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Gifted Students' Perceptions of Gifted Programs: An Inquiry Into Their Academic and Social-Emotional Functioning

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Abstract

The aim of the present study was to examine elementary and middle school students' (*N* = 49) perceptions of their gifted and talented program using eight focus group interviews. Qualitative analyses revealed several themes regarding students' academic and social-emotional functioning and how teachers influenced students' experiences within their gifted program. Findings indicated that there were differences between elementary and middle school students' perceptions of how the gifted program affected their academic and social-emotional functioning. Suggestions for educators are provided about the importance of understanding gifted students' experiences of schooling to support the development of these students within gifted and talented programs.

Keywords

gifted students, academic acceleration, differentiation, student perceptions

The purpose of this study was to understand how gifted elementary and middle school students perceived their academic and social-emotional functioning within a gifted program using a talent development model. Although previous research (see Rogers, 2007) posited a number of practices to enhance gifted education, including challenge, independent learning, acceleration, like-ability peer grouping, and differentiated

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instructional delivery, it is important to document how students who participate in all-day gifted programs view these practices. Because programming arrangements for gifted students vary widely across the country, understanding students' perceptions of their academic and social-emotional functioning based on their experiences within many different gifted settings may lead to suggestions for educators (Clinkenbeard, 2012; Swiatek & Lupkowski-Shoplik, 2002). Coleman, Micko, and Cross (2015) called for researchers to elicit students' perspectives through their own voices and to examine students' experiences within defined educational settings to understand context. Thus, the aim of the present study was to examine elementary and middle school students' perceptions of their all-day gifted programs regarding their academic and social-emotional functioning.

In a review of the research on educational practices and gifted students, Rogers (2007) identified themes observed in the literature and offered five lessons to inform educators about how to best serve gifted and talented students. First, Rogers argued that gifted and talented students needed continuous and progressively challenging learning opportunities and environments in their specific areas of talent. Gifted and talented students have been found to thrive under continuously challenging conditions, and the absence of challenge in the educational environment has been shown to negatively impact students' affect and cognition (Brighton, Moon, & Huang, 2015; Kulik & Kulik, 1992). Second, Rogers suggested that the opportunity to work independently is important for gifted and talented students. Instructional guidelines and models to support self-directed learning (Treffinger, 1975), including the Autonomous Learner Model (Betts, 2004; Betts & Neihart, 1986), the Parallel Curriculum Model (Tomlinson et al., 2009), and the Schoolwide Enrichment Model (Renzulli & Reis, 1985), have provided structure to facilitate independent study. Third, accelerated pacing has been a key strategy, resulting in academic and career path gains and supporting gifted students' affective needs (Benbow, 1991; Lubinski, 2004). Therefore, Rogers recommended that acceleration should be offered using one of many appropriate strategies such as subject- or grade-based acceleration (Colangelo, Assouline, & Gross, 2004). Fourth, Rogers identified the need for gifted learners to interact with like-ability peers, citing several publications showing positive effects on gifted students' academic self-esteem, social interactions, positive feelings about school and their program, and positive perceptions of their giftedness (e.g., Kulik & Kulik, 1992; Shields, 2002). Fifth, instructional delivery and curricula should be differentiated for gifted learners as related to teaching conceptually, pacing, and decreasing rote review and practice (e.g., Stanley & Stanley, 1986; Swiatek & Benbow, 1991; Tomlinson, 2005; Tomlinson et al., 2009; Ward, 1961, 1986). These lessons can be used to inform researchers and practitioners about whether gifted students' experiences of their programs align with the best practices identified by Rogers (2007). In this study, we used Rogers's lessons as a framework. Below, we discuss empirical research that has examined students' perspectives of gifted programs and the impact of these programs on their academic and social-emotional functioning.

Research on Students' Perceptions of Gifted Education

Research about giftedness often is grouped into two categories: research about the characteristics of gifted people and research about appropriate interventions for gifted students. For example, research has focused on the education of gifted learners, such as that outlined by Rogers (2007), the psychological basis of giftedness in relation to nature and nurture (Dai, Swanson, & Cheng, 2011), or the lived experiences of gifted students (Coleman et al., 2015). However, a need exists in the field to use psychological theory and research to develop educational opportunities for gifted learners. Thus, understanding the research about how gifted students have perceived their educational programs is important, and can be used to augment Rogers's lessons. Researchers have examined gifted students' perceptions about their academic experiences and how these experiences have supported their academic and social-emotional needs, as well as the positive and negative aspects of their experiences.

Perceptions About Academic Experiences

A few studies have examined students' perceptions of gifted education, with students reporting more positive than negative perceptions. For instance, highly gifted elementary school students reported numerous educational advantages of their gifted program including greater challenge, increased learning, increased choices, more interesting work, more projects and experiments, and less dependence on textbooks (Moon, Swift, & Shallenberger, 2002). Middle school students perceived that their programs had better teachers and curricula and that they received more academic opportunities and special experiences (Berlin, 2009). Middle school gifted students also indicated that their academic motivation was related to their level of interest on a given task, the level of challenge of the task, and the degree to which they were in control of their own learning processes (Middleton, Littlefield, & Lehrer, 1992). In another study, gifted high school students perceived that the opportunities for advanced classes allowed them to utilize problem-solving abilities (Kerr, Colangelo, & Gaeth, 1988). Furthermore, students who were accelerated consistently outperformed their age peers throughout schooling, and importantly, into adulthood (Steenbergen-Hu & Moon, 2011). Across these studies, elementary school students focused on their learning and choices about their work. Middle school students understood the relationships between their autonomy in learning, the opportunities that the program provided, and their own motivation. High school students understood that the program specifically improved cross-curricular problem-solving skills. The challenge and accelerated pacing provided by the gifted programs resulted in experiences of proximal and distal improvements in learning, experiences of autonomy, and increased motivation.

