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Online Nontraditional Students' attitudes about software used by University Academic Advisors

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Abstract

While many universities rely on student success software to facilitate the academic advising process, little is known about how nontraditional students view technology-mediated advising and its usefulness for preventing attrition with this population. This study aimed to explore how nontraditional undergraduates who may lack facility with technology view software as a tool to engage with their advisors and provide support for their academic decisions-using a basic qualitative method, 14 students over the age of 40 years who were enrolled in various online undergraduate programs participated in semi-structured interviews. Data were open-coded and analyzed thematically. The results indicated that advising software is viewed favorably. However, five students, almost a third of the group, reported having beginner-level technical skills resulting in some challenges navigating their school's advising platform. Students valued timely communication with an advisor and convenient formats for doing so, facilitated by the advising platform. Findings contribute to positive social change by illustrating how advisors can more effectively use the software to engage students and enhance communication with them, therefore supporting persistence in coursework.

Keywords: Academic Advising, Higher Education, Advising, Technology, Undergraduate, Software

Introduction

Nontraditional students are a fast-growing segment of the college population. Traditional students in baccalaureate colleges are 18 to 24 years of age, while nontraditional students are over 24 (Abdrahim, 2020) [1]. In 2017, the National Center for Education Statistics (Hussar & Bailey, 2017) [14] projected that between 2014 and 2025, there will be a 13% increase in college students under 25 years of age, a 16% increase for students 25 to 34, and a 20% increase in college students 35 years or older. However, nontraditional students have lower retention and graduation rates than traditionally aged students. Data from the National Center for Educational Statistics (NCES, 2017) [17] showed that students who began 4-year colleges for the first time at age 30 or older had a persistence rate of 28% lower than those who started college for the first time at age 19 or younger.

Academic advisors have an essential role in student success and retention (Schroeder *et al*., 2016) [19]. To support and enhance the student/advisor relationship, some universities use specific technology to provide services to their students. Technology has proven to be an effective tool to facilitate student involvement with advisors (Argüello & Méndez, 2019) [3]. However, research has shown generational differences in students' skills and learning styles with technology (Corbin, 2017) [5]. Despite these differences, there has been little examination of online nontraditional students' assessment of the software used in the online advising environment. Therefore, this study examined the perceptions of online learners about technology-mediated advising. To understand the context of this study, it is necessary to consider the role of technology-mediated advising.

Background

The history of college-level advising reflects changes in advisors' role in a student's experience. In the United States in 1636, the President of Harvard College began the initial effort to provide academic advising, and in 1841, Kenyon College formally paired each student with a faculty advisor (Cook, 2009) [6]. However, it was not until the 1930s that student personnel were associated with academic advising (Aiken-Wisniewski *et al*., 2015) [2]. There are various approaches to academic advising, but

two main approaches emerged in the early 1970s: prescriptive (O'Banion, 2009) [18] and developmental (Crookston, 2009) [7]. With prescriptive advising, a straightforward approach helps the student with course selection, registration, and administrative matters (Harris, 2018) [13]. With developmental advising, there is more of an emphasis on building a relationship between the student and advisor. While contact with the student can address administrative issues, developmental advising can also pertain to other aspects of a student's life, such as career advice and social matters. Another advising approach is a bold or intrusive style (Donaldson *et al*., 2016) [9] in which students may be required to participate in advising activities. Regardless of the advising approach, what is unknown is how nontraditional students describe the efficacy of technology-mediated advising.

Nontraditional students are different from traditional students in several ways, although age is typically used to identify nontraditional students (Abdrahim, 2020) [1], and these characteristics may relate to their persistence or attrition. Due to variations in the criteria used to determine attrition rates across populations, some research shows that nontraditional students have a lower attrition rate than traditional students (Nadasen & List, 2016) [16]. Other studies show that it is higher (Bohl *et al*., 2017) [4]. This disparity in results warrants further research about factors that may reduce nontraditional student attrition.

Problem statement

Research findings of technology-mediated advising (Junco *et al*., 2016) [15] indicate that students find it useful, but these studies do not highlight the nontraditional student population. Because effective academic advising can influence completion rates, understanding the perceptions of those who receive it is critical. Therefore, academic advisors need to understand practices and strategies to support student success. Current research shows that technology-mediated advising can be effective with traditional students who are digital natives (Abdrahim, 2020) [1]. The problem is that little is known about the perceptions of nontraditional students toward technology-mediated advising, and given their higher attrition rate, its effectiveness with nontraditional students is unclear.

