

RADICALLY EARLY COLLEGE ENTRANTS ON RADICALLY EARLY COLLEGE

ENTRANCE: A HEURISTIC EXPLORATION

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Despite the fact acceleration has been studied thoroughly as an educational practice for the gifted, early entrance to college specifically has been overlooked. Not only this, but a large portion of this research pertains to early college entrance programs, which provide resources that many early college entrants may not have. The lived experiences and perceptions of radically early college entrants (three or more years advanced) were explored through interviews and heuristic inquiry. The interviews addressed affective aspects of early college foremost, with additional discussion of academic experiences, college choice, and career outcomes. Findings support that radically early college entrants are happy with their choice overall, though more specific findings elaborate on the benefits and limitations of early college, possible regrets, and the social issues this population faces.

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RADICALLY EARLY COLLEGE ENTRANTS ON RADICALLY EARLY COLLEGE ENTRANCE: A HEURISTIC EXPLORATION

Acceleration is considered to be any educational practice in which students “progress through an educational program at rates faster or at ages younger than their peers” (Pressey, 1949, p. 2). The term “radical acceleration” was first used in a speech given by William Stanley at Johns Hopkins University to refer to those who had entered the university three or more years earlier than typical (Stanley, 1978a, as cited in Gross & van Vliet, 2005). While acceleration is one of the most thoroughly researched programming options in gifted education (Colangelo, Assouline, & Gross, 2004; Gross & van Vleit, 2005; Southern & Jones, 2015), there are gaps within this research. There is an emphasis on acceleration within Kindergarten through 12th grade, as well as accelerants within the public school system (Steenbergen-Hu, Makel, & Olzowski-Kubilius, 2016). Additionally, non-radical and/or subject-specific acceleration is more common than radical or full-grade acceleration (Callahan, Moon, & Oh, 2013), and therefore has more representation in acceleration research. Encompassing all these types of acceleration research, however, is a prevailing issue more foundational than the others: the voices of the accelerants are missing. A variety of methodology has been used in the past attempt to understand the experience of those who accelerate, but typically these methods have been quantitative in nature. Though quantitative research has brought great insight to certain aspects of the scientific understanding of early college, perhaps greater diversity of methodology will result in a more holistic body of work.

More controversial and less researched than more traditional forms of acceleration is early entrance to college, which may be the most “radical” acceleration of all. Of course, with the plethora of college-level options available for high school students, it is actually much less

radical today than people consider it; Specifically, it is unlikely that a student entering college early is actually entirely lacking in college-level experience (Brody & Muratori, 2015). It is probable that, due to a lack of information, there are broad misunderstandings about how early entrance to college works, especially without a professionally-administered infrastructure in the form of an early college entrance program. Research in this vein has focused on Early college entrance program students, non-radical early college entrance, and academic factors/outcomes of acceleration, limiting the scientific understanding of the lived experiences of radically accelerated, individual early college entrants. We cannot be sure whether or not the specific focus on individual or radical accelerants will reveal different findings than previous research, and therefore we cannot assume that the previous practice of studying radical and non-radical early entrants in an early college entrance program is appropriate. This study may be the first step in accessing an unresearched population, all while applying unique methodology and research questions which the broader field has not explored thoroughly.

Press about college students as young as 11 and “child prodigies,” as they are often called, has become more and more popular recently (Baskin, 2015; Hudson, 2018; Mettler, 2017). Television programs such as *Little Big Shots* (DeGeneres & Harvey, 2015), *Genius Junior* (Harris, 2018), and *Child Genius* (Pierce, 2015) have featured very young students who have entered or even graduated from college, and yet as the populous seeks out and spreads more information about these people, the field that supervises research on them is silent. It is dire that the field of gifted education and intelligence research addresses this sensationalized population, and the possible myths surrounding them, before society jumps to their own conclusions. Reality television cannot be trusted to fairly and accurately depict radically early college students, and

therefore this study can address the issues that some in society appear to be interested in as of late, but that research has yet to fully explore.

Purpose of the Study

The goal of this study is to describe the experiences of radically early college accelerants from the perspective of looking back after having graduated. Though the main goal is to address affective aspects of early college—as in, those aspects which encompass the metaphysical and psychological experiences such as emotional development, mental health, and social interaction—secondary topics of interest include academic experiences, career outcomes, and college choice. The following questions will guide this study:

1. How do people who radically accelerated into college describe their experiences in college?
2. How do people who radically accelerated into college reflect on their acceleration now, and its impact on their academic and affective life?
3. What issues with radically early college entrance do those who radically accelerated into college describe, if any, and what solutions do they propose, if applicable?

A Research Retrospective: Early College and Acceleration

Systematic review found no articles which studied radically early college, nor articles which studied any aspect of early college with heuristic inquiry. In light of a relatively large, but heavily imbalanced, body of research, the review that follows focuses first on the general findings of research on early college programs, and then moves into the smaller pool of research that shares a more focused similarity to the present study in objectives and methodology.

Early College Programs

Some students who choose to enroll in college early do so through a facilitated program of some sort, a program with its own staff and resources for young students taking college courses. These programs come in two major categories: early college high schools and early college entrance programs. Early college high schools are full-time high schools that offer part-time college enrollment for students in 9th through 12th grade, while early college entrance programs offer full-time enrollment to students under the age of 18 in a variety of styles including residential programs, university-partnered schools, subject-specific programs, and more. Within each of these categories, there is diversity in terms of school size, location, methods of instruction, program objectives, and requirements for entry.

Research on early college paints an inspiring picture of the early college pipeline: early college high schools and early college entrance programs produce students who are academically motivated (Locke & McKenzie, 2016; Locke, Stedrak, & Eadens, 2014; McDonald & Farrell, 2012; Ongaga, 2010; Saenz & Combs, 2015; Schumacker, Sayler, & Bembry, 1995), socially well-rounded (Heilbronner, Connell, Dobyms, & Reis, 2010; Hertzog & Chung, 2015; Janos, Robinson, & Lunneborg, 1989; McDonald & Farrell, 2012; Noble, Arndt, Nicholson, Sletten, & Zamora, 1999; Noble & Smyth, 1995; Ongaga, 2010; Saenz & Combs, 2015; Sayler, 2015; Woodcock & Olson, 2013), successful in college (Boazman & Sayler, 2011; Brody, Assouline, & Stanley, 1990; Dai & Steenbergen-Hu, 2015; Dai, Steenbergen-Hu, & Zhou, 2015; Haxton et al., 2016; Hertzog & Chung, 2015; McClarty, 2015; Olszewski-Kubilius, 2002; Sethna, Wickstrom, Boothe, & Stanley, 2001) and thankful for their early college opportunities (Berger, Adelman, & Cole, 2010; Dai et al., 2015; Dai & Steenbergen-Hu, 2015; Hertzog & Chung, 2015; Jung, Young, & Gross, 2015; McDonald & Farrell, 2012; Ongaga, 2010; Saenz & Combs, 2015).

Early college high schools serve a special purpose for low-income and other traditionally underserved students by offering tuition-free college credits (Berger et al., 2010; Haxton et al., 2016; McDonald & Farrell, 2012; Saenz & Combs, 2015). These students fare much better in early college high schools than they do in traditional education, with degree attainment for underserved early college students sometimes reaching ten times that of underserved unaccelerated high school students (Haxton et al., 2016).

The majority of work on early college is quantitative (Berger et al., 2010; Boazman & Sayler, 2011; Edmunds et al., 2010; Edmunds et al., 2012; Fischetti et al., 2011; Haxton et al., 2016; Hertzog & Chung, 2015; Janos et al., 1989; Noble & Smyth, 1995; Oliver et al., 2010; Schumacker et al., 1995; Sethna et al., 2001; Shepard et al., 2009), though there is some qualitative work on early college as well (Dai et al., 2015; Locke et al., 2014; Locke & McKenzie, 2016; McDonald & Farrell, 2012; Noble et al., 1999; Ongaga, 2010; Saenz & Combs, 2015; Woodcock & Olson, 2013). With the goals of quantitative research being mainly generalizability and broadness (Polit & Beck, 2010), this implies a limited focus on lived experiences as explored by qualitative research. This is corroborated by the majority of early college research focusing on academic outcomes rather than affective aspects of early college (Berger et al., 2010; Edmunds et al., 2010; Edmunds et al., 2012; Fischetti et al., 2011; Haxton et al., 2016; Heilbronner et al., 2010; Locke et al., 2014; Locke & McKenzie, 2016; McDonald & Farrell, 2012; Noble & Smyth, 1995; Oliver et al., 2010; Sayler, 2015; Schumacker et al., 1995; Sethna et al., 2001). Some work focuses on affective aspects specifically (Boazman & Sayler, 2011; Noble et al., 1999; Shepard et al., 2009), but it is a bit more common for papers to explicitly investigate both (Dai & Steenbergen-Hu, 2015; Dai et al., 2015; Hertzog & Chung, 2015; Janos et al., 1989; Jung, Young, & Gross, 2015; Ongaga, 2010; Saenz & Combs, 2015;

Woodcock & Olson, 2013), as the two topics are inherently linked, so they tend to bleed into each other (i.e. an article focusing on academic achievement is likely to address academic self-esteem, which is partially affective). While there is a representation of all kinds of research within early college, certain types are undeniably more prevalent, which has resulted in a poorer understanding of affective aspects of early college. Regardless, all early college research, whether its focus is academic or affective or both, report generally positive results.

There are occasionally negative findings regarding acceleration. Lupkowski, Whitmore, and Ramsay (1992) found a slight drop in self-reported self-esteem after transferring to a residential program, and Ingersoll and Cornell (1995) found that their sample of female early entrants in a residential program reported dissatisfaction with their social lives. Hertzog and Chung (2015) found that, of 119 early college entrance program graduates surveyed, nearly half said that attending the program had detrimental or very detrimental effects on their romantic relationships. Some participants in Noble and Smyth's (1995) all-female study of early college entrance program graduates discussed having relationships with older men in their life, and one specifically found this experience harmful. As for academic experiences, Oliver, Ricard, Witt, Alvarado, and Hill (2010) found unflattering results about the school attitudes of early college high school students: they are more likely than traditional college freshmen to be independent and arrogant, more likely to have poor attitudes, express less desire to finish college, and are less willing to make sacrifices to achieve.

When students drop out of early college programs, most findings support that it is typically for affective, rather than academic, reasons, such as homesickness, lacking the maturity/skills to live away from their parents, or a pre-emptive response to expected disciplinary action (Boazman & Saylor, 2011; Sethna, 2001). However, specific programs may find students

leaving early to pursue better academic opportunities, countering the idea that early college entrance programs are too academically challenging (Heilbronner et al., 2010). When asked what they regret about early college enrollment, many students from both early college entrance programs and early college high schools reference the loss of both social opportunities (such as prom and other events) and academic opportunities (such as high school specific scholarships), though they go on to say that these opportunities would have come with a sacrifice to the intellectual fit and academic challenge they found in early college (Noble & Drummond, 1992). All in all, though, regrets are rare in early college programs (Boazman & Saylor, 2011; Noble, Robinson, & Gunderson, 1993; Olszewski-Kubilius, 2002).

Individual Early College

As has been demonstrated, early college programs are overrepresented in early college research, in contrast to the alternative of research on early college acceleration without a special program at play (sometimes referred to as “individual acceleration” or “individual early college”). This imbalance is presumably due to convenience sampling. These programs are largely residential, group young students together, and provide them with special academic, emotional, and social resources that general accelerants do not have. Unfortunately, it is unknown what percentage of early college entrants do so without a program, and there is not research specifically on the differences between students who attend college early through a program or without one.

The limited research on individual early college is diverse: qualitative, quantitative, and personal (unempirical) explorations of the topic do exist. Olszewski-Kubilius (1998) gave early college students a chance to tell their side of the story through personal essays. Of the 11 essays

in the paper, only one was from an individual accelerant. This student faced opposition from his high school administrators, who felt that he lacked the psychosocial/affective traits necessary for entry to college: however, the student noted that no 18-year-old high school senior, immature or not, would face this line of questioning. Barriers to acceleration, such as institutional opposition or fears of poor social development, have been researched previously (Assouline, Colangelo, VanTassel-Baska, & Lupkowski-Shoplik, 2015; Lee, Olszewski-Kubilius, & Petermel, 2010; Olszewski-Kubilius, 2002), but barriers to early college specifically are less well-known. The differences between attending a program for young college entrants and going to a traditional university early with no ingrained support system for young people could be significant. The proposed study can encompass a larger portion of early college students who have much less infrastructure to support their acceleration.

Qualitative Explorations of Early College Experiences

Quantitative research on early college has addressed similar topics and found similar results, but there is less research addressing the issue from a qualitative perspective. Noble et al. (1999) interviewed 31 early college entrance program graduates about their affective experiences in early college and afterwards. They agreed that early college gave them social opportunities they would not have had otherwise, and that the academic challenge of early college required them to mature quickly and gain new psychosocial skills. Having moved on to traditional college, the participants said that early college had become a social advantage for them, giving them access to a community of same-age peers and intellectual peers, preventing them from being in a situation in which they must socialize exclusively with adults as adolescents.

Pagnani (2011) conducted an ethnography of eight students who entered college between

the ages of 14 and 16. The findings were generally consistent with the previous research on this topic (i.e., that early college provides academic challenge and social opportunities for highly gifted students, and that students are happy with their academic/career prospects and social experiences), however the paper was unique as it allowed the population to describe in detail their experiences in early college. The students tended to mention attempting to “pass” as older among traditionally-aged students, but said that they were satisfied with the support from their university, perhaps wishing for increased awareness of acceleration and more programs to help students of all ages maintain healthy lifestyle choices, both emotionally and physically. However, the paper had a much stronger focus on academic experiences and outcomes than the current study, and the paper is unfortunately unpublished.

Dai et al. (2015) also sought to explore the lived experiences of early college entrants. To do this, they interviewed 34 graduates from a Chinese early college entrance program, under the theoretical framework of grounded theory, concerning reasons for early entrance, experiences in the program, strategies used to overcome adversity, and outcomes after leaving the program. Their findings supported the idea that early college entrance is academically challenging and socially satisfying to early entrants, though it requires a transition into a new culture and harder material that can be difficult and stressful at times. Similarly, Noble and Drummond (1992) interviewed members of the University of Washington’s Early Entrance program about their perceptions of early college and its impact on their social life. Although the results indicated that the participants saw early college as a more accepting environment than high school and that accelerating was a social resource for them, yet again their findings pertain to an early college entrance program.

Unfortunately, as is clearly visible here, more research on acceleration and early college

is quantitative rather than qualitative and pertains to academic success rather than exploring the lives and experiences of the early entrants. Even when research addresses the social and emotional experiences of accelerants, they often do so through measures such as life satisfaction surveys, which are designed to measure the *destination*: this study is concerned with the *journey*. Less so than just knowing whether or not early college graduates are happy, it is long overdue for research to explore what it was like trying to adjust socially, what students did to improve their social development, and how the experience affected them afterwards. Individual accelerants are underresearched: they may face unique issues due to their individual acceleration, but they have been almost entirely ignored, and their voice is missing from early college research. Research on radical acceleration is conclusive (Assouline et al., 2015; Colangelo et al., 2004), but it is still unknown how these findings apply to radically early college, and nor is there a holistic understanding of early college experiences. Research seems to suggest that early entrants to college are successful academically and socially, but it is unclear as to how this actually happens: what are early college entrants doing to ensure their success? How did their families, friends, and educators help them, or hold them back in this regard? The process of early college, and its impact on early college entrants themselves, is poorly understood, and this study can provide clarification. This clarification is beneficial for both scientific and personal purposes, explaining the phenomenon of early college while providing some insight for potential individual accelerants.

Method

Participants and Procedure

The search for participants began with identifying the criteria for selection to participate.

Participants must have entered college three or more years early without the use of a facilitated program such as an early college entrance program. Only full-time enrollment would meet this criterion, though enrollment in junior colleges, community colleges, and technical schools qualified. Individuals enrolled in facilitated early college entrance programs did not qualify in order to address the under-studied aspects of early college research, and to attempt to uncover the experiences of radically early college students who were attending college without dedicated faculty support or a community of other early entrants. Participants were required to have completed their undergraduate education and be 18 years of age or older at the time of the interviews. This was implemented in the hopes of enabling discussion regarding experiences beyond graduation, such as career experiences (as recommended by Olszewski-Kubilius, 2002).

Stating these criteria, calls for participation were posted in various social media groups, including groups primarily for those involved in high IQ societies such as the Davidson Institute Young Scholars Program and MENSA, as well as groups for discussion of educational practices for the gifted such as acceleration and early college. The social media recruitment message used can be found in Appendix B.

Ten participants (five women, four men, and one non-binary person) agreed to participate in the research project. The participant ages ranged from 18 to 47 ($M = 25.2$), and two were not from the United States. (Their countries of origin/residence are being left unclear, to aid in anonymity). The average age of full-time undergraduate attendance was 13.5. Each participant's pseudonym, gender, race, age when beginning full-time college enrollment, age when completing undergraduate education, and age at the time of the interview can be found in Table 1.

Table 1

Participant Information

Participant "Name"	Gender	Race	Age at full- time college enrollment	Age at undergraduate graduation	Age at time of interview
Chandler	Male	White	13	17	18
Dexter	Male	Filipino	15	18	21
Gina	Female	Did not answer	14	19	26
Jordan	Female	White	13	18	25
Kevin	Male	White	12	17	20
Liz	Female	White	12	13 ^b	47
Riley	Non-binary	White	15/16 ^a	19	22
Samantha	Female	White	15	19	27
Trudy	Female	White	11	15	26
Will	Male	White	15	19	20

^aRiley accelerated three years but turned 16 in their first semester of college. ^bLiz completed the coursework for this degree at 13 but was not permitted to graduate formally until she was 14 due to a tuition dispute.

Materials

Data items included in-depth, semi-structured interviews (audio recordings and transcriptions) and demographic survey responses. The use of more than one data collection method contributed to trustworthiness and is a recommended practice for heuristics.

Demographic Surveys

Surveys to collect more objective information about the participants were administered prior to the interviews taking place and served many purposes. Firstly, the surveys grouped the information participants provided about demographic information into comparable terms. Secondly, the surveys addressed questions that were worth investigating on a small scale, but not worth spending time on during the interview, such as college choice. Thirdly, the surveys saved time and provided a sense of camaraderie and familiarity between interviewer and interviewee by allowing impersonal demographic questions to be dealt with before the interview. The

increased connection between participant and interviewer that resulted from these surveys was especially valuable for responsive interviews. Lastly, per Shenton's (2004) guide to trustworthiness in qualitative research (see Table 3), the collection of background information increases transferability, and the use of multiple types of data increases credibility and confirmability.

Interviews

Semi-structured interviews do not rely on a mandatory structure or format, but a flexible list of questions and prompts to help conversation with interviewees flow naturally and stay on topic, revolving around the vital domains of inquiry (Hesse-Biber, 2017; Rapley, 2001). The interview guide (Appendix D) was designed with the goal of providing prompts that would help guide the topic of the interview without limiting or leading the participants' responses. Additionally, the interview guide and general approach to interviewing was informed by responsive interviewing techniques. Responsive interviewing centers around four main ideas: the search for context and richness, underlined by the acceptance of the complexity and ambiguity of human life; the impact of the personalities of the interviewer and the interviewee on the results; interviewing as an exchange that should take place in the context of a meaningful, if temporary, relationship where participants should be treated more like friends or partners rather than research subjects (hence the value of building a connection with participants via demographics surveys); and a flexible research design that allows for adaptation to new information received throughout the entire research process (Rubin & Rubin, 2012). As such, this method aligns excellently with the stated goals of this paper and the gaps in previous literature on early college, including understanding the personalities of the individuals in

question and the nuanced experiences they report. Many of the features of responsive interviewing are also beneficial for a heuristic methodology, including the flexible nature of a responsive interview, and the impact of the interviewer's personality on interviews. Additionally, the flexible and adaptive nature of responsive interviews is similar to the way methodology in heuristic inquiry is meant to change and grow naturally with the data. These interviews took place over Skype and averaged about an hour in length. The use of Skype allowed for more interaction than a phone call with the ability to see participants "face-to-face", in a way. It was also helpful since the participants were located all over the United States and world. The principal investigator transcribed each interview, and the transcriptions were imported into NVivo qualitative data analysis software (Version 12) for the inductive coding process.

Data Analysis

Heuristics

The analysis, as well as the rest of the methods, was informed by heuristics. The heuristic method in qualitative research centers around discovery through exploration (Kleining & Witt, 2000). Heuristics as an approach to qualitative methods in the social sciences has roots in philosophy (Kleining, 1995), psychology and sociology (Kleining & Witt, 2000), and anthropology (Dammann, 1991). In heuristic research, the research process is not linear but dialectical, and analysis is heavily reliant on introspection. Given (2008) described seven steps of heuristic inquiry, seen in Table 2.

Table 2

Phases of Heuristic Research

Phase	Name	Description
I	Initial Engagement	Research begins with the discovery of an intense and passionate interest or concern with respect to important social and universal meanings that have personal implications. Initial engagement involves self-dialogue and an inner search helping to clarify the chosen topic and the research question. Turning inward taps into tacit awareness and knowledge, and requires disciplined commitment in order to discern the underlying meanings and clarify the context.
II	Immersion	Following the discovery and clarification of the question, the researcher immerses in anything and everything connected with the question. This involves intense exploration, following trails of data, self-dialogue, self-searching, seeking out co-researchers with similar concerns and experiences, and facilitating the tacit dimension of knowing. It is a phase that might seem quite boundless.
III	Incubation	This is period of consolidation. Focus is relaxed, such that emerging ideas are allowed to take root. It may be important to take “time out” in order to create a space for ideas to germinate, or it may involve further more-focused work with co-researchers.
IV	Illumination	This occurs naturally and spontaneously out of the relaxed and tacit state of the previous phase. There is a meeting of conscious and unconscious aspects of the phenomenon and the beginnings of a synthesis of fragmented knowledge emerges. There is insight, and emotional connection is made. The universal significance of the phenomenon is realized. A completely new discovery is made.
V	Explication	This requires a further period of indwelling and focusing in order to deepen, clarify and refine the new discovery, to gain a more complete understanding of the phenomenon. This is a more detailed process, involving continuous self-exploration and awareness. The researcher explicates the major components of the phenomenon in readiness for the final phase of integration.
VI	Creative Synthesis	This is achieved through mastery of the data and inspiration from the tacit and intuitive dimensions. The focus is upon integration and synthesis, and the mode of its expression as a fully realized picture of the discovery. The researcher may explore any creative means that feels appropriate—for example, art, poetry, music, metaphor, and so on as well as description and narrative—in order to convey the purest essence of the phenomenon to the world. The heuristic researcher returns again and again to the data to check that the depiction of the experience is comprehensive, vivid and accurate. This is a judgment that in the first instance can only be made by the primary researcher.
VII	Validation	Validation is further enhanced through co-researcher validation. Nevertheless, a final validation must be left to how the research is received, through publication, presentation, or perhaps performance. Indeed, it is in sharing the creative synthesis with others that the validity of heuristic work is established.

