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Experiential Learning versus Microcredentials: Educational Needs of Undergraduate Students and Working Professionals

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Abstract

This paper looks at the characteristic differences between undergraduate students and working professionals and whether experiential learning or microcredentials are more effective in satisfying the educational needs of either group of learners. The characteristics used to define undergraduate students, working professionals, experiential learning, and microcredentials are choices, needs, motivation, learning style, and self-awareness. Based on these characteristics, the study predicted that experiential learning would better suit the educational needs of undergraduate students and microcredentials would better suit the needs of working professionals. The study's hypotheses were designed from observations of the Business in Practice program at the University of New Hampshire to support the development of their curriculum. To research the suitability of the educational programs for different learning groups, a focus group and survey were used to gather perspectives. Five undergraduate students enrolled at the Peter T. Paul College of Business and Economics were interviewed in a focus group and eleven graduate students enrolled in Paul College's MBA program responded to a survey. The study found that the differences between undergraduate and graduate students are less contrasted than hypothesized. From the collected responses, it was determined there are limitations to the conclusions that can be drawn. The study was unable to accurately conclude whether experiential learning or microcredentials are more effective at satisfying the learning needs of either learning group. However, insight into how education administrators can improve curriculum for students, how instructors can set goals and benchmarks in classes to motivate students, and details on how to expand the scope of future research were gained. More research with a wider categorization of age groups and what characteristics define learners must be conducted to fully determine the effectiveness of educational programs on different age groups.

Experiential Learning versus Microcredentials:

Educational Needs of Undergraduate Students and Working Professionals

"The Effect of Learning Styles on Education and Teaching Process" describes learning styles as being "different and distinctive for each student" (Kazu, 2009). Learning style is "related to individual characteristics and preferences" and "reflect[s] the students' preferences on how they perceive the environment, interact with this environment, react and experience learning in this process" (Kazu, 2009). Two groups of learners that appear to have different educational needs and learning styles are undergraduate students and working professionals. In response to the acknowledgement of evolving education and recognition of differences in types of students, experiential learning and microcredentials are two types of learning that have risen to the forefront of education. "Redesigning the Future of Experiential Learning" notes how "many academic programs have looked toward experiential learning to close the gap between theory and practice" (Niman & Chagnon, 2021). On the other hand, microcredentials point to learning in the form of compiling "information about what an individual has learned [that] can be stored, sent around the world instantly, and assessed" (Ifenthaler, Bellin-Mularski, & Mah, 2016). This study investigates the differences in the educational needs and learning styles of undergraduate students and working professionals. Is experiential learning or microcredentials more effective in satisfying the educational needs and learning styles of undergraduate students and working professionals? To determine such differences, five characteristics, choices, needs, motivation, learning style, and self-awareness, were chosen.

The research conducted in this study is relevant to the evolving needs of undergraduate students and working professionals and the shifting landscape of education. As undergraduate students transition into the workforce and develop a skillset, their educational needs and learning

style may shift. Similarly, working professionals that work a full or part-time job and have existing skills may have specific needs and learning styles. Furthermore, educational administrators with knowledge of the nuances between undergraduate students and working professionals will have insight into how to adapt and develop undergraduate and graduate (or continuing education) programs to specific age groups. Instructors will also better understand the differences in characteristics of various ages of learners, how to set expectations for learners, and how to encourage success in education. From the results of this research, changes can be made by administrators and educators to tailor education to learners, further motivate students, and implement engaging educational programming.

Defining Characteristics

The five characteristics, choices, needs, motivation, learning style, and self-awareness are defined specifically for this study in the context of learning and education.

Choices are defined as the number of choices in majors, major specializations or options, or careers available to an individual (Course correction: Helping students find and follow a path to success).

Needs are defined are an individual's educational needs which may be interpreted as developing skills an individual does not previously possess (Lewis & Williams, 1994) or developing an individual's existing skills (Oxley & van Rooyen, 2021).

Motivation is defined as what factors motivate an individual. Motivational factors can be internal or external. Examples of internal motivators include self-achievement, curiosity, and recognition, while examples of external motivators include good grades, scholarship attainment or retainment, or the desire to please professors (Katt & Condly, 2009).

Learning style is defined as what type of learning style an individual prefers. Learning styles can be more structured with a structured course that has well-defined instructions and deliverables (Pallapu, 2008). Learning styles can also be less structured with a course that has freeform instruction and more creative freedom (Ifenthaler, Bellin-Mularski, & Mah, 2016).

Finally, self-awareness is defined as the awareness of an individual's own feelings and emotions (Polk, 2013).

Literature Review

1. Overview of Experiential Learning and Microcredentials

Experiential Learning

Experiential learning is defined by "Redesigning the Future of Experiential Learning" as "an attempt to provide students with an opportunity to put their knowledge into practice" (Niman & Chagnon, 2021). Kolb's experiential learning theory is supported by four pillars: concrete experience, reflective observation, abstract conceptualization, and active experimentation (Polk, 2013). Examples of experiential opportunities include internships, study abroad experiences, or educational programs such as Business in Practice at the University of New Hampshire's Peter T. Paul College. An increased demand for students with career-ready skills in the current job market has identified the need for experiential learning opportunities to "bridge the gap between theory and practice" (Niman & Chagnon, 2021). Studies have identified students who participated in experiential learning opportunities to have greater gains in learning and capabilities. "Student Motivations and Perceptions Across and Within Five Forms of Experiential Learning" cites data showing students who participated in research, a study abroad experience, or an internship showed greater "gains in deep learning, general education, practical

competence, and personal and social development" (Coker & Porter, 2016) compared to students that lacked experiential learning opportunities.