Other researchers have compared gifted students within homogeneously and heterogeneously grouped environments. Students perceived greater academic advantages in homogeneously grouped environments by a 3 to 1 ratio (Adams-Byers, Whitsell, & Moon, 2004). Students in Grades 5–11 reported 57 academic advantages including increased challenge, faster pacing, and more class discussion as the most important advantages. In contrast, heterogeneously grouped gifted students reported only 16 academic advantages.

The most frequent advantages were perceptions of a relaxed classroom climate, easy work, low effort, and low stress (Adams-Byers et al., 2004). In the homogeneously grouped classes, gifted students were stimulated by the challenge, pace, and discussion supporting their intellectual needs. On the contrary, in the heterogeneously grouped classes, gifted students responded to a lack of academic challenge by identifying the positives in this environment as a social-emotional affordance potentially available to gifted learners (e.g., Peterson & Ray, 2006a; Sowa, McIntire, May, & Bland, 1994).

Gifted students' perceptions were not uniformly positive. For example, middle school gifted and highly gifted students perceived that they had high amounts of homework and harder work, coupled with stricter teachers who had higher expectations (Berlin, 2009). Gifted students in heterogeneously grouped classrooms cited more academic disadvantages (44) than their homogeneously grouped peers, who only cited 15 academic disadvantages. The most frequently cited disadvantage for the homogeneously grouped students was being grouped with peers who were highly intelligent. In contrast, the most frequent responses for heterogeneously grouped gifted students focused on the slow pace of the classroom, low academic challenge, boredom, and repetition (Adams-Byers et al., 2004). Although these same students found social-emotional advantages in the lack of challenge, they found academic disadvantages. Of note, neither the elementary students in the Moon et al. (2002) study nor the high school students in the Kerr et al. (1988) study reported any academic disadvantages by participating in the gifted program.

Overall, these findings suggest that gifted learners reported that challenge, independent learning opportunities, interactions with like-ability peers, and instructional differentiation supported academic functioning, whereas the lack of such inhibited successful academic functioning. However, more research is needed on the extent to which students in gifted programs are taught how to become independent, self-regulated learners. Self-regulated learning is defined as a goal-directed process whereby students deploy and refine their use of specific strategies to attain academic goals (Zimmerman & Kitsantas, 2005a). Self-regulated learners approach tasks purposefully and strategically—they set goals, plan how to achieve these goals, and report positive motivational beliefs. They also actively use various learning and self-control strategies during their learning process including monitoring their learning and creating optimal learning environments. Finally, self-regulated learners consistently evaluate and reflect on their goal progress and report positive self-reactions (e.g., self-satisfaction and attributions) about their learning efforts. Research evidence shows that these self-regulatory processes are highly predictive of students' motivation and optimal academic functioning (Cleary & Kitsantas, 2017; Zimmerman & Kitsantas, 2005b, 2014). As a result, it is also important to examine whether students perceive that their gifted programs support them in becoming self-regulated learners.

Perceptions About Social-Emotional Functioning

Researchers also have examined gifted students' perceptions about how gifted programs supported their social and emotional functioning. For example, elementary

gifted students thought that getting to know new people (other gifted children) and making new friends were social advantages of their program (Moon et al., 2002). In addition, the elementary students and the homogeneously grouped students liked that their peers shared similar characteristics and interests, specifically in relation to intellectual pursuits (Adams-Byers et al., 2004; Moon et al., 2002). High school gifted students thought that their gifted program provided social and personal advantages, social recognition, opportunities for relationships with intellectual peers, and opportunities for personal growth, and increased their self-confidence (Kerr, Colangelo, & Gaeth, 1988). Overall, students in homogeneous and highly gifted classrooms understood that being with their like-ability peers not only provided intellectual challenge but also represented an opportunity to socialize with their academic peers.

Emotional advantages have been researched as advantages distinct from social advantages. One emotional advantage included understanding the experience of gifted students being accepted by their gifted peers (Adams-Byers et al., 2004; Moon et al., 2002). Another addressed belonging, meaning students in a gifted program did not feel like an outsider (Moon et al., 2002). A third emotional advantage was safety, in that gifted peers did not tease each other (Adams-Byers et al., 2004). In terms of emotional functioning, students who perceived positive emotional outcomes tended to describe the positive outcomes in academic terms, such as positive emotions related to greater challenge and improved learning. Positive feelings included pride, academic efficacy, and intellectual efficacy.

Students also identified several social and emotional disadvantages. For example, elementary students discussed being new, missing or losing friends from the general education program, and being mocked by students outside of the gifted class (Moon et al., 2002). In addition, social disadvantages included a lack of teacher appreciation for gifted students and teasing by students external to the program (Adams-Byers et al., 2004). Frequently cited social disadvantages for older students were related to class ranking (no longer being the smartest person in the class). They also experienced increased competition in terms of being with peers who were more intelligent (i.e., the Big-Fish–Little-Pond effect; Marsh, Plucker, & Stocking, 2001). For instance, some students reported that they did not feel as good about themselves when considering that "there are more kids at your level" while a student reported that he no longer felt like he was "the smartest kid in [the] class" (Adams-Byers et al., 2004, p. 11). Although being with intellectual peers represented intellectual and social advantages, it also promoted self-reflection about students' abilities, with some students feeling uncomfortable intellectually, socially, and emotionally.

