Stage-Environment Fit and Middle Level Virtual Learners:  
A Phenomenological Case Study

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Abstract

There has been an increase in research regarding experiences within virtual education. However, little attention has been given to the middle level context. Through a theoretical lens grounded in stage-environment fit theory, this phenomenological case study describes the lived experiences of two middle level virtual learners as they engage in an academic year of virtual middle school. Their shared experiences give attention to a need for relatedness, self-efficacy, motivation and autonomy in the virtual context.

Keywords: middle level education, virtual education, stage-environment fit, phenomenology, middle school

Virtual classrooms are serving an increasing population of K-12 students. As of 2016, more than 500 full-time virtual schools existed in the United States with 24 states offering state virtual schools, 34 states offering full-time virtual schools, and 21 states providing blended learning classrooms (Molnar et al., 2017). Researchers have estimated that more than 800,000 K–12 students were enrolled in online courses through a state virtual school during the 2015–2016 school year (Evergreen Education Group, 2017). Middle level (6th–8th grades) students represent 11% of learners taking virtual courses through a state virtual school, a number that is predicted to continue to grow at an increasingly fast pace (Evergreen Education Group, 2017).

Given the increasing population of middle level students learning in virtual contexts, and considering the unique developmental needs and characteristics of middle level students (National Middle School
Association [NMSA], 2010), it is dangerous to view virtual learning as simply the next “fad” in education. Doing so puts young adolescents at risk of engaging in an educational context that fails to meet their needs. While research has revealed the benefits of enacting a fit between developmental needs and programs within the brick-and-mortar classroom, we currently lack a depth of research focused on middle level virtual contexts and how these contexts address the developmental needs of middle level learners. Young adolescents demonstrate important physical, cognitive-intellectual, moral, psychological, and social-emotional changes and needs (Caskey & Anfara, 2007; NMSA, 2010), thus making it important that contemporary virtual middle level schools design programs that meet these needs and cultivate a culture of growth. As an increasing number of middle level learners opt for full-time virtual learning, what are the experiences of middle level learners within these contexts? In what ways do these contexts meet the developmental needs of these learners? Exploring these questions can provide knowledge about how such experiences relate to the fit between adolescent development and the online classroom space.

**Review of the Related Literature**

Psychologists, theorists, researchers, and professional organizations have described early adolescence (10–15 years of age) as a distinctive stage of development. It is a time of significant physical, social-emotional, moral, psychological, and intellectual development (Caskey & Anfara, 2007; Flavell, 1963; Hall, 1904; Havighurst, 1972; NMSA, 2010; Piaget, 1952). In an educational setting, the impact of these developmental changes can directly affect academic and personal outcomes in both positive and negative ways. As such, there is a need to match the learning environment to these developmental changes (Eccles & Midgley, 1989; Eccles et al., 1993; Lipsitz, 1984). This correlation is known as stage-environment fit theory (Eccles et al., 1993).

Stage-environment fit theory links developmental stages to environmental fit (Eccles et al., 1993). In doing so, this theory becomes rooted in the sociocultural perspective on learning (Vygotsky, 1978), giving emphasis to learning as a social construct dependent on people and contextual conditions. At the heart of stage-environment fit theory is the notion that students perform better when classroom environments are suited to their developmental needs (Eccles & Midgley, 1989; Eccles et al., 1993). If the developmental needs of learners are not considered in the design of the classroom environment, opportunity to learn is diminished (Eccles & Midgley, 1989; Ellerbrock & Kiefer, 2013).

Because the needs of middle level learners are unique, and the repercussions of a mismatch between their needs and the classroom environment can impact learning, a positive stage-environment fit is imperative in middle level classrooms. Given the paucity of research on virtual middle level contexts and the absence of research that examines stage-environment fit in virtual middle level classrooms and/or schools, examining research on stage-environment fit in the traditional middle level classroom may provide a foundation for exploring stage-environment fit in virtual contexts.

**Stage-Environment Fit Theory**

In the late 1980s and early 1990s, Eccles and colleagues began to study stage-environment fit in middle level educational contexts and concluded that when the learning environment does not meet the developmental needs of the learner there is an increase in classroom management challenges; a decrease in the quality of teacher-student relationships, student voice, and academic motivation; and a greater chance that students will harness a negative self-image (Eccles, Lord, & Midgley, 1991; Eccles & Midgley, 1989; Eccles et al., 1993; Eccles & Roeser, 2009).