Microcredentials

Microcredentials are indicators of "achievements, knowledge, skills, and competencies" (Ifenthaler, Bellin-Mularski, & Mah, 2016) earned by an individual through a self-paced learning platform. A microcredential provides digital proof of competency with the ability to share a badge through a LinkedIn profile and other social networks. The increase in popularity of microcredentials rises in parallel with the need for customizable learning, lower-cost access to education, and new pathways for developing tangible and intangible skills. "Micro-credentials: the potential of personalized professional development" lists the benefits of microcredentials as personalization, competency, flexibility and cost, and efficiency in collaboration. Microcredentials "offer personalized professional learning that addresses diverse, personal needs and goals" (Hunt, Carter, Zhang, & Yang, 2020) for learners. Furthermore, microcredentials provide a method of education that is flexible and accessible to a wider range of learners by use of online learning platforms (Hunt, Carter, Zhang, & Yang, 2020). An example of microcredentials in use is the University of New Hampshire's digital badge microcredential programming. The program is described as "an electronic representation of a skill, achievement, or experience" (About Micro-Credentials, n.d.) with information on the defined skill, assessment, and skills learned.

2. Choices

Microcredentials

Microcredentials are a format of digital learning where individuals have the choice of where, how quickly, and when they decide to complete the learning. "Foundation of Digital Badges and Micro-Credentials: Demonstrating and Recognizing Knowledge and Competencies" describes how microcredentials allow for the "choice for when and where assessment takes place" (Ifenthaler, Bellin-Mularski, & Mah, 2016). Choice is "central to the design" of microcredentials, giving the control of learning "importance, order, and timing" back to the individual (Ifenthaler, Bellin-Mularski, & Mah, 2016). Providing more choices increases the level of interest and longevity of engagement with the individual completing the microcredential.

Undergraduate Students

When examining the characteristic of choices in relation to undergraduate students, many surveys point to undergraduate students not being able to make definitive choices about their major. "The Undecided College Student: An Academic and Career Advising Challenge" reports descriptors for indecisiveness in an undergraduate student's ability to make choices regarding their major, including high anxiety, inability to commit, and helplessness (Gordon, 2007). A contributing factor to undergraduate students' difficulty in choice-making is the feeling of being overwhelmed with the number of choices available to them. According to a Ellucian survey of 1,000 U.S. college students, nearly two-thirds of students "feel overwhelmed by the process of selecting a major" (Course correction: Helping students find and follow a path to success). The survey also reports that more than half of undergraduate students will change their major at least once during their time enrolled in college.

3. Needs

Experiential Learning

Experiential learning encourages the development of new skills in a controlled, experience-orientated environment. "The Power of Experiential Education" discusses how experiential learning develops "strong and transferable intellectual and practical skills such as communication, analytical, and problem-solving skills" (Eyler, 2009). Experiential education integrates new skills learned in real-world applications with previous traditional learnings from within the classroom. The process of engaging in experiential learning starts first at an immersion in experience and then a "reflection about the experience to develop new skills, new attitudes, or new ways of thinking" (Lewis & Williams, 1994).

Microcredentials

Microcredentials satisfy the need for flexible learning that builds upon an individual's existing skills. "Foundation of Digital Badges and Micro-Credentials: Demonstrating and Recognizing Knowledge and Competencies" recognizes how microcredentials support "pathways for, recognition of prior learning, and portability outside the institution they were achieved" (Ifenthaler, Bellin-Mularski, & Mah, 2016). The nature of rewarding learning progress through digital badges runs parallel with "developing knowledge, skill, and capability" (Ifenthaler, Bellin-Mularski, & Mah, 2016). Microcredentials also fill the rising need for individuals to remain competitive in their employability. Microcredentials are seen as "an extension of '21st century skills'" with the intent of developing an individual's employability, enhancing their existing skills, and to "add practicality" to previously learned academic content (Oxley & van Rooyen, 2021).

Working Professionals

"The State of American Jobs," a report by the Pew Research Center examining "How the shifting economic landscape is…affecting the way people think about the skills and training they need to get ahead" (Fry & Parker) defines the learning needs of working professionals as developing new skills. 54% of adults in the U.S. labor force believe "in order to keep up with changes in the workplace, it will be essential for them to get training and develop new skills" (Fry & Parker). 63% of the U.S. labor force were reported as "adults with higher levels of education [that] see a greater need for ongoing training" (Fry & Parker). Furthermore, 27% of workers that currently hold a bachelor's degree believe they "don't have the education and training they need to get ahead at work" (Fry & Parker).

4. Motivation

Experiential Learning

"Student Motivations and Perceptions Across and Within Five Forms of Experiential Learning" draws relationships between undergraduate students' motivations and perceived benefits of participating in experiential learning. The five categories of experiential learning defined in the study were study abroad programs, research, internships, service-learning, and leadership opportunities. The study found students were primarily motivated to participate in experiential learning activities by external factors such as parental influence, costs to education, faculty influence, and career goals (Coker & Porter, 2016). 87% of respondents cited career development as a direct benefit of participating in experiential learning activities (Coker & Porter, 2016).

Microcredentials

The implementation of modern microcredentials challenge extrinsic motivation in an attempt to replace it with intrinsic motivation. "Foundation of Digital Badges and Micro-Credentials: Demonstrating and Recognizing Knowledge and Competencies" suggests the reformation of microcredential motivation from "I want a badge," an extrinsic motivator, to "I want to present evidence of my learning and growth," an intrinsic motivator (Ifenthaler, Bellin-Mularski, & Mah, 2016). Significant intrinsic motivators for microcredential users include confidence in their skills and satisfaction from undertaking and completing a microcredential (Ifenthaler, Bellin-Mularski, & Mah, 2016). A study analyzing the relationship between student performance and motivators found that a student's "perceived intrinsic value of learning materials" (Ifenthaler, Bellin-Mularski, & Mah, 2016) predicted the student's ability to be self-motivated.