Other studies have noted emotional disadvantages. For example, elementary students thought that losing their friends from their old schools or missing friends were emotional disadvantages (Moon et al., 2002). Middle school students perceived that they had greater pressure from parental expectations than their peers did and that teachers viewed their giftedness negatively. Consequently, they put more pressure on themselves to perform better than other students (Berlin, 2009). Loss of friends who were not identified as gifted and internal and external pressures were commonly cited emotional disadvantages in participating in a separate program.

Furthermore, some studies also have cited bullying as an emotional disadvantage for gifted students (Feldman et al., 2014; Pelchar & Bain, 2014). For example, Peterson and Ray (2006b) examined experiences of bullying in a group of 432 gifted eighth-grade students from 11 states. Students were asked about various forms of physical and nonphysical bullying dating back to participants' kindergarten year. Bullying was reported by 67% of the participants at some point during their K–8 years, with males reporting a higher prevalence (73%) than females (63%). Eleven percent of the participants reported being victims of repeated bullying. The most frequent forms of bullying reported were name-calling, teasing, and being mocked by other students who were not in the same classes.

However, the effects of bullying have spanned both social-emotional and academic functioning. For example, achievement and perceptions of academic competence decreased when students in the general and gifted populations were bullied (Ma, Phelps, Lerner, & Lerner, 2009; Peterson & Ray, 2006a). For many gifted students, their gifted program provided a sense of safety. Students in homogeneous classes, for example, reported that they appreciated being with peers who did not tease them (Adams-Byers et al., 2004). Thus, it is important for educators and parents to be aware that bullying of gifted students has been shown to increase during the upper-elementary school years and into the middle school years, and can have negative effects on gifted students' competence and achievement.

Overall, empirical research has shown that although gifted students face multiple issues within schooling (Feldhusen & Moon, 1992), they benefit from participation in gifted programs (Vogl & Preckel, 2014). Thus, examining students' experiences in gifted programs is important (Coleman et al., 2015). The purpose of the present study was to examine (a) in what manner students perceived that their all-day gifted program supported their academic and social-emotional functioning and (b) how students' perceptions of their all-day gifted programs were different for students in elementary and middle school.

Method

Participants and Setting

A total of 49 elementary (Grades 3–6) and middle school (Grades 7–8) gifted and talented students (53% male) participated in focus group interviews that sought to capture students' perspectives regarding their gifted and talented program. Specifically, 34 elementary and 15 middle school students participated in the focus group interviews. Within each elementary school, one classroom in each of Grades 3, 4, 5, and 6 was randomly selected. Within each middle school, one class in each content area in each of Grades 7 and 8 was randomly selected. Then, across all schools, administrators or classroom teachers selected students for participation in the focus groups. Two focus groups were conducted in each elementary school with one group of third and fourth graders (*n* = 14) and one group of fifth and sixth graders (*n* = 20). In middle school, there was one focus group of seventh and eighth graders (*n* = 14). The sample was smaller for middle school due to lack of parental consent.

In accordance with the aims of the gifted and talented program, students were provided with challenging learning experiences through differentiated curricula and instruction, which was designed to foster the academic, intellectual, and creative needs of gifted and talented students. Students were accelerated in math in third grade and received differentiated curricula in language arts, social studies, and science. Differentiated curricula and instructional strategies were drawn from multiple sources within the field of gifted education (e.g., Tomlinson et al., 2009). One program goal was to provide challenging materials that were increasingly rigorous as students progressed through their schooling so that students would be prepared to participate in advanced classes in language arts, mathematics, science, and social studies (in middle and high school). Thus, the all-day program was designed to adhere to those principles described by Rogers (2007), providing the context in which the gifted students in this study participated.

Data Collection and Focus Group Procedures

Eight focus groups were conducted with groups of four to 10 students. Two team members, a researcher and a graduate student, conducted each focus group. Each focus group lasted 30 minutes. The focus groups consisted of seven to nine questions. The same interview protocol was used for all student groups. The focus group protocol was developed in collaboration with school district administrators and the researchers. Recruitment, consent, and assent protocols for students were developed. Focus group questions were designed to elicit students' perceptions and experiences with their gifted education program. Sample questions included, "What do you think works well about the gifted and talented program? What do you like? What would you change?" This method allowed us to discover the gifted students' experience (Coleman et al., 2015).

Emic analytic strategies were used to examine, understand, and code student perceptions of their academic and social-emotional experiences in their gifted program. Etic strategies, based on a priori coding schemes from Rogers's (2007) lessons, were also used to analyze the data. Transcriptions were compared for accuracy. Agreement was reached about the transcription before coding began. Each team member who conducted the interview coded the data separately. The intercoder reliability was acceptable and ranged from 95% to 100% across the focus group interviews.