Since the inception of stage-environment fit theory, researchers have continued to examine the role such a fit plays in supporting student learning and engagement at the middle level. L’Esperance, Lenker, Bullock, Lockamy, and Mason (2013) examined stage-environment fit in four public middle level schools collecting data from each school’s principals, leadership teams, and teachers and found a decrease in autonomy, motivation, and self-efficacy ensued when there was a mismatch between classroom environment and middle level learner needs. Netcoh and Bishop (2017) also studied the negative repercussions of a mismatch in stage-environment fit through a team of middle grades teachers as they implemented a personalized approach to learning in their classrooms. They found that when a mismatch occurred, the result was “an increase in ability grouping, discipline, and teacher control” and a decrease in “challenging assignments, positive relationships, and opportunities for decision making” (p. 35).

Several studies sought to identify characteristics of a positive stage-environment fit. Sagan (2010) studied
stage-environment fit and student autonomy and reported that a positive stage-environment fit includes students in the decision-making process. Phillips (2017) examined stage-environment fit at the middle level and found that a positive stage-environment fit included student metacognitive awareness and a growth mind-set approach to teaching and learning. When these positive characteristics appear in the learning environment, Booth and Gerard (2014) noted self-esteem and academic self-efficacy tends to increase.

All studies that have examined stage-environment fit at the middle level have explored this theory within traditional classroom contexts. Given the large research base and longitudinal findings that continue to inform us of the importance of alignment between classroom environments and the needs of learners, we wonder if the same holds true in virtual educational contexts.

Research on Virtual Educational Experiences
During the last decade and a half, educational researchers have given greater attention to virtual learning. However, this attention has been skewed toward the post-secondary level with high school education following closely behind and middle level education remaining nearly absent within the literature. At the post-secondary level, researchers have investigated characteristics of motivated virtual students (Wighting, Liu, & Rovai, 2008; Yükseltürk & Bulut, 2007), autonomy and academic success in virtual courses (Bell & Akroyd, 2006; Lynch & Dembo, 2004; Macià, Ramos, Cervera, & Fuentes, 2003; Wang & Newlin, 2002), virtual course satisfaction (Cole, Shelley, & Swartz, 2014; Kostina, 2013), enrollment trends in virtual education (Artino, 2007), designing motivating virtual learning environments (ChanLin & Chan, 2010; Keller, 2008) and comparisons of motivation between online students and on-campus students (Rovai, Ponton, Wighting, & Baker, 2007; Shroff & Vogel, 2009; Wighting et al., 2008).

Research studies on virtual contexts specific to the high school level are limited in number and scope. Several researchers have explored virtual school quality as determined by student academic performance (Barbour & Mulcahy, 2008, 2009; Cavanaugh, 2007; Means, Toyama, Murphy, & Baki, 2013), while others have focused on virtual teacher monitoring of student attendance and activity (Queen, Lewis, & Coopersmith, 2011), the impact of video conferencing on virtual student achievement (Cavanaugh, 2001), student perceptions regarding the aspects of virtual learning they found to be beneficial and challenging (Barbour, McLaren, & Zhang, 2012), student perceptions of synchronous lessons within their virtual courses (Barbour, 2015), and secondary teachers’ experiences in teaching in virtual contexts (Hawkins, Barbour, & Graham, 2012).

Currently, few studies exist with explicit regard to middle level virtual education. Louwrens and Hartnett (2015) examined student and teacher perceptions of engagement in an online middle school. This study revealed significance regarding student autonomy and relationships in engaging virtual learners. Instructional scaffolding, feedback, and interaction were all noted to be important aspects for consideration in working with middle level learners in the virtual classroom.

Barbour and Siko (2012) conducted a case study of an at-risk, middle level virtual learner’s experience in a supplemental online course. The researchers found that the student would often complete the bare minimum required to pass the class rather than focus on gaining mastery of course content. The researchers drew attention to a need for further exploration of at-risk learners within the virtual space and the importance of motivating such learners.