Undergraduate Students

"A Preliminary Study of Classroom Motivators and De-motivators from a Motivation-hygiene Perspective" reports examples of what factors motivate college students. A sample of 125 students were surveyed on what experiences from their college classes incited positive and negative feelings. The motivation of a student to perform well in their studies was found to come from a variety of external factors including achievement and recognition for achievement. 29.46% of survey respondents cited achievement relating to successfully completing a difficult assignment or "doing well on test or assignment after expending effort" (Katt & Condly, 2009) were positive motivators. 16.96% of students said recognition for achievement by a professor through grades and praise was a positive motivator (Katt & Condly, 2009). Conversely, an

internal motivator such as personal growth was cited by only 6.25% of respondents as a positive motivator (Katt & Condly, 2009).

Working Professionals

"Factors That Affect Motivation Among Adult Learners" conducted a study investigating the internal factors that motivate adult learners. The surveyed population of 1,012 adult learners were individuals who "have assumed major life responsibilities (e.g. work, family, community)" (Green & Kelso, 2006). The two significant motivating factors for adult learners were "Personal pride in my efforts and success" and "For intellectual gain or knowledge" (Green & Kelso, 2006). 96.7% of business students cited personal pride as being "Very Important" or "Extremely Important" as a factor that affects their motivation (Green & Kelso, 2006). Additionally, "The State of American Jobs" reports that 72% of workers believe the "responsibility falls on individuals to make sure that they have the right skills and education to be successful in today's economy" (Fry & Parker).

5. Learning Style

Experiential Learning

Experiential learning creates a controlled environment for students to gain knowledge and skills through experience. Examples of applications of experiential learning can include internships, consulting projects, or study abroad experiences (Niman & Chagnon, 2021). Each experience takes place in a controlled environment that reduces the risk of uncertainty and trial and error. Educational programs such as Business in Practice at the University of New Hampshire employ "active learning in a controlled environment to ensure a consistently high-quality experience" (Niman & Chagnon, 2021). "Redesigning the Future of Experiential

Learning" explains how Business in Practice develops their curriculum by designing course experiences leveraging specific experiences and goals to courses. Structure is embedded in the curriculum through "a deliberative process that matches learning and developmental goals" and milestones implemented to give students "an opportunity to reflect on what they have accomplished and what still needs to be done" (Niman & Chagnon, 2021).

Microcredentials

Microcredentials provide an opportunity for learners to "personalize their learning and demonstrate ownership and responsibility" (Ifenthaler, Bellin-Mularski, & Mah, 2016) over their learning process. The nature of microcredentials caters to learners who have a "desire for control and autonomy" (Ifenthaler, Bellin-Mularski, & Mah, 2016). Rather than have structured coursework designated by a professor or educational institution, microcredentials allow learners to learn in an unstructured environment. "Foundation of Digital Badges and Micro-Credentials: Demonstrating and Recognizing Knowledge and Competencies" cites microcredentials as requiring "a lesser degree of imposed structure" (Ifenthaler, Bellin-Mularski, & Mah, 2016). An unstructured environment allows learners the opportunity to be self-directed and self-motivated in their education.

Undergraduate Students

Undergraduate students have been found to prefer a structured learning style with prescribed direction from professors and curriculum. "An Exploratory Study of Undergraduate Students' Learning Styles" examined the significance of undergraduate students' learning styles in the context of the Index of Learning Styles. The study found that the sensing-intuitive domain was the only learning style to have a statistical significance. 75% of participants related to the

sensing dimension learning style the most (Pallapu, 2008). The sensing dimension characterizes students as preferring "well-established methods" and disliking complications and being tested on material that was not sufficiently covered by the professor in class (Pallapu, 2008).

Working Professionals

On the other hand, adult learners find the need to be self-directed in their learning and desire less structure and direction. "Self-Directed Learning: A Key Component of Adult Learning Theory" characterizes adult learners as taking "the initiative in learning, learn more things and learn better" (Manning, 2007) when they are self-directed. According to the study, "Adults have a deep need to be self-directing" (Manning, 2007). Rather than requiring structure and prescribed guidance, adult learning styles prefer self-direction and self-initiative. One of the key assumptions to self-directed learning is that adult learners become more self-directing in their learning style as they mature.

6. Self-awareness

Experiential Learning

"Cultivating Self-Awareness with Team-Teaching: Connections between Classroom Learning and Experiential Learning" draws relationships between the need to develop self-awareness in students and experiential learning. Higher levels of self-awareness allow an individual to problem solve, critical think, and develop leadership skills, making self-awareness a highly desired trait by professors and employers. To cultivate such skills, "students need active practice in observing and evaluating what goes on inside and outside their minds and bodies" (Polk, 2013). Experiential learning allows individuals to begin conceptualizing and integrating relevant experiences into skills otherwise unable to be taught within a traditional classroom.

Microcredentials

Learners who are successful in learning through microcredentials tend to be self-regulated and have higher levels of self-awareness. To be a self-regulated learner, an individual must possess "learner autonomy and control through which the individual…directs their own actions, adjusts learning goals, and expands expertise toward self-improvement" (Ifenthaler, Bellin-Mularski, & Mah, 2016). The nature of microcredentials requiring self-motivation and self-regulation in learning requires a learner to possess a degree of self-awareness to be successful in microcredential completion.