Results

A number of themes emerged in the elementary and middle school focus groups. The elementary themes were organized into two categories: (a) academic needs and (b) social-emotional needs. The middle school themes were organized into three categories: (a) academic needs, (b) instructional needs, and (c) social-emotional needs. No theme represented an individual point of view, and all themes represented multiple responses in the same category.
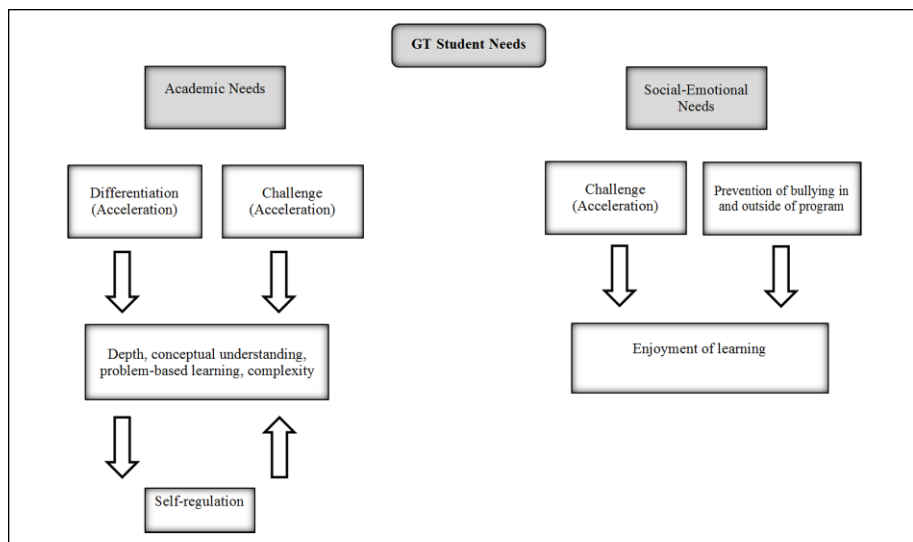
Figure 1. Elementary school students' perceptions about their needs being met in school. Abbreviation: GT, gifted and talented.

Elementary School (Grades 3–6)

Seven themes emerged from elementary school students' interviews and were organized into two main categories: (a) academic needs and (b) social-emotional needs (see Figure 1). Academic needs addressed student perceptions about the overall content within the gifted curriculum as well as their suggestions for improvement. Four themes emerged within academic needs: differentiation, challenge, the need for conceptual understanding (as taught via depth), and self-regulation. Under the social-emotional needs category, the following three themes emerged: challenge, prevention of bullying, and enjoyment of learning.

Perceptions of academic functioning within the gifted program. Themes under this category were separated into differentiation, challenge, the need for conceptual understanding (as taught via depth), and self-regulation. For challenge, one student reported that the gifted program generally had more learning material than general education classes. For example, one student stated, "I know that I am learning more. But, I don't know what I'm learning more, just that I am learning more." Another student mentioned the intertwined nature of challenge, depth, and pacing as "[having a] stronger curriculum. It goes quicker. You have a higher . . . level of information than other schools." Another student stated, "When it [was] easy, I was bored." In regards to differentiation, students also understood that they learned faster and that the pacing was adjusted. For example, one student noted, "We work faster than the other teachers." Another student indicated, "We're in a group that understands things faster. Other people understand things slower, so it's to help both groups."

In terms of depth, students expressed interest in learning more than the material provided, such as about a variety of cultures and countries. One student stated, "In social studies, I think we should learn more about other countries instead of the same ancient countries every year like Greece." Another student thought, "Everything is better except for social studies. I think it's more beneficial to learn about other programs and countries because we might want to travel there in the future." Many students revealed that they wished to learn about a variety of topics in the science, technology, engineering, and mathematics (STEM) fields ranging from math to biology and physics. An example quote was, "I want to learn more about" followed by content such as the human body or molecules. Furthermore, students indicated they enjoyed experimentation and solving problems. One student said, "It's more fun when you actually get to do it." Another student stated, "I like how they start off easy and then it gets harder as you go. Then you can expand your knowledge." Elementary students' perceptions of the challenge, pacing, and depth contributed to their academic functioning in the program.

In terms of self-regulation, students' experience with the program reflected how the program required them to regulate their behaviors to maintain academic performance. For instance, one student stated, "I play baseball and it's time consuming. . . . The rest of my time is doing homework." Another student noted, "We get homework over the weekend. . . . [W]e can't play with our friends because we have more homework. And, it took me like 2 hours, so I couldn't play until I finished." Overall, the academic characteristics of the program contributed to students' perceptions about their learning and how they self-regulated that learning.

Perceptions of social-emotional functioning within the gifted program. The second major category was social-emotional issues (see Figure 1). Under this category, three themes emerged: challenge, prevention of bullying, and enjoyment of learning. Students reported that the program was challenging and that they enjoyed being challenged by the program. For example, one student stated, "I feel like it is challenging me. I can get back . . . my education. It makes us think more. It is [a] really good feeling in my brain." Although elementary students enjoyed the challenges, they also expressed the desire to have fun while learning. When asked about what they would like to do more of in the program, a number of students offered suggestions. For example, one student said, "[I would like to do more] science experiments. [It's] more fun when you actually get to do it. Not just write it down." Another student indicated, "I kind of like group work and [to] get help. It was fun to not have to sit at your desk only." Thus, for gifted students, challenge, active learning, and collaboration were sources of enjoyment.

In terms of bullying, students expressed that they were concerned about being labeled as *nerds*, that general education students were jealous of the gifted students, and about feeling stereotyped. For example, one student said, "I think it causes some jealousy or rivalry so they don't want to play with us at recess." Another student indicated, "the gen[eral] ed[ucation] kids think we're nerds." A third student said, "There's a lot of bullying within the program and across the school." For example, one student stated, "Some people call [us] the stupid class when the gifted kids walk by." Another
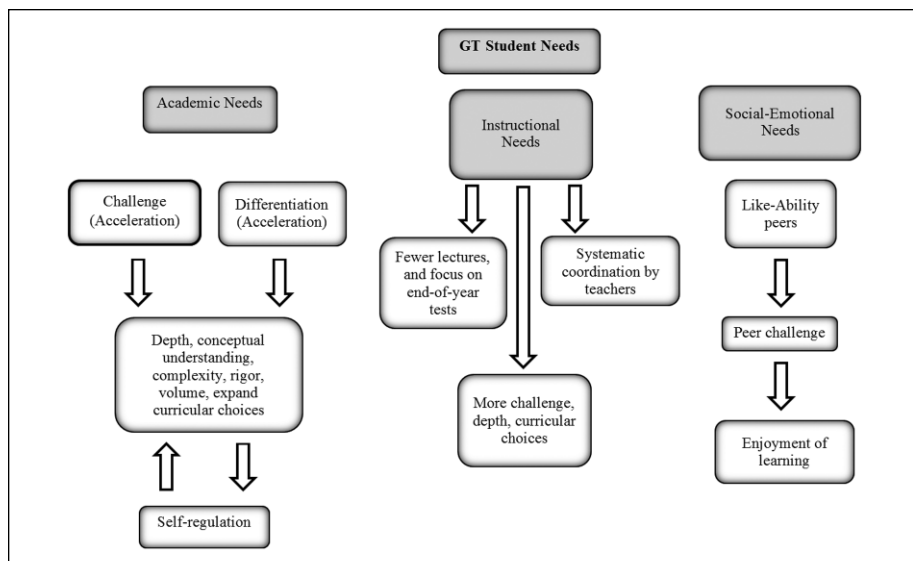
Figure 2. Middle school students' perceptions about their needs being met in school.
Abbreviation: GT, gifted and talented.

