

Perspectives Contributing to Early College High School Students' Persistence

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Abstract: *The Early College High School (ECHS) is an initiative sponsored by the Bill and Melinda Gates Foundation to increase the number of under-represented populations in higher education by allowing students to earn an Associate's degree or up to two years of college credit by the time they graduate from high school. A previous qualitative study examined transition experiences of students in their senior year. The current study was conducted at a large Midwestern ECHS where students take one to three college classes during their first two years of high school (freshman and sophomore years) and full college course loads during their last two years (junior and senior years) of high school. The transition between the sophomore and junior year is the most difficult for many of the students. Therefore, there is a need to understand persistence of these students beyond the sophomore year and through to graduation. The authors developed the Q sample based upon the aforementioned qualitative study. Statements from within the six categories that emerged from that study were used to balance the Q sample. The purpose of this study is to investigate ECHS students' views of their high school experience with the goal of determining which perspectives lead to persistence between the students' sophomore and junior years and what views best represent "college-ready" beyond typical academic criteria, such as ACT scores, for this and other similar programs. Further planned research will both present longitudinal findings following from this initial study and seek to replicate the perspectives found here. For this study, 42 students that were at the rank of high school sophomore and junior at the end of the 2011–2012 academic year sorted 51 statements that pertained to their experiences and perspectives of being an ECHS student. The study found two factors: "College Ready" and "Academically Immature." Implications of these results are discussed.*

Introduction

The Early College High School (ECHS) is an initiative sponsored by the Bill and Melinda Gates Foundation to increase the number of minorities, first-generation, and other under-represented populations in higher education by allowing students to earn an Associate's degree or up to two years of college credit by the time they graduate from high school. The ECHS in this study is located on the main campus of a large, Midwestern public university in a metropolitan area. ECHS students are drawn from the city's public school system during the 8th grade. The ECHS consists of grades 9 through 12. The ECHS students take one to three college classes during their first two years of high school and full college course loads during their last two years of high school. Successful students graduate with both a high school diploma and an Associate's degree or two years (four semesters) of college credit. Although these students typically score well on standardized tests taken by all students within the public school district the ECHS serves, the transition between the sophomore and junior year is the most difficult for many of the students based on retention data and interviews from a prior study (Cerrone, 2012).

Cerrone (2012) examined transition experiences of students in their senior year. Semi-structured interviews were conducted with seven senior STEMM (science, technology, engineering, mathematics, and medicine/health) majors at the beginning and end of their final semester in the ECHS program. That study revealed the following six themes from the analysis of the interview transcripts (a) attitude toward STEMM majors, (b) motivation, (c) preparation, (d) support, (e) interaction and engagement in the college culture, and (f) academic identity.

The purpose of the study reported here was to investigate which perspectives lead to persistence between the students' sophomore and junior years and what views best represent "college-ready" beyond typical academic criteria, such as ACT scores, for this and other similar programs that include students taking college courses while in high school. In this way, the researchers hoped to create potential measures of college-readiness that would assist ECHSs and others to gain insight about persistence and completion of the ECHS and other similar programs. With the perspectives associated with persistence having been determined, the researchers plan to work with the local school system and school counselors to identify at-risk students and develop interventions that will help the students adopt the types of perspectives needed for successful completion of the program. If these interventions prove successful, they can be shared with other ECHSs as well as with college administrators who work with other high school programs that include college coursework and measures of

college readiness.

The ECHS Initiative

The ECHS initiative is based on an earlier concept called the Middle College, which began in 1974 at LaGuardia Community College (Born, 2006). The Middle College recruited underprivileged and urban students to attend high school on the college campus to gain exposure to college life and begin taking courses at the postsecondary level (Middle College National Consortium, 2009; Born, 2006). The goals of this initial program were to encourage students to continue their schooling and to provide a bridge to college by providing the opportunity to earn a high school diploma and an Associate's degree in five years (Middle College National Consortium, 2009; Born, 2006). The Bill and Melinda Gates Foundation saw the Middle College High School as an exceptional model upon which to build a successful new model for high school education. In 2002, the Foundation provided funding to expand the project which became the ECHS initiative (The Early College High School Initiative, 2007; Middle College National Consortium, 2009).

A requirement of the ECHS initiative is that the school can have no more than 100 students per grade in order to keep class sizes small and student-teacher interaction high. On average, 350 to 400 students apply for admission to the ECHS that is the focus of this study. However, only 100 students are accepted into each freshman class based on their middle school grades, attendance, disciplinary record and recommendations from their core middle school teachers and guidance counselors. Parental permission and support is also required.