Many nontraditional students work and have families, so online classes are appealing because they offer more scheduling flexibility than a face-to-face format to accommodate their busy schedules (Hussar & Bailey, 2017) [14]. However, De Paepe *et al*., (2018) [8] noted that it is essential for educators and administrators to understand the nontraditional students' expectations and satisfaction with the learning environment to design and deliver effective programs. Therefore, the focus of this study was nontraditional online students. Given the lower retention rates and graduation rates of nontraditional students compared to traditional students (Grabowski *et al*., 2016) [11], there is a gap in understanding the perceptions of nontraditional students toward technology-mediated advising, which is problematic. Without understanding their perceptions, nontraditional students' completion and graduation rates may lag those of traditional students.

Purpose of study

This basic qualitative inquiry aimed to understand how nontraditional online students studying in undergraduate programs described advising software, also known as student success software, as a tool to facilitate communication and engagement with advisors and support their academic decisions. Advising software endorses the activities of both students and advisors. The value of this study is that it provides insight into nontraditional students' perceptions about advising software and the advising process to identify strategies for academic advisors by which they could better engage and serve nontraditional students while increasing retention rates. Although nontraditional students are defined as those over 24 years of age, this study focused on students ages 40 and over because the internet was not available to the public during their childhood, and research has shown that there are generational differences in a facility with technology (Nadasen & List, 2016) [16]. Also, although there are four categories of advising software, one type, predictive analytics, is not addressed in this study because it is used internally by advising departments; typically, students would be unaware of its use.

The following questions were used to support this important qualitative study:

RQ1: How do nontraditional online undergraduate students over 40 describe their use of

Advising software as a tool to facilitate engagement and communication with academic advisors?

RQ2: How do nontraditional online undergraduate students over 40 describe the

usefulness of reporting software in supporting their educational decisions?

Data collection

Data collection involved interviews with 14 participants via telephone. With the study participants' permission, an audio recording of each interview using Tape-A-Call was made. Although not initially proposed, a backup recording system with a password-protected iPad was used to ensure a viable recording. A few interviews were also recorded on a Sony stereo recorder. A backup plan was a prudent option as Tape-A-Call was often cut off before an interview was completed.

The selection criteria required participants over 40 undergraduates in the United States (U.S.) institutions, in any program of study, and taking online classes. They were recruited through three online services: Walden University's participant pool, Findparticipants.com, and Facebook. The interviews were conducted remotely, and each participant had the choice of using Skype, Zoom, or telephone; all 14 chose telephone. To keep the participants' identities confidential, numbers rather than their names were used as identifiers. After the interviews were completed, a few study participants were contacted via email to clarify some of their comments.

While it is difficult to ascertain, one condition at the time of data collection may have influenced participants or their experiences as college students. Interviews were conducted during the initial months of the COVID-19 pandemic; only two interviews were conducted before the in-person restrictions triggered by the pandemic. This may be significant because all the study participants completed their academic term online. While most of the study participants were not impacted by this change because they were studying online, to begin with, for some students, this was a new format.

Data analysis

The following emergent codes were identified from the data: technical self-assessment, course registration system, LMS, references to age, students' confidence in advisors' knowledge, other behaviors, and suggestions for change. Although these codes did not pertain to all study participants' data, they reflected a pattern across many participants and warranted being coded. Table 1 illustrates the codes, themes, and relationship to the research questions.

Table 1: Precodes, Codes, and Themes: Relationship to Research Questions

Precodes	Codes	Themes	Research question
Technical support, Time management	Before/after online study Self-awareness of age Time-management: Work/school/life Balance	Self-assessment of technology skills	RQ1
One-way or two-way communication	Ease of use Mode or channel	Communication	RQ1
		Confidence in advisors' knowledge	RQ1
Follow-up activity	Going above and beyond Disconnect	Other advisor Behaviors	RQ1
Knowledge of academic program	Registration/add drops	Academic planning	RQ2
Communication formats	Email, phone, Zoom, bot	Communication formats Types of notices	RQ2
	Timeliness	Response times	RQ2

Findings

Summary of Results for Research Question 1

The first research question explored student opinion of software used to contact advisors. Student-reported data reflected that the type or brand of software varied by school, but all the schools' provided students with an option to send email through the school's student portal. Student opinions about the use of their school's platform varied considerably.

