Exploring Impacts and Preparedness of Dual Enrollment for Student Success in Technology Courses

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ABSTRACT

Dual enrollment (attending high school and college simultaneously) can be advantageous to students for many reasons. These programs provide students with college-level coursework and expectations before completing high school. This paper explores the impacts of dual enrollment, specifically as it relates to how well students are prepared for success when they are fully in college. As a preliminary exploration, several questions are presented as well as background information on dual enrollment issues. This paper presents a first step in developing a framework for exploring the impacts and preparedness of dual-enrolled student success. The primary question this paper explores is "How does dual enrollment prepare students for success?". In addition, technology is explored as a component of success.

Keywords: Student Success, Dual enrollment, Community College, Student Characteristics

1. INTRODUCTION

Dual enrollment (attending high school and college simultaneously) can be advantageous for students. These programs provide college-level course work and expectations to students before they complete high school. In Maryland (USA), dual enrollment refers to attending "a public secondary school and a public institution of higher learning" [1, p. 1]. After completing both a college entrance exam and 7th grade, Maryland students are eligible to begin a dual enrollment program. However, Maryland college enrollment guidelines often begin with students in the 9th grade. Dually enrolled students seek and provide signed agreements between their public school and the college of their choice. These agreements, are directed through the students' high school guidance counselor to ensure the high school and the chosen college adhere to all required guidelines. The guidance counselors, are expected to serve the student through collaboration with his or her parents and the high school. The college advisors collaborate with the student and all appropriate faculty and staff at the college.

[2] notes exposure, improved grades, early completion, and self-efficacy as primary benefits for dual enrolled students. In his research, participants discussed the differences in attending college courses compared to high school. Participants explained their development of coping skills and identification of study techniques. Learning to study may have helped participants increase their critical thinking abilities. The narratives from the study pointed to participants realizing the need to communicate and ask professors for help. Participants discussed how their high school instructors are continuously available at almost any time. Thus, the participants believed this practice would continue in college. Many participants had to learn responsibility. Some participants discussed adhering to instructor availability procedures. Others noted how much they learned after failing courses. Repeating courses helped participants find ways to collaborate with instructors to develop their preferred learning methods. Students described how their high school teachers provided clear instructions to ensure success versus their college professors who referred students back to their learning materials. There are differences in teaching methodologies and expectations, both from a student and instructor perspective.

How can these differences be leveraged to improve success for these dual enrolled students? First, we need to examine differences in student preparedness and other factors influencing these students in order to better understand the impacts on success. This paper presents a first step in developing a framework for exploring the impacts and preparedness of dual-enrolled student success in technology courses. The major question this paper examines is "How does dual enrollment prepare students for success"? In this paper, we present background information on dual enrollment and success factors of college students, emphasizing technology courses. Following we present our framework for Exploring Impacts and Preparedness of Dual Enrollment for Student Success in Technology Courses.

2. BACKGROUND

In 1977, the United States faced literacy problems within the American education system. Teachers' salaries kept growing and schools were considered "luxurious" [3]. Yet, students in the public education sector were often receiving high school diplomas without the ability to read and lacked many basic skills needed to be successful. After a series of articles and policy debate, one issue explored was that the textbook font used in

textbooks (san serif) was deemed a contributing factor [3]. This font, described as "grotesque" established its origins in the advertising industry [3, p. 1006]. The font was dark, thick lettered and harsh on the eye. These were the perfect ingredients to attract the eye of a consumer, but not a student. The authors explained how the use of this font prevented successful reading. They additionally noted how publishers were preventing book reading. This issue made way for the back to basics movement of the late seventies. The new order of the day aimed for a "performance-based curriculum" [4].

The newly standardized education system updated the report card grading system and the detailed conditions to complete and attain a high school diploma. So, where does the community college fit? The president of the University of Chicago, William Raney Harper developed a plan to teach "lower division material" in an effort to prepare students to transfer to 4-year universities (Kane and Rouse, 1999). The approved plan created "junior or community colleges" [5]. These colleges focused on students from local areas or communities where the universities resided. Completing students received associates' or vocational degrees. Interestingly, the biggest spike in community college enrollments was just three short years after the public education sector noted its need to change and improve. There was social change in creating community colleges. The costs of attending were significantly lower than traditional four-year universities. Faculty education requirements were Masters' degrees instead of Doctorates and the focus was on the colleges' ability to meet the employment needs of its specific area [5].