The ECHS initiative is innovative in the sense that the students experience a college-type experience and receive considerable college credits, with the majority of ECHS programs located directly on a university, college or community college campus. The goal of the ECHS initiative is to provide underrepresented populations and at-risk students for-credit college courses on a college campus, thus allowing them to experience the rigor and accelerated pace required by college courses while providing them with a support system through the high school (Born, 2006; Trevino & Mayes, 2006; U.S. Department of Education Office of Vocational and Adult Education, 2004). Within the ECHS, students must meet certain academic criteria to remain in the high school and to take college courses. Thus, prior to taking college courses at the junior level, ECHS students at the school in this study must meet specified academic criteria and meet with a counselor to determine a future academic path and select coursework.

Student Persistence in ECHS

Although the ECHS initiative has many benefits, there are some disadvantages to the program. One disadvantage for the ECHS in this

study is the lack of traditional school activities such as school sports teams and other extracurricular activities which are important for social growth and team building. Other disadvantages are associated with the college experience itself. Some 15- and 16-year-old students, no matter how well prepared academically, are not ready for the pace and rigor of college classes and may be unconnected to the social aspects of college life. ECHS students experience a substantial transition as they move to a full load of college classes in their junior and senior years. This transition is potentially difficult both emotionally and academically. Some students may not be ready to make this transition.

To assist all students with adapting to the ECHS framework, this school has developed several student groups, such as the Ambassadors Club, the Bridge Building Club and the Cultural Awareness Club, with varying levels of success. They have also focused on holding traditional high school activities such as school plays, school dances and academic awards ceremonies to which the students have responded positively (Cerrone, 2012).

Transition Theories

This study draws upon Tinto's (1988; 1993) Theory of Student Departure, which examines how student groups transition to college and what colleges can do to improve retention. Tinto (1993) adapted anthropological theories of transition from youth to adulthood as he saw the experience of starting college to be a major cultural transition. Like many other transition theorists, Tinto divides the process into three stages: departure, the transition or intermediate stage, and the incorporation phase.

The first stage of transition, departure, focuses on the social groups the student must leave behind when attending college. One of the points upon which this study deviates from Tinto is that of residence. Tinto (1993) focuses on how the process of moving away from home, family and friends can be disorienting for many students. While the early college students do have to leave behind many of their junior high school friends as they attend a different high school, they do not move out of their guardians' houses or have to leave behind their families because they are still minors. Therefore, the experiences of the early college students are more closely related to that of a commuter college student. The sophomores surveyed in this study can be thought of as completing the departure stage as they transition from the more traditional type of high school experience to taking college courses in their junior year.

The juniors surveyed in this study are presumed to be in the intermediate stage of transition. During the intermediate, or transition, phase students must negotiate the terms of their new environment and learn the norms and behaviors necessary to succeed in college (Tinto,

1988). This is the stage during which students develop the heuristic knowledge required to navigate the higher education system. It is important to note that Tinto (1993) states that the stage at which students are most likely to leave college is this intermediate or transition phase. In the case of the ECHS, this has proven to be true since the highest attrition rate occurs during the junior year when many of the students leave due to lagging grades, frustration with the intensity or rigor of college, or for social reasons. The students who left this ECHS typically went to their district high school to complete their education.

The final stage of transition, the incorporation phase, can also be a point of departure for students who are unable to make the necessary connections with peers and faculty during the transition phase or find their niche in the institution (Tinto, 1988; 1993). The incorporation stage for these students, which was not involved in the current study, would occur during the final semester of high school or once the students graduate from the program and continue collegiate studies.

Research Design

A previous qualitative study examined transition experiences of students in their senior year. In that study (Cerrone, 2012), interviews were conducted with seven senior STEM majors at the beginning and end of their final semester in the program. For this study, statements were selected from those students' statements, either as exact quotes or rephrased statements for purposes of clarity and consistency among statements. In order to make a balanced Q sample for a wider P set, the themes from the Cerrone (2012) study were reduced to four themes. Theme (a), attitude toward STEM majors, was eliminated because not all of the students in the ECHS are STEM majors. Themes (d) support and (e) interaction and engagement in the college culture were combined into a single category named support. The statements were then organized into the four themes as follows: academic identity, preparation and confidence, motivation and support. Final selection of a Q sample that is representative of these themes was based upon Fisher's experimental design principles as described by Stephenson (1953). The Q sample for this study is provided in the Appendix.

