect of organizational commitment on employee reactions to educational training: An evaluation using the Kirkpatrick four-level model. *International Journal of Management, 28*(3), 926-937.

Lincoln, Y., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage.

Lynch, R. L. (1996). In search of vocational and technical teacher education. *Journal of Career and Technical Education, 13*(1), 5-16. doi: 10.21061/jcte.v13il.508

Merriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco, CA: Jossey-Bass Publishers.

McCubbins, O. P., Paulsen, T. H., & Anderson, R. G. (2016). Student perceptions concerning their experience in a flipped undergraduate capstone course. *Journal of Agricultural Education, 57*(3), 70-86. doi: 10.5032/jae.2016.03070

McLean, R. C., & Camp, W. G. (2000). An examination of selected preservice agricultural teacher education programs in the United States. *Journal of Agricultural Education, 41*(2), 25-35. doi: 10.5032/jae.2000.02025

Morgan, D. L. (1998). *The focus group guidebook*. Thousand Oaks, CA: Sage Publications, Inc. http://www.careernetwork.org/career_journal.html

Myers, B. E., & Dyer, J. E. (2004). Agriculture teacher education programs: A synthesis of the literature. *Journal of Agricultural Education, 45*(3), 44-52. doi: 10.5032/jae.2004.03044

O'Neil, H. F., Wainess, R., & Baker, E. L. (2006). Classification of learning outcomes: Evidence from the computer games literature. *The Curriculum Journal, 16*(4), 455-474. doi: 10.1080/09585170500384529

Perloff, R. M. (2013). *The dynamics of persuasion: Communication and attitudes in the 21st century* (4th ed.). New York, NY: Routlage.

Phipps, L. J., Osborne, E. W., Dyer, J. E., & Ball, A. L. (2008). *Handbook on agricultural education in public schools*. Clifton Park, NY: Thompson Learning.

Praslova, L. (2010). Adaptation of Kirkpatrick's four level model of training criteria to assessment of learning outcomes and program evaluation in Higher Education. *Educational Assessment, Evaluation and Accountability, 22*(3), 215-225. doi: 10.1007/s11092-010-9098-7

Roberts, T. G., & Ball, A. L. (2009). Secondary agricultural science as a content and context for teaching. *Journal of Agricultural Education, 50*(1), 81-91. doi: 10.5032/jae.2009.01081

Rouse, D. (2011). Employing Kirkpatrick's evaluation framework to determine the effectiveness of health information management courses and programs. *Perspectives in Health Information Management, 8*, 1-5. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3070232/pdf/phim0008-0001c.pdf

Scott, P. (2003). Attributes of high-quality accelerated courses. In R. J. Wlodkowski & C. E. Kasworm (Eds.), *Accelerated learning for adults: The promise and practice of intensive educational formats* [special issue]. *New Directions for Adult and Continuing Education,* 97, 29-38. doi: 10.1002/ace.86

Smidt, A., Balandin, S., Sigafoos, J., Reed, V. A. (2009). The Kirkpatrick model: A useful tool for evaluating training outcomes. *Journal of Intellectual and Developmental Disability, 34*(3), 266-274. doi: 1080/13668250903093125

Tan, K., & Newman, E. (2013). The evaluation of sales force training in retail organizations: A test of Kirkpatrick's four-level model. *International Journal of Management, 30*(2), 692-703.

Walker, N. J. (2010). An examination of integration of academic and vocational subject matter in the aquaculture classroom. *Journal of Agricultural Education*, *41*(2), 54-64. doi: 10.5032/jae.2000.02054

Wardlow, G. W., & Osborne, E. W. (2010). Philosophical underpinnings in agricultural education. In R. M. Torres, T. Kitchel, & A. Ball (Eds.), *Preparing and advancing teachers in agricultural education*, (pp.17-29). Columbus, OH: The Ohio State University.

Wiggins, G. P., & McTighe, J. (2005). *Understanding by Design.* Association for Supervision and Curriculum Development. Alexandria, VA.

Windschitl, M. (2005). The future of science teacher preparation in America: Where is the evidence to inform program design and guide responsible policy decisions? *Science Education, 89*(4), 525-534. doi: 10.1002/sce.20090

Witt, C., Doerfert, D. L., Ulmer, J. D., Burris, S., & Lan, W. (2013). An investigation of school contentedness among agricultural education students. *Journal of Agricultural Education*, *54*(2), 186-204. doi: 10.5032/jae.2013.02186

Wlodkowski, R. (2003). Accelerated learning in colleges and universities. In R. J. Wlodkowski & C. E. Kasworm (Eds.), *Accelerated learning for adults: The promise and practice of intensive educational formats* [special issue]. *New Directions for Adult and Continuing Education,* 97, 5-16. doi: 10.1002/ace.84