student indicated, "There's a kid in my class [that] said, 'I think so and so's [gifted] class is the stupid class this year.'" Students perceived that bullies in school affected their enjoyment of the general education environment. Despite the bullying, the elementary students perceived that the program contributed to their enjoyment of learning.

Middle School (Grades 7–8)

Several themes emerged from middle school students' focus group interviews. These themes were grouped into three categories: (a) academic needs, (b) instructional needs, and (c) social-emotional needs (see Figure 2). The academic needs category included four themes: the need for challenge, differentiation, conceptual understanding, and self-regulation. The instructional category included three themes: perceptions of teachers' presentation and focus of content, coordination of projects and homework and level of challenge, depth and curricular choices. Last, social-emotional needs included three themes: like-ability peers, peer challenge, and enjoyment.

Perceptions of academic functioning within the gifted program. The following four themes emerged: challenge, differentiation, conceptual understanding as related to depth, and self-regulation. In terms of challenge, students perceived that the gifted program was more rigorous and challenging than the general education program. One student stated, "I feel like I can understand things more. I feel more challenged. It makes you go higher." Another student said, "I like the fact that it is not a program of super geniuses.

But in an average classroom, there isn't enough challenge for some. The program makes school more challenging." Understanding more rigorous content was one aspect of challenge. Another aspect of challenge was conceptual depth. For example, one student stated, "With every lesson, knowing what the 'why' of what we are doing would help us more fully get what we are doing. . . . We don't just memorize things." Another student stated, "We go beyond and do more in some things." Another aspect of depth was the integration of depth and volume. One student described, "It's very similar to an average class, but there are more assignments and projects. . . . We'll go a bit more in-depth, but it's not an entire[ly] different world." Some students perceived that the program helped them to develop depth of conceptual understanding. However, other students did not. For example, another student indicatedI feel like [in] the science program, we are just learning things for the [state test]. In my other classes, we are doing other things without a focus on the [state test]. I just don't feel like we are going very in-depth.

Other students focused on differentiation of learning. For example, one student stated, "Others think of gifted as being a whole different high world, but it's really not. We just work harder than others. We get more homework and assignments, . . . but the rest is the same." Students also agreed that the gifted program was faster paced than general education. One student said, "You move at a faster pace than other classes." Another student understood that volume, pace, and depth of understanding were related. For example, this student expressed that the pace was too fast: "I wish they would not rush us through all the things. I'd like more time to understand." Thus, perceptions of challenge were interrelated to depth of conceptual understanding as well as the volume and pacing of the learning. Students voiced concerns when there was a lack of depth in conceptual understanding.

Students indicated that participation in the gifted program enabled them to engage in self-regulated learning. For example, one student stated, "[The program] helps me develop time management skills." Another student said, "The gifted program makes you manage your time better. You can't procrastinate. My procrastination has had to lessen—especially because I do extracurricular activities." A third student indicated that the gifted program helps to "keep track of assignments." Another theme was related to opportunities for students to make decisions about their own learning. Students wanted to expand curricular choices and have more responsibility to make decisions. One student said, "This may just be my age, but I wish we had more responsibility and choice. We don't get many choices for electives" [choice in course offerings]. Students perceived that the characteristics of the program, such as differentiation, supported the development of self-regulation, but not their developing skills in decision making.

Perceptions of teaching in the gifted program. Three themes emerged about instruction: perceptions of teachers presentation and focus of content, coordination of projects and homework, and challenge, depth and curricular choises. A student indicated, "I have some teachers who just read off . . . the PowerPoint and then I don't get a clear understanding about what the topic is—I would like more detail and going in depth from them." Another student stated, "My math teachers just read off the notes."

Despite these academic concerns, students believed that the gifted teachers were generally more supportive teachers than the general education teachers. For example, one student said, "I like the teachers a lot better. I feel that they are nicer than they would be in a regular class." Another student stated, "Teachers . . . will actually listen to you if you talk to them." In addition, students felt that gifted teachers generally held higher expectations for them than general education teachers. One student stated, "[The teachers] have really high expectations. I think that is good, but sometimes they are too high." Another student indicated, "Some teachers put a lot of pressure on us as gifted students. I think we should be seen as students, not gifted or general students. They expect a lot out of us." Other students had higher expectations of their teachers. In general, students had positive perceptions of their relationships with teachers, although some students preferred teachers to moderate their expectations.