Lastly, Yalavaç and Samur (2016) conducted a study of students’ and teachers’ perceptions of an after-school online learning course at a private middle school in Turkey. Results reflected those of Louwrens and Hartnett (2015) in that students and teachers found value in the interactions and feedback provided by teachers and students alike. Students appreciated the flexibility in pace and engagement, but felt large groups limited student interactions and posed a challenge to receiving immediate and effective teacher feedback.

Nearly twenty years have passed since the inception of the first online, public virtual school governed by a state agency. Such schools are one of the largest suppliers of online courses and learning-related services to the schools and districts they serve (Evergreen Education Group, 2017). Throughout the late 1990s and early 2000s, state virtual schools expanded across the United States (Evergreen Education Group, 2017). The rapid growth of virtual K–12 education continues to outpace the availability of quality, scholarly research related to the effectiveness of virtual education for adolescent
learners (Barbour & Reeves, 2009; Rice, 2006). While we have identified literature that speaks to the need for a secure fit within the middle school environment to ensure teachers are meeting the developmental needs of middle level learners, we have noted a lack of research aimed at understanding how virtual learning contexts, specifically in the middle grades, address such needs. This study seeks to fill this gap.

Methodology

The literature clearly reveals a gap in documenting the experiences of virtual middle level learners, so a qualitative, phenomenological case study design was appropriate to capture the voices and lived experiences of the participants (Bogdan & Biklen, 2007; Hatch, 2002; Patton, 2002). We employed stage-environment fit as a theoretical framework (Eccles & Middl, 1989). Thus, through the lived experiences of two middle level virtual students, we sought to determine in what ways, if any, middle level virtual education “fits” and supports the developmental needs of virtual middle level learners. Because this phenomenon was explored through the detailed account of two students in virtual school, a case study approach to phenomenology was appropriate (Patton, 2002). Case studies are used to understand the meanings that people make in particular contexts (Dyson & Genishi, 2005) and are characterized as having three distinct attributes: (a) the researcher has an interest in the case, (b) the data capture the participants’ experiences through their voices, and (c) the case is unique in that it has limited transferability (Stake, 1995). This study meets all three of these characteristics.

Participants

We selected two participants for this study, which is consistent with recommendations for sample size in phenomenological studies (Boyd, 2001; Lester, 1999). Participants in this study were twin sisters, George and Amaria (pseudonyms chosen by participants). The participants elected to attend the virtual school for grades 6 through 8 due to concerns regarding the safety of their local public middle level school. Prior to 6th grade, neither participant had any experience with virtual education or online coursework. They were made aware of the option to attend a fully online virtual school through a family friend who worked for the virtual institution.

Context

The context for this study was a large, tuition-free, fully accredited, state virtual school serving K–12 students located in the southeast United States. All courses were taught by state certified teachers. The middle level curriculum included core, world language, elective, and advanced courses. Our study participants had enrolled in core classes, electives, and—with successful completion of 6th grade coursework—continued to complete 7th grade core courses. Both participants started the academic year enrolled in English I Advanced, Mathematics I Advanced, and Business Keyboarding. In September, the girls added Science I Advanced to their course schedule. In January, they both enrolled in World History Advanced through the state virtual school and attempted to take a Spanish I course through a district virtual school. However, upon discovering that the district virtual course operated in a manner that was different from the state virtual school, they elected to withdraw from the Spanish I course and maintain all enrollment within the state virtual school.

Amaria successfully completed the Mathematics I Advanced course in January of 2017. She then elected to continue in math and enroll in 7th grade Mathematics Advanced course. Amaria successfully completed Business Keyboarding in November of 2016. She then completed English I Advanced and Science I Advanced in February of 2017 and completed World History Advanced and 7th grade Mathematics Advanced in June of 2017. George successfully completed Business Keyboarding in November of 2016. She then completed Science I Advanced in March of 2017, 6th grade Mathematics Advanced and English I Advanced in April of 2017, and World History Advanced in June of 2017.

In addition to coursework, middle level students enrolled in the virtual school could participate in more than 20 middle school clubs and organized student activities that met both online and face to face. Amaria and George did not engage in the virtual school clubs or school organized activities. Rather, they remained active in their local community theater group and softball league apart from the virtual school engagement programs.