Note. From Given (2008, pp. 390-391).

The main advantages of subscribing to heuristic methods for this study were the interest in exploring lived experiences from a humanistic perspective and the ability to utilize my own experiences as a radically early college student (which I explain in detail in the next section) in the collection and reporting of findings. It is fair to express concern that this process could cause some bias in the results. However, not only were steps taken in order to prevent this (see section below), but there were several instances in which it was clear that my experiences were vital to the success of this study. A few participants expressed an initial disinterest in participating in the study, but were more intrigued after learning that I was also an early college graduate. I was able to relate to participants and use my own stories and memories to give them a foundation for their own comments. Similarly, there were times when I told an anecdote that reminded a participant of something they had experienced; this was especially vital for those participants who had graduated more than a few years ago. The results section includes multiple examples of participants responding to a statement that I had made with strong agreement, and there were many more that were not directly quoted. In the end, it is my belief that my perspective as an early college student (1) gave me the correct mindset and approach to the methods of this paper, (2) increased interest in participation via the establishment of trust among a population that is wary of invasive research (and for good reason, as a few reported negative experiences in the past with press), and (3) improved the quality of the data by giving me the ability to discuss experiences in greater depth and detail. Heuristic inquiry sees the researcher as having a participatory position in their research, and that is not a hindrance but an advantage when utilized correctly (Given, 2008).

Positionality and Bias Prevention

My perspectives as a scientist are inseparable from my background as a White young

woman, born and raised in the southern United States, usually having lived somewhere in the lower end of the middle class. I have extensive personal experience, a large amount of educational experience, and a fair amount of work experience relating to giftedness, intelligence, gifted education, and alternative education. Pertaining to the topic of this study specifically, I present two major aspects of my previously-held beliefs.

First and foremost, I hold the opinion that radical acceleration, including (and perhaps especially early college), is a highly viable academic solution for high-achieving students. This originates not only from my own personal experience with both, but also a strong quantitative research background on these topics. However, neither of these justifies a generalization in which acceleration is good for everyone, and the distinction should be clear.

Secondly, as someone who utilized radically early college entrance myself, I have my own personal experiences that align with the research questions at hand. Within the domain of heuristic research, this is an advantage. My experiences gave me a greater perspective on the issues that early college students face, informing the research questions in conjunction with the previous literature available. In terms of data collection, my background not only helped me to build familiarity and camaraderie with participants in interviews, but also gave me access to participants in the first place through private groups, which were used to recruit participants for the study. Lastly, my experience gave me a unique ability to entrench myself in, and familiarize myself with, the data quickly and naturally, which aided in data analysis itself and the subsequent presentation of the results.

Trustworthiness

Shenton (2004) adapted many previous systems for trustworthiness in qualitative research

into one guide, as shown in Table 3. This guide revolves around ways in which a researcher can and should maintain their responsibility as the largest, if not sole, modicum for data collection. Each of Shenton’s suggestions was met with either a practice informed by the provision, or a response as to why the provision could not be used.

Table 3

Possible Provisions for Qualitative Researcher for Addressing Guba’s Four Criteria for Trustworthiness

Quality Criterion	Possible Researcher Provisions	Response or Responding Practice in Current Research Study
Credibility	Adoption of appropriate, well-recognized research methods	Heuristic inquiry is a thoroughly-established research methodology (see Method and Data Analysis)
	Development of early familiarity with culture of participating organizations	The principal investigator is heavily involved in the early college community and the groups from which participants were sampled (see Positionality and Bias Prevention)
	Random sampling of individuals serving as informants	Random sampling was not possible for the research questions, criterion sampling was utilized instead (see Method)
	Triangulation via use of different methods, different types of informants and different sites	Different types of informants from different locations were involved (see Method)
	Tactics to help ensure honesty in informants	Investigator utilized personal experience to encourage honesty (see Interviews and Positionality and Bias Prevention)
	Iterative questioning in data collection dialogues	Semi-structured interviews were utilized to allow for natural conversation, meaning iteration was not appropriate
	Negative case analysis	Negative case analysis was used (see Results)
	Debriefing sessions between researcher and superiors	Meetings of dissertation committee and between principal investigator and dissertation chair served this purpose
	Peer scrutiny of project	The dissertation committee provided this
	Use of “reflective commentary”	Reflective commentary was used in journaling by the principal investigator
	Description of background, qualifications and experience of the researcher	See Positionality and Bias Prevention
	Member checks of data collected and interpretations/theories formed	Participants were contacted to approve their quotes and the interpretations which surrounded them (see Method)

(table continues)

Quality Criterion	Possible Researcher Provisions	Response or Responding Practice in Current Research Study
	Thick description of phenomenon under scrutiny	
	Examination of previous research to frame findings	See Literature Review and Discussion
Transferability	Provision of background data to establish context of study and detailed description of phenomenon in question to allow comparisons to be made	See Introduction and Literature Review
	Employment of “overlapping methods”	See Method
Dependability	In-depth methodological description to allow study to be repeated	See Method
	Triangulation to reduce effect of investigator bias	Multiple forms of data were used (see Method)
Confirmability	Admission of researcher’s beliefs and assumptions	See Positionality and Bias Prevention
	Recognition of shortcomings in study’s methods and their potential effects	See Limitations
	In-depth methodological description to allow integrity of research results to be scrutinized	See Method and Data Analysis
	Use of diagrams to demonstrate “audit trail”	Diagrams were not utilized, but there is a document and text-based audit trail

Note. Adapted from Shenton (2004), p. 73.

Thematic Analysis

Thematic analysis was used to identify the common themes in both the interview transcription and demographic survey data sources. Thematic analysis is a qualitative data reduction method that aids in the identification of patterns or themes within data (Braun & Clarke, 2006). The first of six steps in thematic analysis is immersing oneself in the data, which involved reading and re-reading the transcripts several times for this study. The second and third steps are to code the data, specifically locating and assigning text segments to nodes respectively. In this study, data were coded inductively. Inductive coding was utilized in the hopes that allowing codes to form naturally would prevent pre-conceived notions from heavily impacting the themes. If nodes had been created beforehand, rather than being created during the coding process, then they would have been based on the findings of previous early college and acceleration research. This would have been problematic since the current study is intentionally

very different from previous research in the field. This process resulted in a set of summary categories that represent important patterns and meanings found in the raw data (Thomas, 2006). Code generation involved reading each data item line-by-line in NVivo, selecting text segments (usually a sentence or two in length) relevant to any of the research questions, and assigning each segment to a node. Text segments could be assigned to a pre-existing node, or a new node could be created if the segment did not fit the meaning of any node. At the conclusion of the initial coding steps, there were 184 text segments grouped into the 14 preliminary nodes shown in Appendix E.

Step 4 involved reducing the nodes into a smaller set of concise themes. A theme “captures something important about the data in relation to the research questions” (Braun & Clarke, 2006, p. 82). These nodes were edited and re-edited such that similar nodes were combined and small nodes were eliminated (specifically if they appeared in fewer than two cases or had less than three segments). This process brought the number of themes down to 11. The themes represented aspects of the radically early college experience and shared ideas and perspectives among the participants. The final two steps consisted of assigning each theme a summary description, and then a thick description. Thick descriptions provide a more complex and detailed account of the participants’ experiences, as well as allowing for an understanding of the context of these experiences (Geertz, 1973).

As suggested in Shenton’s (2004) recommendations for credibility, data analysis was triangulated. Coding took place in the context of a team involving the principal investigator and a professor in the field of gifted education. The principal investigator created the codes, the professor examined them, and the codes were discussed as a team before being finalized. This discussion revolved around clarifying how each code represented the participants, how they

corresponded with the research questions, and confirming that the codes as a whole encompass the information presented in the data appropriately.

Another of Shenton's recommendations was member checks, which took place to confirm the accuracy of quotes attributed to participants and their interpreted meaning. Participants were contacted and asked to review and approve the results section. The information they were asked to approve was deliberately as specific as possible, as the goal was that they would understand the context of why their quote was used and the way it was being interpreted, aligning with Shenton's exact provision. Nine participants responded to the request, and four participants requested changes. None of the changes requested represented a drastic change in the meaning of quotes: two were strictly grammatical changes in order to clarify meaning slightly better (e.g., adjective change from "really" to "pretty" or adding words like "somewhat") and one was a slightly more drastic edit to clarify meaning of a statement without its original context. No one expressed major issues with the way they themselves or their opinions were portrayed.

Results

Demographic Findings

The demographic findings are presented in two major sections of the information that was not used in Table 1. These findings address the secondary research questions that the demographic questionnaire was built to uncover, such as factors behind college choice and the representation of majors in the sample.

College Choice

Participants were asked to select the top three most important reasons, in no particular order out of a bank of ten (which can be found in Appendix C and is based on the work of Cabrera & La Nasa, 2002 and Chapman, 1981), in their choice of undergraduate university.

Figure 1 delineates the frequency of each response option.

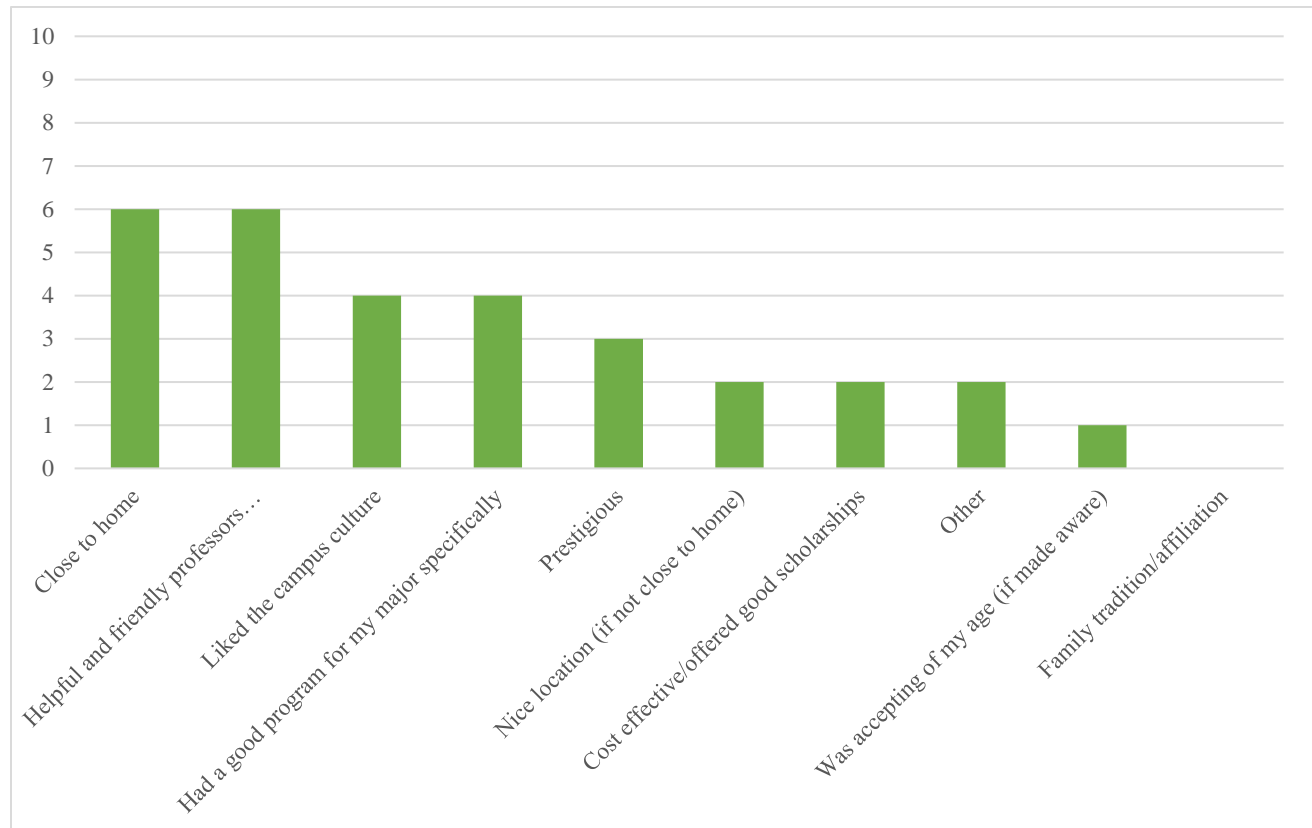


Figure 1. Frequency of college choice responses.

These responses were designed to indicate the most important factors in the choice of university to attend, *not* the only factors in the decision. For example, although only one participant selected “Was accepting of my age (if they were made aware)” as one of the most important factors in their decision, but many participants went on to describe their school administration being accepting and accommodating of their age in later interviews. See Table 4

for a complete list of which participants selected which options, additional information on certain selections, and a possible issue in the bank of choices.

Table 4

College Choice Response Selections by Participant

Participant "Name"	Selected College Choice Responses
Chandler	Prestigious Had a good program for my major specifically Helpful and friendly professors, advisors, and/or staff
Dexter	Close to home Liked the campus culture Helpful and friendly professors, advisors, and/or staff
Gina	Cost-effective/offered good scholarships Helpful and friendly professors, advisors, and/or staff Nice location (if not close to home)
Jordan	Close to home Helpful and friendly professors, advisors, and/or staff Had a good program for my major specifically
Kevin	Close to home Had a good program for my major specifically Was accepting of my age (if they were made aware)
Liz	Prestigious Helpful and friendly professors, advisors, and/or staff Other ^a
Riley	Cost-effective/offered good scholarships Close to home Liked the campus culture ^b
Samantha	Prestigious Nice location (if not close to home) Liked the campus culture
Trudy	Close to home Had a good program for my major specifically Other ^c
Will	Close to home Liked the campus culture Helpful and friendly professors, advisors, and/or staff

Note: In retrospect, "Was accepting of my age (if they were made aware)" and "Helpful and friendly professors, advisors, and/or staff" overlap slightly, which may have skewed the responses. ^aLiz was not the primary decision maker, her parents were. The university reached out to her family first. ^bRiley specified that they liked the small campus and small class sizes specifically. ^cTrudy's mother was terminally ill, so they could not move, and only one nearby university would accept her.

Although college choice was not explicitly discussed in the interviews, many participants referenced helpful and friendly faculty specifically in regard to their age during their interviews. Further, it seemed that having a connection within the university or some form of special opportunity to discuss radically early attendance was a vital part of being allowed to enter college young in some cases. For example, see Trudy's explanation of how a university connection gave her a stepping stone to early college entrance:

When I was nine, I was taking Japanese lessons from a private tutor who also taught at the local university I ended up going to and she was like, "...I don't have time to teach you anymore, but you'd be welcome in my class... if the administrator was okay with it."

Kevin's introduction to early college began with a meeting with his local university's Dean, who approved his enrollment in a course there. He also described the professor of that first course as "super welcoming". In a similar fashion, Will was able to enroll in his first college courses with the help of the university's Vice President of Academic Affairs.

Majors in College

Six participants majored in STEM fields, three majored in non-STEM fields, and one had a double-major in which one was STEM and one was not STEM. Additionally, one participant double-majored in two STEM fields. As such, in the sample of ten participants, it was coded that eight STEM fields and four non-STEM fields were represented.

Of the eight STEM majors studied, three were mathematics, two were physics, and two were biology. The remaining STEM major was mechanical engineering. Of the four non-STEM majors studied, two were within the field of classics. The other two were law and theatre. This information is disclosed separately from the information in Tables 1 and 5 for anonymity purposes.

Table 5

College Major Type by Participant

Participant "Name"	STEM or Non-STEM Major
Chandler	STEM
Dexter	Non-STEM
Gina	Non-STEM
Jordan	Non-STEM
Kevin	STEM
Liz	Double major, both STEM
Riley	STEM
Samantha	STEM
Trudy	Double major, one STEM and one non-STEM
Will	STEM

Thematic Findings

Thematic analysis produced a more concise and organized version of the raw data. Multiple readings of this set of text segments led to the formation of inductive themes. These themes were inspired by the final set of nodes/categories produced in NVivo, but were ultimately based on how best to illustrate the ideas presented in the data. In heuristic research, results are discovered through creative synthesis. This process requires mastery of the data, which leads to an intuitive understanding upon which a final and complete understanding of the phenomenon in question is achieved and expressed. Synthesis resulted in 10 broad themes, presented in a semi-chronological order of their emergence in the average interview. For example, a theme concerning pre-acceleration educational experiences is addressed first because it is the first topic many participants discussed in their interviews, and the final theme in this section concerns advice for other accelerants and parting thoughts of participants, which was typically the last

thing mentioned in an interview. Many themes contain instances of participants disagreeing with each other. However, in some cases, a majority did contribute similar opinions or experiences. Each of these outcomes is a meaningful finding. Quotes are presented to bring depth and personality to the themes as well as provide examples of the theme's meaning; sections of quotes that are prefaced by "Investigator" represent that I was speaking.

Each theme was converted from a node full of text segments into a meaningful interpretation of data with careful consideration. As a demonstration of this process and a justification of which quotes are used as examples, Tables 6 and 7 in Appendix A provide the full quote and page/line reference in the original transcription document for each text segment in the original nodes for the themes "Early Educational Struggles" and "The Social Impact: Reactions from Others". This can give a better perspective on the transition from a set of text segments to a narrative theme, and the two different themes represent one smaller and simpler node and another large and robust node.

Early Educational Struggles

The first prompt in every interview pertained to the story of how and why each participant chose to go to college radically early. As such, I started the interview by saying, "Tell me the story of your experience with early college entrance" (see Appendix D). The participants' stories tended to start with some sort of negative incident or experience in elementary school and led up to entering college full-time. Seven participants mentioned issues in their early education when prompted about the story of their radical acceleration. For example, Kevin described not only a need for educational accommodation, but a lack of response from his school:

I got to kindergarten and I had already been reading when kids were still working on their letters.... I was acting up in school, I was bored out of my mind.... My elementary school definitely tried to stick me in the corner with a book and ignore me.

Issues related to reading and writing specifically were a common theme, as well as acting out as a response to classroom boredom. The response to Trudy's academic issues by her school was more drastic:

My troubles with school started as soon as I entered public school. I got moved from kindergarten to the first grade, and then in the first grade, I just stopped doing my work. So, they apparently called my parents and they were like, "We're concerned your kid has a learning disability, 'cause she just sits there not doing anything" 'cause I was a really stubborn child.... And then I took these tests and they said... "Basically, we don't want her, and we won't teach her."

Of those seven who mentioned issues in their early education, five participants specifically mentioned being bored and acting out due to a lack of challenging material available to them in school. Riley is a representative example of this: "I was a very obnoxious child. [I was] really terrible in classes, because I would get all my work done really quickly and drove all of my teachers up the wall." Gina was unique in that her issues with brick-and-mortar schooling did not begin until a bit later than most, after elementary school: "I had a really good primary education, but when I got to middle school I was just very bored. I felt like everything was something I had heard before."

With each of these seven participants, the inability to meet their educational needs in traditional schooling led to homeschooling. Another participant, Samantha, also struggled with boredom in early education, but was actually permitted to accelerate by her school. Samantha tells the story of when her school realized she needed to be moved into the next grade: "When I was done tracing the letters on the giant preschool triple-lined paper, I'd ask for regular lined paper so I could write." Samantha was able to skip a total of three grades and continued on to college after graduating, similarly to any other college-bound high school student. Dexter's

experience was quite similar, but did not involve issues in early education specifically:

Primary school was my first skip, I entered a year early.... The rest of my skips were down in the final years of my time in high school. In [freshman year] I sort of undertook all the course material and content of [sophomore, junior, and senior year].... Essentially, I completed all of high school within my first year of high school.

Therefore, out of 10 participants, seven described issues in early education that were all but ignored leading to acceleration through homeschooling, one described issues in early education that were addressed by the school with acceleration, one did not describe issues in early education, and one was homeschooled from the beginning.

The Path to Early College

This theme was created in order to describe the most common methods in which participants were able to access college material, as well as the reasoning behind their eventual decision to attend college full-time at such a young age. After those participants who struggled in early education were able to realize the problem in school was a lack of challenge, each participant followed a unique path that eventually led to radically early college: Five participants began homeschooling (this number does not include the single participant who had already been homeschooling from the very beginning). This became a stepping stone to part-time coursework at local universities and community colleges. Trudy explains how this path unfolded for her:

So, I started homeschooling... and I just zipped through. We used a box curriculum for a while and then I moved on to high school type stuff. My Mom hired a bunch of tutors. It was very slapdash, but I started accumulating high school credits and when I was nine, I was taking Japanese lessons from a private tutor who also taught at the local university I ended up going to and she was like, "...I don't have time to teach you anymore, but you'd be welcome in my class... if the administrator was okay with it."

Of the five participants who homeschooled, three specifically mentioned that they took university-qualification exams (such as the ACT and SAT), which gave them a chance to both

understand their capability and to advertise it to colleges. Kevin gives one example of this process.

Our state actually had funding for homeschooling through some gifted funding program or something like that, and you took the ACT as the base for that, and when I took it I scored so well that I got into the local colleges as an auto-admit.

Liz's experience, however, was a bit more dramatic and became an important event in her understanding of practical life as a "child prodigy."

At age 9 [my father] had me take [a test designed to be administered to 16-year-olds] ... and apparently the testing service called and said, "You must have made a mistake on the form, with the date of birth." I got a good grade, which was apparently leaked by someone in the examination board. So, the press came around, asking "What's going on here?" as did the local authorities. But at that point they couldn't really complain, I had done well on the test, so they couldn't say something horrible is going on here because everything looks good. Well, they did their little investigation... and they said, "Well, alright, everything seems to be okay." And that was when I realized things were rather different [for me than other children], and if I had been in contact with other people earlier on, that would have caused a problem for my parents. They were always forced to prove that this was an okay thing to do and that everything was fine.