Four of the 14 students did not use their school's software platform to contact their advisors, although their reasons for not doing so differed. S4 attended a for-profit university, and as a new student, the school's advising team contacted him regularly. At the interview, he had not attempted to reach out to his advisors. S5 was unaware that she could consult with academic advisors. S7 was aware that his school had a platform for students to use when contacting advisors, but he did not know how to use it. He stated, "I really don't know how to contact them other than just going to the school." S13's school has a link through her student portal, but she did not use it because her advisor did not use it; they communicated via email independently of the link. S13 explained that she thought it took too many steps to get to the association, which led to the same email if she used the link. Logging in directly to her email account was more convenient. Because these students did not reach out to their advisors via software platforms, they did not express their opinions about it.

The other ten students used their school's options for communicating with advisors to varying degrees. S3 had used her school's portal only on an occasional basis because she did not consult advisors often; she had not seen an advisor during the last year. Although her school, a large urban university, offered a dedicated platform that students could use to contact advisors, as mentioned earlier, S3 did not like her school's policy of using multiple advisors; she preferred to work with one specific advisor. S3 said, "Every time I go there, I spoke to somebody else- I have to tell my story over and over again, and they will not know what I need." Instead, although an online student, S3 (before the COVID-19 pandemic), would go to her campus and try to see the same advisor each time, S11 said her school offered an option to use instant messaging for advisor contact. She stated, "I like having those different options, depending on my time." However, she went on to say, "I find those helpful, but just out of my comfort level, email is the easiest and most effective for me." S10's school offered its students multiple options for contacting advisors, which she said had made her learning experience "so much easier" she continued, "Back in the old days, you would have to phone the advisor or go meet them and work around your schedule." Although new to online learning, when asked for her opinion of the LMS to communicate with her advisor, S14 said, "I think it is user-friendly and quite easy to use for a first-timer like me."

One type of student success software is the kind that identifies students at risk for failure, an early warning system. None of the study participants reported receiving any alerts about their academic performance. However, one student, S14, used her school's LMS to communicate with her advisor to request tutorial assistance. S14, an accounting major, described using the school's platform as a convenient way to contact the advisor. Thus, the opinion about using a dedicated software platform for communicating with advisors was on a continuum. The convenience of accessing advisors through a platform and how students were assigned to advisors affected the extent to which students used their options.

Research Question 2

The second research question focused on how nontraditional online undergraduate students over 40 described the usefulness of advising software in supporting their academic decisions. As was the case for Research Question 1, several themes emerged for the second research question: formats for communicating with students, response times, and academic planning.

Themes

Theme 1: Formats for Communicating with Students

All the students attended schools that used software that sent reminder notices, and these were sent via student email. Although not specific to student success software, the

telephone was also an option available at all the schools. Eight of the 14 students noted at least one occasion when they contacted an advisor by telephone, and six of the students indicated that their advisors reached out to them via telephone. Three students noted their school had an option for web-conferencing, but only one, S9, had met with an advisor via Zoom. Two students noted the use of a chatbot as part of the software. S11 did not find it useful because, "It just never seems to know what I'm trying to find." However, in contrast, S12 found a chatbot useful.

Types of Notices: When advisors reached out to students, it was to send reminder notices. The most common type of reminder notice pertained to course registration, followed by notices about important deadlines, such as the last day to drop classes. S1 and S4 attended schools that would send reminder notices about homework assignments. S7 received notices about tutoring sessions at the student center. Although she is an undergraduate, S11 said, "…sometimes I'll get information about masters. I don't necessarily think that's bad because, you know, I may continue on to a masters." She went on to add that she followed up on these notices by attending information sessions.

Theme 2: Response Times

The speed with which advisors responded to student inquires was an important part of the students' satisfaction with the advising system. As S2 stated, "When you've got a problem, you don't want to wait two or three days stressing about it." Again, email was used at all the schools to communicate with students. S2, S8, S12, and S10 noted that their advisors usually responded to emails in less than 24 hours, while S6 noted that her school asked students to give advisors at least 24 hours to respond. S12 said, "They are busy, but they still respond in a timely manner." Similarly, S2 said her advisor was "…very good about getting back to me." However, S3, who was generally critical about the way her school structured their advising program, said responses to student inquiries typically took one to two weeks.