The respondents sorted 51 statements on a nine-point scale ranging from "most like me" (+4) to "least like me" (-4). While sorting the statements, the respondents were given the following condition of instruction: "Sort the statements in a way that best describes how you feel about being a student in the ECHS." When the sort was completed, the respondents were asked to provide written explanations about the sorting process and their selection of those statements on the extreme ends of the sorting grid (+4 and -4). At least one of the researchers was present to answer question of clarification during the sorting exercise.

The P set consisted of 42 students (21 male and 21 female) that were at the rank of high school sophomore (19) and junior (23) at the end of the 2011–2012 academic year.

Findings

Thirty-two of the 42 students were identified as representing the Factor 1 perspective which was named College Ready. Four students were represented by Factor 2 which was named Academically Immature. Because this is part of a longitudinal study, the Q sorts of these students will be investigated further in future research to determine if they move toward the other factor or if a third factor will emerge. The factor scores for each of the two factors are shown in the Appendix.

College Ready

Factor 1 represents the students who describe themselves to be college ready. This factor consists of 12 of the 19 sophomores and 20 of the 23 juniors. This mixture of rank indicates that class standing alone does not denote this view.

Those identified as College Ready, indicate that they view themselves as capable of doing well in college courses and that their high school courses helped them to feel prepared for college coursework. They felt that the early college classes helped them to be prepared for the college courses that they have taken. A male junior stated “My five statements that were placed under +4 were placed there because I feel confident that I can do well and succeed, as well as having support from others.” This sense of confidence is representative of other Factor 1 student responses.

Factor 1 students also indicated that they made a good choice in attending the ECHS because it offers them a great opportunity in life by graduating with an Associate’s degree at the same time they graduate from high school. Another junior male in this school replied, “This school is a great opportunity. Anyone who can’t see that should look again.” This statement bolsters the idea that these students see the ECHS as a good opportunity for obtaining college credits while still attending high school.

The Factor 1 students also felt that they had support from their family and the ECHS as well as resources on the university’s campus. Another junior male wrote: “I feel like I get a lot of support here; more so than I would anywhere else. The teachers here know you and care about you as an individual.” These students were also very academically confident as indicated by the positions of statements related to academic preparation. These students feel that they do well on assignments, including those in their college courses, and are willing to seek academic help on campus.

Academically Immature

Factor 2 represents those ECHS students whose views appear to be academically immature. Only two sophomores and two juniors loaded on this factor. These students were more focused on what they were losing from not attending a more traditional high school. They indicated that they felt that they were “missing out” on being teenagers and that they were not getting a true high school experience.

While these students feel that attending the school is a great opportunity, similar to the Factor 1 view, they also express displeasure towards the amount of work required by the ECHS curriculum. This feeling of displeasure is supported by a sophomore female who stated, “the pressure to do well here is so high that you end up missing out on being a teenager.” These students perceive the school as too rigorous for someone their age. A sophomore male stated: “I feel that this school takes things too seriously and doesn’t let students act their age at all.” Another indication that these students are academically immature was that statements that pertained to procrastination or working too hard for being a teenager were “most like” their view. These students had difficulty managing their time effectively. This is further supported by a sophomore male’s comment, “I know I can be doing better and be more organized but I’m not.” These students feel that they are not involved in campus activities nor do they revere their college classmates. These students also do not feel supported by their family or feel that their family does not understand how hard they are working at school.

Discussion and Conclusion

This initial study was conducted to investigate the various perspectives of students enrolled in an ECHS about their experiences. Students who loaded on both factors believe that their participation in the school provides them with a great opportunity. However, the College Ready students believe they have the confidence, capability and support to take advantage of the opportunity, while the Academically Immature students expressed that they did not feel they had the support, confidence nor motivation to do well in the school.

ECHS staff have been concerned that the early college students may feel that they are not getting a typical high school experience. This sentiment is captured in Statement 34 (I feel as if I am missing out on being a teenager) which had a factor score of +4 for the Academically Immature. Although the school does offer several student groups, activities such as dances and school plays, and student government, they do not have any school sports teams or musical groups. ECHS students are eligible to participate on sports teams and musical groups at their home high school and are also encouraged to attend events at the university. However the ECHS is clearly an atypical high school experience.