A few participants mentioned that others were confused as to how it was even possible to enter college radically early, even if it was theoretically possible that a young child could be academically ready for college. Gina herself said that she was unaware it was possible and/or legal for people under 18 to be accepted into college:

Not too far into [community college attendance], there was a college fair on campus. So, I went to this fair thinking "3 or 4 years from now, I want to go to college [so I should consider some options now]." I talked to several schools, but one of the people I talked to was a woman from [the university I would later attend], and she said to me "Well, why don't you apply?" and I was like, "Oh! I didn't realize I could!" So, I applied, I got in, and they gave me a scholarship.

Every participant had a slightly different path to entering college radically early: even the two participants who skipped three grades and then moved on to college after completing high school had different experiences and methods of education, acceleration, and social

development. Specifically, one did all of their grade skips in elementary school, and the other did most of them in high school.

The Social Impact: Reactions from Others

Now that participants were beginning their early college journey, many began to describe how other people saw this choice and the ways in which their life changed as a result of it, something that was alluded to in the previous theme. This current theme formed to encapsulate the ways in which those around the participant (family, friends, and school faculty to name a few) reacted to their radical acceleration. There was high variation between participants in this aspect. Reactions varied from positive to negative to neutral, and each participant reported a different experience with this, but most mentioned a mix of reactions from different people.

Trudy captured the range of reactions well, and the impact they have on the psyche of a child.

[The reaction of skepticism] was very, very, very common. The assumption that you have kind of like the tiger parents or the parents who push you really, really hard.... When everybody is like, "Man they must push you so hard, you must be like at home getting whipped," it kind of devalues what you actually do because if people are like, "They must be forcing your nose to the grindstone!" you're like "No, I just do this because this is what I can do, and this is what I want to do. Like, no one is making me do this, and if you're assuming that somebody would have to make me do this, does that mean there's something wrong with that?" I definitely remember having that feeling as a kid, being like, "Everybody is so concerned about my well-being, is something wrong and I just don't know?" And looking back on it now, no it was just me doing my thing. But the assumption that you just doing your thing is something that cannot possibly exist in the world is really harmful.

Trudy described another reaction that made her uncomfortable:

The thing that I got all the time, from probably the ages of around fifteen to twenty-two... would be like, "Oh my God, you went to college when you were nine, you must be a genius!"—then there would be a small pregnant pause— "I feel so stupid now!".... It can be really difficult when people are like, "Oh I feel so stupid now," and you feel the need to comfort them... you're like "Oh, I'm not that smart" but then you're [thinking to yourself], maybe I'm really not that smart? Maybe I'm really not that special. Is that threatening? Does that have to be threatening? I don't really know.

Four participants mentioned the reaction of “Now I feel stupid!” (or something comparable). Will described “I wish I was that smart” as one of the top three most common reactions to his acceleration, and his least favorite: “[That reaction] is automatically indicative of insecurity, and negative personal attitudes towards acceleration stem from insecurity. It is best handled by pointing out that everyone has their own personal talents and identifying a talent that person has.” Gina described a similar approach: “I tried to respond in such a way that what I was saying would hopefully be inspiring or empowering to the other person.”

Although there has been discussion of negative or critical reactions, perhaps not all allegedly-positive reactions are truly beneficial anyways: Riley implied that flattering comments from adults may have inflated their self-described “big ego” as a child: “I had a very flattering opinion of myself at 15 [years old], and it was definitely being confirmed by most of the adults around me. ‘Oh, you must be so smart, blah blah blah.’ Ha! No.” Dexter’s interpretation of positive reactions was a bit more straightforward:

My family, friends, and community were all hyping [my acceleration], their response was very positive and supportive. I never actually read my press, so I’m not sure about the public response.

Jordan had a similar impression, and spoke of almost entirely positive reactions:

[The reaction from others] was always positive; I never had negative reactions. My sister was kind of worried about it, honestly, she was concerned that my parents were making me do it or that they were pressuring me. But she came around to it when she saw that I was happy [in college]. So, really, I didn’t see any negative reactions.

Liz expressed confusion and perhaps disbelief towards both the positive and negative responses she heard.

I was quite well-known in [my country]. I’ve been on the front page of [several major papers]. So, at some point, some generation knew my face, I could walk down the street and they would recognize me. It was usually fun, but sometimes you want to be incognito. ...I never really minded [being well-known] so much, but I minded what went

with it. They would tell me that I've been forced to do these things, and that I didn't like it and it would affect my development- I mean obviously it affected my development, if I hadn't done it I would be somebody else, and who knows, I probably wouldn't have liked it as much: who knows if that question even makes any sense? So, I'm quite happy with what I had.

While participants did appreciate the supportive and positive reactions from others, it came with stories of negative experiences with being stereotyped or labelled, which made them feel more different from others than they may have prior to entering college early. This is addressed in the next theme.

The Term "Genius," TV Characters, and Stereotypes

All ten participants had, at some point, been called a genius. Each participant described a different relationship with the word, but everyone seemed to agree on one thing: it is awkward.

Kevin put it well:

Investigator: Did anyone ever call you a genius, or compare you to TV characters like Sheldon Cooper or Doogie Howser?

Kevin: All the freaking time. When someone walks up and says, "Oh, you're the new Doogie Howser!" what do you say to continue that conversation?

Samantha described the way that her response to being called a genius changed with her personality and maturity.

I think I went through sort of phases with that, 'cause you do hear it a lot. Yeah, I think there was the phase of sort of bashful, like "Oh, no, I'm just good at academics, I just really like school," and then now that I'm a little older, I think by the time I got to grad school so I was sort of over it, so it was much more like, "Yep. That's right." I feel like it's one of those things where people don't know what to say, so they say that, 'cause it seems like the right thing to say, and it's like, "whatever, sure, I'm a genius."

Even Liz, who completed college significantly younger than the other participants, did not seem keen on being described as a genius.

Every so often, people in the press suddenly come to me, like, "Ooh, this is some genius," and that's really not true. I broke a record at a certain time, the record still holds, and I

can't deny that fact. Apart from that, I'm just trying my best to do all the things that I do. There are a lot of smart people around, and a lot of them are smarter than I am.

Four people mentioned being compared to TV characters, and obviously the likelihood of these comments was dependent on the age of both the participant and the commenter, as Gina points out: "Sheldon Cooper was a little bit after my time, and Doogie Howser was a little bit before, but I definitely got the word 'genius' a few times."

Trudy explained why she felt that these sorts of comments were a part of a larger issue with the stereotyping of early college students.

I'm so glad that I missed the Sheldon thing. I'm very angry about the whole Sheldon situation.... [It's offensive] because they don't understand that you really have to live that life and you're not a character on a TV show.... What I love is how people simultaneously hold in their head these notions that this person just lives this gilded life, they're so smart, everything's easy, everything's great, "I'm so jealous because they're young and they have a head start in life and they get good grades and everything just comes so simply and bla bla bla," and then they turn around and they're like, "You're a liar, and you have no social skills, you probably have no friends and you must be emotionally stunted." And I'm like, "Which is it?"

Dexter also felt that stereotypes played a major role in his life as an early college entrant, but that they are something worth learning to accept.

It's the stereotype, and you never get away from it. I guess I don't hate it, because stereotypes have always been how they are, and that's how people process the world. Everyone can only understand things through their own lenses. So, I don't think it's wrong for people to associate others with some archetype they're used to. And if you want to change the perception of yourself, the onus is kind of on you.

In that spirit, many participants did seem to have accepted the presence of stereotypes in their lives, especially those that they believe might be true. Dexter, for example, pointed out that stereotypes about exceptional academic performance from early college students may be fair: "I don't think I've met an early college person or accelerated person yet who struggled academically. So, the stereotype does come from somewhere."

Gina said something similar, specifically referencing the idea that the term “genius” may have been awkward but not necessarily inaccurate:

Investigator: How did you feel about being called a genius?

Gina: Most of the time it was like, "I feel like this should make me feel uncomfortable, but it doesn't, 'cause I'm over that." And I'm not going to deny it, 'cause I think it's true. I'm somewhat proud of [going to college early]. But I try to act humbly, so I'm going to try to smile and nod, and just, I don't know, continue the conversation.

While the social aspects of early college are certainly an important topic to address, the more obvious and straightforward next step in the early college path is the actual academic experience of radically early college. Though the two overlap, since social interaction is a part of college academics and the reactions of others to an early entrant's acceleration is based on perceived academic talent, the next theme addresses the academic experience of radically early college directly.

Academic Experiences in College

This theme addressed both the academic enjoyment and benefit (or lack thereof) of early college and the experience of academic challenge (or lack thereof) transitioning to full-time college material. All but one participant reflected on their academic experience in college positively. Trudy, the singular negative response, explained that the issue was not with her age:

I don't think it was probably the right choice, for me. I don't really know what other options there were... I don't know, it's not even that I think I should have delayed college. I don't know that I would have had any better an experience if I'd gone when I was eighteen, or sixteen, or whatever... I hate school.

Otherwise, the general response was that college was an enjoyable academic experience for the participants. Jordan spoke well for the group with her sentiments.

Investigator: Did you enjoy college academically?

Jordan: Yeah, it was great! It was a wonderful experience. I enjoyed it a lot. It was very intellectually stimulating.

Will was so sure that he had made the right decision that he answered before I had finished my question.

Investigator: So, I'm gonna go out on a limb here and assume that you're pretty happy academically with your choice to-

Will: Yes.

After addressing the broader topic of academic experiences in college, I asked participants if they found college to be academically challenging. Responses to this question varied, but nobody reported early college as exceptionally difficult or challenging. Generally, participants ranged from reporting that they had performed extremely well to having performed quite well or decently in college, all without too much effort. Dexter's response was quite candid:

The first few years of college, I was taking a Law degree, but I was majoring in basketball.... I don't think I've met an early college person or accelerated person yet who struggled academically. So, the stereotype does come from somewhere.

Jordan's experience also seemed to support the idea that college may not be exceptionally challenging for early college students:

I don't know about anyone else, but for me it wasn't hard work [that got me into college early]. That's actually one of my weaknesses, I'm not a very hard worker.... I would not credit my academic success to hard work. I would credit it to just natural talent and family support.

Chandler gave an example of encountering a more perfectionistic early college student while being relaxed in his approach.

I graduated with a decent GPA, but it wasn't amazing.... I never really got why people were fawning over me. I get B's in my classes just like everyone else. And then I met this girl [who had also entered college early], and I found out that she was the only person in the entire College of Engineering that year to graduate with a 4.0. That's what I'm [gestures air quotes] "competing" against. That's what people think I am. I realized that. And it messes with me, 'cause I'm not that. I'm definitely not that.

The concept of “academic experiences” is incredibly broad, and each participant presented different perspectives and stories within this domain.

Career Experiences

One goal of this study was to capture the impact of radically early college on career outcomes. Not every participant had begun their career yet, so not all were able to weigh in on the topic. Of the eight participants capable of measuring the impact of early college on their careers, no one described early college as a career disadvantage. As to whether or not it was an advantage or had no impact, however, participants expressed differing opinions and experiences.

Kevin and Liz said it was explicitly and exclusively an advantage. Liz explained why:

It obviously was an advantage.... People knew about me. I don't know whether they would have known me so well if I hadn't had that [to help me stand out]. If I just done the same work and hadn't been eight years younger than everyone else—or something like that, at some point I was eight years ahead career-wise—that obviously became an advantage.... Without that, I think I did okay work, but I'm not sure how I would have been compared in that initial stage if that extra factor hadn't been there. And perhaps I overused it, but every once in a while it gave one the feeling that one had extra time.

Kevin put it simply: “[going to college early was] 100% an advantage.” The rest of the participants expressed some positive, neutral, and negative aspects. Riley explained why they felt acceleration had little to no impact on their career:

I feel like I benefit from it only in the sense that I have settled down and found my path sooner rather than later.... Nobody saw my resume and saw that I had gone to college early and thought, "Look at this more employable person."

Chandler told a story of meeting two job recruiters in his field and asking them what they would do if his resume landed on their desk.

They both immediately answered, without consulting each other, that they would give me an offer but lowball me [on salary by] 30%. I found that pretty fascinating.... You get low offers because the attitude is that you're just coming from a job paying babysitting money. But I had worked on my negotiating skills, so I didn't exactly have that problem.

He went on to explain how stereotypes about accelerated students (and his awareness of these stereotypes) gave him some advantages and setbacks in applying for jobs.

You're competing with a perception of somebody who makes perfect grades. I didn't, so I feel like I was kind of a disappointment on that aspect. But I feel like they mediocre—or worse—expectations from me socially, and I'm pretty socially well-rounded, so I was able to kind of surprise them with that. So basically, if you know how to leverage it, it's great; and that applies to most things.

The impact of radically early college on one's career seems to involve a balance of both academic and social impacts. While each participant was at a different place in their career path, and most had entirely different career goals, there were patterns in the ways that the perception of early college entrants impacts job opportunities, as well as the balance between gaining a time advantage in one's career and possibly being at a disadvantage due to one's young age (especially if one is still below legal age-based work limits).

Impact on Romantic Relationships

Eight participants weighed in on how early college impacted their romantic experiences, especially during college. Nobody described especially negative experiences, but as is to be expected, there is an inability to fraternize with college students when one is under a certain age, even if you are their classmate. None of the participants seemed to have been really frustrated by this, with a few pointing out that it is a slightly obvious side effect of early college entrance, so they were prepared for it in advanced. Will explained that it was never an important issue for him personally:

I was not actively motivated by dating through college, my thought was that it would distract me from doing well academically, and then having that age gap there of, like, three years, it just didn't seem worth it at all for me to pursue. I wanted to focus on doing well in school, and I didn't start dating until I was 18, and I did not date within college.

Samantha was one of the few who dated in college despite being radically accelerated.

She explained why it was not an issue for her:

I dated pretty typically, in college. It definitely came up with the people I dated before I was 18, obviously, that's something you want to disclose to people, but I mostly dated people who were only a couple of years older than me; I think two, maybe three years older than me, and that's not that big of a deal by the time you're in your late teens, early 20s.... I am not critical of [my decision to date] at all. [Due to accelerating early in education, I had] been with that age group for seven years. At that point, I very much thought of myself as that age, and I don't think I was inaccurate in that thinking.

Riley, however, expressed concern that dating with an age gap would be potentially dangerous:

I had a boyfriend from high school through the early years of college. That ended up being helpful, since I was so much younger than my peers. Luckily that relationship ended at an age appropriate time for me to begin dating other college students. I would be nervous for someone else age going to college single at that age, especially if they were as flirty and romantically-inclined as I was, because 20-year-old boys are awful.

The general conclusion seems to be that each person is going to have a different perspective on what is best for them in terms of dating during early college entrance, just as every person of any educational path will have different circumstances surrounding their romantic life.

Frustration with Common Questions

This theme formed after many participants expressed frustration with big-picture questions about going to college early. I went into these interviews concerned that my questions would bore and confuse the participants. This was based on my experience with hearing these questions from strangers repeatedly, spending a lifetime trying to find an answer to these questions that felt accurate and appropriate, and still failing to generate a decent response. This

fear was immediately realized with one of my first interviews. When I asked Trudy what it was like to go to college early, this was her response:

You know, it's funny. That's the question that everybody asks, and it's a question I anticipated but, I never knew any different. That's what I usually tell people, I'm like, "This is what I need. This was my educational experience." And so how can I answer "what was it like?" when... I don't know what it was like to do things like the regular way.

After Trudy was unable to answer my question, I realized my question was the problem: it was worded without acknowledgement of its uncomfortable nature. In the next interview I conducted, I prefaced it with statements such as "this might be hard to answer" or "I know this is a bit reductive." Occasionally I restructured it entirely such that I was asking about the participants about the question itself. Dexter seemed to appreciate it when I said that the question was so difficult to answer because we have not experienced anything else:

Yeah, wow, exactly, that's how I always answer it. It's always comparative analysis, but the thing is, you've never had a different experience from what you went through. So, you can't say it's different from anything, because you don't know what the Orthodox style is like.

Chandler also agreed that it is an impossible question to answer, as indicated by this exchange:

Investigator: I avoid asking "what was it like going to college early," because how can you know what it's like if you didn't do anything else?

Chandler: Exactly.

He later added that he "would rather be able to go through my daily life without having these questions thrown at me all the time."

Liz said nearly the exact same thing when asked about the impact of early college on her romantic experiences:

Investigator: Do you feel like going to college so young had an impact on your romantic prospects?

Liz: I don't know. [laughs with a tinge of confusion] I don't- Obviously, everything affects how one develops. Um- It may well be that... [trails off]

Investigator: But how could you know?

Liz: Exactly. How would one know? One wasn't in a different situation. Obviously, I didn't follow the usual path. I wasn't involved in college life and such things. So, of course it does in away. But-

Investigator: But that's hard to measure.

Liz: Yes.

Specifically, an issue the participants seemed to have with the questions I asked was that they required an answer that could tease apart what aspects of an early college experience were truly related to the fact that this experience was taking place at a radically young age.

Issues with Attending College Radically Early

Each participant was asked what they felt the greatest flaws were in radically early college, and, if applicable, what possible solutions may exist. There were no exceptionally common responses from participants when asked about the worst aspects of early college. For example, Dexter was the only person to say that high school nostalgia was the greatest issue with radically accelerating into college.

I feel like the real trade-off with going to Early College is the loss of those final years of high school. There's a lot of sentimentality for the senior year of high school, and the final events and all that stuff. Those were the cost of going to college early. As for how to fix that, I don't think you really can.

The only theme in the responses to this prompt was participants referencing the social experience of early college. However, each participant who mentioned this described it slightly differently. For example, Kevin expressed concern that early college prevented him from relating to people his own age.

You get used to hanging out with people who are five years older than you—and it's fine, most of them are super chill, to this day most of my friends end up being three to five years older than me. I guess on occasion I find it hard to relate to people my age.... I don't want to sound like this grumpy old guy, but sometimes my friends call me a 40-year-old trapped in a 20-year-old's body. And it's true!

Liz found it more difficult to help her children with some issues they have faced in school because she herself did not deal with them (but then again, that has more to do with homeschooling than early college itself). A few other participants pointed out that there are aspects which may be negatives for others, but that they did not mind. Will felt this way about the impact on romantic prospects: "I was not actively motivated by dating through college." Riley felt the same way about growing up quickly: "I love being a grown-up... I don't miss being a kid."

Gina described yet another experience to which no other participant referenced: "You just start to build your identity around academic success, or at least I did to some extent. But there are things I did to counter that. Some of [my solution] was taking some [extracurricular] classes... involving some physical activity." This transitions us into possible ways in which the process of early college could be improved upon, and/or practices potential radically early entrants could utilize to make sure they are getting the best out of their academic path.

Advice, Recommendations, and Final Thoughts

This theme formed after a few participants contributed advice for those considering early college, and others gave concluding thoughts they wished the audience of this paper to hear.

Jordan took a strong stance that more people could and should enter college radically early.

Jordan: I think a lot more people could do it. I really don't think you need to be some kind of exceptional genius to benefit from it.... It seems like there's a lot of artificially generated stress [in high school], especially concerning admission into college. The academic challenges of college aren't

necessarily any more challenging than high school, they're just less artificially generated and more authentic. Granted, I'm not actually sure how many people could do it, I just have a strong sense that many more people could do it if they considered it.... I really mean it when I say I find it easier than high school. I think my friends who went to academically challenging high schools would have done just as well in early college.

Investigator: So, are you recommending that more people consider going to college early?

Jordan: Yeah, definitely.

Samantha almost expressed the opposite idea, concerned that potential early college entrants might be focusing too hard on their academic readiness, and overlooking the ways in which college requires social and psychological readiness.

I feel like I wish people who were thinking of accelerating their kids were sort of more attentive and are able to see the nuances of my situation.... Especially given the fact that many have brought up my success as an example of why kids should be accelerated, and while I do believe that kids should have the option of acceleration, I think there are a lot of kids for whom that is not the right choice, and that I am particularly unique in that my asynchronous development was asynchronous for my age, not for itself. I was sort of synchronously developing at an advanced path. My mom goes around telling stories on how successful I was after my acceleration and that's not all there was to it, it wasn't just "acceleration works," it's finding the right path for the kid. I think the other thing is, I wish people were more aware of and more open to earlier acceleration, 'cause I think that was something I definitely see as a key to my success is that I did all of my acceleration when I was young.

Will had a bit of advice for any gifted person, accelerated or not:

Don't be arrogant. I think that causes a lot of problems for people. No, I'm not one of the people that says we shouldn't tell kids their IQ, but something, just from what I've seen, with some gifted people I've met is that they start to think, "Oh, I'm better than other people." They don't go out of their way to interact with people their own age, and they tend to choose interests that might give them a sense of intellectual superiority.

Riley kept it simple and broad with their advice: "My general word of advice for anybody is just 'you do you'."

A common sentiment across all backgrounds and expressed in many different forms through multiple parts of the interviews was the idea that everyone is different, everyone has

their own path, and everyone has their own talents and weaknesses. Will very explicitly stated this idea when asked what he would want the world to know about early college and acceleration:

Try not to be intimidated. Be inclusive. Remember that each person has their own talents and gifts. For some that might be IQ, for others it might be athletics, might be social skills, charisma, each person has their own talents, don't get intimidated by someone else's talents.

Chandler had a similar idea, though he applied it specifically to the issue of being younger than his classmates and colleagues:

The way I look at it at this point is age is just another demographic. Some people are older, some people are from a different ethnic background, I'm just usually younger than everyone else.... As long as you're not weird about it, then it's fine.

Similarly, a few participants mentioned feeling like they were more similar to others than different, partially intertwined with the ideas presented about the word “genius” and how it may otherize people. Trudy put it quite bluntly: “As an adult, I don't feel that having been profoundly gifted/highly accelerated necessarily impacts my life on a daily basis. I'm like, ‘I'm just a person trying to make my way in the world, not drink too much [alcohol], and wear clean underwear.’” Liz said nearly the exact same thing, in a quote previously cited in the section on the term “genius,” TV characters, and stereotypes.

Every so often, people in the press suddenly come to me, like, "Ooh, this is some genius," and that's really not true. I broke a record at a certain time, the record still holds, and I can't deny that fact. Apart from that, I'm just trying my best to do all the things that I do. There are a lot of smart people around, and a lot of them are smarter than I am.

This supported the finding that perhaps common stereotypes and awkward comments make some early entrants feel needlessly ostracized, when in reality, everyone must find the path in life (educational or otherwise) that is best for themselves.