Data Collection and Analysis

To capture the scope of the participants’ lived experience over the duration of an academic year, we asked each participant to craft three narratives of their lived experience within the virtual setting: their first day, their “best” day, and their “worst” day. We read each narrative holistically to become familiar with the data, then we identified clarifying questions to ask during a one-on-one online interview session.
We conducted individual interviews, one for each girl, employing a semi-structured interview methodology (van Manen, 1990). The interviews were audio-recorded and transcribed. Following transcription and review of the first interview data, we conducted a second, brief interview with each participant as a means of member-checking to bring greater clarity and reliability to the recorded responses and our analysis of data.

We used open coding and constant comparison to analyze narratives and interview transcripts, aiming to identify common themes related to the participants’ experiences within the virtual middle level context. During the open coding process, we separated data to create concepts or terms that represented small blocks or segments of data, then we looked for similarities, differences, and trends in the data through the constant comparison of data from two or more segments (Corbin & Strauss, 2008). Responses were first read holistically to gain familiarity with the data. Next, we coded responses individually and then we collaboratively identified and defined emerging themes according to the driving theoretical framework of stage-environment fit, middle level education, and young adolescent development (van Manen, 1990). Initial analysis yielded twenty-five themes, and from these themes we identified a subset that aligned to the theoretical framework. Through this process, four dominate themes within the data emerged: relatedness, self-efficacy, motivation, and autonomy.

**Findings**

Our analysis yielded four dominant themes that characterized the experiences of the participants in relation to the theoretical framework of stage-environment fit, middle level education, and young adolescent development. These themes were relatedness, self-efficacy, motivation, and autonomy.

**Relatedness**

Participants brought to light discussion of relationships and relatedness as it was perceived, valued, experienced, or absent from their day-to-day encounters within the virtual classroom. Each student’s focus on the significance of teacher-to-student communication, strategies for contact, emotions, connection and synchronous engagement dominated the data set. Of all the aspects of virtual learning they addressed or revealed in their narratives and interviews, the dominant focus was on their perceptions and experiences with relationships. There were many times they spoke of connections with their teachers and commented on how they longed for the opportunity to know more about classmates.

Both George and Amaria shared personal significance and fondness for synchronous class sessions that engaged the teacher and students in real-time discussion and learning. George noted, “My best days were the ones with the live lessons. The live lessons are always so fun. Mostly because you get to interact with your teachers and other students.” Amaria echoed George’s sentiment when she shared, “I have a few favorite days, and all of them include one thing – live lessons. I enjoyed being able to interact with other people.” Amaria also shared the following:

> The live lessons were a lot of fun to go into. Sometimes your teachers were in them. Sometimes they weren’t. But, whenever you took them you got a chance to interact with other students. You could see there are other people who are doing this! And, you weren’t just kind of like sitting alone doing things by yourself. You got to be with other students who were taking the class who were being students with you, and, um, that made it a lot of fun.

However, both participants also mentioned a disconnect in their ability to cultivate deeper connections and interactions with virtual students. Amaria shared, “I never recognized anyone else. I might have seen their name like through an e-mail or something, but I never recognized any of the students.” George added the following:

> The only time that I really talk to any of the students is in the live chat. Like, there was one time it was a live lesson and it was only me and another girl. So, we talked in the chat, and then the live lesson got cancelled ‘cause it was only me and another girl. But, other than that, I don’t really interact with any of the other students that much besides Amaria and our friend . . . I don’t really talk to anybody else but my teachers and my friends that I actually hang with.

In addition to live lessons, George and Amaria appreciated the connection with teachers who communicated in ways that extended beyond a discussion of curriculum. They viewed welcome calls, a strategy utilized by teachers to introduce students to the course, as an opportunity to connect and get to know the teacher. Amaria shared the following:

> During the welcome call they actually asked us to share some things about ourselves. And, as time
went on, with most of the teachers, we actually started talking about more things like what we did and what we do, how our days were going. Later, we started getting more personal or we started talking about things other than school.

George shared her experiences with welcome calls by stating, “On the first day of the welcome call they asked us what our favorite things were, what we like to do, and we did really get to know them.”

