Knowing Your Assets
Navigating Best Practices Through an Exemplary Case Study Focused on an Automotive Technology Associate Degree Program

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Abstract
Community college literature frequently depicts community colleges from a deficit approach when compared to four-year institutions. Using Harper’s (2010) Anti-Deficit Achievement Framework, we adopted an exemplary case study approach to examine best practices for community college student success, including retention, graduation, and workforce entry indicators. Specifically, we investigated four automotive technology programs noted as exemplary by the Ford Motor Company as the bounded case for this study. Preliminary findings indicated that student success was related to strong faculty programmatic involvement, curricular alignment and relevance between required courses and automotive technical interests, and reduction of financial burdens for students through paid internships. Implications for research and practice are discussed.

Purpose
This paper aims to profile stories that emerged during site visits from four exemplary automotive technology (AT) associate degree programs at community colleges. These degree programs require community college courses paired with an experiential learning curriculum - designed to teach students automotive technologies associated with Ford engines. We answer the question: what are the consequential best practices that contributed to the success of these students who participated in this automotive technical program across these four colleges?

Brief Literature Review
Research on workforce development at community colleges is vital for addressing labor market demands (Dikhtyar et al., 2021; Myran & Ivery, 2013; O’Barian, 2019). Community colleges, vocational schools, and automotive training programs play a critical role in preparing individuals for careers as automotive technicians (Haviland & Robbins, 2021). The demand for skilled automotive technicians has increased due to advancements in vehicle technology (Chigbu & Nsokweha, 2021) and an aging workforce (Toossi, 2015). Collaboration between educational institutions, government agencies, and private sector organizations can lead to targeted workforce development initiatives with local and regional significance (Weissman, 2022).

Conceptional Framework
This paper is grounded in Harper’s (2010) Anti-Deficit Achievement Framework. Social constructivism guided our understanding of how students and faculty extracted and created meaning from their experiences (Creswell & Poth, 2018).

Methods
This study used case study methodology: It was the most appropriate approach for reaching a holistic understanding of the phenomenon that included best practices for student success in automotive technical programs at community colleges (Stake, 1995, 2005; Yin, 2018). We selected four Automotive Student Service Educational Training (ASSET) programs to function as a single exemplary case because guided by Stake (1995, 2005) and Yin (2005), we used an iterative and recursive process for ongoing analysis and interpretation of our data (Janiesek, 1994). We also sought additional data (specifically via interviews) until we reached the point of saturation (Creswell & Poth, 2018). Using NVivo, we discussed our interpretations and perspectives during research team meetings. Best practices emerged from our collective meaning-making process, executed by understanding participants’ experiences through triangulation and member checking, and subsequently, increasing our confidence in the robustness of our findings (Lincoln & Guba, 1986; Patton, 1999).

Data Analysis
1. Strong faculty involvement
   “[The instructor] has been very helpful...he has a really good attitude. He’s someone who cares about the program. He’s someone who’d been in the field and has experienced it and worked in it. He’s trying to give us a good foundation. He’s been a very integral part of this.”

2. Curricular alignment and relevance
   We [faculty] encourage the cohorts to enroll in Intro to Psychology and think of it as a class to help them understand people’s behaviors...other employees or their customers [behaviors].

3. Reducing financial burdens for students through paid internships
   The reason why I enrolled — why most of did — was because of the paid internship at the dealership. I mean, we get a decent hourly rate to work on cars and work with technicians who do the work we want to do being...what do I use my salary for? To pay rent, to live, to take my girlfriend out, to come to school.

Discussion
The first emergent theme related to best practices for the success of the ASSET program was students involved in faculty involvement. A nuance of the ASSET program is that there are only one to two instructors who teach all the automotive technology courses. The instructors wear multiple hats (e.g., advisor, internship coordinator) to interact with the students. The ASSET instructor is acknowledged by students as a major source of support and credited for their success, retention, and graduation from the program. Although the effects of faculty-student relationships in community college literature have been credited as an important factor for student success and career preparation (Lancaster & Lundberg, 2019; Lundberg, 2014), the findings from this study elevate the importance of faculty in the lives of their community college students.

The second theme to emerge related to the best practices for the success of the ASSET students was on formative plans for curricular improvement based on the ASSET students preferred learning styles. Both faculty and students described the ASSET students as often kinesthetic learners, enjoying classes with hands-on activities where they can do rather than listen to lectures or read books. The AT courses in the ASSET curriculum reflect a theory-to-practice approach, where students spend much of their classroom time in an automotive shop (comparable to lab setting) to practice real-life problems on cars. The ever-evolving technology curriculum includes new advances, such as electric vehicles (EVs) and hybrid cars. However, the largest curricular challenge the ASSET students described was related to the general education courses (e.g., English, math) that were often disconnected from their academic program and conflicting schedule-wide with their ASSET coursework and internship. With this in mind, the ASSET faculty and instructors take a proactive approach to finding courses and specific instructors that align with the ASSET students’ learning styles and academic schedules.

The final best practice that emerged involved reducing the financial burden of college through paid internships. All ASSET students must be enrolled full-time in their academic program and have an internship at a Ford or Lincoln dealership, where they are paid hourly. This collaboration between the public and private sectors results in the ASSET students graduating with over a year’s worth of work experience. The hourly internship pay allows the students to invest that money back into their tuition and living expenses. Since the ASSET program requires a two-year commitment, the internship complements the academic curriculum by allowing students to practice what is learned in the classroom while providing financial stability and alleviating concerns over economic support.