Discussion

The purpose of this study was to explore the lived experiences of those who entered college radically early without using a specialized program for early college entrance. This topic has not been researched previously, and the field of gifted education needs to address this underserved population if we ever want to understand and possibly improve the experiences of radically early college entrants. With the goal of understanding lived experiences, heuristic inquiry, responsive interviewing, and thematic analysis were utilized.

The greatest pattern of the data was that each person was different. The path to acceleration, the method of acceleration, the experience during acceleration, and the impacts and perspectives after acceleration were all different. It seems ideal that a study rooted in lived experiences of participants would support the idea that participants are unique individuals. There were some patterns and some readily-apparent themes, however, which will be expanded upon in this section. Though one participant had a negative experience with college, there was no anti-acceleration sentiment in her interview, nor any others. Trudy's negative experience contributes to the idea that everyone has their own unique educational needs, and for some this includes acceleration, and for others it does not: for Trudy, it seemed like college itself was not necessary (but she had no choice due to regulations in her state). Homeschooling was relatively common in the sample, and community college was less common than expected: only three participants were involved in community college courses at any point. Chandler actually recommended community college as a resource to those considering early college and credited it for some of his success in full-time university. Though every experience during college was different, many described a neutral to positive social experience, even if it was notably different from the

“typical” college social experience, and most importantly, everyone seemed content with their social experience in college.

Academically, no one considered college all too challenging, though many were thankful to have been challenged at all, sometimes for the first time in their academic career. Though each participant was able to mention some negative reaction or awkward stereotype associated with early college entrance, some found this more offensive and detrimental than others, and a few seemed entirely unfazed. Similarly, some found it to be a career advantage, and others did not see it as having a significant impact. In the end, all the participants reflected on issues with acceleration (such as some negative impacts on social development and romantic relationships, and the loss of certain experiences most people go through) as worthy sacrifices. Even further, participants struggled to identify which aspects of their college experience were actually impacted by radical acceleration, and many felt it was impossible to measure as they had no other experience to reference for comparison. As a general rule, many factors are going to have an impact on one’s social life, job prospects, and romantic relationships.

The findings from this study do seem to overlap with previous literature, even though the subject of the current study was radically early college without an early college program, and all previous literature pertained to those who used early college programs. However, because this is a qualitative study, and the majority of the body of research being referenced here is quantitative, there is an issue of apples versus oranges. Therefore, it is best to consider the similarities and differences on a thematic level between this research and other qualitative research on early college entrance, even if that work is exclusively pertaining to early college programs. Quantitative findings of previous research will be compared to this study’s more general findings. None of the results here conflicted with previous findings per se, but they were clearly

different in a holistic way, as the early college entrance program experience and the individual early college experience are different. See an exploration of these differences, grouped within the original research questions, as follows.

Research Question 1: How do people who radically accelerated into college describe their experiences in college?

The first research question of this paper was quite broad, and encompassed both more traditional aspects of early college research (such as academic achievement) and the affective and qualitative aspects that have been largely overlooked in previous research (such as the actual description of the experience by early college entrants). Aligning with previous positive findings about academic success among early college students (Haxton et al., 2016; Locke & McKenzie, 2016; Locke et al., 2014; McDonald & Farrell, 2012; Ongaga, 2010; Saenz & Combs, 2015; Schumacker et al., 1995), our participants reported positive academic experiences and strong academic performance. Dai et al.'s (2015) participants seemed to find early college entrance academically challenging with a somewhat difficult transition into a new culture and harder material. The participants in this study did not describe the transition to college or college-level material as particularly difficult.

Previous literature reported that early college programs were socially enjoyable or satisfying (Heilbrunner et al., 2010; Hertzog & Chung, 2015; Janos et al., 1989; McDonald & Farrell, 2012; Noble et al., 1999; Noble & Smyth, 1995; Ongaga, 2010; Saenz & Combs, 2015; Saylor, 2015; Woodcock & Olson, 2013). Our sample seemed to see it slightly differently, in the sense that participants were more likely to describe it as socially uneventful or average with statements like “It wasn’t a disadvantage” or “There’s obviously pluses and minuses to it.” Others, especially those who were older when they entered college, did describe it as socially

enjoyable, and even less (in fact, only one) described it as a social advantage. However, no one described it as a social disadvantage either: the impression seemed to be that it was not a meaningfully different social experience from whatever it was participants were doing before early college. This makes even more sense in the context that a majority were homeschooling up until this point, which is not known to be an incredibly socially fulfilling educational practice, especially in the case of a gifted child who may already be a bit of an outcast or oddball with other children. Even those who really enjoyed their early college experience socially were getting along with older classmates before entering college, so in the end, it seems as if someone's previous social experiences will predict their social experiences in early college quite well. Regardless of where participants fell on the scale of social advantage to social disadvantage, they thought it was worth any potential social sacrifice to go to college early. Though these findings are not the same as those in previous research, it seems less like a conflicting finding and more like one that illustrates the differences between individual and program-based early college. In a similar fashion, participants in Noble et al.'s (1999) study said that their early college entrance program gave them social opportunities they would not have had otherwise, while a majority of participants in the current study seemed to feel like early college was a sacrifice of certain social opportunities. However, both samples contained participants who described early college as a social advantage, but perhaps for different reasons: Noble et al.'s participants thought that a community of age and intellectual peers was an advantage because it prevented them from socializing exclusively with adults as adolescents, while the participants in this study who saw early college as a social advantage saw it that way because it taught them how to interact with older people. Participants in both this study and Noble et al.'s said that the academic challenge of early college required them to mature quickly and gain new

psychosocial skills. Noble and Drummond's (1992) sample described early college a social resource, similar to the portion of our participants that considered it a social advantage.

Pagnani's (2011) ethnography of eight early college students was unique in that it reported a frequency of students attempting to "pass" as older among traditionally-aged students. The majority of participants in this sample did *not* lie about their age actively (in fact, exactly one person discussed doing this), though many were happy to allow people to believe they were older until asked. Additionally, a portion of participants were simply too young to ever be confused with a traditionally-aged college student. One common finding of this study and Pagnani's was that some participants expressed a desire for increased awareness of acceleration and non-traditional education options.

On a broader level, the concept of "describing early college" could be interpreted as what it is like to enter college radically early. This question turned out to reveal a possible issue with early college research: how can one describe their experiences if one has nothing else to which to compare it? While radically early entrance to college may seem strange or exotic to someone else, the truth is that radically early college is just everyday life for the participants in this study (or at least it was during their time in college). While participants did explain their perspective, point out unique experiences, and give overarching thoughts on early college, they struggled with defining how their age affected their college experience in some instances. Perhaps some issues are attributed to acceleration as a side effect of skepticism about early college, when there are negative experiences that take place irrelevant to acceleration; certainly, if a traditional student suffers a calamity in college, we do not question if they were "ready" for college, or if their age or maturity somehow played a role. On the other hand, we may attribute some successes of young college students to their acceleration that would have taken place just the

same if they had waited until a later age to enroll in college. This reflects the issue with questions about early college that was previously mentioned: we cannot know what would have happened if another path were taken. This leads into the issues related to Research Question 2.

Research Question 2: How do people who radically accelerated into college reflect on their acceleration now, and its impact on their academic and affective life?

The goal of this research question was to address the ways early college may impact life after graduation. While the first research question was about describing experiences during early college and giving a narrative of that time in the participants' lives, this question was about looking back on it from the perspective of someone who was moving on to the next stage of their life and gathering takeaways on the practical benefits and downsides of radically early college. The problem here was attempting to define which aspects of one's life were impacted by early college and which were not. Not only this, but understanding specifically *how* one experience impacts another is incredibly difficult. Participants were usually able to give some sort of perspective on the impact of early college on their life: For example, a few participants very strongly felt that early college was a career advantage. When it came to affective impacts, though, there was more difficulty because it was even harder to tell if any alternative would have brought a significantly different result. Yes, it makes sense that a child is going to have less social opportunities in college than a young adult would. But would the child who is academically ready for college have an enjoyable social experience with average ability children? Would the highly able young adult who was held back more than three years get along with traditionally aged college students? A few participants alluded to the idea that maybe they would not have done that much better socially in high school had they stayed behind, because they were introverted "nerds" anyhow. Previous research has also found that highly gifted

students who could have accelerated but were held back fare worse socially than those who go through with acceleration (Gross, 1994; Neihart, Reis, Robinson, & Moon, 2002).

The idea that perhaps a highly advanced person fits in better with older people than others their own age applies to the potential impact on romantic relationships as well. Some of Noble and Smyth's (1995) all-female sample of early college entrance program graduates discussed romantic experiences, many of which involved older men, and one specifically found this experience harmful. No one in the current sample reported negative experiences of that nature, but those findings do generally align with the opinions of this study's participants: some found dating with an age gap to be perfectly acceptable in cases of intellectual precocity, and others were highly wary. Gender could play a role in these aspects due to the tendency for girls to mature, physically and psychologically, sooner than boys. It may be notable that the participant who found no issues dating those three years older than her is a lesbian, while the participant who was concerned about dating with an age gap specifically referenced the issues with dating men in an age gap. One male participant also noted that women seem less willing to date a man younger than them than a man would be in the opposite situation.

For many of our participants, it was not a matter of weighing the options and potential benefits and losses of early college. Often, it was less voluntary: when you run out of high school material, you are forced to choose between college and beginning a career. This is the choice nearly every high school graduate makes. When you are a child, especially one with a love of learning, ending your education after completing high school material and beginning life in the workforce is usually not an option.

Research Question 3: What issues with radically early college entrance do those who radically accelerated into college describe, if any, and what solutions do they propose, if applicable?

Participants seemed to struggle with this question. Very few had strong opinions on “issues with radically early college entrance” and even less described these as universal issues: most took a very personal approach, and fittingly, this resulted in each participant describing different issues. Most were more concerned with the loss of social opportunities, but some wondered if there was a negative career/academic impact (such as specializing too early). While most admitted that it had some impact on their romantic pursuits during college itself, it did not seem that there was an impact on relationships *after* early college per se, and many participants expressed that this was an expected and unimportant consequence for them. There were also limited suggestions for solutions to these issues, with a few specifically pointing out that these issues are unavoidable side effects of an overall beneficial process. Our findings align with previous research, which reported that regrets in early college entrance are rare (Boazman & Sayler, 2011; Noble et al., 1993; Olszewski-Kubilius, 2002).

Limitations and Recommendations for Future Research

There was little to work with in terms of previous research, meaning that the construction of the methods was a challenge in this study. The choice to use heuristic inquiry certainly had an impact on the nature of the findings, and possibly the content of the findings. Another methodology may have yielded different, yet equally valid, findings. For example, discourse analysis aims to understand and utilize language in a specific social context and has been applied to many fields and research questions (Given, 2008). This could have been used in this study to bring an entirely different perspective on the data collection and analysis. To illustrate, I found myself struggling at times during the transcription process to capture the personality of each

participant: many of the quotes given felt much colder without the tone of jest, or the sprinkling of laughter throughout the audio that I was able to experience. Discourse analysis would have allowed for some level of interpretation of the things unsaid. A few participants expressed that they were hesitant to speak with me but chose to anyway out of a desire to help the community and advance research on this topic. I found them to be shockingly honest as well: not only was I expecting more people to refuse to answer more personal questions, but a large portion brought up some of these deeply intimate topics without being prompted.

As such, though, it cannot be extrapolated that the current sample is a representative sample of radically early college entrants. With such a small and unknown community, we cannot know how many people who qualify for this study are out there. Self-selection bias and sampling bias will probably favor introspective, outgoing, and open people.

The current sample was primarily White. Future research should invest in greater diversity within the participant group, as there may be differing experiences concerning the topics addressed. Even further, research should aim to investigate the ways in which the intersection of age, race, gender, and other demographic factors impact early college experiences.

Because I chose to focus on only those individuals who had completed their undergraduate degrees, this would exclude those who dropped out of radically early college. This could have created a bias towards positive responses related to the participants' experiences with radically early entrance. Perhaps future research should seek out those who were less successful with radically early college in order to better understand issues with this practice. However, the most vital need for future research is simply that it exist: there is so little available

on radically early college that any research on the topic would be a viable addition to the literature.

Conclusion

This study sought to investigate the unique lives of those who entered college radically early. In doing so, a greater understanding of the perspectives and experiences of radical accelerants has been reached. The findings of this study align with previous, quantitative findings on early college: that it is academically fulfilling and produces psychosocially well-rounded individuals. However, we have now brought depth and nuance to this understanding of early college. As such, negative aspects of this educational path have been brought to light: some early college entrants feel that they have been mistreated by peers, the press, or the educational system. Thankfully, each participant had a positive outlook on their lives, even if they ended up not taking the path they had thought they would when they entered college radically early. No one fully regretted the choice to go to college radically early, though one did seem to wish that she had not been in a situation where she had no choice but to go to college radically early. Most participants had something to say about issues with radically early college, but a few did not. Even those that did see issues were more likely to say that these were somewhat unfortunate and unavoidable but worthy sacrifices. Most had some form of advice and recommendations for accelerants and their educators, but each piece of advice was different aside from the general anthem of “be yourself, and let others be themselves”. The participants tended to describe a bit of discomfort with terms like “genius” and “prodigy,” not necessarily because they disagreed with the idea that they were a genius or prodigy, but more so that it can feel alienating or pressure one into denying the claim to appear humble and appease the

insecurities of others. Some participants indicated that they felt different from other people, others seemed to think of themselves as just like anyone else, but most fell somewhere in the middle: that they are different from others, but not so much that they deserve to be alienated or treated like some sort of superhuman because of their radical acceleration. Although participants presented differing opinions on how many people are built for early college, it is clear that, for some people, it is an excellent opportunity.

Appendix 1: Full List of Quotes in Original, Showing Page/Line Numbers from Original Document

Table A.1

Early Educational Experiences' Node

"Name"	Page No., Line No.	Date	Quote
Chandler	P. 11, L. 16-18	8251 8	After the end of first grade, my parents were thinking about skipping me a few grades ahead, but the school wasn't very supportive. They weren't willing to work with us. So, my parents pulled me out and homeschooled me for a year, which was a great decision.
Dexter	P. 11, L. 19	8151 8	Primary school was my first skip, I entered a year early.
Gina	P. 23, L. 6-7	8231 8	I had a really good primary education, but when I got to middle school I was just very bored. I felt like everything was something I had heard before.
Kevin	P. 12, L. 3- 7	8211 8	I got to kindergarten and I had already been reading when kids were still working on their letters, but the school didn't want to let me skip quite yet, so I did kindergarten and first grade, and they finally let me skip straight to 4th grade, but that still wasn't enough. I was acting up in school, I was bored out of my mind, and so my mom had been wanting to quit her job anyways, and so she decided to homeschool me and my little sister.
Kevin	P. 12, L. 8	8211 8	My elementary school definitely tried to stick me in the corner with a book and ignore me.
Riley	P. 12, L. 9-10	8201 8	I was a very obnoxious child. Really terrible in classes, because I would get all my work done really quickly and drove all of my teachers up the wall.
Samantha	P. 12, L. 13-14	8101 8	My parents always tell the story of when I was done tracing the letters on the giant preschool triple-lined paper, I'd ask for regular lined paper so I could write.
Trudy	P. 26-27, L. 34-37, 4-5	8031 8	My troubles with school started as soon as I entered public school. I got moved from kindergarten to the first grade, and then in the first grade, I just stopped doing my work. So, they apparently called my parents and they were like, "We're concerned your kid has a learning disability, 'cause she just sits there not doing anything" 'cause I was a really stubborn child.... And then I took these tests and they said... "Basically, we don't want her, and we won't teach her."
Will	P. 13, L. 7-9	8021 8	I basically just blasted through what we were doing in first grade. I was doing all of the work way far in advance. They basically told me I had to stop and just not do anything and wait for all of the kids to catch up.

Table A.2

Social Experiences' Node

"Name"	Page No., Line No.	Date	Quote
Chandler	P. 35, L. 2-4	82518	I audited my first college class at 10, and obviously people noticed, I didn't blend in, at all. But nobody seemed to care too much, people thought it was interesting. People took pictures of me and put it on Facebook, I didn't really care.
Chandler	P. 35, L. 5-8	82518	The way I look at it at this point is age is just another demographic. Some people are older, some people are from a different ethnic background, I'm just younger than everyone else... As long as you're not weird about it, then it's fine.
Chandler	P. 35, L. 9-15	82518	In general, I've never been the person who has a billion friends. I have a few great friends from [undergrad], but [when taking community college and audited courses] I didn't really make any friends... So I had a few good friends, a dozen or so people that I knew well, but that's what I would expect from me in that situation.
Chandler	P. 35, L. 16-17	82518	Once somebody gets to know "one of you," and they get how we operate, they're more willing to understand.
Chandler	P. 36, L. 1-3	82518	My advisor told me once "If I saw your application [and your age], I'd be concerned you wouldn't be taking part in the community." Which is a reasonable expectation, like I said, I'm not going to go out to the bar with you.
Chandler	P. 36, L. 4-9	82518	I graduated with a decent GPA, but it wasn't amazing.... I never really got why people were fawning over me. I get B's in my classes just like everyone else. And then I met this girl [who had also entered college early], and I found out that she was the only person in the entire College of Engineering that year to graduate with a 4.0. That's what I'm [gestures air quotes] "competing" against. That's what people think I am. I realized that. And it messes with me, 'cause I'm not that. I'm definitely not that.
Chandler	P. 36, L. 10-11	82518	I found that I got along better people who did something non-traditional, even if they weren't radically accelerated.
Chandler	P. 36, L. 12-16	82518	I get associated with anyone else in this group, even if it's not a fair comparison. I guess that happens to a lot of minorities.... But I can't go to the oppressed minorities club and say "Oh, I face all these microaggressions because I'm smart." ...And the only reason I bring this up is I'm just trying to understand.... Who am I?
Chandler	P. 36, 17- 18	82518	I would rather be able to go through my daily life without having these questions thrown at me all the time.
Dexter	P. 37, L. 1-8	81518	Age 15 and stuff, I guess maybe the levels of social engagement- there's a greater divide due to social maturity levels and stuff in terms of age and stuff like that. It's a matter of life experience... However, I find that because of the academic structure. At least in my experience, you're able sort of to connect with people just based on the fact that you guys are taking the same courses and stuff, you're engaging in the same

“Name”	Page No., Line No.	Date	Quote
			content, you're learning the same things. So I never really had to extend myself, I didn't ask people to be friendly with me or tell them I was younger, it was pretty organic. We're just classmates.
Dexter	P. 37, L. 24-28	81518	Investigator: What was the public or personal response when people discovered your age or intelligence or acceleration? Dexter: My family, friends, and community were all hyping the stuff, their response was very positive and supportive. I never actually read my press, so I'm not sure about the public response. But the response I saw was very positive, everyone seemed very proud of me.
Dexter	P. 38, L. 1-5	81518	Investigator: So, you were honest about your age? Did you ever lie, or just avoid questions? I never mentioned it until people asked. It wasn't until about halfway through [my post-graduate law program] that the other students found the article about my graduation and were like, "You're eighteen." and I was like, "yeah." And then it became the office topic for the day, but after that we were all chill, business as usual.
Gina	P. 38, L. 6	82318	[The social aspect of early college] ended up working out. I developed some pretty good friends from it.
Gina	P. 38, L. 7-9	82318	[The social gap in] community college prepared me for [social gaps in university]. When I was in community college, I really didn't have friends.... I'd say the average age of people in my classes was 25. And I was 14.
Gina	P. 38, L. 10-12	82318	Investigator: Did you ever wish you could go back to high school in order to get a better social experience than community college? Gina: I'm sure it was a passing thought at some point, but it really was difficult to feel like that.
Gina	P. 38, L. 13-14	82318	I certainly would say [my age] if I were asked. I wouldn't lie. But I'm sure that there were times when people thought that I was older than I was.
Gina	P. 38, L. 16-20	82318	Gina: I'd say [the reaction to my acceleration] was generally positive, there were certainly a few skeptics. The most common reaction was probably just shock. And also, "I didn't know you could do that." Investigator: As in, "how is this mathematically possible?" Gina: Yeah.
Gina	P. 39, L. 1-2	82318	Investigator: So do you see early college as a social advantage or disadvantage? Or was there no impact? Gina: I think it was an advantage.
Jordan	P. 39, L. 5-11	81719	Investigator: Did you have any institutional backlash? Jordan: No, everyone was very friendly... I guess I was kind of mature looking, for 13 or 14 years old. People were typically very surprised when they learned my age.
Jordan	P. 39, L. 16-20	81719	Investigator: That surprised reaction of people finding out your age or that you were in college, was it usually positive? Or was it sometimes negative?

“Name”	Page No., Line No.	Date	Quote
			Jordan: It was always positive; I never had negative reactions. My sister was kind of worried about it, honestly, she was concerned that my parents were making me do it or that they were pressuring me. But she came around to it when she saw that I was happy [in college]. So, really, I didn't see any negative reactions.
Jordan	P. 39, L. 21-24	81719	I never had a problem being around older people, or making friends with people in college—not like close friends of course, I have a hard time making close friends with people my own age! I just didn't find it any harder. Being mature enough to live away from home though, is a completely different issue from being intellectually and psychologically mature enough to attend college. I wasn't ready to live away from home at 18 myself, being 18 doesn't make you automatically ready.
Kevin	P. 39-40, L. 25-26, 1-4	82118	Yeah, there's obviously pluses and minuses to it, having not been with your age group socially, there's some things that I think I'm still trying to figure out... I ended up in a fraternity in my junior and senior year so the social part worked itself out. 'Cause the first few years I was coming from homeschooling, so I didn't really know what I was missing. So, by the time I figured it out I was like “wow, this is cool,” and then it worked out.
Kevin	P. 40, L. 5-14	82118	Investigator: What was the reaction of people around you concerning your decision to go to college so early? Kevin: The professors were great.... The first couple of years, when I was really obviously a kid, there were some other students that would give me flak, maybe tease me out of a little bit of insecurity, but it wasn't that bad.
Liz	P. 40, L. 21-25	90418	I wasn't expecting [to have much of a social life in college]. We did have a few other students visiting [our house] from time to time, but... I was there to work, I knew I was there to learn and that's what I did.
Liz	P. 40-41, L. 16-18, 1-2	90418	There was an interesting point, after I'd finished my first degree... I became a tutor, but I was actually several years younger than the students I was teaching.... And I don't think the students I was tutoring, apart from the first five minutes, really noticed that. They just took it as it was; I was qualified.
Riley	P. 41, L. 3-8	82018	College was significantly tougher [socially]. Thinking back on 15- or 16-year-old me is kind of excruciating. I talked nonstop, I was very naive... and the general consensus among most of my peers was "Oh my God, this one's annoying."
Riley	P. 41, L. 13-16	82018	I did eventually make friends. They sort of had the "this is my kid sister" vibe. They kind of drew me under their wing rather than seeing me as an equal peer. I'm having a hard time distinguishing how much if this is me and how much is based on my age.
Riley	P. 41, L. 18-23	82018	Riley: I think I went through a more challenging period of growth than most normal college students, because of my age. Investigator: I think a lot of the complex issues as a young adult involve who you are around. So, being around people who are going through a different stage of life, even if it's not that different, is more challenging than what most high schoolers go through.