Both participants gave particular attention to the emotional nature of phone calls with virtual teachers. They felt like “knowing [the teachers], getting to know what they like, what their interests are” helped them to “be able to turn in assignments without being scared” and helped them to know that the teachers “like having you in their class.” Such encounters helped them to see they were not alone. Amaria shared the following:

You got a chance to interact with other students. You could see there are other people who are doing this! And, you weren’t kind of like sitting alone doing things by yourself. You got to be with other students who were taking the class who were being students with you, and that made it a lot of fun.

Participants appreciated the fact they were enrolled in virtual learning together. When they lacked connection with other students, they were grateful to have one another for support. George said,

The most beneficial part is when we go into these live lessons together, we don’t have to find partners in there. We don’t have to find partners for collaborative assignments in the classes. All we have to do is go to each other, work with each other. We ask, ‘Do you want to do this collaboration together?’ And, we obviously say yes to each other . . . And, it’s just, I think that’s the most beneficial part of it because of how, like, we’re right next to each other. And, we can do the same thing at the same time. And, make sure that each of us are actually doing their part in the assignment.

Similar to working in real time with learners in the traditional space, George and Amaria felt they benefited from having one another to provide support and collaboration during their virtual learning experience.

In sharing what they miss most about attending a traditional school setting, Amaria said, “I feel like I just miss being able to interact with more people at a time . . . I miss having other students asking questions around you so that you can realize that you might have had a question and did not just know how to answer . . . But, having other people around you, as well”. George noted, “I miss hearing what the kids were asking sometimes. Sometimes it was actually useful to be around other kids.” She also stated, “I miss some of the teachers ‘cause some of the teachers are really nice and I really liked them.”

Self-Efficacy

The participants drew upon a strong sense of self-efficacy in their ability to navigate the online course. Amaria and George appreciated how their virtual teachers walked them through the online program and assignment submission process, as it instilled confidence in their ability to navigate the online system. Sharing her narrative of the first day of virtual learning, Amaria recalled the following:

Being able to talk to the teachers and learn how they kind of set things up . . . seeing how everything was set up easily so I knew what I was doing, and just knowing how to do everything made it a good day.

George noted,

[The teachers] showed us and talked to us about how to navigate through [the course], where the lessons are, where to send in the assignments, stuff like that so we know what we’re doing . . . I thought they were pretty easy to navigate – like, easy easy!

George also stated, “It was just easier than regular school”—a notion the two participants stated repeatedly throughout the data.

In addition to their expressed confidence in engaging with technology, both participants shared a sense of self-efficacy regarding their coursework. Amaria stated,

Sometimes, the traditional school just took [assignments] they spread it out when I already knew how to do most of that stuff, or I understood it. So, if you’re able to understand it you can go through [lessons] much quicker. And, for some of the [lessons] that may be slower, I think it was mainly when I was trying to go too fast, I had to go back and just take my time with it.

In addition, they appreciated the opportunity to review course material and attempt assessments multiple times. Amaria shared the following:
I’ve always just enjoyed doing math. And, with this [learning platform] I can go faster than kids in brick-and-mortar school. So, last year I was able to take two math classes. And, now I’m in Algebra 1, and I’ll probably be able to take another math class this year, as well!

George said, “One of the best ways to learn is to mess up, which we actually do in [virtual school], sometimes by accident.”

While both girls shared how their experiences in virtual learning helped them believe in their ability to succeed, they also noted the “ease” and speed with which they were able to complete their coursework. George stated, “I thought [virtual school] was just really easy because I found it to be convenient and fast.” Amaria liked that she could “go re-take tests if you had difficulty, and you could go look over the lessons.” She shared the following:

Whenever I get a grade, usually under an “A” (laughter) or under a hundred, depending on what class, I go re-take it so you can bring the grade up. And, when you’re able to do that, if you have a grade you’re not happy with, you’re able to bring it up and just do better in the class.

George also noted how she took advantage of the opportunity to revisit assessments:

I take advantage of it a lot, because, like, if I get a ninety on something, I’m like, ‘Oh, no, I don’t want that. I’m just going to reset it now (laughter)’ and, then I get a hundred on it. Like, the question I missed, and, I just like to use the reset if I get something bad on a test or a ninety so I can get a hundred.