While student success software facilitates communication with students, the students in this study noted that there is a need to have a measured flow of information. S4 described the reminder notices he received as 90% effective. When I inquired why the notices were not 100% effective, he said, "… sometimes they send 10 in a day, and it's easy to get confused- you have so much stuff to do sometimes." Similarly, when his advisor called him, S4 said, "We talked for almost two hours, which was way too long!" When speaking favorably of her school's advising system, S8 noted, "I don't get bombarded with useless information." S9 and S11 also express similar sentiments about not having an excessive number of notices from their advisors.

Theme 3: Academic Planning

Student responses to the usefulness of advising software included a broad range of academic planning activities, such as registering for classes, determining degree requirements, and submitting assignments. In some instances, the technology complemented input from academic advisors, while in others, students used it independently of an advisor. Their discussion of how the software supported their educational decisions emerged the subthemes of registration, degree planning, and tutorial assistance.

Strategies for Registration and Add/Drop: Course registration is an everyday activity for academic advisors. Many of the students in this study, despite their online status, met with advisors in a face-to-face setting to determine the class or classes they should take for an upcoming term. S7 said, "It's a little confusing picking my classes because that is online," suggesting that a face-to-face advising session was preferred. Despite his full-time work schedule, he opted to make an appointment on campus to see an advisor.

Similarly, the school attended by S8 had a designated day during which all students were required to come to school (before the COVID-19 pandemic) and meet with an advisor to register for classes. S8 stated, "I love advising day! I like the fact that I can go in and physically sit down and talk to a person to make sure that I am on the straightest route to my end game." Although she was an online student, S13 also had an annual face-to-face meeting with her advisor to plan her course schedule. The student sat with an advisor logged into a school database to register students in these situations. So, although there were platforms that allowed students to use technology to interact with their advisors, face-to-face interaction was preferred by some students.

Four of the 14 students interviewed noted that they had dropped at least one class. Of this group, three, S1, S3, and S9 did consult with an advisor before withdrawing from their ranks. However, the other student, S13, indicated that she could drop her class directly from the student portal. Although they had not withdrawn from any classes, S4 and S8 noted that they were aware of the procedure for doing so. Their respective schools allowed students to drop courses via the student portal independently of consultation with an academic advisor.

Degree Planning Software: One of the main types of student success software is designed to help students determine the timing and order for enrolling in classes, an activity typically managed by academic advisors. Three of the students in this study, S3, S10, and S13, reported that their school used degree planning software. However, each student used it differently.

As a transfer student who consulted with her academic advisor very infrequently, S3 found degree planning software helpful for keeping track of the classes she had taken, her grade point average, and the classes she still needed to complete her bachelor's degree. She found it simple to use, and because she did not like the way her school structured advising appointments, it helped her avoid contact with advisors. In contrast, S10, who had frequent contact with her advisors when discussing the software, said, "it took a lot of the guesswork out of it for me." However, she noted that the software would not allow her to plan all the classes needed for her anticipated triple major, although she added, "but that's what the academic advisors are for." So, she used the software to complement her communication with her advisors. Finally, S13's school had a field in the school's LMS that allowed students to determine their remaining classes. Still, she preferred to use a hard copy of the curriculum that she obtained from the advising department and consult face to face with her advisor because she is "old school." Thus, these nontraditional students varied in how they interacted with advisors and the software available to them.

Summary of Results for Research Question 2

This question addressed the students' thoughts about the usefulness of student success software in supporting their academic decisions. All the study participants reported that their school used software that generated reminder notices and a few attended schools that also used degree planning software. Overall, students found reminders about academic resources, important dates, such as deadlines for registering for an upcoming term or dropping a class, helpful in supporting their educational decisions. For example, S7 noted that he received notices about the availability of tutors at his school's study center, which prompted him to use that resource. Similarly, S4 and S1 noted their school's practice of sending reminders about upcoming due dates for assignments. They both felt the reminder notices helped them stay current with their homework assignments, which were challenging given their busy schedules. S1 noted that sometimes she is so busy that she will forget due dates. She noted, "… there are weeks where I'm a mom, a wife, a full-time worker- so it comes in handy." S4 said that when he initially started his program, he forgot to submit an assignment and, as a result, lost points off his grade. He found the reminders to present his works usefully.