The results of this initial study support Tinto's (1988; 1993) Theory of Student Departure in that the students who are Academically Immature do not feel that they belong in the school and have not made the transition from the typical high school experience to that of a hybrid high school/college experience. Additionally, the students that are College Ready were confident in their academic abilities and felt that they knew where to seek help when they needed it. This indicates that the students who are College Ready were more adept at gaining the heuristic knowledge that Tinto (1993) describes as being important for students to effectively transition into college. Future research will use Q methodology to help determine which of the ECHS students have developed this heuristic knowledge and pinpoint when it occurs in the students' ECHS experience.

Because the transition between the sophomore and junior year is the most difficult for many of the students who attend the ECHS, there is a need to understand student perspectives especially those that can best benefit persistence of these students from their sophomore year through graduation. Future research will follow students who participated in this study over the next two years to determine their persistence in the program. Additionally, all students who leave the ECHS in the next two years will be asked to complete the Q sort at their exit interview. The researchers and ECHS staff will use this information to further indicate the relationship between student perspective and persistence to graduation. This longitudinal aspect will also allow the researchers to study the stability of the factors found in this current study.

The results of this and future Q studies on this population will assist in the identification of those who are college ready, beyond routine academic indicators such as ACT scores. Different perspectives about academic readiness, family and school support structures, and self-confidence can serve as a diagnostic tool for college readiness that is associated with "maturity" in this type of academic setting. Identification can be coupled with interventions associated with these views to improve retention within this ECHS program as well as similar early college high school programs. Using this study's Q sample may assist in determining college-readiness maturity, in conjunction with academic measures, for other post-secondary learners who are simultaneously high school and college students as well.

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Appendix: Q Sample and Factor Scores

	<i>Statements</i>	<i>1</i>	<i>2</i>
1	I feel like a high school student.	-2	1
2	I feel like a college student.	2	-2
3	I talk with my teachers when I have trouble understanding something in class.	0	2
4	I feel embarrassed when I don't understand what's going on in class.	-2	-1
5	I'm afraid to ask my teachers questions during class.	-3	-1
6	I keep to myself.	-1	-2
7	I have a lot of friends at this school.	1	1
8	I'm very excited about my college classes.	0	-2
9	I don't like my college classes.	-4	0
10	I'm very excited about my high school classes.	-1	-3
11	I don't like my high school classes.	-3	1

<i>Statements</i>		<i>1</i>	<i>2</i>
12	I look up to the high school seniors.	-1	-3
13	I look up to the college students.	-2	-4
14	I really want to earn my Associate's degree.	2	3
15	I really want to earn my Bachelor's degree.	3	2
16	I know what job I want to have when I grow up.	1	2
17	I am proud to be part of the Akron Early College.	4	1
18	I feel I am capable of doing well in high school courses.	4	3
19	I feel as if I don't fit in on campus.	-4	1
20	I feel I belong in this high school.	3	2
21	I feel I perform better when expectations are high.	0	-3
22	I feel pressured to do well.	0	4
23	I feel like I know how to study effectively.	0	0
24	I feel like giving up when I don't do well on a test or assignment.	-4	-2
25	I feel like my grades are just as good as my classmates'.	0	-3
26	I feel like I am working too hard for someone my age.	-2	4
27	I feel like I manage my time effectively.	-1	-4
28	I feel like my family understands how hard I work at school.	1	-4
29	I feel my family supports my goals.	3	-4
30	I feel like my teachers/instructors know me pretty well.	1	0
31	I don't know where to go on campus when I need help.	-4	-2
32	I am comfortable in study groups.	-1	0
33	I feel less confident about my academic ability since coming to this school.	-4	3
34	I feel as if I am missing out on being a teenager.	-2	4
35	Homework that is not graded is a waste of my time.	-3	-2
36	I feel I am capable of doing well in college courses.	4	3
37	I feel like I learn more by going to this high school rather than my own high school.	3	3
38	I feel the classes that I am taking will prepare me for my future.	2	-2
39	I feel involved in the high school.	4	3
40	I feel involved in the college activities.	-1	-4
41	I feel like college professors are less accepting of me than regular college students.	-3	-1

Statements		1	2
42	I have a hard time managing the work load of my college classes.	-3	-1
43	I feel like I can be more organized.	1	-1
44	I believe that I procrastinate with my assignments.	2	4
45	Akron Early College offers me a great opportunity.	4	4
46	I feel like my friends support me.	2	1
47	I think that I made a good choice to attend Akron Early College.	4	0
48	I feel the Akron Early College classes helped me to be college ready.	3	-1
49	I feel like I am responsible for my learning.	2	0
50	I feel am I on my own when I am campus.	-3	0
51	I feel that my college classmates are very accepting of me.	1	-1