Gaps in Literature

The most significant gaps in literature were choices in experiential learning, choices and working professionals, needs in undergraduate students, and levels of self-awareness in undergraduate students and working professionals. The identified gaps are a combination of a lack of studies on these characteristics reflect in learning groups or a discrepancy between current literature and expected outcomes. This study will answer how working professionals feel about the number of choices available to them and how undergraduate students perceive their learning needs. This study also aims to develop an understanding of the levels of self-awareness in undergraduate students and working professionals as well as answers as to whether educational background plays a role in developing self-awareness.

Defining Research Questions

This study will define the traits of experiential learning, microcredentials, undergraduate students, and working professionals by five characteristics: choices, needs, motivation, learning style, and self-awareness. The research questions of the study are the following:

1. According to the defined characteristics, how do undergraduate students differ from working professionals?

2. According to the defined characteristics, what is the difference between experiential learning and microcredential learning?

3. According to the defined characteristics, does experiential learning or microcredentials suit the individual's (undergraduate student or working professional) perception of what type of learning is best for them?

Based on the research questions, the study will investigate the differences in characteristics between undergraduate students and working professionals and ultimately conclude whether experiential learning or microcredentials are more suitable for either group.

Hypotheses

Based on the literature review, the predicted results of this study are that experiential learning will better match the traits of undergraduate students and microcredentials will better match the traits of working professionals. The predicted responses of undergraduate students and working professionals defined by each characteristic can be seen in Table 1.

Table 1

Characteristic Predictions for Undergraduate Students vs. Working Professionals

Characteristic	Undergraduate Students	Working Professionals
Choices	Too many choices	Not enough choices
Needs	Developing new skills	Developing existing skills
Motivation	Motivated by internal factors	Motivated by external factors
Learning style	Structured learning style	Less structured learning style
Self-awareness	Lower level of self-awareness	Higher level of self-awareness
	Experiential Learning	Microcredentials

Methodology

This study is designed to investigate the differences in characteristics between undergraduate students and working professionals and based on those differences, determine whether experiential learning or microcredentials better fit the educational needs of either group. To determine such characteristic differences, this study first defined what the characteristics mean in the context of this study, created a series of questions regarding the characteristics, and finally facilitated a focus group and survey to collect qualitative data.

Developing Focus Group and Survey Questions

After defining the characteristics, a series of questions for a focus group regarding the characteristics were developed. One initial question was developed for each characteristic. One or two sentences defining the referenced characteristic were written to clarify for focus group

participants. A follow-up question was also developed to encourage participants to expand upon their initial thoughts. An example of a question developed for the focus group is as follows:

> *Describe how you feel regarding the number of choices (majors, major options, career choices, etc.) available to you.*

> *Choices are defined as the number of choices available to you. These choices could be related to the number of majors, specializations, and/or careers available to you.*

> > *a) Do you feel you have too many options? Or do you feel you have too few options?*

A full summary of the initial questions, characteristic definition sentences, and follow-up questions can be found in the Appendix.

The questions created for the focus group were edited and adapted to a survey format. Two questions were assigned to each characteristic. The first question was a multiple choice question with 2 to 3 options for the respondent to choose from. An example of a multiple choice question and available answers regarding the choices characteristic is as follows:

> *How do you feel regarding the number of choices (majors, major options, career choices, etc.) available to you? Choices are defined as the number of choices available to you. These choices could be related to the number of majors, specializations, and/or careers available to you.*

> > *a) I feel that I have too many choices available to me*

> > *b) I feel that I have a good amount of choices available to me*

> > *c) I feel that I do not have enough choices available to me*

The second question was an open response question that asked the respondent to elaborate on their previous answer. The open response question was intended to serve as a way to provide context to the initial answer to the multiple choice question. An example of an open response question regarding the choices characteristic is as follows:

> *Please elaborate on how you feel regarding the number of choices (majors, major options, career choices, etc.) available to you.*

Participants

The two groups of participants used in this study are current undergraduate students at the University of New Hampshire's Peter T. Paul College of Business and Economics who have completed one or more Business in Practice classes and Master of Business Administration students also at Peter T. Paul College of Business and Economics who hold a full-time or part-time job. The undergraduate student participants were recruited for a focus group hosted on Zoom via email, resulting in a total of 5 participants. On the other hand, an online survey was distributed via email to the Paul College full-time and part-time MBA students, resulting in 11 responses. Both groups of study participants were enrolled in various Business Administration options.

The undergraduate student participants consisted of juniors and seniors. The largest category by class standing were seniors with a participation percentage of 80%. The full percentages of participants by class standing can be found in Figure 1.

Figure 1

Undergraduate Student Participant Class Standing
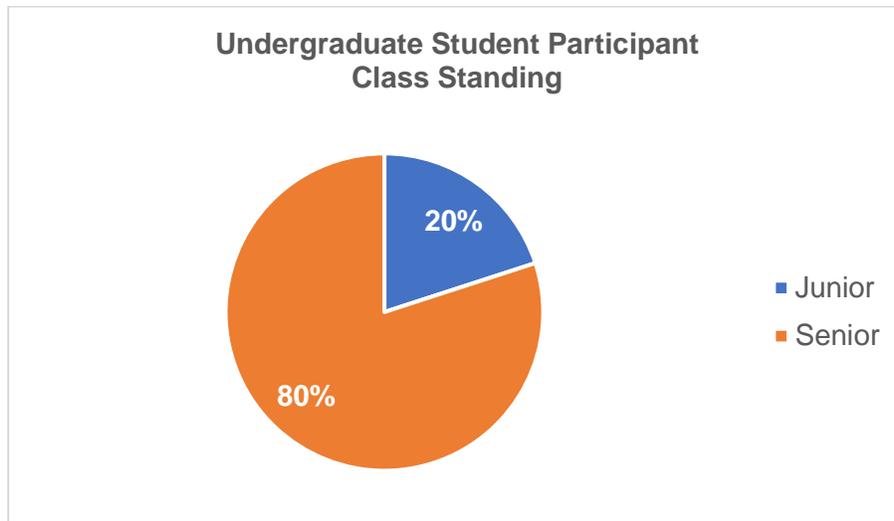
Note. Breakdown of undergraduate student participants in the focus group by class standing.