“Name”	Page No., Line No.	Date	Quote
			Riley: You said that significantly more succinctly than I did.
Riley	P. 41, L., 24-28	82018	Investigator: What was the reaction of people around you to your acceleration? I had a very flattering opinion of myself at 15 [years old], and it was definitely being confirmed by most of the adults around me. “Oh, you must be so smart, blah blah blah.” ...There were people who were concerned. When it came to the people who mattered, their worry was tempered with so much pride and lots of excitement and love and happiness for me.
Riley	P. 41, L. 29-30	82018	Investigator: Did you ever lie about your age? Riley: Nope, I was pretty proud of the fact that I went to college young.
Samantha	P. 42, L. 15-17	81018	Kids did know my age [in school], and some of them gave me a hard time about it, but mostly it was fine. I fit in really well socially and academically, so it worked for me.
Samantha	P. 42, 20- 24	81018	Looking back, I feel like there were a couple of things where maybe it wasn't great that I was doing very typical college lifestyle things at 15 and 16, but then again, most kids do those sort of things in high school: drinking and staying up all night and ruining your sleep cycle... Yeah, I do sort of wish I could have had the college experience a little more typically as well, but I wouldn't want to have not had it when I did.
Samantha	P. 42, L. 23-33	81018	Most people didn't know my age in college.... My friends knew, but it wasn't one of those things where it was super obvious... 15 and 18 aren't really all that different... And it was a women's college, so, I don't know, slightly different atmosphere.
Samantha	P. 42-43, L. 34-35, 1	81018	I never really lied about [my age], even if it came up, I would tell people, but you don't really talk about your age that much once you're in college, except “can you drink or not.” Or more specifically, “can you buy me booze or not.”
Samantha	P. 43, L. 6-17	81018	I feel like where age really did come up as far as that sort of social thing you're talking about was... [in] grad school.... There were [department events] at the local... I literally could never go... It wasn't like I didn't drink, I just couldn't do it in public.
Samantha	P. 43, L. 18-19	81018	Investigator: So, you didn't feel too excluded because of that aspect? Samantha: No.
Samantha	P. 43, L. 26	81018	I think I definitely had a very typical college experience.
Trudy	P. 43, L. 27-29	80318	I knew I was out of place, but I'd always been out of place at that point. I'd had 11 years under my belt of being out of place, everywhere I went.
Trudy	P. 44, L. 1-3	80318	It's all the kind of usual crap: you'd be in class, and people would be talking about their date last night or they'd be cursing or whatever it would be, and everyone just swivels and looks at you and are like, "Have you heard these words before?" It's like, stop.

“Name”	Page No., Line No.	Date	Quote
Trudy	P. 44, L. 9-11	80318	I wasn't allowed to go [to campus] by myself until I think maybe my last year, the year I was 14 [years old], and that was weird for me. I did not like that. But I'm pretty sure that was the school's rule, not just my parents' rule.
Trudy	P. 44, L. 14-18	80318	For the most part the other students were actually pretty good about it. They weren't super weird to my face, they would be weird sort of off to the side like “Oh no, Trudy's here!” But when they were actually, like, talking to me, they were pretty understanding. But for the most part they didn't really interact with me. I certainly did not have friends at school until my senior year.
Trudy	P. 44, L. 22-26	80318	It was probably... an even one-third split between [professors] who were like, “this isn't my problem, I have a plan and 100 people in my class and I don't really give a crap whether there's some pipsqueak here, and so I'm just gonna ignore it”, people who were actively like, “we do not want you here”, and then people who were like, “this is so fascinating, like, I want to adopt it, and take care of it, and tutor it.”
Trudy	P. 44, L. 29	80318	But as far as social experiences with the other students, there really wasn't anything meaningful.
Trudy	P. 44, L. 35-39	80318	[Other students] mostly took the same approach as like that first third of professors of being like, “Well, this is a thing, and it's happening but it's really not my problem, so I just won't talk to her” except for all the people who were like, “Oh my, you must be a genius! Can I, like, borrow your notes? Can we study together?” Yeah, there actually was a lot of that.
Trudy	P. 45, L. 8-11	80318	I ended up feeling kind of validated by [press about being in college radically early]. Not like, “Oh, look at me,” but this feeling that I had had my whole life, that there was something really unusual and off and strange about my situation in my life, and me, was being validated.
Trudy	P. 45, L. 11-14	80318	Everybody else was just kind of evaluating me on the scale of like “Well, over here is normal and average, and you're better than normal or average, so therefore, your life just must be better and easy” and... that was never how I felt and still not how I feel.
Trudy	P. 45, L. 19-21	80318	The crossing guard [by the nearby school] in the morning would be like, “Oh man, that's Trudy, she is so crazy, she's like a genius or something. Can you multiply this four-digit number that I just made up by this other four-digit number?” And I'm like, “No, I'm just playing soccer, please go away.”
Trudy	P. 45, L. 26-27	80318	Every time we got a test back [in college], it was all, “So Trudy, what did you get?” and I was like “Probably the same thing as you, because I'm lazy.”
Trudy	P. 46, L. 22-30	80318	I... got singled out for a lot of stuff when I took theater classes. One of the scenes [in an acting exercise... was about a gay couple. And everyone was like, “Do you know about the gays?” And I was like, “Yeah, I do” and then everybody was kind of like “Well, but you're thirteen, when did you find out that gay people were a thing?” ...just like the kind of things that it kind of makes sense to ask a kid, but also they're kind of really rude to ask anybody.

“Name”	Page No., Line No.	Date	Quote
Trudy	P. 46, L. 33-37	80318	I feel really isolated from other people. And the funny thing is when I was I little and I was in school and everybody was like, "Oh there's this little person who's in college, obviously something's really different about her." There was an easy explanation. People could be like "I'm uncomfortable with this person 'cause she is almost half my age" but now I'm 26 and... I still feel that distance from people, and now they don't know how to explain it to themselves.
Trudy	P. 47, L. 4	80318	Everybody wants you to prove how smart you are if you tell them your IQ.
Trudy	P. 47, L. 5-7	80318	I did not have a ton of friends in the gifted community, I actually felt really actively ostracized going to gatherings of gifted kids 'cause they were all sitting around being like Mathy McMath Math Math and I was like "Bodies are cool. I like biology and also reading. Do you read things?"
Trudy	P. 47, L. 8-13	80318	When everybody is like, "Man they must push you so hard, you must be like at home getting whipped," it kind of devalues what you actually do because... you're like "No, I just do this because this is what I can do, and this is what I want to do." Like...if you're assuming that somebody would have to make me do this, does that mean there's something wrong with it?
Trudy	P. 47, L. 17-18	80318	The assumption that you just doing your thing is something that cannot possibly exist in the world is really harmful.
Trudy	P. 47, 19- 21	80318	Oh, and the people who are like "You were homeschooled? Are you- are you socialized?" I'm like "We're having a conversation right now, so how about you judge for yourself if I'm socialized?"
Trudy	P. 47, L. 22-24	80318	As an adult, I don't feel that having been profoundly gifted/highly accelerated necessarily impacts my life on a daily basis. I'm like, "I'm just a person trying to make my way in the world, not drink too much, and wear clean underwear."
Trudy	P. 48, L. 1-3	80318	My roommate was talking recently about how apparently someone outed her [as an early college entrant] at work and now people come up to her and they're like, "Oh, you're the smart one," and she's just like "Why are we having this conversation?"
Trudy	P. 49, L. 5-8	80318	I'm very curious if this is something that comes out of this research: every time I had a circumstance change, every time I moved, I was like, "I can leave this behind. I don't have to talk about this." It's almost this coming out that has to happen over and over and over.
Will	P. 49, L. 13-17	80218	Basically, I did not tell anyone in my age at all up until my last semester of college, and I'm pretty happy with that. My experience before starting college was that, because of the whole age versus grade thing, it just created way more problems than it needed to. Kids that age don't have the maturity to handle all that. A lot of people got envious, jealous, all that stuff, all that comes along with that.
Will	P. 50, L. 1-6	80218	It was a little bit weirder [in graduate school], I was originally planning to [continue lying by omission about my age]... I went to a reception before I started the program and this international student came up to me at the reception—not "Hi," not "Hello," not "Hi my name is,"—just "Are you nineteen?" I was just caught off

"Name"	Page No., Line No.	Date	Quote
			guard. I was like "Yes I'm 19, please don't tell anyone, I'm trying to keep this quiet," and he proceeded to tell every single international student in the program.
Will	P. 50, L. 10-13	80218	The drinking thing was probably the biggest social barrier. When you're in college as an undergrad, you're around a good mix of ages, people who can drink and can't drink, so it wasn't really an issue there. When I started grad school, everyone wanted to drink. All of our social events had an open bar.
Will	P. 50, L. 16-19	80218	[One student who caused tension] was just very jealous about my age. I was in a group with her and she was just intimidated by me. People get intimidated, they don't know to handle it. [She] made a lot of negative comments about how I dress, that I dressed like a high schooler, would often shoot down my ideas, a lot of stuff like that. I eventually negotiated out something with her, and it was solved after that.
Will	P. 50, L. 21-23	80218	I would say that [early college] forced me to mature and develop social skills very quickly. Starting college put me around a lot of people who were a lot older than me, and 'cause I was lying about my age, that forced me to go up to their level, not try to have them come down to my level.
Will	P. 51, 12- 13	80218	Poor social skills, very high academic performance: that would probably be the stereotype, I would think.
Will	P. 51, L. 14-19	80218	Investigator: Do you consider early college a social advantage or disadvantage? Or neither? Will: It wasn't really a disadvantage in my undergraduate career, in graduate the drinking age affected things in my social life. It doesn't affect things in my hobbies... I meet people all across the age spectrum, way younger than me, up until like mid-50s, so it's not a factor in my social life. I have friends who are like a year younger than me, all the way to six years older than me. It's not been a factor in the slightest.

Appendix 2: Social Media Recruitment Message

Hello [name of community]! My name is Noel Jett, and I would like to contact you about an opportunity to participate in my doctoral dissertation research on radically early college entrance. See below to discover if you or someone you know is qualified to participate.

Participants must...

- a) be 18 years or older as of June 2018,
- b) have attended university or community college full-time three or more years before the traditional age (a.k.a. 15 years old or younger),
- c) have **NOT** entered college early through the use of a facilitated and/or university-sponsored early college entrance program such as TAMS, EPP, or PEG,
- d) and have since graduated from the program they entered at this radically young age.

If you qualify and would like to participate, you will be interviewed twice (each interview expected to take one hour) by me concerning your academic, social, emotional, and psychological experiences with radically early college entrance. You will also be asked for some information about your choice to go to college radically early and your life, career, and education after graduating. Your name and university will be redacted, and **your information will be anonymous.**

This is a great opportunity to support the early college and radical acceleration communities, as well as offer ideas, advice, criticism, etc. concerning radically early college.

If you would like to participate, or have any questions for me concerning the study, please contact me at [private business email]. My supervising investigator is Anne Rinn and she can be contacted at anne.rinn@unt.edu. Our IRB approval number is [XXXXXX]. Thank you for your time and consideration.

Appendix 3: Demographic Survey

Name:

Gender:

Race/Ethnicity:

Current age:

Age at time of first year of full-time college enrollment:

Age of graduation with Bachelor's degree:

Title of degree / major:

Highest degree attained:

Current occupation (including year in school if applicable):

Did you attend community college at any point?

What university did you receive your undergraduate degree from?

If applicable, what university are you studying at now?

Of the 10 possible reasons that you chose your undergraduate university, which would you say were the top 3 most important to you?

Prestigious / Cost-effective / Close to home / Nice location (if not close to home) /

Family tradition/affiliation / Liked the campus culture / Had a good program for my

major specifically / Was accepting of my age (if they were made aware) / Helpful and

friendly professors/advisors/staff / Other (please specify _____)

Appendix 4: Interview Guide

Opening Comments

My name is Noel Jett and today I am interviewing you about your experiences entering college radically early. First and foremost, you are free to stop this interview at any time, for any reason. Secondly, you are not required in any way to answer a question I ask you. Any topic you do not want to discuss will not be discussed. Similarly, if you have something you would like to address that I do not prompt you on, please bring it up. My questions are not the end-all-be-all of this interview, they are just a tool to help you tell your story however you want to. Be selective with what you tell me about, focusing on what you find important to address. Thirdly, what you say in this interview may be quoted directly in my dissertation and any publishing or presentation of my dissertation. The information you give will be de-identified, including your name and the university/ies you attend/ed. Feel free to speak openly knowing it will not be traced back to you, but be mindful that anything else will be transcribed. If you do not want something you've said to be published for any reason, let me know and I will make note of it immediately. This interview should take about one hour. Thank you again for participating and let me know when you are ready to begin.

Prompts

- Tell me the story of your experience with early college entrance.
- Did you face criticism, praise, or both for your decision to enter college early, and from whom?
- Did you attempt to “pass” as an older student, and/or lie about your age?
- Did you consider using an early college entrance program and, if so, why did you ultimately choose individual acceleration?
- What were/are the worst aspects of early college for you and what do you think would be the solution for them in the future, if applicable?

- What's something you wish people understood better about early college or acceleration in general?
- Some early entrants feel that accelerating into college had a negative impact on their romantic relationships or experiences, while others say it was helpful to them in that regard. What was your experience?
- Some early entrants have described early college as a social advantage, others have described it as a social disadvantage. How do you feel about its impact on you?
- How about your career? Do you consider it an advantage or disadvantage now?
- What advice would you give, or what would you want to say, to someone considering entering college as early as you did?

Common Follow-Up Questions

- Could you give me an example of that?
- How did that experience impact you emotionally?
- Was that an encouraging or discouraging experience academically?
- Please clarify or elaborate.

Closing Comments

This concludes our interview for this study. If you would like any changes made to the information you gave me, including adding or deleting a statement, now would be the time to let me know. If you have any further questions, comments, or concerns, you may contact me with the information I've given you. I will be reaching out to you with the quotes I have attributed to you in the first complete draft of my paper in order to gain your approval that what I collected is an accurate depiction of your beliefs and experiences. You may also request to see a copy of the paper before it is published to corroborate that it is anonymous and a fair representation of your statements.

Appendix 5: Initial NVivo Nodes and Relation to Final Themes

Node	Files	Quotes	Description	Outcome
Academic Experiences	9	21	This node contained any segment which addressed academic experiences during college.	Theme “Academic Experiences in College”
Advice for Early Entrants/Final Thoughts	4	5	This node contained all responses to my final question, which prompted participants to share any advice or final thoughts they would want the readers of the dissertation to know.	Theme “Advice, Recommendations, and Final Thoughts”
Career Experiences	8	11	This node contained any segment which addressed experiences in the workforce impacted by early college, including responses to the question “Do you feel early college was an advantage, disadvantage, or had no impact on your career?”	Theme “Career Experiences”
Community College	1	2	This node contained any segment which discussed experiences and reflections unique to community college.	Eliminated due to insufficient number of participant references
Early Education Experiences	8	9	This node contained any segment which addressed the earliest part of a participant’s educational journey, commonly one of the first statements of the interview.	Theme “Early Educational Struggles”

Node	Files	Quotes	Description	Outcome
Frustration with Questions	5	7	This node contained any segment which reflected issues a participant had with either my questions or common/invasive/uncomfortable questions from others about early college.	Theme “Frustration with Common Questions”
‘Genius’ and Other Comments	9	24	This node contained any segment which discussed stereotyping and representation of early college/gifted people in media, as well as all responses to the question “Have you ever been called a genius?”	Theme “The Term ‘Genius,’ TV Characters, and Stereotypes”
Lying About Age	2	3	This node contained all responses to the question “Did you lie about your age?” which ended up not being asked very often because it became apparent whether or not someone had lied about their age during early college when they responded to the first prompt about the path the early college, and the majority had not.	Absorbed into ‘Social Experiences’
Path to Early College	10	11	This node contained all responses to the first prompt, “Tell me the story of how and why you went to college early.”	Theme “The Path to Early College”

Node	Files	Quotes	Description	Outcome
Problems and Solutions	8	11	This node contained all responses to the question “What were/are the worst aspects of early college for you and what do you think would be the solution for them in the future, if applicable?”	Theme “Issues with Attending College Radically Early”
Romantic Experiences	8	9	This node contained all responses to the question “Some early entrants feel that accelerating into college had a negative impact on their romantic relationships or experiences, while others say it was helpful to them in that regard. What was your experience?” or any segment in which a participant addressed the topic before I asked the question.	Theme “Impact on Romantic Relationships”
Social Experiences	10	64	This node contained any segment which addressed the social aspects and impacts of radically early college, including all responses to the question “Did you face criticism, praise, or both for your decision to enter college early, and from whom?”	Theme “The Social Impact: Reactions from Others”
What Should People Understand Better?	9	9	This node contained all responses to the question “What do you wish people understood better about early college?”	Absorbed into ‘Advice and Final Thoughts’

Node	Files	Quotes	Description	Outcome
Experiences at a Women's College	2	3	This node contained segments in which two participants who had attended a women's college spoke about experiences specific to the female-only environment.	Eliminated due to a small amount of text segments which lacked depth

References

- Assouline, S. G., Colangelo, N., VanTassel-Baska, J., & Lupkowski-Shoplik, A. (Eds.). (2015). *A nation empowered: Evidence trumps the excuses holding back America's brightest students*. Cedar Rapids: University of Iowa.
- Baskin, M. (2015, May 22). 11-year-old graduates from California college with 3 degrees. *USA Today*. Retrieved from <http://college.usatoday.com/2015/05/22/11-year-old-graduates-college-with-3-degrees/>
- Berger, A., Adelman, N., & Cole, S. (2010). The Early College High School Initiative: An overview of five evaluation years. *Peabody Journal of Education*, 85(3), 333-347. doi:10.1080/0161956X.2010.491697
- Boazman, J., & Sayler, M. (2011). Personal well-being of gifted students following participation in an early college-entrance program. *Roeper Review*, 33(2), 76–85. doi:10.1080/02783193.2011.554153
- Boazman, J. K., Sayler, M. F., & Easton-Brooks, D. (2012). Mediating factors of personal wellbeing in gifted college students: Early-college entrants and honors college students. *Journal of Social Research & Policy*, 3(2), 111–131.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77-101. doi:10.1191/1478088706qp063oa
- Brody, L. E., Assouline, S. G., & Stanley, J. C. (1990). Five years of early entrants: Predicting successful achievement in college. *Gifted Child Quarterly*, 34(4), 138–142. doi:10.1177/001698629003400402
- Brody, L. E., & Muratori, M. C. (2015). Early entrance to college: Academic, social, and emotional considerations. In S. G. Assouline, N. Colangelo, J. VanTassel-Baska, & A. Lupkowski-Shoplik (Eds.), *A nation empowered: Evidence trumps the excuses holding back America's brightest students* (Vol. 2, pp. 153–167). Iowa City: University of Iowa, The Connie Belin & Jacqueline N. Blank International Center for Gifted Education and Talent Development.
- Cabrera, A. F., & La Nasa, S. M. (2002). Understanding the college-choice process. *New Directions for Institutional Research*, 107, 5-22. doi:10.1002/ir.10701
- Cachia, M., & Millward, L. (2011). The telephone medium and semi-structured interviews: A complementary fit. *Qualitative Research in Organizations and Management: An International Journal*, 6(3), 265-277. doi:10.1108/17465641111188420
- Callahan, C. M., Moon, T. R., & Oh, S. (2013). *National survey of gifted programs*. Charlottesville, VA: University of Virginia, National Research Center on the Gifted and Talented.

- Chapman, D. W. (1981). A model of student college choice. *The Journal of Higher Education*, 52(5), 490-505. doi:10.1080/00221546.1981.11778120
- Colangelo, N., Assouline, S. G., & Gross, M. U. M. (Eds.). (2004). *A nation deceived: How schools hold back America's brightest students*. Iowa City: University of Iowa.
- Cornell, D. G., Callahan, C. M., & Loyd, B. H. (1991). Personality growth of female early college entrants: A controlled, prospective study. *Gifted Child Quarterly*, 35(3), 135-143. doi:10.1177/001698629103500305
- Cross, T. L., Stewart, R. A., & Coleman, L. J. (2003). Phenomenology and its implication for gifted students research: Investigating the *lebenswelt* of academically gifted students attending an elementary magnet school. *Journal for the Education of the Gifted*, 26(3), 201-220. doi:10.1177/016235320302600304
- Dai, D. Y., Steenbergen-Hu, S., & Zhou, Y. (2015). Cope and grow: A grounded theory approach to early college entrants' lived experiences and changes in a STEM program. *Gifted Child Quarterly*, 59(2), 75-90. doi:10.1177/0016986214568719
- Dammann, R. (1991). Die dialogische praxis der feldforschung. Der ethnographische blick als paradigma der erkenntnisgewinnung. [The dialogical practice of field research: The ethnographic view as a paradigm of knowledge acquisition.] *Campus Verlag*, 671.
- DeGeneres, E., & Harvey, S. (Producers). (2015). *Little big shots* [Television series]. Hollywood, CA: National Broadcasting Company.
- Edmunds, J. A., Bernstein, L., Unlu, F., Glennie, E., Willse, J., Smith, A., & Arshavsky, N. (2012). Expanding the start of the college pipeline: Ninth-grade findings from an experimental study of the impact of the early college high school model. *Journal of Research on Educational Effectiveness*, 5(2), 136-159. doi:10.1080/19345747.2012.656182
- Edmunds, J. A., Bernstein, L., Glennie, E., Willse, J., Arshavsky, N., Unlu, F., Bartz, D., Silberman, T., Scales, W. D., & Dallas, A. (2010). Preparing students for college: The implementation and impact of the early college high school model. *Peabody Journal of Education*, 85(3), 348-364. doi:10.1080/0161956X.2010.491702
- Fischetti, J., MacKain, S., & Smith, R. (2011). Mr Watson, come here...: The performance of early college students in their first year at the university and the challenge to a P-16 education. *Improving Schools*, 14(1), 48-64. doi:10.1177/1365480211398232
- Gearing, R. E. (2004). Bracketing in research: A typology. *Qualitative Health Research*, 14(10), 1429-1452. doi:10.1177/1049732304270394
- Geertz, C. (1973). *The interpretation of cultures: Selected essays*. New York, NY: Basic Books.
- Given, L. M. (2008). *The SAGE encyclopedia of qualitative research methods*. Thousand Oaks, CA: SAGE.