When considering students' need for challenge and depth, some students perceived that gifted teachers assigned too much homework. For instance, students complained that, "We have a huge project that is taking two months and we also have homework. It's really stressful. With the project on top of the homework that we are getting, we are getting buried." In response to the overwhelming amount of homework students felt that they were being assigned, they suggested that their different teachers should coordinate their projects and homework, so that the students could manage the timelines more easily. For example, one student stated, "The teachers don't communicate with each other about how many projects we have and when we have them due." Another student suggested, "All the core teachers should meet and plan out when tests [are due] and homework is [due]. They need to coordinate together." Thus, students wanted assistance with time management from teachers.

Perceptions of social-emotional functioning within the gifted program. The following three themes emerged related to social-emotional functioning: positive experiences with like-ability peers, peer challenge, and enjoyment. For example, one student created a visual analogy about the benefit of being grouped with like-ability peers:

> It's like . . . you are running the mile with people who run slower than you. . . . You move up to run with people who can run the mile at the same pace as you. You all of a sudden are with a herd that is taking you along with them. That's what the program is like.

Another student discussed, "You push yourself because of the other people around you." Students, while understanding that they were grouped with similar peers, also acknowledged the heterogeneity of gifted learners. For example, a student acknowledged how differences were positive by saying,

> In classes, there are different kinds of students, shy, quiet . . . one is very outgoing . . ., and I think the program is a good way for us [to be] able to have the opportunity to learn from each other."

In terms of peer influences, students felt that there was more competition between peers in the gifted program than in general education programs, which acted as a

source of motivation for some students. For example, one student stated, "In the gifted program, compared to other classes, I feel like we have more competition. It really pushes us because we want to better ourselves." Others felt that because gifted students were generally on the same level, it provided meaningful discussions, learning opportunities, and enjoyment. One student stated, "Since the thinking level is different, we are able to learn from each other really well." Other students said, "I'm able to get a lot of benefits from the other students. I feel like I still can be friends with gifted and nongifted kids," and "I enjoy being in the program with gifted students."

Overall, middle school students provided a number of insights in terms of their gifted and talented program. Students clearly articulated positive aspects of the program, their peers, and teaching styles. They seemed to enjoy their gifted program. In addition, students offered significant suggestions for areas for improvement.

Discussion and Implications

Many of the emergent themes and insights from this study were consistent with Rogers's (2007) recommendations for effective gifted learning practices. Overall, results indicated that students as young as third grade understood the benefits of their gifted program in terms of the pedagogical lessons identified by Rogers (2007). For example, students identified the need for and enjoyed challenge, depth of learning, and differentiated curricula. Students understood the need for accelerated pacing, except when it interfered with depth of conceptual understanding. Students also understood that the gifted program provided social and emotional affordances and challenges, specifically related to like-ability peer grouping. Elementary school students perceived that instructional practices in gifted programs supported the development of and promoted self-regulated learning, and middle school students discussed more sophisticated and nuanced understandings of their academic and social-emotional functioning and most specifically in terms of self-regulation.

Academic Functioning

Elementary and middle school students valued the challenge posed by their gifted classes. *Challenge* was the term consistently used by students and used similarly to those concepts described by Rogers (2007). This was in contrast to the term *hard*, as described by Peine and Coleman (2010). Challenge was perceived as rigorous work (e.g., conceptually demanding as well as progressively difficult), in addition to more work. Students in elementary and middle school understood acceleration as a challenge in difficulty (progressively more difficult work) and acceleration as challenge via content differentiation (progressively more conceptually advanced work). Both groups of students described the importance of differentiated instructional delivery, such as via active learning strategies (Coleman et al., 2015). Both elementary and middle school students felt that it was important to engage with like-ability peers and appreciated that the gifted program provided an opportunity to learn with their peers. Although students did not specifically mention "waiting" (Coleman et al., 2015) as an

experience of the general education classroom, students discussed the slower pace of the general education classroom in contrast to the gifted program. Both elementary and middle school students understood that the gifted program provided an academic affordance in terms of opportunities (Henfield, Woo, Lin, & Rausch, 2014). That is, they could do more at a faster pace and with a similar peer group due to their participation in the gifted program.

Social-Emotional Functioning

Challenge supported both academic and social and emotional functioning because like-ability peers provided challenge, which was stimulating for the students. However, students, especially some middle school students, complained that the coursework and homework was considerable which is consistent with prior research (Berlin, 2009). The amount of homework interfered with students' social lives outside of school, indicating a lack of balance (Galloway, Conner, & Pope, 2013). Students in both elementary and middle school described their need to socialize with and learn from and with their like-ability peers (Samardzija & Peterson, 2015). Students, especially in elementary school, expressed concerns about being bullied in terms of name-calling and derisive comments (Berlin, 2009; Peterson & Kay, 2006b). Students did not mention physical bullying. The gifted program provided a developmental haven for elementary and middle school students.

Developmental Differences

There were many similarities between elementary and middle school students' perceptions of the gifted program in terms of Rogers's (2007) lessons. However, the tenor and content of student discussions changed as students progressed through schooling. Both elementary and middle school students noted key attributes of the gifted program that provided affordances for their academic and social-emotional functioning. Middle school students' needs were more sophisticated and grew from the increased rigor and expectations in middle school. For example, although elementary and middle school students enjoyed intellectual challenge, the middle school students understood acceleration as a challenge in pacing (speed in which content was delivered) and in the volume of the content delivered. In addition, middle school students' understandings were more nuanced. For example, middle school students understood that volume and pacing affected teaching style. They complained about the lack of active learning, challenge, and depth. Middle school students understood that challenge was more than pacing and volume (Coleman et al., 2015).