The undergraduate student participants were enrolled in a wide spread of Business

Administration major options including Marketing, Entrepreneurial Studies, Management,

Accounting, and Finance. More than one student was a dual option Business Administration

major. Participants' specific options can be seen in Table 2.

Table 2

Undergraduate Student Participants' Business Administration Major Options

Option
Marketing
Entrepreneurial Studies
Entrepreneurial Studies, Management
Marketing, Management
Accounting, Finance

The graduate student respondents were enrolled in the MBA program (full-time, part-time, and online). The largest represented age range of respondents was 30 to 39 years of age. The full representation of age ranges can be seen in Figure 2.

Figure 2

Graduate Student Respondent Age Ranges
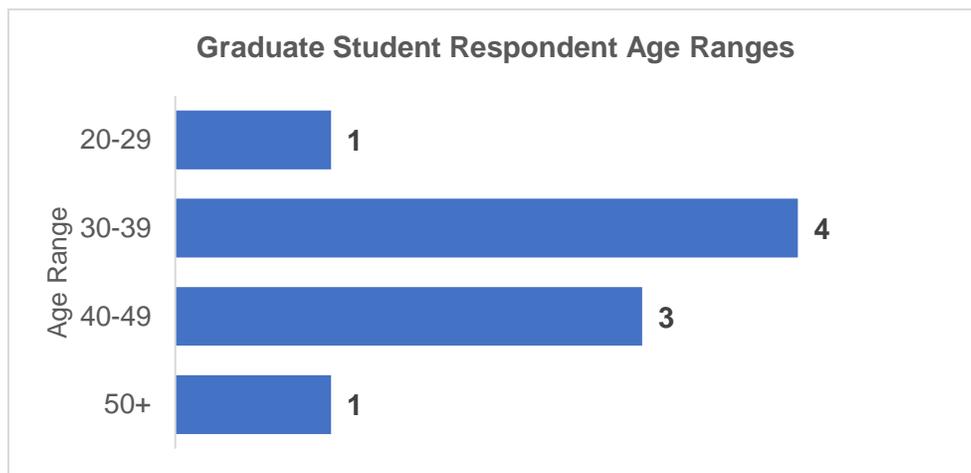
Note. Age ranges of graduate student respondents from 20 to 50+ years.

The graduate student respondents were also enrolled in a variety of MBA options. As seen in Figure 3, the most represented options (excluding "N/A" answers) were Analytics and Growth and Innovation with 18% of respondents each. A full overview of each respondent's MBA option can be found in the Appendix in Table A1.

Figure 3

Graduate Student Participant MBA Option
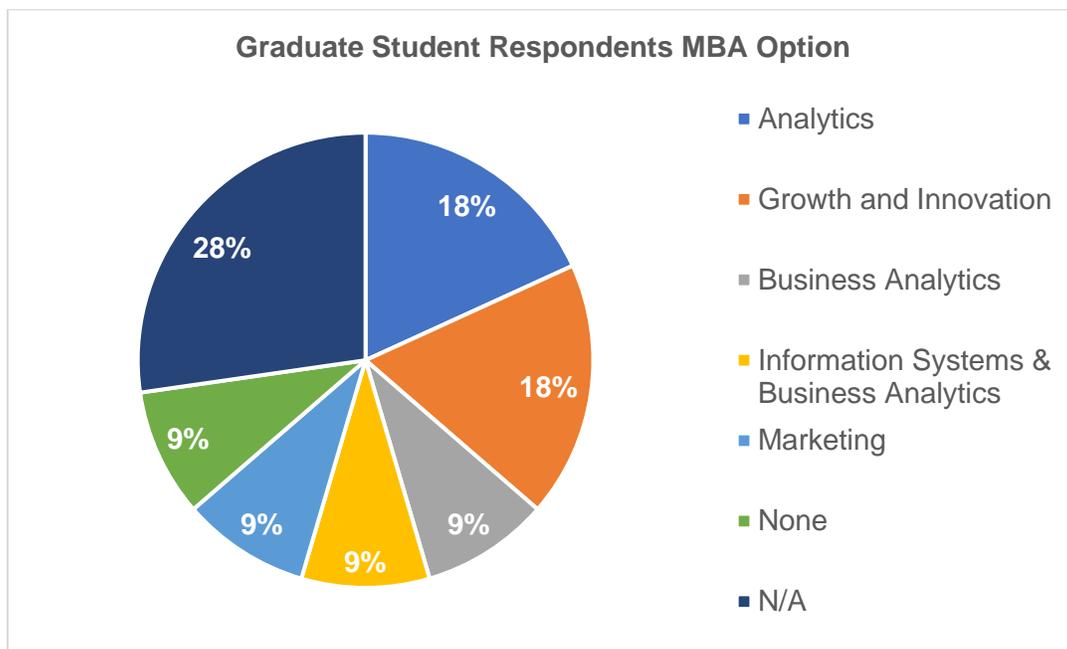
Note. Breakdown of graduate student respondents by MBA option.