Motivation

Three specific types of motivation are important for engaging online learners: behavioral, cognitive, and emotional (Fredricks, Blumenfeld, & Paris, 2004). Behavioral motivation refers to student involvement in the learning task and online learning environment, cognitive motivation stems from student use of effective learning strategies, and emotional motivation speaks to a students’ emotional response to the learning tasks and environment (Fredricks, Blumenfeld, & Paris, 2004). George and Amaria demonstrated motivational focus on reaching a state of assignment completion and achieving high grades, more so than motivation relevant to the final learning outcomes or objectives. To achieve their goals, they were motivated to log into class, complete assignments at a steady pace, and revise work as necessary to earn high marks.

For George and Amaria, a noted motivation for making the switch to virtual learning was the desire to engage in learning with greater “ease” and opportunity to move at “our own pace.” George said,

You can go at your own pace, which is like, what everybody wants to do in regular school, but you can’t ‘cause you have to go at the same pace as the teacher says . . . You go at your own pace, and you get to read [lessons], and you don’t have to worry about turning the page whenever your teacher asks you to. And, I feel that everybody could use this instead of regular brick-and-mortar school.

George also noted, “I was happy because I could do [lessons] however fast I wanted. I could do it however slow I needed to.” Amaria shared the following:

If you need to take a day off to do something, you can do that . . . You could also take days off if you need it to go on vacation and tell your teachers and you’re not missing any work because it’s all your work and nobody else is going on without you, so you can take time for vacation, or take time to go do something that you need to do.

Amaria and George also discussed their motivation to learn in the online space out of a sense of greater simplicity or ease in completing course requirements. Amaria noted, “The virtual school has a much easier way of doing it.” George seemed to agree when she shared, “It’s just much better to do it online than in a regular school . . . Virtual learning could be for everybody because it’s just easier.”

In addition, both participants spoke of their motivation to engage online out of a dislike, or lack of interest, in attending a traditional middle level school. George shared, “We didn’t want to go to middle school. And, this is much better . . . I don’t know, I just don’t think middle school is a good fit for us.”

Finally, both participants spoke to their primary motivation for engaging in their coursework. George stated,

The thing is, I want to graduate from school and college so that I can figure out how to do my job. Like, the job that I want which would be to be a vet, or dog grooming. So, I just do [virtual school] because I want to finish this, and I want to go on, do my job, get money, pay taxes, and basically just that.
Amaria was also eager to move forward in achieving her personal goals. “I want to finish school earlier than you would doing brick-and-mortar. So, that’s probably one of the things that keeps me initiated in it.”

**Autonomy**

Autonomy is defined as “the ability to take charge of one’s own learning” (Holec, 1981, p. 3). In the virtual classroom, this is a fundamental skill because students are not constrained by time or space. The participants appreciated the autonomy the virtual environment provided each of them throughout the year. George was motivated by her ability to study in a manner that worked best for her. “I could have a day for math. I could have a day for history. I could do whatever was easiest for me instead of doing what they told me in school.” She shared, “I can go at my own pace and do it anywhere I want . . . I was happy because I could do it however fast I wanted. I could do it however slow I needed to.” George enjoyed the flexibility in completing courses at a speed and order that fit her personal interests and needs, but also indicated her choice in structure was strongly guided by a desire to move quickly through the curriculum:

[Students should] take the science class last because that was the easiest and fastest. It’s the one we finished first, and it was just, I feel like we should have taken that last cause it’s just the easiest to get out of the way. And, the history was very long. So, we should have taken that first and the science class last.

Amaria also noted her ability to direct her own learning:

I definitely started with the [courses] that I liked more than the others. Just so I could do that first to wake up, and then the more difficult, or the ones that took up more notes. But, sometimes during the year, I’d start with history because it was so much longer, and I needed to get some of that done.

Amaria highlighted her preference for a learning environment that promoted independence in terms of location and structure:

We get up around eight-ish, sometimes later, sometimes earlier. And then, we usually either walk our dog or have breakfast. And then, after that we get school. Um, and just start with whatever class you feel like taking. ‘Cause, it’s kind of like you don’t have to start with history and then go into math and then whatever. You can just start with what you want to start with. Do as much in that class as you want to, and then move on. And, we usually end around three-

ish to pick up our brother from school. And then if we still have some things that we need to finish, we can always do it after we pick him up because you still have time. You don’t have to just stop what you’re doing and be done for the whole day.