- Gross, M. U. M. (1994). Radical acceleration: Responding to academic and social needs of extremely gifted adolescents. *Journal of Secondary Gifted Education*, 5(4), 27–34. Retrieved from <https://search.informit.com.au/documentSummary;dn=950807249;res=IELAPA>
- Gross, M. U. M., & van Vliet, H. E. (2005). Radical acceleration and early entry to college: A review of the research. *Gifted Child Quarterly*, 49(2), 154–171. doi:10.1177/001698620504900205
- Harris, N. P. (Producer). (2018). *Genius junior* [Television series]. Hollywood, CA: National Broadcasting Company.
- Haxton, C., Song, M., Zeiser, K., Berger, A., Turk-Bicakci, L., Garet, M. S., Knudson, J., & Hoshen, G. (2016). Longitudinal findings from the Early College High School Initiative impact study. *Educational Evaluation and Policy Analysis*, 38(2), 410-430. doi:10.3102/0162373716642861
- Heilbronner, N. N., Connell, E. E., Dobyns, S. M., & Reis, S. M. (2010). The “stepping stone phenomenon”: Exploring the role of positive attrition at an early college entrance program. *Journal of Advanced Academics*, 21(3), 392-425. doi:10.1177/1932202X1002100303
- Hertzog, N. B., & Chung, R. U. (2015). Outcomes for students on a fast track to college: Early college entrance programs at the University of Washington. *Roeper Review*, 37(1), 39–49. doi:0.1080/02783193.2014.976324
- Hesse-Biber, S. (2017). In-depth interviews. In Hesse-Biber, S. (Ed.) *The practice of qualitative research* (pp. 104-148). Thousand Oaks, CA: SAGE.
- Hudson, T. (2018, May 27). Black boy joy: 11-year-old genius accepted to Southern University Honors College. *Madame Noire*. Retrieved from <http://madamenoire.com/1027062/11-year-old-accepted-southern-university/>
- Ingersoll, K. S., & Cornell, D. G. (1995). Social adjustment of female early college entrants in a residential program. *Journal for the Education of the Gifted*, 19(1), 45–62. doi:10.1177/016235329501900104
- Janos, P. M., Robinson, N. M., & Lunneborg, C. E. (1989). Markedly early entrance to college: A multi-year comparative study of academic performance and psychological adjustment. *The Journal of Higher Education*, 60(5), 495–518. doi:10.1080/00221546.1989.11775060
- Jung, J. Y., Young, M., & Gross, M. U. M. (2015). Early college entrance in Australia. *Roeper Review*, 37(1), 19–28. doi:10.1080/02783193.2014.976323
- Kleining, G. (1995). *Lehrbuch entdeckende sozialforschung. Band I: Von der hermeneutik zur qualitativen heuristik*. [Textbook discovering social research, Volume I: From hermeneutics to qualitative heuristics.] Weinheim: Beltz Psychologie Verlags Union.

- Kleining, G., & Witt, H. (2000). The qualitative heuristic approach: A methodology for discovery in psychology and the social sciences. *Forum: Qualitative Social Research*, 1(1). Retrieved from <http://www.qualitative-research.net/index.php/fqs/article/view/1123/2495>
- Leary, D. A., Minichiello, V., & Kottler, J. A. (2009). Radical reflexivity in qualitative research. In V. Minichiello & J. A. Kottler (Eds.), *Qualitative journeys: Student and mentor experiences with research* (pp. 49-69). Thousand Oaks, CA: Sage.
- Lee, S-Y., Olszewski-Kubilius, P., & Peternel, G. (2010). The efficacy of academic acceleration for gifted minority students. *Gifted Child Quarterly*, 54(3), 189-208. doi:10.1177/0016986210369256
- Locke, L. A., & McKenzie, K. B. (2016). 'It's like giving us a car, only without the wheels': A critical policy analysis of an early college programme. *International Journal of Leadership in Education*, 19(2), 157-181. doi:10.1080/13603124.2015.1015617
- Locke, L. A., Stedrak, L. J., & Eadens, D. (2014). Latina students, an early college high school, and educational opportunity: A case study. *Journal of Cases in Educational Leadership*, 17(1), 59-71. doi:10.1177/1555458913518540
- Lupkowski, A. E., Whitmore, M., & Ramsay, A. (1992). The impact of early entrance to college on self-esteem: A preliminary study. *Gifted Child Quarterly*, 36(2), 87-90. doi:10.1177/001698629203600206
- Marton, F. (1986). Phenomenology: A research approach to investigating different understandings of reality. *Journal of Thought*, 21, 28-49.
- McClarty, K. (2015). Life in the fast lane: Effects of early grade acceleration on high school and college outcomes. *Gifted Child Quarterly*, 59(1), 3-13. doi:10.1177/0016986214559595
- McDonald, D., & Farrell, T. (2012). Out of the mouths of babes: Early college high school students' transformational learning experiences. *Journal of Advanced Academics*, 23(3), 217-248. doi:10.1177/1932202X12451440
- Mettler, K. (2017, May 12). Kid genius brothers, 11 and 14, graduate high school and college this weekend. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/news/morning-mix/wp/2017/05/12/kid-genius-brothers-11-and-14-graduate-high-school-and-college-this-weekend/>
- Mottern, R. (2013). Teacher-student relationships in court-mandated adult education: A phenomenological study. *The Qualitative Report*, 18(7), 1-40. Retrieved from <http://nsuworks.nova.edu/tqr/vol18/iss7/1/>
- Mullet, D. R., Kettler, T., & Sabatani, A. M. (2017). Gifted students' conceptions of their high school STEM experiences. *Journal for the Education of the Gifted*, 41(1), 1-33. doi:10.1177/0162353217745156

- National Association for Gifted Children. (2016). *Gifted education practices: Acceleration*. Retrieved from <https://www.nagc.org/resources-publications/gifted-education-practices/acceleration>
- Neihart, M., Reis, S. M., Robinson, N. M., Moon, S. M. (2002). *The social and emotional development of gifted children: What do we know?* Waco, TX: Prufrock Press.
- Noble, K. D., Arndt, T., Nicholson, T., Sletten, T., & Zamora, A. (1999). Different strokes: Perception of social and emotional development among early college entrants. *Journal of Advanced Academics, 10*(2), 77–88. doi:10.1177/1932202X9801000204
- Noble, K. D., & Drummond, J. E. (1992). But what about the prom? Students' perceptions of early college entrance. *Gifted Child Quarterly, 36*(2), 106–111. doi:10.1177/001698629203600209
- Noble, K. D., Robinson, N. M., & Gunderson, S. A. (1993). All rivers lead to the sea: A follow-up study of gifted young adults. *Roeper Review, 15*(3), 124-130. doi:10.1080/02783199309553485
- Noble, K. D., & Smyth, R. K. (1995). Keeping their talents alive: Young women's assessment of radical, post-secondary acceleration. *Roeper Review, 18*(1), 49-55. doi:10.1080/02783199509553697
- NVivo qualitative data analysis (Version 12) [Computer software]. Melbourne; QSR International Pty Ltd.
- Oliver, M., Ricard, R. J., Witt, K. J., Alvarado, M., & Hill, P. (2010). Creating college advising connections: Comparing motivational beliefs of early college high school students to traditional first-year university students. *NACADA Journal, 30*(1), 14-22. doi:10.12930/0271-9517-30.1.14
- Olszewski-Kubilius, P. (1995). A summary of research regarding early entrance to college. *Roeper Review, 18*(2), 121–126. doi:10.1080/02783199509553712
- Olszewski-Kubilius, P. (1998). Early entrance to college: Students' stories. *Journal of Secondary Gifted Education, 10*(1), 226-248. doi:10.1177/1932202x9801000103
- Olszewski-Kubilius, P. (2002). A summary of research regarding early entrance to college. *Roeper Review, 24*(3), 152–157. doi:10.1080/02783190209554166
- Ongaga, K. O. (2010). Students' learning experiences in an early college high school. *Peabody Journal of Education, 85*(3), 375-388. doi:10.1080/0161956X.2010.491708
- Pagnani, A. R. (2011). *Early entrance to college: Understanding students' motivations, experiences, and support* (Unpublished doctoral dissertation). University of Georgia, United States.
- Pierce, E. (Producer). (2015). *Child genius* [Television series]. Hollywood, CA: Lifetime.

- Polit, D. F., & Beck, C. T. (2006). *Essentials of nursing research: Methods, appraisal, and utilisation*. Philadelphia, PA: Lippincott Wills & Wilkins.
- Polit, D. F., & Beck, C. T. (2010). Generalization in quantitative and qualitative research: Myths and strategies. *International Journal of Nursing Studies*, 47(11), 1451-1458. doi:10.1016/j.ijnurstu.2010.06.004
- Pressey, S. L. (1949). *Educational acceleration: Appraisals and basic problems*. Columbus: Ohio State University.
- Rapley, T. J. (2001). The art(fulness) of open-ended interviewing: Some considerations on analyzing interviews. *Qualitative Research*, 1(3), 303-323. doi:10.1177/146879410100100303
- Richards, L. (2005). *Handling qualitative data: A practical guide*. London: Sage
- Rubin, H. J., & Rubin, I. S. (2012). *Qualitative interviewing: The art of hearing data*. Thousand Oaks, CA: Sage.
- Saenz, K. P., & Combs, J. P. (2015). Experiences, perceived challenges, and supports systems of early college high school students. *Administrative Issues Journal: Connection Education, Practice, and Research*, 5(1), 105-117. doi:10.5929/2015.5.1.5
- Schumacher, R. E., Sayler, M., & Bembry, K. L. (1995). Identifying at-risk gifted students in an early college entrance program. *Roeper Review*, 18(2), 126-129. doi:10.1080/02783199509553713
- Sethna, B. N., Wickstrom, C. D., Boothe, D., & Stanley, J. C. (2001). The Advanced Academy of Georgia: Four years as a residential early-college-entrance program. *Journal of Advanced Academics*, 13(1), 11-21. Retrieved from <http://journals.sagepub.com/doi/abs/10.4219/jsge-2001-360>
- Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*, 22(2), 63-75. doi:10.0167-8329/04/
- Shepard, S. J., Nicpon, M. F., & Doobay, A. F. (2009). Early entrance to college and self-concept: Comparisons across the first semester of enrollment. *Journal of Advanced Academics*, 21(1), 40-57. doi:10.1177/1932202X0902100103
- Southern, W. T., & Jones, E. D. (2015). Types of acceleration: Dimensions and issues. In S. G. Assouline, N. Colangelo, J. VanTassel-Baska, & A. Lupkowski-Shoplik (Eds.), *A nation empowered: Evidence trumps the excuses holding back America's brightest students* (Vol. 2, pp. 153-167). Iowa City, IA: University of Iowa, The Connie Belin & Jacqueline N. Blank International Center for Gifted Education and Talent Development.
- Steenbergen-Hu, S., Makel, M. C., & Olszewski-Kubilius, P. (2016). What one hundred years of research says about the effects of ability grouping and acceleration of K-12 students'

academic achievement: Findings of two second-order meta-analyses. *Review of Educational Research*, 86(4), 849–899. doi:10.3102/0034654316675417

Strauss, A. L., & Corbin, J. M. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Thousand Oaks, CA: Sage Publications.

Valle, R. S., King, M., & Halling, S. (1989). An introduction to existential-phenomenological thought in psychology. In R. S. Valle & S. Halling (Eds.) *Existential-phenomenological perspectives in psychology* (pp. 3-16). Springer: Boston, MA. doi:10.1007/978-1-4615-6989-3_1

Woodcock, J. D., & Beal, H. K. O. (2013). Voices of early college high school graduates in Texas: A narrative study. *The High School Journal*, 97(1), 56-76. doi:10.1353/hsj.2013.0021

Wells, R., Lohman, D., & Marron, M. (2009). What factors are associated with grade acceleration? An analysis and comparison of two U.S. databases. *Journal of Advanced Academics*, 20(2), 248–273. doi:10.1177/1932202X0902000203

STUDENT EXPERIENCES AND OUTCOMES OF EARLY COLLEGE:

A SYSTEMATIC REVIEW

Early access to college material is a growing form of alternative education for gifted and advanced students (Berger, Adelman, & Cole, 2010; Olszewski-Kubilius, 2002; Sayler, 2015). A subset of acceleration, there are multiple approaches to early college and diverse implications of each one. Early entrance to college is a broad idea that involves residential programs, day programs, dual-enrollment programs, and simply being accepted to a university under the age of 18 without any unique programs or systems for young enrollees. More and more infrastructure has been introduced to support early college: for example, while dual-enrollment was once more common as a minor program or rare supplementary option, early college high schools now offer dual-enrollment full-time in an environment exclusive to advanced students (Edmunds et al, 2010). Early college entrance programs, on the other hand, offer full-time college education for young students, usually 18 and below, and tend to exist as their own unique, residential programs exclusively for their population. Both of these programs provide access to college for students who demonstrate academic need or aptitude for it early, and a significant amount of research has gone into understanding its implementation and impact (Edmunds et al., 2010; Edmunds et al., 2012; Olszewski-Kubilius, 2002; Sayler, 2015).

Objectives

This systematic review will shed light on multiple aspects related to research on and educational practice of early college opportunities. The demographic information of these articles such as their methods (quantitative, qualitative, or mixed-methods), objectives and focus (academic or affective), and participant demographics (gender, race, and age) will bring insight

on what research on early college entrance usually looks like, and what biases may have occurred in the research because of this as well as topics that have not been addressed sufficiently. As for their actual findings, there are two major questions at hand. Firstly, are early college programs beneficial for their students from an academic perspective, including performance in their program, performance in higher education after graduating from the program, and career outcomes? And secondly, are early college programs beneficial for their students from an affective perspective, including social, emotional, and psychological outcomes? The goal is to extract findings that are both quantitative and qualitative on both of these aspects, and to inspect them specifically in regard to early college high schools versus early college entrance programs, in the interest of comparing and contrasting the two methods of early college instruction. With this goal in mind, each of these approaches to early college, and the definitions that will be used for article inclusion, must be clarified.

Definitions

- *Early college high school* – An An early college high school (ECHS) is a specialized high school (Grades 9 through 12) that offers part-time college enrollment or material in some form (Edmunds et al., 2010; Edmunds et al., 2012). This is a broad category that includes thousands of schools in the United States of many different sizes, locations, acceptance requirements, methods of instruction, and objectives (Berger et al., 2010; Edmunds et al., 2012). However, it can be expected that these schools tend to be small, selective with special requirements for entry, are associated with one local college or junior college, and are designed to foster college preparedness and provide unique college opportunities. These schools are sometimes aimed specifically at disadvantaged students who may not get these opportunities

elsewhere (such as the high schools in the Early College High School Initiative funded by the Bill and Melinda Gates Foundation). Graduates of these schools tend to have one to four semesters of college credits upon exiting (Edmunds et al., 2012).

- *Early college entrance program* – An early college entrance program (ECEP) is any program that enrolls students full-time in university before the age of 18 (Jung, Young, & Gross, 2015; Olzsewski-Kubilius, 2002). Again, this is a diverse group of programs: many are residential, some have age requirements and/or are for specific grade levels of students, some help their students finish high school while others have them withdraw from high school, and of course some are designed to have young students complete their Bachelor's and others are for students to complete their Associate's or less. For example, the Texas Academy of Mathematics and Science (TAMS), partnered with the University of North Texas (UNT), accepts only juniors and seniors in high school, who complete their final two years of high school and their first two years (at least) of college simultaneously, and is aimed at students focused on STEM fields (Sayler, 2015). Meanwhile, the Early Entrance Program (EEP), partnered with the University of Washington (UW), has accepted students as young as 13 years old, involves a mandatory one-year Transition School program that prepares students for college while helping them complete high school, and has a special option called the University of Washington Academy, which allows students who have completed 10th grade to drop out of high school completely and attend UW full-time (Hertzog & Chung, 2015).

Method

With each of the above definitions informing the review, the methods were created in concurrence with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses

(PRISMA) guidelines to ensure credibility and consistency with an evidence-based foundation (Moher, Liberati, Tetzlaff, & Altman, 2009), specifically the requirements addressing systematic reviews.

Eligibility Criteria

Only peer-reviewed, empirical articles were included in the review. This proved to be a vital criterion when multiple non-empirical pieces on early college appeared in the search results, such as Shy's (1996) two-page piece on a parent's perspective on early college entrance and a collection of personal essays from early college students published by Olszewski-Kubilius (1998).

Data Sources

Searches were conducted using EBSCOhost, within the databases Academic Search Complete and Education Source.

Search

Boolean searches using specific terms and the limiters included above were conducted within each database, as described in Table 6.

Each search was conducted on April 23rd, 2018.

Each set of terms was designed to seek out articles pertaining to early college entrance, with some focusing on radically early college entrance.

Table 6

Searches for Systematic Review

Terms	Total results (unique results)
“early college” AND “radical acceleration”	3
“early college” TI AND (“radical” TX OR “radically early college” TX ^b)	6 (5)
“early entrance to college” TI OR “early entrance to university” TI	12 (9)
“early college” TI ^a OR “early entrance to college” TI OR “early entrance to university” TI	52 (39)
Total articles found: 73 (56)	

^aTI indicates a search for a term that appears within the title of an article. ^bTX indicates a search for a term that appears within the text of an article.

Screening

Eliminations took place within the group of 56 articles generated from the searches, and reason for elimination as well as articles eliminated were documented at each round.

Round 1: Duplicates

In this round, any article that was a duplicate of another was removed: although EBSCOhost automatically removed exact duplicates, the same content re-published or with a slightly different title may still appear in the search. Additionally, one article was a revision of its previous version, therefore the older version was eliminated (Olszewski-Kubilius, 1995; Olszewski-Kubilius, 2002). Two articles were cut in this round.

Round 2: Basic Relevance

In this round, any article entirely unrelated to the topic at hand was eliminated. Each eliminated article pertained to the first years of college at a traditional age, rather than early

entrance to college (e.g., Lenz [2004]'s study about tobacco consumption among freshmen and sophomores), hence their mistaken appearance in the results. Five articles were cut in this round.

Round 3: Non-Scholarly

In this round, any article lacking methods and/or not published in a peer-reviewed, scholarly publication was eliminated. Although sorted as peer-reviewed by EBSCOhost, some pieces that are technically non-scholarly remained until this stage and were thus removed. They included pieces like book reviews, special issue introductions, and opinion pieces, as well as studies published in non-peer-reviewed publications. Eighteen articles were cut in this round.

Round 4: Age

One paper (Silverman & Jones, 1932) was simply too old to be relevant. Articles from the 1980s and 1990s were old enough to give perspective and history on early college, but not so old that they were from an entirely different context. College, giftedness, and acceleration meant different things in 1932 and therefore this article was eliminated.

Round 5: Enhanced Relevance

In this round, any articles that were technically pertaining to early college, but concerned aspects of early college outside of academic or affective experiences and outcomes, were eliminated. Each article removed in this round was about implementation of early college high schools (e.g., Leonard [2013]'s study examining how early college high schools are funded), rather than the current topic of the impact of early college on students. Six articles were cut in this round.

Data Collection

Retained articles were analyzed using the extraction protocol shown in Table 7. Extracted data was sorted and formed into two databases: one that contained all the summarized collected information (summary database), and another that only focused on findings and included the entire Results, Discussion, and Conclusions sections (complete findings database).

Table 7

Data Extraction Protocol

Extract	Description
Purpose	Purpose, objectives, and/or research questions addressed.
Research context	Geographic location and cultural context of research, including the specific early college program if specified.
Research design	Qualitative, quantitative, mixed-methods, systematic review, or meta-analysis.
Participants	Sample size and demographic characteristics of participants.
Key findings	Summary of main findings and conclusions.

Analysis

Summarized data from the summary database was analyzed using basic frequencies to examine patterns and trends in the included research. The complete findings database was analyzed using thematic analysis, a qualitative method of illuminating the most important aspects of large amounts of data and reducing it to smaller categories that can be used to discover themes in the data (Braun & Clarke, 2006). The first step of reducing data to examinable pieces was inductive coding, which condenses raw data into summarized formats in order to develop a model of meanings (Thomas, 2006). Code generation consisted of reading each extracted section line-by-line, marking and categorizing short, meaningful text segments. Each text segment, usually one to two sentences, was assigned a category label based on their meaning

until initial categories were formed. Note that categories were not predetermined and the data sorted into them, but the data itself was used to inform and create the categories. The conclusion of this process left us with 183 text segments sorted into 8 preliminary categories as shown in Table 8.

Table 8

Preliminary Categories in Thematic Analysis of Systematic Review Articles

Category	Description
1	Academic experiences
2	Post-completion college enrollment/success/degree attainment
3	Career choices and success
4	Emotional wellbeing as compared to traditional high schoolers or college students
5	Academic performance as compared to traditional high schoolers or college students
6	Social, emotional, and/or psychological experiences
7	Underserved populations
8	Regrets

The remaining steps of thematic analysis are a series of evaluation and reevaluation of preliminary categories, in order to develop them into themes (Braun & Clarke, 2006). When revising the preliminary categories, if two categories were similar enough and had few text segments in them (e.g. career success and post-graduate education), the two might be combined; Similarly, one category might be split into two if it proved to be more complex than originally anticipated (e.g. social, emotional, and psychology experiences and romantic relationships). These themes were revised and retained based on their relevance to the topic at hand. Each category label represented a unique preliminary theme that had been revised and clarified to ensure distinct and meaningful categories of text segments.

Results

The summary database formed from the 26 included articles is presented in Table 9. Out of 26 articles, 13 were quantitative, nine were qualitative, and four were reviews. Twelve studied early college high schools and 13 studied one or more early college entrance programs. Early college entrance programs that were studied exclusively were the Texas Academy of Math and Science at the University of North Texas (3 articles), Early Entrance Program at the University of Washington (3 articles), Advanced Academy of Georgia at the University of Georgia (1 article), Program for the Exceptionally Gifted at Mary Baldwin University (1 article), Special Class for Gifted Youth in China (2 articles), Early Admission for Exceptionally Talented Students Scheme in Australia (1 article), and the Belin-Blank Center (1 article). As these demographics show, all but three articles were based in the United States. Sample sizes ranged from three to 3500 participants. Eight concerned both academic achievement and affective outcomes, 14 investigated only academic achievement, and only the remaining three were focused on affective outcomes exclusively. The major themes that emerged from these articles through thematic analysis are discussed in depth below.