3. EXPLORING FACTORS OF SUCCESS

Current policy allows dual enrollment for all that "attend a public secondary school and a public institution of higher education at no charge" [1, para 7]. In the State of Maryland, any public-school student may begin the dual enrollment (DE) program after completing the 7th grade [1]. This group is approximately 13 to 14 years old. Neither the secondary school, nor the college can predict that they will be mature enough to handle the pressures of the coursework from two sets of curricula. There are other factors as well that influence success. Faculty perception also plays a role in student dual enrollment completion efforts. [6] shed light on the unique possibilities of dual enrollment programs. Where dually enrolled students complete their college-level courses was deemed an important factor in success. They note how the level of rigor presented to DEs taking college-level courses within their high schools may be reduced. This effort to accommodate a less mature student may prevent future four-year degree completion. Additionally, [6] expressed apprehension over courses taught by high school teachers "with community college adjunct status" instead of college-level faculty (p. 83). For this reason, high school faculty was encouraged to help prepare students for college-level academic expectations.

Dual enrolled students must develop self-efficacy. This process includes confidence-building strategies. Dual enrollees may struggle with this process. These teenagers are already under pressure as they transition towards increased demands of academic independence and peer expectations. It is pivotal for this group to understand and apply "self-regulatory skills, such as goal-setting, self-monitoring, time management, and self-evaluation…skills" [7, p. 46]. The most successful dually enrolled students should know their preferred learning style and ways to organize and complete assignments. This group must work between their families, high school counselors, and college

faculty and staff throughout their academic careers. Cultivating help-seeking strategies may include determining when to ask for help. For example, if a dually enrolled student receives poor grades on his or her progress reports, does he or she meet with instructors or support staff to plan or change his or her approach to the curriculum? This evaluation of self will help propel the DE towards accomplishment. [7] discuss the role of self-esteem in a person's ability to judge their personal feelings of their worth. However, they additionally explain that self-efficacy is based on cognition or the ability to develop mental processes or reasoning skills.

Research suggests that those with dual credit experience are more likely to be successful in college and as likely to earn a grade of "B" or higher in subsequent courses [8]. Despite increasing participation in these programs, some studies find gaps in student success in dual enrolment programs related to income, gender, and race. However much more research is needed as there are many variables, including courses selected, and both student and faculty experience. Despite these differences, there are several benefits to students. [9] lists several advantages of dual enrollment programs:

- Time to a college degree may be shortened by as much as two years.
- Families can save money
- Students try out the college environment.
- College learning is measured in multiple ways
- Young people begin college work as full-time students.

An additional consideration is that many students beginning community college are ill-equipped with the computer skill sets or understanding of basic life changes they will face. [10] notes that over half of students entering community colleges require at least one remedial class. This is especially true for those entering "open admittance" programs [11, p. 403]. These programs have rolling entry dates that allow students to begin courses often monthly instead of quarterly. The benefit is the ability to start classes quickly. The drawbacks may include the barriers these students encounter. Large numbers of the open enrollment programs support continuing education. These programs compete for consumer funding. Thus, their intended financial target is middle to upper-class students. The financially secure demographic often prefers credit/degree courses. Large portions of students that enter continuing education programs are low income and beyond the traditional college age. Therefore, technology skills need to be an additional skill set to consider. Many students are required to use a computer to access course content, research materials and participate in online elements as part of a course. If a dual-enrolled student takes an online course this indeed becomes a vital issue.

4. TOWARDS A CONCEPTUAL FRAMEWORK

Using a case study methodology, plans for future data for this project will be collected from a series of survey instruments targeted towards those currently involved in a dual enrollment program, as well as those that have completed high school and enrolled in college, and those that have transferred to a 4-year program. Additional support will be obtained from archival narratives and aggregated statistics from the college. Additional surveys will be administered to faculty to gain insights from those teaching dual enrolled students regarding their perceptions and challenges.

Several issues are planned to be examined and addressed through surveys such as:

1. Basic demographic and social-economic information
2. Dual-enrollment and education status
3. Experience with public school in preparation to take college classes
4. Motivation and drive
5. Technological competency Evaluation
6. Support systems (at-home, in public school and at the community college level)
7. Comparison of self-reflective narratives
8. Comparison of self-efficacy narratives
9. Self-reflective narrative question of "What did dual enrollment teach you?"
10. Self-reflective narrative question "How did dual enrollment prepare you to be successful?"

Addressing open-ended questions through self-reflective narratives will allow participants to give as much information as they describe in more detail their experiences. Based on participant answers, this project may incorporate updates and changes in future studies to be presented to the College for improvements.

5. CONCLUSION AND FUTURE WORK

As discussed dual enrollment (attending high school and college simultaneously) can be advantageous to students for many reasons. Many variables need to be examined to seek details of success factors as we explore the impacts of dual enrollment. This paper outlines our plan for a preliminary exploration as a first step in developing a framework for studying implications and preparedness of dual-enrolled student success. We also aim to include an examination of technology competency as a factor for success. As educators, we want to make sure that all of our students are successful and learn the skills needed to do well in other courses, their intended major and in life. With the rise in dual-enrollment programs, there is a need to examine what support and elements need to be in place for these students to also be successful. It is our goal to conduct several interactive surveys to answers some of these proposed questions.

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