Focus Group Procedure

Participants joined a scheduled Zoom call where they responded to open response questions about their choices, needs, motivators, learning styles, and self-awareness. The focus group lasted a total of 45 minutes. Participants were delivered a question by the researcher and then asked to answer the question one at a time.

Survey Procedure

The focus group questions were adapted into a Qualtrics survey consisting of both multiple choice and open response questions about respondents' choices, needs, motivators, learning styles, and self-awareness. The survey contained a total of 10 questions.

Method of Analysis

Focus Group

The focus group session was recorded on Zoom and the resulting audio clip was transcribed in Microsoft Word's transcribing tool. The transcript was then read through by the researcher and analyzed using a qualitative data analysis method outlined in "Analyzing Qualitative Data." For each question, two general categories for each characteristic were defined for responses. The defined categories can be found in Table 3. For each participant, their response to a question was placed in Category 1 or Category 2 based on key words and phrases relating to Category 1 or Category 2 flagged in their response. Responses that were flagged with keywords and phrases from both categories were noted as impartial.

Table 3

Focus Group and Survey Response General Categorization

Characteristic	Category 1	Category 2
Choices	Too many choices	Not enough choices
Needs	Developing new skills	Developing existing skills
Motivation	Motivated by internal factors	Motivated by external factors
Learning style	Structured learning style	Less structured learning style
Self-awareness	Higher level of self-awareness	Lower level of self-awareness

Survey Data Analysis

The survey returned 11 responses to the multiple choice and open response questions. The responses to the multiple choice questions were automatically categorized by the available multiple choice options. The open response answers were used to provide context to the multiple choice results. The same qualitative data analysis method adapted from "Analyzing Qualitative Data" and categorization found in Table 2 was used to classify the open response questions. Questions answered as "I feel that I have a good amount of choices available to me" and "I feel that I have a moderate level of self-awareness" were labeled as impartial. Similarly, any open responses that clarified a multiple choice answer with saying the respondent saw the answer as both (i.e.: viewing educational needs as both developing and transforming skills) were noted as impartial.

Results

Focus Group Responses

The first question regarding choices resulted in a majority of participants saying that there were not enough choices in majors and options available to them. 4 out of 5 participants' responses mentioned there not being enough choices of majors and options available. One participant said they "felt very boxed in just because there were so few options to choose from that I felt like I had to go down one very specific path." Two participants agreed that while there was an appropriate amount of starting choices within majors, there were not enough specializations or pathways to expand into as they progressed through their undergraduate education. For example, one of the two participants said: "I think it's an appropriate amount of like, starting options, but I think within the options there could be, you know, more direct pathways…of exactly what kind of track you'd want to go down." Only one participant responded saying they were "happy with…the amount of different things you can major in."

The second question regarding needs resulted in a majority of participants saying they viewed their educational needs as developing new skills. Two participants agreed that Paul College has fulfilled their educational needs by teaching both hard and soft skills within the classroom and in the Business in Practice program. One participant viewed their educational needs as developing new skills but noted that "a lot of the hard skills that I've learned in college have come from things I've done outside of the classroom" like internships, managing clubs, or the workplace. Another participant said they saw their educational needs as circumstantial, both gaining "new skills where I'm genuinely interested in it or I don't have any experience in it" and "enhancing my skills that…I've either gained in previous classes or I'm coming into college and into my classes with."
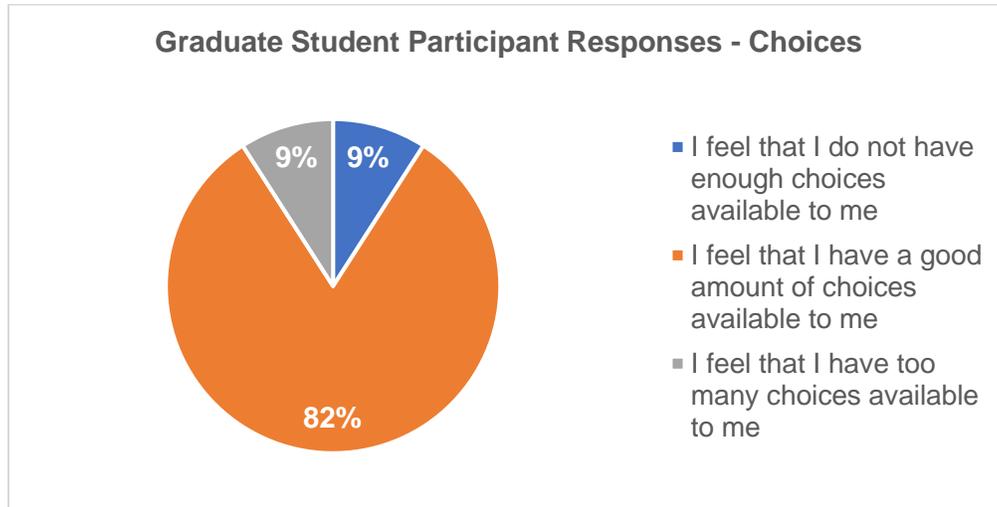
The third question regarding motivation resulted in all participants saying they are motivated by external factors. Although some participants prefaced their answer to what specifically motivates them saying they were internally motivated, the factors that motivate them were external factors. Examples of externally motivating factors were grades, scholarship retention, class material, and professors. Two participants cited obtaining their bachelor's degree as a significant motivator. Regarding their grants and scholarships, one participant mentioned "Obviously, keeping good grades, you get to keep those sort of things" as one of their primary external motivators. Participants were also motivated by external factors relating to the classroom. One participant said their motivation is "easily influenced by a really passionate teacher, if the teacher's clearly really into the material and they make it exciting." Another participant described how "if there is a good team chemistry in a group project or group assignments, that just makes me even more want to work harder in a class."