Major Themes

Early college entrance is academically challenging but rewarding, due in part to excellent student-teacher relationships.

Early entrance to college is an academic feat: across studies on early college high schools and early college entrance programs, participants reported that the curriculum was challenging (Dai, Steenbergen-Hu, & Zhou, 2015; Edmunds et al., 2012; Heilbronner, Connell, Dobyms, & Reis, 2010; Locke & McKenzie, 2016; Locke, Stedrak, & Eadens, 2014; Woodcock & Olson, 2013) and required the use of a variety of executive functioning skills such as time management,

stress/mood control, and task commitment (Locke & McKenzie, 2016; Locke et al., 2014; McDonald & Farrell, 2012; Ongaga, 2010; Saenz & Combs, 2015; Schumacker, Sayler, & Bemby, 1995). Some early college entrants described issues with transitioning from a traditional high school environment to the unique world of early college (Dai et al., 2015; McDonald & Farrell, 2012; Ongaga, 2010). However, a consistent pattern emerged among early college high school studies concerning teacher relationships, which helped to prevent academic issues. Students in early college high schools reported that their teachers were highly supportive (Edmunds et al., 2010; Haxton et al., 2016) and held them to high standards (Edmunds et al., 2012; Ongaga, 2010). One exception to this was Woodcock and Olson's 2013 study, in which three participants were asked to list what factors played a critical role in their success: not one of them cited any adult. The researchers theorized this contributed to the academic issues the participants discussed, including that all of them had received at least a C or below in a college class. The participants did cite the importance of adults such as teachers, mentors, and family members for other aspects of success.

Early college entrance provides unique social, emotional, and psychological experiences, which the students tend to reflect on positively.

The social aspect of early college is difficult to separate from the academic aspect, because the combination of these two concepts is such a major part of the early college experience. Early college students describe a unique community that values academic success, ambition, and accountability, and that prioritizes aspects of personality over superficial traits like high school and college "cliques" might (Haxton et al., 2016; McDonald & Farrell, 2012; Noble & Smyth, 1995).

Table 9

Articles Included in Systematic Review and Summary Findings

Study	Type	n	Program	Country	AA ^a / SEN ^b	Methodology	Brief summary of findings
Berger et al. (2010)	Quantitative	3,514	ECH	USA	AA	Evaluation of the implementation and success of the Early College model in 200 of the Early College Schools opened under the Bill & Melinda Gates Foundation Early College High School Initiative.	Early college high schools beat out their local public districts in both English/language arts and math. ESC students earn an average of 23 college credits by the time they graduate.
Boazman & Sayler (2011)	Quantitative	175	TAMS	USA	SEN	Means for scales on well-being, perceived self-efficacy, and dispositional traits were calculated for TAMS graduates and norm groups, and compared using <i>t</i> -tests.	TAMS graduates had above-average well-being, higher self-efficacy than comparison groups, better security in their future, and had a more serious and organized attitude, though their rates of cheerfulness were normal.
Dai & Steenbergen-Hu (2015)	Review	n/a	SCGY	China	Both	Summarization of multiple studies on the Special Class for Gifted Youth.	SCGY graduates are well-adjusted, competitive, and intellectually independent. They demonstrated the capability for self-direction at a young age and usually had acceleration experience prior to enrolling in the program.
Dai et al. (2015)	Qualitative	34	SCGY	China	Both	Interviews with graduates of an early college entrance program were conducted in order to identify themes of lived experiences.	Students had to balance academic excellence with social and emotional development, all while making mature decisions about their career and identity.
Edmunds et al. (2010)	Quantitative	285	ECH	USA	AA	Report on performance among 9 th graders at two North Carolina early college high schools.	Early college high schoolers are enrolling and progressing in college preparatory study at a higher rate than traditional high schoolers. Some schools may not be providing enough support for students in more rigorous courses, as their course passing rate is underwhelming.
Edmunds et al. (2012)	Quantitative	1,607	ECH	USA	AA	Report on performance on 9 th graders at twelve early college high schools.	Results indicate that early college high schools generate more students on-track for college than traditional high schools.

Study	Type	n	Program	Country	AA ^a / SEN ^b	Methodology	Brief summary of findings
Fischetti et al. (2011)	Quantitative	70	ECH	USA	AA	Report on academic and emotional aspects of preparation for and adjustment to college, comparing juniors and seniors at an early college high school with local freshmen.	Early college high school students' preparation for college and early adjustment to college are mostly consistent with those of typical freshmen. Early college high school students are less attached to their institution than traditional freshmen, and females in the early college high school group reported higher anxiety (consistent with national anxiety norms)
Haxton et al. (2016)	Quantitative	2,458	ECH	USA	AA	Report on college enrollment and completion among early college high school graduates.	Early college high school graduates attend and complete college more than their traditionally-schooled peers, and have more positive high school experiences.
Heilbronner et al. (2010)	Mixed-Methods	79	PEG	USA	AA	Differences between students who graduate from and drop out of the Program for the Exceptionally Gifted were examined through surveys.	Those who dropped out were not feeling challenged by PEG, and many admitted they were using PEG as a stepping stone to gain entry to prestigious colleges and intended all along to transfer out early.
Hertzog & Chung (2015)	Quantitative	119	EEP	USA	Both	Thirty-five-year follow-up with alumni concerning experiences in the program.	EEP graduates enjoyed their experience in the program and were successful after leaving in terms of employment, income, and degree attainment. They also prioritize intelligence when searching for romantic partners.
Janos et al. (1989)	Quantitative	43	EEP	USA	Both	Surveys were administered to EEP graduates, students who qualified for EEP but did not attend, traditional UW students, and National Merit Scholar UW students to compare academic success and psychological adjustment.	Academically, EEP graduates outperformed everyone but the National Merit Scholars. There was no evidence for any social, emotional, or psychological differences between the groups.
Jung, Young, & Gross (2015)	Review	n/a	EAETSS	Australia	Both	Summarization of research on the Early Admission for Exceptionally Talented Students Scheme.	Despite the infrequency of opportunities to do so, early college is successful in Australia. Students who use this program have positive, intellectually stimulating, and socially satisfying experiences at college.

Study	Type	n	Program	Country	AA ^a / SEN ^b	Methodology	Brief summary of findings
Locke et al. (2014)	Qualitative	10	ECH	USA	AA	Case study investigation of factors contributing to Latina underachievement in early college high schools.	Latina students viewed their school environment as one with many unique opportunities but felt unprepared for the academic rigor and had responsibilities outside of school that inhibited their ability to perform to their full potential academically.
Locke & McKenzie (2016)	Qualitative	8	ECH	USA	AA	Interviews and focus groups with Latina students at an early college high school concerning their achievement and experiences.	Latina students were grateful for opportunities provided by early college high school including tuition-free college credits, academic resources, and preparation for college academically and socially. However, they struggled with self-efficacy, intense homework loads and testing schedules, and felt they lacked organizational skills needed to manage college material. Additionally, they had responsibilities outside of school that conflicted with their work.
McDonald & Farrell (2012)	Qualitative	31	ECH	USA	AA	Focus groups were conducted with disadvantaged students in an early college high school concerning their perceptions of their own college readiness.	Early college high school attendance supported student's ability to comprehend and respond to college-level material and had a major impact on their identity as learners and college students.
Noble et al. (1999)	Qualitative	31	EEP	USA	SEN	Focus groups were conducted with current EEP students concerning social and emotional experiences in and resulting from the program.	Students related to adults more than their age mates before entering EEP. Most struggled socially in traditional school but fit in better and improved their social skills in EEP. They appreciated the intellectual challenge, even if it was frustrating at first.
Noble & Smyth (1995)	Quantitative	27	EEP	USA	AA	Surveys were administered to women participating in the Early Entrance Program concerning their reasoning behind early college entrance, their perception of sexism in educational environments, and if they felt early college had helped them reach their goals.	Respondents did not indicate that gender played a role in their decision to attend EEP, but they did gather unique benefits from radical acceleration as women, mainly that they were able to study in a challenging but supportive environment at

Study	Type	n	Program	Country	AA ^a / SEN ^b	Methodology	Brief summary of findings
Oliver et al. (2010)	Quantitative	111	ECH	USA	AA	Surveys were administered concerning motivations for college enrollment and factors relating to college retention and success.	an age when many young women are feeling discouraged academically. Early college high school students reported higher levels of educational stress, but also higher academic motivation as well. Early college high school students were less receptive to receiving support services.
Olszewski-Kubilius (2002)	Review	n/a	n/a	USA	Both	Literature review concerning early college entrants and early college entrance programs (not early college high school).	Early entrants have higher GPAs than traditional freshmen and are more likely to graduate, and do so on time. They tend to do well socially and report positively about their social experiences with same-age early entrant peers as well as other regular-aged college students.
Ongaga (2010)	Qualitative	21	ECH	USA	Both	Interviews and focus groups took place with students at an early college high school concerning their experiences at the school and what drew them to attend.	Students cited family influence and interest in completing high school more quickly as major factors for their choice to attend an early college high school. Many were overwhelmed by academic rigor at first, but all were successful eventually, due in part to meaningful relationships with teachers and peers.
Saenz & Combs (2015)	Qualitative	17	ECH	USA	Both	Phenomenological interviews were conducted with Hispanic 12 th graders at an early college high school concerning school environment, family support, and students' identity from the perspective of the social capital theory.	Students reported that the opportunity to complete their Associate's tuition-free is a "dream come true" for those originating from economically disadvantaged, English language learner families that were first-generation college students. Students also developed important skills for college life and adulthood such as responsibility, goal setting, and perseverance.
Sayler (2015)	Review	n/a	TAMS	USA	AA	Summarization of research on the Texas Academy of Mathematics and Science.	TAMS graduates tend to be successful in college after graduating. Students with permissive and authoritarian parents were more likely to experience a drop in grades

Study	Type	n	Program	Country	AA ^a / SEN ^b	Methodology	Brief summary of findings
							between their first and last semester at TAMS.
Schumacker et al. (1995)	Quantitative	156	TAMS	USA	AA	Survey designed to measure college students' learning styles and study strategies was administered to TAMS students at orientation and again during their first finals week.	Information processing, selecting main ideas, and support techniques improved from the pre- to the post-test. Students with low concentration and high anxiety were at highest risk of attrition.
Sethna et al. (2001)	Quantitative	100	AAG	USA	AA	Information about the GPAs, SAT and self-concept scores of Advanced Academy of Georgia graduates are presented.	Graduates move on to prestigious universities and earn high GPAs there, as well as present with normal self-concept.
Shepard et al. (2009)	Quantitative	22	BBC	USA	SEN	Students at the Belin-Blank Center early entrance program were administered surveys about self-concept before and after their first semester.	There was not a significant change in self-concept before and after the first semester of early college, but the scores were average to above-average.
Woodcock & Olson (2013)	Qualitative	3	ECH	USA	Both	Narrative inquiry was used to dissect the lived experiences of early college high school graduates.	Summarizing complex human lives is difficult, but the participants enjoyed their time at their respective early college high schools and were thankful for the opportunities they were provided through their participation.

Where applicable, the sample size in the *n* column refers only to the sample of early college students, not the entire sample including any comparison groups. The sixth column refers to the main focus or concern of the paper. ^aAA stands for “academic achievement.” ^bSEN stands for “social/emotional needs”

The small size of many early college high schools resulted in a changed social dynamic that has its drawbacks (such as increased speed of gossip travel) but resulted in a “family-like atmosphere” (Saenz & Combs, 2015, p. 109). Adjusting to a new community of driven and accomplished students is a complex psychological transition for many early college entrants, who were the top students at their previous schools (Dai et al., 2015; McDonald & Farrell, 2012; Noble et al., 1999), but they come to appreciate this change and the opportunity to make connections with other ambitious young people (Heilbronner et al., 2010; Hertzog & Chung, 2015; McDonald & Farrell, 2012; Saenz & Combs, 2015; Woodcock & Olson, 2013).

Relationships with Same-Age Peers

Early college entrance gave students a chance to interact with intellectual peers with similar interests (Heilbronner et al., 2010; Hertzog & Chung, 2015; McDonald & Farrell, 2012; Saenz & Combs, 2015; Woodcock & Olson, 2013). Many students reported that traditional school environments encourage students to suppress their intelligence in order to fit in (Noble et al., 1999; Noble & Smyth, 1995) and that they were able to break free from this pressure and embrace their intellectualism and talents in an early college environment (Hertzog & Chung, 2015; McDonald & Farrell, 2012; Noble et al., 1999; Ongaga, 2010; Sayler, 2015). However, accelerating did result in occasional tension with former peers in traditional high school. A participant in McDonald and Farrell’s (2012) focus group study with early college high school students described interactions with her friends after she enrolled in college courses and they stayed in high school: “I want my college hours and they’re like ‘Oh, so you’re going to abandon us?’ And I’m like. ‘No, just going for my college hours’” (p. 236). Students in early college high schools and early college entrance programs had to leave behind old connections to pursue

academic opportunities (Boazman & Sayler, 2011), which included the sacrifice of certain traditional social experiences such as prom and extracurricular sports (Noble & Drummond, 1992; Woodcock & Olson, 2013). Some findings indicate that students have trouble finding time for a social life with other students with their heavy workload, and that the students found this to be the worst flaw in their experience (Sayler, 2015).

Relationships with Older Students and Adults

Many early college students spent more time with adults than people their own age before entering early college programs (Noble et al., 1999). All the participants in Woodcock and Olson's study (2013) felt that early college high school gave them an advantage in later social interactions with older college students. Participants in McDonald and Farrell's (2012) study felt similarly, mentioning how early college high school assisted them in embracing diversity in the college environment. Adjusting to college life can prove challenging, especially for early college entrance program students (Dai et al., 2015; Dai & Steenbergen-Hu, 2015), but in the end students tended to find the experience socially satisfying (Dai et al., 2015; Dai & Steenbergen-Hu, 2015; Jung, Young, & Gross, 2015). Early college entrance program graduates also consider early entrance a social advantage, reporting that they became more mature through acceleration and consider themselves well-socialized with age peers and adults (Hertzog & Chung, 2015).

Family Relationships

Family relationships for early college entrants were complex. Students at early college high schools who were first generation college students had trouble talking to their parents about college in any way, though this issue is not unique to early college (Locke & McKenzie, 2016;

Locke et al., 2014). Early college entrance program students, however, were living in a residential program away from their families and sometimes very far away from home. Most early college students cite good relationships with their family (Dai et al., 2015; Hertzog & Chung, 2015; Ongaga, 2010) but sometimes they struggled living away from their family (Boazman & Sayler, 2011; Heilbronner et al., 2010), and other times students felt excessive pressure to perform academically from their parents (Dai et al., 2015; Ongaga, 2010; Saenz & Combs, 2015).

Romantic Relationships

While in early college entrance programs, many students engage in romantic relationships, usually with other early entrants and sometimes with older college students (Hertzog & Chung, 2015). The same study found that early college entrance program students value intelligence most in their romantic partners. Early college entrance program graduates go on to engage in serious relationships and marriage at mostly-traditional rates (Boazman & Sayler, 2011; Dai et al., 2015). The high rates of romantic unhappiness among the early college entrance program graduates in Hertzog and Chung's (2015) study is concerning (22.9% of respondents reported that they were somewhat or very unhappy in romantic relationships today, and 43.3% reported that early entrance had detrimental or very detrimental effects of the happiness of their romantic relationships).

Early college entrants outperform unaccelerated counterparts academically, and match or outperform them socially, emotionally, or psychologically.

Students in early college high schools consistently outperform students in their local districts on multiple measures of academic success (Berger et al., 2010; Edmunds et al., 2010;

Edmunds et al., 2012; Woodcock & Olson, 2013). Early college high school and early college entrance program students sometimes outperform college students as well (Fischetti, MacKain, & Smith, 2012; Janos, Robinson, & Lunneborg, 1989; Olszewski-Kubilius, 2002; Sethna, Wickstrom, Boothe, & Stanley, 2001). Early entrants take their education seriously and report unique academic perceptions and attitudes when compared to high schoolers and college students: Boazman and Sayler (2011) found that early entrants had a more serious and organized disposition than college students older than them; Fischetti et al.'s (2012) early college high school graduates felt the same level of academic readiness as traditional freshmen; and Oliver, Ricard, Witt, Alvarado, and Hill's (2010) sample was more confident in math and science. Sethna et al. (2011) found that early college entrance program students were sometimes reported as better students than their unaccelerated classmates by professors. Not all findings along this topic are positive, however. Oliver et al. (2010) found that early college high school students, when compared to traditional college freshmen, were more likely to have poor attitudes, more likely to be independent or arrogant, expressed less desire to finish college, and were less willing to make sacrifices to achieve.

College Enrollment and Graduation

Early college high school and early college entrance program graduates are more likely to enroll in college (Boazman & Sayler, 2011; Haxton et al., 2016; Noble & Smyth, 1995; Olszewski-Kubilius, 2002), graduate (Boazman & Sayler, 2011; Haxton et al., 2016; Hertzog & Chung, 2015; Olszewski-Kubilius, 2002), and pursue secondary education afterwards (Boazman & Sayler, 2011; Dai et al., 2015; Dai & Steenbergen-Hu, 2015; Haxton et al., 2016; Hertzog & Chung, 2015; Olszewski-Kubilius, 2002; Sethna et al., 2001). Early college entrance program

graduates are also more likely than traditional students to graduate from college on time, and while doing so earn general and departmental honors, make the Dean's list, and complete concurrent Master's degrees (Olszewski-Kubilius, 2002).

Compared Social, Emotional, and Psychological Well-Being

Early entrants report greater self-satisfaction with their well-being, achievements, personal safety, and future prospects than their age peers who are not early entrants, and are less likely to have frequent bad moods (Boazman & Saylor, 2011). They are as well-adjusted or better adjusted than their peers and sometimes even college students (Dai & Steenbergen-Hu, 2015; Janos et al., 1989; Olszewski-Kubilius, 2002), and report higher feelings of personal well-being than college students in the Honors College (Saylor, 2015). They have average self-concept compared to college students and healthy self-esteem (Shepard et al., 2009), and had lower anxiety scores (Sethna et al., 2001). Early college high school students feel greater financial security than college freshmen, though report that they are less social, which could be interpreted positively or negatively (Oliver et al., 2010). Early college high school graduates adjust to college better than some college populations (Fischetti et al., 2012).

Students from traditionally underserved populations benefit from opportunities provided by early college entrance but face unique challenges.

In many cases, early college high schools were specifically formed to serve underachieving and underrepresented students (Berger et al., 2010).

Low-Income Students

Many students from low-income families were grateful for their chance to attend an early

college high school (Berger et al., 2010; McDonald & Farrell, 2012), one describing the opportunity for two years of college credit tuition-free as “a dream come true,” (Saenz & Combs, 2015, p. 111). These findings do not just originate from the statements of low-income students, but are also supported by longitudinal studies on thousands of early college high schools: Haxton et al. (2016) found that a low-income student who attends an early college high school is 8.5 times more likely to obtain a college degree than her low-income counterpart in a traditional high school.

Non-White and Linguistically Diverse Students

Haxton et al.’s study (2016) did not just find inspiring results for low-income students: they found an even larger increase in degree attainment among students of color. Specifically, “treatment students [of color] were nearly 10 times as likely to obtain a college degree as control students [of color]” (p. 422). McDonald and Farrell (2012) interviewed students who described their school community as one so academically-driven and focused that the social environment transcended racism. Berger et al. (2010) found that while students of color and low-income students suffered from a drop in grade point average after moving to early college high school, students from non-English-speaking homes had an increase in their grade point averages.

Unfortunately, early college entrance programs have a stronger racial gap and tend to serve mostly White and Asian students, though this issue seems to have improved over time (Noble & Smyth, 1995; Sayler, 2015). Though the reason for this exactly is unknown, some postulate that there is social pressure for students of color to suppress their intelligence for community acceptance, and that the act of enrolling in a mostly White school or program would be a denial of their culture (Noble & Smyth, 1995).

Girls and Women

Many female students considered early college high school and the opportunity to earn college credit tuition-free a priceless resource (Locke & McKenzie, 2016). While most participants in Noble and Smyth's (1995) study of female early college entrance program graduates said that gender did not play a role in their decision to accelerate or attend the program, some participants expressed the idea that high school is a different social environment for women, including one graduate who said that "the 'anti-intelligence sentiment' was less pronounced in high school for males than for females" (p. 3). Sixty percent of their participants said they had hidden their talents from males at least once in order to be accepted, and 71% had done the same for acceptance among other females. The graduates had also encountered both male and female authority figures who were threatened by competent and successful women, but reported significantly less incidences of authority figures threatened by competent and successful males. Two participants in their study felt that they had received preferential treatment by staff, which they did not appreciate: "It shouldn't be that way," one said (p. 4). Seven participants felt males received preferential treatment, and six of these participants cited the same physics instructor.

Some evidence suggests the stress of enrolling in an early college entrance program may take a more serious toll emotionally and psychologically on female students (Olszewski-Kubilius, 2002; Sayler, 2015) and that different factors predict success in an early college entrance program for females than for males (i.e. higher SAT-Verbal scores predict success for males better, while higher SAT-Mathematics scores predict success for females better; Sayler, 2015). Possible reasons for this include lower self-esteem concerning academic ability and higher rates of anxiety, both of which have been found in the general population of women

(Sayler, 2015). However, Sayler (2015) found that females in an early college entrance program had lower mathematics anxiety, specifically. Lower self-esteem for females has been observed in early college high schools (Locke & McKenzie, 2016).

In the general population, women tend to be more socially intelligent than men (Fischetti et al., 2012), but the application of these findings in early college has been mixed: An early college high school sample found females did not have higher social adjustment scores (Fischetti et al., 2012), but in an early college entrance program, females were seen to acquire older friends more quickly than males (Olszewski-Kubilius, 2002).