Middle school students had a more nuanced understanding of the value of engagement with like-ability peers. Peers provided more challenge, which was perceived as positive. The students in this study perceived that peer discussion and understanding were important. In contrast to studies examining the Big-Fish–Little-Pond effect, middle school students in this study did not report concerns related to efficacy by being grouped with their intellectual peers (e.g., Seaton, Marsh, & Craven, 2010). Rather,

students appreciated the intellectual challenges posed by their peers. Although the elementary students appreciated that their peers had similar intellectual interests and characteristics, the middle school students further understood the heterogeneity of the gifted population and appreciated the differences as much as the similarities.

Middle school students were also concerned about choice and demonstrating autonomy in their learning, as in Rogers's (2007) lesson about independent learning. Elementary students had focused interests in learning more (e.g., learning about different countries), while middle school students wanted autonomy over course decisions. The students in this study also identified vulnerabilities, such as jealousy and social concerns from general education peers, but bullying appeared not to be a problem in the middle school (Peterson & Kay, 2006b). Affinity and respect for like-ability peers may have acted to mitigate bullying or the effects of bullying. Therefore, it may be important to support academic identification as an affordance to cope with instances of bullying (Cross, Bugaj, & Mammadov, 2016).

Self-regulation. Self-regulation emerged as a key affordance provided by the gifted program for both elementary and middle school students. Students discussed that the challenges provided by the program, specifically the increased homework, provided motivation to engage in self-regulated behavior. In middle school, students also reported the need to self-regulate because of the increasing rigor and expectations of the program. This is an important finding as self-regulatory behaviors are typically the strongest predictor of academic success across domains (Bembenutty, Cleary, & Kitsantas, 2013). Elementary students discussed time management skills only. Middle school students discussed more specific skills, such as planning, goal setting, and scheduling to address the pace and volume of middle school. In fact, middle school students indicated that instructional practices in gifted programs supported and promoted self-regulatory processes such as time management and task management including setting goals and self-monitoring. These aspects of discussions of self-regulation are similar to informal learning opportunities such as engineering competitions with the program presenting opportunities to learn or reinforce the time management and task management skills of self-regulated learning (Bland, Kusano, & Johri, 2016). Overall, both elementary and middle school students—especially middle school students—appreciated teachers' efforts to teach them to become responsible, independent, self-regulated learners. However, middle school students also noted difficulties with self-regulated learning and attributed those difficulties to teachers. Teachers as social agents in the classroom can play a critical role in fostering student self-regulation through modeling, social feedback, and guided practice (Zimmerman & Kitsantas, 2005a).

Generally, students' experiences with their gifted program helped them to function better academically. They perceived that their intellectual needs were met because teachers engaged students in more challenging work, varied instructional strategies, provided opportunities for in-depth conceptual learning, and differentiated the instructional pacing. Both elementary and middle school students were adept at identifying affordances in terms of their functioning. They were also adept at identifying

suggestions to improve those affordances for optimal functioning. Additional evidence suggested that gifted students' needs likely become more sophisticated and understanding about their needs becomes more nuanced as they develop and transition from elementary school to middle school. Findings from this study have multiple implications.

Implications for Practice and Research

What do students think they need to flourish in gifted programs? It was clear that although gifted students benefitted from their program, students in the elementary and middle schools also wanted more challenge, more variety in topics, more depth in developing conceptual understanding, and more breadth and choice about content. At the middle schools, students also wanted more autonomy and agency in their learning via independent learning time and active learning opportunities. These are important findings because even though this program was an all-day, homogeneously grouped, challenging program, most of the students wanted to challenge themselves and extend their learning beyond the program provisions.

Students were also very vocal about what they did *not* want. Students did not want more classwork or homework that was simply practice for state accountability tests in place of deep conceptual understanding (Shepard, 2010). They were not interested in lecture in place of student discussion or hands-on learning activities. They also did not want to replace time with their friends with homework, although they understood the need to do so and engaged in those behaviors. In addition, they did not want to be bullied by students within or outside the program. Rather, they wanted the gifted program to be safe. Finally, the all-day rigorous program was not sufficiently fulfilling for the most advanced learners. These findings have multiple implications for curricula, teaching, and social-emotional support structures for all-day programs, but more critically for those programs that provide less intense service models, such as pull-out programs or within-class differentiation.

Curricula

Advanced, research-based curricula should be linked to but extend the National Association for Gifted Children (NAGC) programming standards as well as general education curricula, such as the Next Generation Science Standards (NGSS Lead States, 2013). For example, problem-based and inquiry learning curricula and instructional delivery methods have been found to engage student learning (Kim et al., 2012). Crosswalks need to be developed across extant gifted education curricula to demonstrate alignment to standards.

To support student interests, teachers could ask them to describe the different topics that they would like to learn in different domains as well as with individualized learning based on interest areas (e.g., Renzulli & Reis, 1985). Different lessons could then be augmented to include topics of interest to different students, including more physical activity (Cooper et al., 2016). For example, students can engage in activities or sports that Olympians from Ancient Greece practiced, which would help students be

more interactive with the history lesson and engage in physical activity while learning about ancient cultures. In terms of middle school students, teachers could provide students with more autonomy in terms of choosing the different projects they would like to complete or topics they would like to write about (e.g., Tomlinson et al., 2009). This would give students some autonomy with regard to the topics/activities they are interested in while maintaining academic content. Finally, the curriculum could be integrated to include a variety of topics, particularly with history, science, and the arts (Ravitch, 2010).

The type of deliberate practice provided to gifted learners should be increasingly challenging, puzzling, thought-provoking, and interesting. Challenge that requires students to engage and reengage so that they have opportunities to adapt and improve is important. In addition, in a meta-analysis of instructional strategies, Hattie (2009) identified feedback as one of the most important instructional strategies to improve learning. For gifted learners, peer feedback is important (Kaufman, Gentile, & Baer, 2005). Students also need to be able to provide feedback to their instructors about their learning (Hattie, 2009). Gifted students would likely benefit from the opportunity to provide feedback to teachers about the content and manner of their learning.