The reminder notices also helped students in planning ahead. S11 noted that she would often receive reminder notices about graduate degree seminars, which she found "very helpful" because it encouraged her to think about furthering her education. S14 noted her school's system of reaching out to students helped her to plan. She said, "OK, they will tell me about the time for tests if there are any updates on the courses that I'm taking…It allows me to plan. Because I love planning for activities early in advance, so this is encouraging me to work hard and finish the course." In describing the efficacy of reminder software, students often used the words “helpful” and “very helpful.” Thus, the consensus was that reminder software supported the students' academic decisions. The responses from the students in this study showed that the software helped students make decisions about submitting assignments on time, encouraging them to seek assistance, think about furthering their education, and facilitate academic planning.

Discussion

The purpose of this study was to explore the perceptions of online nontraditional students over 40 years of age about the software used for technology-mediated advising. This study explored how students perceived using software to contact their advisors and their opinion of the software in supporting their academic decisions. The literature showed that most research about student success software focused on the traditional student populations (Grabowski *et al*., 2016; Harris, 2018; Junco *et al*., 2016) [11, 13, 15]. However, given the growing nontraditional student population (Hussar & Bailey, 2017) [14], exploration of this group, whose formative years took place before the introduction of the internet, was warranted.

Findings for this basic qualitative study came from 14 nontraditional undergraduate students over 40 years of age through semi structured telephone interviews. The students attended different postsecondary institutions throughout the U.S., pursuing degrees in various subjects. Student use of advising software to contact academic advisors varied, as did the students’ initial facility with the internet itself. A thematic analysis of the data revealed that their facility influenced the students’ use of software to contact advisors with technology and convenience. LMS and smartphone applications affected the students’ assessment of the software. There was also a variation for students who had access to software that enabled them to plan the order in which they should take their classes. However, the students were more consistent in their opinions of the software advisors used to contact them, and they were generally favorable. The format of communication, as well as the timing of it, were essential factors in the students’ assessment of their advisors’ outreach.

Recommendations and conclusions

The results of this study have implications for advising practices and school policies. Regardless of the various software programs available to schools, it is essential to remember that the software does not replace academic advisors; it complements their activities and allows them to work more efficiently to reach a large caseload of students. Fostering a relationship between students and advisors can help increase student persistence, regardless of age. The students in this study articulated their preference for having a relationship with their advisors, as in previous studies (Donaldson *et al*., 2016) [9]. Decreasing attrition is suitable for students who will earn degrees faster and enter a job market that requires post-secondary more quickly. At a familial level, nontraditional student-parents often cite pursuit of higher education to better support their family in the future and be a role model for their children (Van Rhijn *et al*., 2016) [21]. From an organizational perspective, schools also benefit by maintaining and improving standards; completion rates are typically part of accreditation reviews (Schuetz *et al*., 2016) [20]. At a societal level, the U.S. labor force needs more college-educated workers. Thus, degree completion, mainly through the flexibility of online programs, benefits the individual, the marketplace, and society.

Given the number of nontraditional students returning to school (Harris, 2018) [13], higher education institutions must consider their unique needs. Because most nontraditional students are more likely to work, services such as academic advisors and technical support should be available after traditional work hours. They also balance more activities than do traditional students. Therefore, schools should allow students to select a preferred mode of communication. Consistent with the discussion offered by Hall *et al*., (2017) [12], in order not to overwhelm students, advisors need to balance between proactively reaching out to students through the various software options and pacing the frequency of contact to avoid overwhelming them. Knowing a student’s preferences for reference could help an advisor stay engaged with a student in a meaningful way.

Between the COVID 19 pandemic requiring students to learn remotely and the increasing number of nontraditional students (Hussar & Bailey, 2017) [14], the demands on advisors to serve large numbers of students will increase. Student success software allows advisors to work more efficiently, and findings from this study indicate that overall nontraditional students had a favorable view of the software. However, the use of software alone will not promote student persistence. Schools need to use software strategically to engage students and keep transactional distance low. Without engagement and a high transactional distance, attrition rates will likely grow.

Advisors can encourage engagement by introducing students to advising resources and providing orientation to show them how to perform essential tasks, such as scheduling an appointment with an advisor. As Ellis (2019) [10] noted, a "front-end" approach to supporting nontraditional students could help to decrease attrition. Academic advisors are aided by student success software support.

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