Regrets are Rare but Not Unheard Of in Early College Entrance Programs

A common concern about acceleration in general is that students will regret it in the future (Olszewski-Kubilius, 2002). For the most part, this has not been the case: most participants in all of the research analyzed were thankful for their early entrance program(s) and reflected on both the academic and affective experience positively. However, there are a minority of early college graduates who expressed some regrets about their decision to enter college early, and their perception can provide insight into issues with early college as well as possible solutions. Seven percent of early college entrance program graduates surveyed by Boazman and Sayler (2011) indicated that they would not enter the program again if they could go back in time. Of the seven reasons given by participants for choosing not to re-enter, five were of an affective nature, including having lacked the proper maturity to move away from home, losing friendships and connections when moving away from their high school, lacking the social skills necessary for independence, and witnessing their program peers engage in dysfunctional behavior. No student at one early college entrance program studied by Sethna

(2001) has ever withdrawn for academic reasons. On the other hand, the majority of students in Heilbronner et al.'s (2010) study who left their early college entrance program before graduating did so in order to pursue other academic opportunities: only two of 13 attrition participants cited that they left because they were not socially or emotionally mature enough to leave home and live independently (Heilbronner et al., 2010).

Noble and Smyth (1995) spoke to one early college entrance program graduate who was in her third year at a university and reported regretting radical acceleration: "the benefits of being ahead of my peers academically don't outweigh the disadvantages of being so much younger than the other students in my classes and social activities" (p. 3). Other participants discussed downsides to radical acceleration but thought them worthy sacrifices, including being treated like a child, a loss of high school opportunities for awards and scholarships, and bringing less life experience to their university. Noble and Drummond (1992) found that 11 of 24 early college entrance program students who entered college 4 to 5 years early had no regrets, and most of the rest bemoaned loss of social and academic opportunities but knew they would have made a sacrifice of intellectual fit and challenge by staying in high school. Another study on the same program by Noble, Robinson, and Gunderson (1993) found that only 18% of 109 graduates wished they had accelerated less, due to social isolation and family stress among other reasons. Further, most of these participants showing regret had entered this program before a special transition program, designed specifically to help prepare students for their acceleration academically and affectively, was implemented.

Discussion

The purpose of this review was to explore early college student experiences, and what

factors of early college programs affected these experiences, as well as affective and academic outcomes for graduates of these programs. Searches were conducted, the twenty-six resulting articles were examined and categorized, and thematic analysis was employed. This generated five major themes that persisted across a majority of research and elaborated the topics at hand.

Broad findings on early college seem to indicate the academic success of the movement: early college high schools and early college entrance programs represent a challenging, unique, and rewarding academic opportunity in which students tend to excel (Berger et al., 2010; Edmunds et al., 2010; Edmunds et al., 2012; Fischetti, MacKain, & Smith, 2012; Olszewski-Kubilius, 2002; Sethna, Wickstrom, Boothe, & Stanley, 2001; Woodcock & Olson, 2013).

Underserved students particularly benefit from these opportunities (Berger et al., 2010; Haxton et al., 2016; Locke & McKenzie, 2016; McDonald & Farrell, 2012; Saenz & Combs, 2015; Sayler, 2015), as indicated by increased rates of degree attainment (Haxton et al., 2016) and personal stories of increased self-esteem (Locke & McKenzie, 2016; Noble & Smyth, 1995; Sayler, 2015). Long-held concerns about the impact of early college on affective aspects of development are met with further positive results: early college students have an opportunity to work and bond with other ambitious, intelligent young people who value academics (Heilbronner et al., 2010; Hertzog & Chung, 2015; McDonald & Farrell, 2012; Noble et al., 1999; Noble & Smyth, 1995; Ongaga, 2010; Saenz & Combs, 2015; Sayler, 2015; Woodcock & Olson, 2013). This opportunity requires some sacrifice (Boazman & Sayler, 2011; Noble & Drummond, 1992; Woodcock & Olson, 2013) but comes with great reward. The final result is well-rounded, happy adults who look back on early entrance and the people they met in their programs fondly (Dai et al., 2015; Dai & Steenbergen-Hu, 2015; Hertzog & Chung, 2015; Jung, Young, & Gross, 2015; Ongaga, 2010). More complex and specific findings are explored as follows.

Academic Culture and Benefits of Early College Programs

Academic success in early college requires motivated and talented students with more than just a history of good grades: vital skills, which have elements of both academic and affective abilities, predict success as well (Locke et al., 2014; Locke & McKenzie, 2016; McDonald & Farrell, 2012; Ongaga, 2010; Saenz & Combs, 2015; Schumacker, Sayler, & Bembry, 1995). When students are able to overcome the difficult cultural transition from high school to college material (Dai et al., 2015; McDonald & Farrell, 2012; Ongaga, 2010), usually catalyzed by positive teacher-student relationships (Edmunds et al., 2010; Edmunds et al., 2012; Haxton et al., 2016; Ongaga, 2010), their academic performance is quite impressive, surpassing both their age peers (high school students) and grade peers (college students; Berger et al., 2010; Edmunds et al., 2010; Edmunds et al., 2012; Fischetti et al., 2012; Olszewski-Kubilius, 2002; Sethna et al., 2001; Woodcock & Olson, 2013). This is not just a function of grades, either: early college students are more likely to finish their Bachelor's degrees than other high schoolers (Boazman & Sayler, 2011; Haxton et al., 2016; Hertzog & Chung, 2015; Olszewski-Kubilius, 2002), and are also more likely to move on to graduate degrees (Boazman & Sayler, 2011; Dai et al., 2015; Dai & Steenbergen-Hu, 2015; Haxton et al., 2016; Hertzog & Chung, 2015; Olszewski-Kubilius, 2002; Sethna et al., 2001). Early college students have a unique academic culture, founded on accountability and ambition, resulting in higher academic self-concept and confidence (Boazman & Sayler, 2011; Fischetti et al., 2012, Oliver et al., 2010; Sethna et al., 2011). As is to be expected, however, not all findings were positive (Oliver et al., 2010); One of these findings (that early college high school students express less desire to finish college than traditional college freshmen) partially conflicts with common results (that early college high school students are more likely to complete college than traditional high school students).

Social Impact of Early College Entrance

While most considered it a worthy sacrifice, nearly every early college student prompted on the topic admitted that accelerating represented a social sacrifice among their unaccelerated peers. From as simple as taking less classes with your old friends as you moved on to part-time college courses, to as drastic as moving across the country, many participants in various studies referenced increased distance, physical and metaphysical, within their former friend groups (Boazman & Sayler, 2011; McDonald & Farrell, 2012; Noble & Drummond, 1992). This was sometimes seen as a blessing, since early college entrants saw their new early college peers as more mature and sharing more interests with themselves (Heilbronner et al., 2010; Hertzog & Chung, 2015; McDonald & Farrell, 2012; Saenz & Combs, 2015; Woodcock & Olson, 2013). This included freedom from a traditional high school environment that has an anti-intellectual sentiment that encourages students to suppress their talents, and may pressure girls in this way even further (Hertzog & Chung, 2015; McDonald & Farrell, 2012; Noble et al., 1999; Noble & Smyth, 1995; Ongaga, 2010; Sayler, 2015).

As for social aspects of early college entrance, the findings are relatively straightforward: it is an academically-motivated community, usually a small one, with all the pros and cons of interacting with a small group of people every day. Closer relationships, a family-like atmosphere, less social options, and increased risk of fast-travelling gossip all represent the multi-faceted social world of early college programs (Saenz & Combs, 2015). Increased academic rigor may also result in decreased time for social activities, which has been seen to distress students at times (Sayler, 2015).

Early college entrance may also result in minor students forming social connections with adult college students. However, findings indicate that this is not something caused exclusively

by acceleration: due to their heightened maturity, early college students tend to have had older friends long before accelerating academically (Noble et al., 1999). When reflecting on their time in early college, whether as current students or graduates, early college entrants tend to say that acceleration was a social advantage for them, rather than a deficit, in interacting with both same-age peers and adults (Hertzog & Chung, 2015; McDonald & Farrell, 2012; Woodcock & Olson, 2013).

The social habits of early college students, compared to traditional high school and college students, are more complex. While they may be less social (Oliver et al., 2010) they seem to be just as satisfied with their social experience (Dai et al., 2015; Dai & Steenbergen-Hu, 2015; Jung, Young & Gross, 2015) and are just as well-adjusted as college students, if not better (Dai & Steenbergen-Hu, 2015; Fischetti et al., 2012; Olszewski-Kubilius, 2002). Early college students also surpass their unaccelerated college student counterparts in self-esteem, match them in self-concept, and have lower anxiety scores (Sethna et al., 2001; Shepard et al., 2009).

Romantic Relationships

Perhaps the findings that most conflict with the positivity of early college research in this review pertain to romantic relationships. In the few studies that dedicated research effort to this topic, there were very mixed results, with up to half of the sample saying that the program had a severely negative impact on their romantic relationships (Hertzog & Chung, 2015). One young woman from Noble and Smyth's (1995) study said "Large age mismatches in partners are not a good thing. In my experience, academic development can be greatly accelerated, social and emotional development can be somewhat accelerated, but sexual development is not a good quantity to mess with" (p. 4). It is worth noting that not all of the women in this study agreed

that large age gaps are inappropriate in relationships, and it is assumed that this participant was referring to a relationship with an age gap between two adults, not a minor and an adult.

Unique Struggles for Underserved Populations

Low-income students particularly benefit from early college high school: they are given the chance to earn college credit tuition-free, and they use it wisely, performing much better than their unaccelerated high school counterparts of similar socioeconomic status (Berger et al., 2010; Haxton et al., 2016; McDonald & Farrell, 2012; Saenz & Combs, 2015). Students of color and students for whom English is a second language are successful in early college high school as well (Berger et al., 2010; Haxton et al., 2016; McDonald & Farrell, 2012), and girls may benefit more than boys from moving to an academically-motivated community of scholars in any early college program (Locke & McKenzie, 2016; Noble & Smyth, 1995; Sayler, 2015). However, underserved populations face a unique challenge in early college, likely due to social stigma and a history of exclusion from academic communities (Noble & Smyth, 1995; Olszewski-Kubilius, 2002; Sayler, 2015). Socially-conscious counseling for students may help prevent issues (such as low self-esteem) among students from underserved backgrounds.

Regrets and Withdrawals

It seems that the majority of regrets surrounding early college entrance revolve around social and emotional issues. The Transition School at University of Washington's Early Entrance Program has proven to be a success in helping students acclimate to early college (Noble & Smyth, 1995; Olszewski-Kubilius, 2002): similar programs could be formed at other early college entrance programs to garner a similar effect. Mary-Baldwin University's Program

for the Exceptionally Gifted (PEG) demonstrated a unique situation by showing that most students who drop out of their program used the program as a “stepping stone” to greater opportunities- many of them admit that this was their intention from the very beginning (Heilbronner et al., 2010). This may seem to be the direct opposite of what other early entrance students report, considering that students at TAMS, EEP, and AAG almost always reported leaving for affective reasons rather than academic ones while nearly all PEG defectors leave because of their academics, but it actually leads us to the same conclusion: early college entrance program students may be more likely to face social and emotional issues which result in withdrawal or deceleration than to fail academically. In fact, academic failure appears to be flat-out rare, to the point that it is difficult to determine if these rare failures are unique in any way to early college, or if they are just as prevalent as any other form of academic misjudgment (as in, the phenomenon in which students enroll in programs they should not have due to falsely believing it is the right option for them and go on to drop out, and this is not the fault of the program necessarily).

As for the more traditional reasons for withdrawal, more focus on affective aspects of acceleration and early college may help programs retain and support their students. However, it is worth noting that, just as we know not every student is academically ready for college, some may not be socially, emotionally, or psychologically ready, and neither of these is a bad thing. A major factor in the affective stress of early college is that these programs are residential and may be far away from home for some students. Perhaps the use of acceleration into college without a distant residential program, with students instead remaining at home with their family, is an alternative to some of these issues. Unfortunately, this does mean sacrificing a large community of other early entrants. Either way, emphasis on the affective skills students will need to succeed

in early college entrance programs could help prevent the unprepared from enrolling and regretting their decision.

Limitations

Of course, any review is limited to material available under the databases selected. It is inevitable that some potential research was overlooked.

Early college high schools and early college entrance programs are two different movements with different outcomes, though they represent similar ideologies and sometimes have similar results concerning student outcomes, both academic and affective. There is diversity within each category as well: early college high schools can be rural or urban, ethnically-diverse or ethnically-uniform, small or large in terms of student body, and more. As previously described, early college entrance programs are also quite different, in all of these ways as well as in terms of objectives, implementation, focus, and culture. Therefore, applying results from one or a few studies to all early college entrance is an imperfect procedure.

Recommendations for Future Research

There is a broad but relatively shallow foundation of research on early college entrance. Findings on academic success and affective development are thorough and positive, but a more nuanced understanding of what brings about success and development in an early college program would be valuable. In general, more research on the affective aspects of early college, especially how to decrease affective issues for students in early college entrance programs is needed. The nature of social dynamics in early college could be explored further as well. Similarly, further research should go towards how and why early college impacts romantic

relationships. The rate of relationships between adult college students and minor early college students should be explored: It is entirely unknown how many relationships take place between early college entrants and college students, nor how many of these relationships involve an age gap.

Research on radical early college entrance (three or more years advanced) is severely limited. Only a few early college entrance programs allow this level of acceleration, and the students in these programs who are accelerated at this level are a minority. None of the research in this review separated these students into any distinct category for special analysis. Perhaps research specifically investigating if radically early students face more challenge in early college, academically or socially, would be insightful.

Possibly the greatest failing of early college research is the complete and total abandonment of the “individual accelerant”: the student who goes to college earlier than the traditional age without use of any special programs or services. Presumably, these students apply, attend, and graduate from universities in the “traditional” manner, with no special programming, fanfare, exclusive counselors, special events, recognition, they just do so before the age of 18. However, we cannot be sure of this because research is seemingly nonexistent on these population. This may not be because they are rare: instead, this is a case of convenience sampling. Early college entrance program students are easy to recruit and conveniently local to program staff, who are hired exclusively to work for the early college entrants, which makes studies on them easier to conduct. Individual accelerants do not have their own special staff and therefore, recruiting and researching them does not come so easily. Are individual accelerants as academically and affectively successful as their counterparts in programs? Why do individual accelerants choose to accelerate without use of a program? What is the social atmosphere for an

individual accelerant? These are just a few of the questions future research on this population should address. With this review giving perspective on the status of early college research today, it is hoped that a new line of study will open in early college research, and inspire researchers interested in the experiences of early college entrants to explore these gaps in what we know about the phenomenon.

References

References marked with an asterisk indicate studies included in the systematic review.

- *Berger, A., Adelman, N., & Cole, S. (2010). The Early College High School Initiative: An overview of five evaluation years. *Peabody Journal of Education*, 85(3), 333-347. doi:10.1080/0161956X.2010.491697
- *Boazman, J., & Saylor, M. (2011). Personal well-being of gifted students following participation in an early college-entrance program. *Roeper Review*, 33(2), 76-85. doi:10.1080/02783193.2011.554153
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77-101. doi:10.1191/1478088706qp063oa
- Brody, L., & Stanley, J. (1991). Young college students: Assessing factors that contribute to success. In W. T. Southern & E. D. Jones (Eds.). *Academic acceleration of gifted children* (pp. 102–132). New York: Teachers College Press.
- Colangelo, N., Assouline, S. G., Gross, M. U. M. (Eds.). (2004). *A nation deceived: How schools hold back America's brightest students*. Iowa City: University of Iowa.
- *Dai, D. Y., & Steenbergen-Hu, S. (2015). Special class for the gifted young: A 34-year experimentation with early college entrance programs in China. *Roeper Review*, 37(1), 9-18. doi:10.1080/02783193.2014.975882
- *Dai, D. Y., Steenbergen-Hu, S., & Zhou, Y. (2015). Cope and Grow: A grounded theory approach to early college entrants' lived experiences and changes in a STEM program. *Gifted Child Quarterly*, 59(2), 75-90. doi:10.1177/0016986214568719
- *Edmunds, J. A., Bernstein, L., Unlu, F., Glennie, E., Willse, J., Smith, A., & Arshavsky, N. (2012). Expanding the start of the college pipeline: Ninth-grade findings from an experimental study of the impact of the early college high school model. *Journal of Research on Educational Effectiveness*, 5(2), 136-159. doi:10.1080/19345747.2012.656182

- *Edmunds, J. A., Bernstein, L., Glennie, E., Willse, J., Arshavsky, N., Unlu, F., Bartz, D., Silberman, T., Scales, W. D., & Dallas, A. (2010). Preparing students for college: The implementation and impact of the early college high school model. *Peabody Journal of Education*, 85(3), 348-364. doi:10.1080/0161956X.2010.491702
- *Fischetti, J., MacKain, S., & Smith, R. (2011). Mr. Watson, come here...: The performance of early college students in their first year at the university and the challenge to a P-16 education. *Improving Schools*, 14(1), 48-64. doi:10.1177/1365480211398232
- *Haxton, C., Song, M., Zeiser, K., Berger, A., Turk-Bicakci, L., Garet, M. S., Knudson, J., & Hoshen, G. (2016). Longitudinal findings from the Early College High School Initiative impact study. *Educational Evaluation and Policy Analysis*, 38(2), 410-430. doi:10.3102/0162373716642861
- *Heilbronner, N. N., Connell, E. E., Dobyns, S. M., & Reis, S. M. (2010). The “stepping stone phenomenon”: Exploring the role of positive attrition at an early college entrance program. *Journal of Advanced Academics*, 21(3), 392-425. doi:10.1177/1932202X1002100303
- *Hertzog, N. B., & Chung, R. U. (2015). Outcomes for students on a fast track to college: Early college entrance programs at the University of Washington. *Roeper Review*, 37(1), 39–49. doi:10.1080/02783193.2014.976324
- *Janos, P. M., Robinson, N. M., & Lunneborg, C. E. (1989). Markedly early entrance to college: a multi-year comparative study of academic performance and psychological adjustment. *Journal of Higher Education*, 60, 495-518. doi:10.2307/1982264
- *Jung, J. Y., Young, M., & Gross, M. U. M. (2015). Early college entrance in Australia. *Roeper Review*, 37(1), 19–28. doi:10.1080/02783193.2014.976323
- Lenz, B. K. (2004). Tobacco, depression, and lifestyle choices in pivotal early college years. *Journal of American College Health*, 52(5), 213-219.
- Leonard, J. (2013). Funding early college high school: Hold harmless of shared commitment. *Educational Policy Analysis Archives*, 21(46), 1-19. doi:10.14507/epaa.v21n46.2013
- *Locke, L. A., & McKenzie, K. B. (2016). ‘It’s like giving us a car, only without the wheels’: A critical policy analysis of an early college programme. *International Journal of Leadership in Education*, 19(2), 157-181. doi:10.1080/13603124.2015.1015617
- *Locke, L. A., Stedrak, L. J., & Eadens, D. (2014). Latina students, an early college high school, and educational opportunity: A case study. *Journal of Cases in Educational Leadership*, 17(1), 59-71. doi:10.1177/1555458913518540
- *McDonald, D. & Farrell, T. (2012). Out of the mouths of babes: Early college high school students’ transformational learning experiences. *Journal of Advanced Academics*, 23(3), 217-248. doi:10.1177/1932202X12451440

- Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *Annals of Internal Medicine*, *151*, 264-269. doi:10.7326/0003-4819-151-4-200908180-00135
- *Noble, K. D., Arndt, T., Nicholson, T., Sletten, T., & Zamora, A. (1999). Different strokes: Perceptions of social and emotional development among early college entrants. *Journal of Secondary Education*, *10*(2), 77-88. doi:10.1177/1932202X9801000204
- Noble, K. D., & Drummond, J. E. (1992). But what about the prom? Students' perceptions of early college entrance. *Gifted Child Quarterly*, *36*(2), 106-111. doi:10.1177/001698629203600209
- *Noble, K. D., & Smyth, R. K. (1995). Keeping their talents alive: Young women's assessment of radical, post-secondary acceleration. *Roeper Review*, *18*(1), 49-55. doi:10.1080/02783199509553697
- *Oliver, M., Ricard, R. J., Witt, K. J., Alvarado, M., & Hill, P. (2010). Creating college advising connections: Comparing motivational beliefs of early college high school students to traditional first-year university students. *NACADA Journal*, *30*(1), 14-22. doi:10.12930/0271-9517-30.1.14
- Olszewski-Kubilius, P. (1995). A summary of research regarding early entrance to college. *Roeper Review*, *18*, 121-126. doi:10.1080/02783190209554166
- *Olszewski-Kubilius, P. (2002). A summary of research regarding early entrance to college. *Roeper Review*, *24*(3), 152-157. doi:10.1080/02783199509553712
- *Ongaga, K. O. (2010). Students' learning experiences in an early college high school. *Peabody Journal of Education*, *85*(3), 375-388. doi:10.1080/0161956X.2010.491708
- *Saenz, K. P., & Combs, J. P. (2015). Experiences, perceived challenges, and supports systems of early college high school students. *Administrative Issues Journal: Connection Education, Practice, and Research*, *5*(1), 105-117. doi:10.5929/2015.5.1.5
- *Sayler, M. F. (2015). Texas Academy of Mathematics and Science: 25 years of early college STEM opportunities. *Roeper Review*, *37*(1), 29-38. doi:10.1080/02783193.2015.975773
- *Schumacker, R. E. (1995). Identifying at-risk gifted students in an early college entrance program. *Roeper Review*, *18*(2), 126-129. doi:10.1080/02783199509553713
- *Sethna, B. N., Wickstrom, C. D., Boothe, D., & Stanley, J. C. (2001). The Advanced Academy of Georgia: Four years as a residential early-college-entrance program. *Journal of Secondary Gifted Education*, *13*(1), 11-21.
- *Shepard, S. J., Nicpon, M. F., & Doobay, A. F. (2009). Early entrance to college and self-concept: Comparisons across the first semester of enrollment. *Journal of Advanced Academics*, *21*(1), 40-57. doi:10.1177/1932202X0902100103

- Shy, R. (1996). Early entrance to college: A parent's perspective. *Roeper Review*, 18(3), A-3.
- Thomas, D. R. (2006). A general inductive approach for analyzing qualitative evaluation data. *American Journal of Evaluation*, 27, 237-246. doi:10.1177/1098214005283748
- U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS). (2018). *Digest of Education Statistics: 2016* (NCES Publication No. 2017-094). Retrieved from https://nces.ed.gov/programs/digest/d16/ch_3.asp
- *Woodcock, J. D., & Beal, H. K. O. (2013). Voices of early college high school graduates in Texas: A narrative study. *The High School Journal*, 97(1), 56-76. doi:10.1353/hsj.2013.0021