Instruction

Middle school students expressed their concerns about different teachers' teaching styles. Specifically, students were dissatisfied when teachers just "read off the notes." These students felt that they needed a deeper understanding of the different concepts taught, particularly in math. However, students also expressed that some teachers were effective when they engaged students in the lessons taught with humor or group work. Therefore, we suggest that gifted educators form professional learning communities with one another to discuss teaching strategies, share lessons, and coordinate project and homework timelines. Furthermore, self-regulation processes, such as goal setting, strategic planning, self-monitoring of progress towards a goal, and self-evaluation, should be taught to students, rather than expected of students (Bembenutty et al., 2013). Students clearly mentioned that they needed strategies to effectively manage their learning and keep up with the challenging curriculum. Self-regulation is not an innate skill but a teachable skill, and teachers should systematically incorporate self-regulation principles into their teaching and daily activities (Bembenutty et al., 2013; Kitsantas, 2002; Zimmerman & Kitsantas, 2005a). This is important as research evidence shows that self-regulation may be one factor differentiating gifted achievers from underachievers (McCoach & Siegle 2003). Because of the increased challenging curricula and teacher expectations, gifted students need to become skillful with self-regulated learning where they initate, plan and observe their own learning experiences to meet these demands.

Social-Emotional Issues

Elementary school students felt that being in the gifted program placed labels on them as "nerds." Some students also expressed that general education students may feel

jealous about their placement into the gifted program, which would then result in bullying or name-calling. One potential strategy to address this issue is that teachers become more aware of these issues and assist these students. Peterson and Ray (2006a) provided several suggestions for educators, including asking direct questions about bullying, targeting students' perceptions of bullying, and not allowing the popular bully to escape attention or the victims to become socially marginalized.

Middle school students also felt that being in the gifted program labeled them as being different from the general education population. Middle school students enjoyed group work and the level of competition among the gifted students. In fact, competition was a source of motivation for some students, but not others. Therefore, these results must be interpreted with caution because too much competition may encourage students to adopt a performance approach and avoidance goals (e.g., goals that are directed toward not displaying incompetence in contrast to mastery-oriented goals; Pintrich, 2000). Therefore, although a certain degree of controlled competitive activities may be engaging for some students, teachers should ensure that students have had opportunities to develop conceptual understanding and apply and practice skills in noncompetitive settings before encouraging competition.

Furthermore, based on student responses, current curricular and pedagogical models are likely no longer sufficient in the "Internet of everything" world. The grand challenges of the 21st century require a team science approach to addressing the needs of identified and developing advanced learners (National Academy of Engineering, 2016)—a solution that is more than the sum of individual curricular units. Rather, the field should (a) ground gifted curricula in extant field-specific standards, such as the Discipline Core Ideas within the NGSS (NGSS Lead States, 2013) to address learner development; (b) create a structure and suggested trajectory with content experts for students to develop deep domain knowledge and conceptual understanding beyond extant standards; (c) design a framework (beyond a scope and sequence) to cultivate advanced domain-specific procedural skills (e.g., experimentation in science) and habits of mind (e.g., the critical, creative, and metacognitive thinking skills needed in the domain or in general); and (d) infuse the framework with a similar scope and sequence for the development of leadership skills, self-regulation skills, self-motivation, and professional dispositions (e.g., ethical responsibility).

Setting new goals for gifted curricula also implies new approaches to teaching advanced learners. It implies progressing beyond differentiation to transformative personalization and developing a deep understanding of each learner. It includes the knowledge, skills, and dispositions to enact a sophisticated combination of instructing, guiding, coaching, facilitating, modeling, assessing, mentoring, and inspiring. It comprises critically and creatively designing and engineering both personal and team learning experiences to facilitate autonomy *and* agency (Mudrak & Zabrodska, 2015). Furthermore, because singular expertise is no longer sufficient to solve our global problems (Cooke & Hilton, 2015; Rittel & Webber, 1973), programming models must progress beyond grouping arrangements to teaming arrangements for students.

Limitations, Future Directions, and Conclusion

There were several limitations to this study. First, because this is a qualitative study, the categories developed from the interviews were based on the researchers' own categories of meaning. Therefore, the results are prone to be influenced by the personal experiences of the researchers. Although efforts were made to ensure agreement among coders, the categories themselves could have different meanings for people with different backgrounds. Second, due to the small sample size and specific context, these categories may be unique to this specific sample and may not be generalizable to other samples in different contexts.

Future research should focus on addressing these issues as well as examine the intersection between motivational theories and gifted education research. As Clinkenbeard (2012) noted, much can be learned from motivational theories. For example, research shows that gifted students may be vulnerable to praise and feedback that support fixed mindsets, with gifted students often being praised for their intelligence. Furthermore, understanding the developmental trajectory of gifted students' implicit beliefs, self-regulatory skills, and the development of resilience in response to experiences such as bullying is critical.

In closing, the present study attempted to paint a singular portrait of students' experiences of their gifted program and a potential developmental trajectory of students' perceptions from elementary to middle school. The elementary and middle school students in the present study reported similar perspectives about their gifted programs as identified by Rogers (2007) in support of students' academic and social and emotional functioning. However, the students also clearly expressed that the all-day program could be augmented academically and that students need more support socially and emotionally in achieving balance. Therefore, we propose considering new curricula, pedagogy, and programming in support of developing talent and learning for advanced learners and students who have the potential to develop these skills.

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