The autonomy they were able to experience in working at their own pace and space was held in high regard. However, Amaria issued a word of warning to virtual educators as they strive to actively engage and motivate their learners. She noted that virtual teacher should “keep up with your students. Make sure they’re doing everything that they’re supposed to, and getting their assignments in.”

**Discussion**

As students enter early adolescence, they undergo a variety of physical, cognitive-intellectual, social-emotional, and psychological changes all at once (Caskey & Anfara, 2007; NMSA, 2010). And, while researchers have demonstrated the need to ensure a clear match between the school environment and developmental needs of adolescent learners (Eccles et al., 1993; Eccles & Roeser, 2009), little attention has been paid to examining middle level learners’ experiences within virtual school settings. This study addressed this gap by examining the lived experiences of two middle level virtual learners as they engaged in full-time virtual education. Through their perceptions of virtual learning, this study yielded important insights regarding the participants’ needs for a greater stage-environment fit within middle level virtual educational contexts. The participants shared their experiences regarding learning in the virtual classroom as it relates to their need for relationships and relatedness, self-efficacy, motivation, and autonomy. They noted the ways in which they believe the various elements within the virtual learning context worked to address these needs, as well as ways in which their virtual experience fell short.

Given the paucity of research on middle level virtual environments, Onah, Sinclair, and Boyatt (2014) contended that little is known about what really motivates online students. While the convenience of learning at one’s own pace and at a time and location of one’s own choosing motivated the participants, it fell short in challenging them. George and Amaria gave greater attention to completing the coursework rather than seeking mastery or academic challenge, consistent with the findings shared by Barbour and Siko (2012). Participants drew attention to a need for
rigor and greater depth of study as well as teacher attentiveness and communication.

Middle level students desire unique and genuine relationships with others. Our participants shared a fondness for synchronous instruction. Live lessons provided an opportunity for George and Amaria to connect with their teachers and fellow virtual learners in a manner often overlooked a day-to-day asynchronous learning context that has the risk of proliferating a sense of isolation amongst students (see, e.g., Barbour et al., 2012; Barbour, 2015). According to Richardson and Swan (2003), classrooms “should not only present the information and materials to students, but also incorporate the social aspects of learning in both the design and instruction of online courses” (p. 81). This case echoes the importance for educators to identify effective means of establishing and maintaining open communication and support for students as they engage in online course content.

Given findings from research on the need for classrooms to fit the developmental needs of learners for learning to occur (Eccles & Midgley, 1989; Ellerbrock & Kiefer, 2013), findings from our participants’ experiences and perceptions of their virtual engagement and education reveal the potential for significance of stage-environment fit within this flourishing educational context, and a need for additional research focused on the middle level virtual learner experience. George and Amaria were predominantly motivated to engage in online learning out of desire to complete the requirements and move forward. They spoke of the ease and speed at which they could work in their virtual classes. Virtual education should ensure classroom curriculum is designed to motivate and inspire learners toward critical thought and engagement. Rather than giving preference to an educational format for the sake of “ease” and “speed,” learners should encounter content that challenges their thinking and allows for regular, active engagement and development.

Need for Further Research

Our aim for this study was to understand the experience of two middle level virtual learners, rather than to seek out a central, single, or generalizable truth. There remains a need for more extensive research regarding middle level virtual education. For example, future research should focus on a more diverse population of middle level virtual learners. Also, in this study we did not give specific attention to academic achievement or growth and the ways stage-environment fit in online middle level education may relate to student achievement, learning engagement, and other outcomes. Lastly, virtual learning environments have not received the same attention from researchers as traditional classroom environments. Research in this area tends to lean toward post-secondary virtual contexts, with no current studies examining stage-environment fit at the secondary level.

With an increase in the number of middle grades students opting for virtual schooling, we echo the call for further study of the ways in which virtual contexts are meeting the needs of learners (Barak & Watted, 2015; Kizilcec & Schneider, 2015). Furthermore, while researchers have demonstrated the need for a fit between the middle level classroom experience and adolescent development, such research has yet to explore how the ever-growing world of online learning can best address these needs in a manner conducive to young adolescent growth. This leads to the question, do middle level students need to change to fit the online environment, or should the online environment be one that supports all students?

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