The fourth question regarding learning style resulted in all participants saying they prefer a more structured learning style. All participants agreed that they preferred structure in their classes, assignments, and projects. One participant said that a structured learning style is the most comfortable and success-oriented for them "because then I know what the professor is looking for and I find that's the way I'm most successful and I actually get like, the grade that I'm looking for." Some participants said they generally preferred structure but also thought that learning style was dependent on the type of class they were taking. For instance, two participants felt that 700 level classes were better suited to have structure "because you're able to expect what needs to be better," while other creative classes should be less structured to allow for freedom of creativity.

The fifth and final question regarding self-awareness resulted in all participants saying they perceive themselves as having high levels of self-awareness. One participant gave an example of how "there have been things that are like, open to interpretation and I have to really be self-aware and assess the situation and assess all of the factors in many different scenarios." Furthermore, all participants agreed that their education and time at Paul College have helped increase their level of self-awareness. One participant detailed the opportunities at Paul College that helped them develop their self-awareness including Krystal Hicks's Business in Practice course, College to Career: How to Stand Out in Today's Job Market.

Survey Responses

The first multiple choice question regarding choices resulted in 82% of respondents answering: "I feel that I have a good amount of choices available to me." A full summary of the responses can be seen in Figure 4. The follow-up open response question resulted in one respondent saying they were satisfied with the MBA program offering "4-5 specialized degree options." On the other hand, two respondents were satisfied with the amount of MBA options but mentioned that there be more specific classes or specializations for those with unique interests. For instance, one respondent suggested that the MBA program include a supply chain management option, "it is an area of business that is very important to an organization and that has become increasingly vital in the past two years." Another respondent's response noted that "there are a few options but I wish there were more ways to complete those options."

Figure 4

Graduate Student Survey Response Breakdown – Choices

Graduate Student Participant Responses - Choices

- 9% — I feel that I do not have enough choices available to me
- 82% — I feel that I have a good amount of choices available to me
- 9% — I feel that I have too many choices available to me

The second multiple choice question regarding needs resulted in 64% of respondents answering: "I view my educational needs more as developing new skills." A full summary of the responses can be seen in Figure 5. Many respondents explained that they previously worked in an industry and that their educational needs were developing new business administration-related skills as they switched career fields. For example, one respondent mentioned: "There are a lot of skills/classes in the MBA program I know nothing about…because I have an engineering background." Another respondent with a background in liberal arts said: "I don't have the leadership skills needed to be an effective manager in the future."

Figure 5

Graduate Student Survey Response Breakdown – Needs

Graduate Student Participant Responses - Needs

36%

64%

■ I view my educational needs more as developing new skills

■ I view my educational needs more as transforming existing my skills
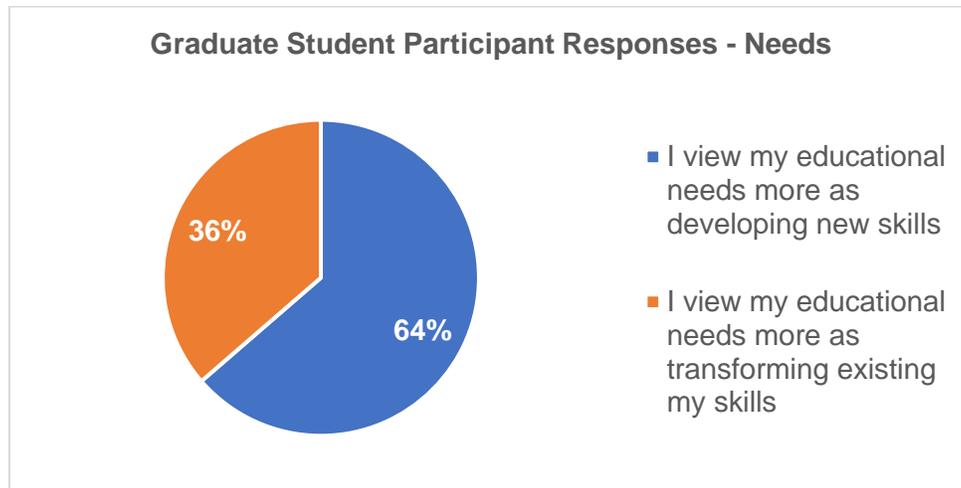
The third multiple choice question regarding motivation resulted in 73% of respondents answering: "I find myself more motivated by internal factors." A full summary of the responses can be seen in Figure 6. Many respondents answered the short response question saying they were internally motivated to complete their MBA degree. One respondent answered: "I chose to do this, not because I was relegated to it – I don't need an MBA but I want one," indicating that their motivation to complete their degree is from internal choices and motivation.

Figure 6

Graduate Student Survey Response Breakdown – Motivation
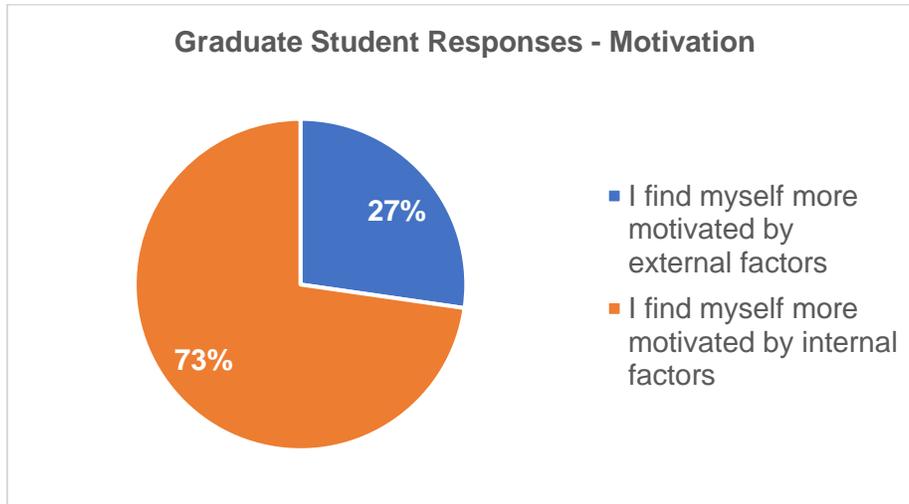
The fourth multiple choice question regarding learning style resulted in 73% of

respondents answering: "I feel my learning style is compatible with more structure." A full

summary of the responses can be seen in Figure 7. One participant said: "Having more structure

gives me a better road map to follow and stay on top of work and assignments." Another

participant noted that they "tend to be stressed and take longer to do assignments when I do not

know what the parameters are."

Figure 7

Graduate Student Survey Response Breakdown – Learning Style
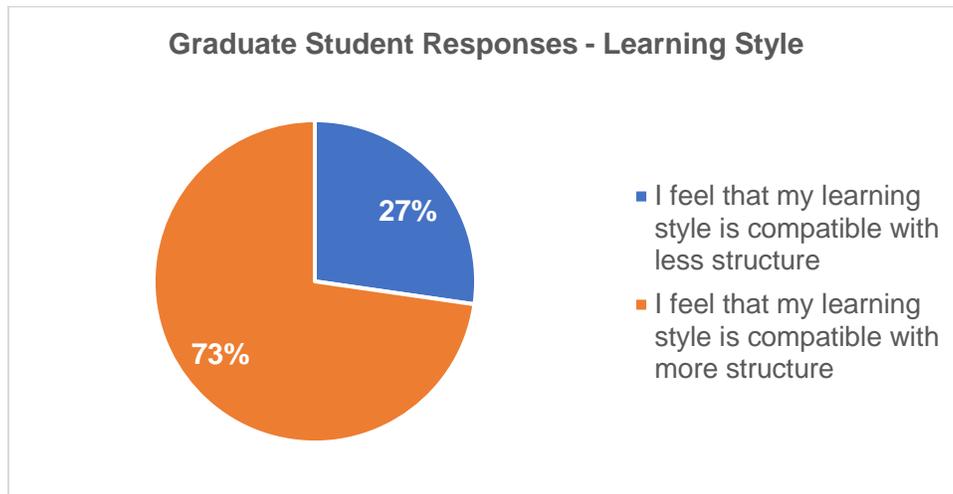
The fifth and final multiple choice question regarding self-awareness resulted in 82% of respondents answering: "I feel that I have a higher level of self-awareness." A full summary of the responses can be seen in Figure 8. The follow-up open response question asked respondents whether they thought education played a role in developing their level of self-awareness. 4 respondents answered the open response question favoring the idea that education helped develop their self-awareness. One respondent answered: "The process of education and knowledge attainment is about critically thinking, challenging your long-held beliefs, and discovery." On the other hand, 2 respondents believed that education is not something that can be learned through education. For example, one respondent said: "I feel self-awareness is something that is learned through daily life…I personally feel I've developed more self-awareness in work and therapy rather than school."

Figure 8

Graduate Student Survey Response Breakdown – Self-awareness
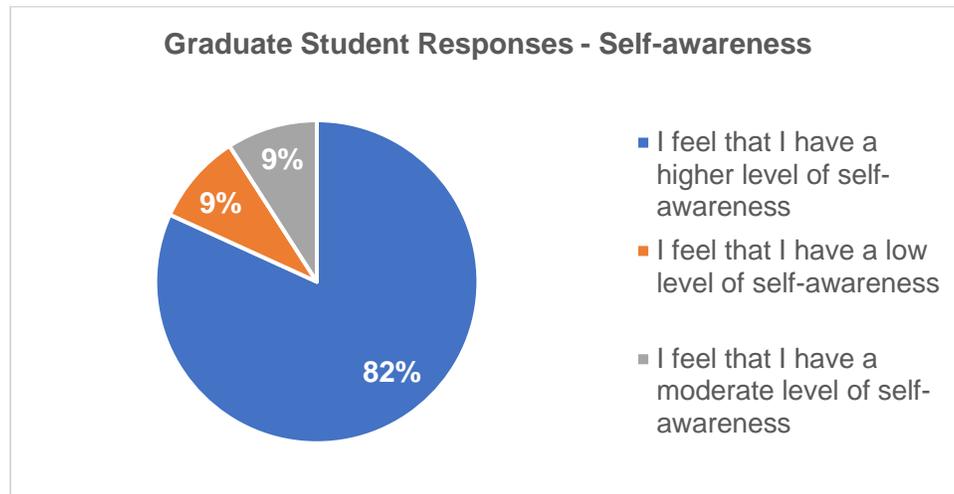
Comparisons Between Undergraduate Students and Working Professionals

A comparison of the focus group and survey results revealed that the differences in the defined characteristics of undergraduate students and working professionals were not as contrasted as predicted. Both groups of learners saw their educational needs as developing new skills, saw their learning style as more compatible with structure, and perceived themselves as having higher levels of self-awareness. As expected, undergraduate students found themselves motivated by external factors while graduate students were motivated by internal factors. These results were consistent with the findings reported in the literature review. Similarly, undergraduate students also reported themselves as viewing their learning needs as developing new skills and as preferring a structured learning style. The only result from the graduate student responses that was consistent with the expected outcome was graduate students perceiving themselves as having high levels of self-awareness. A full comparison of the undergraduate versus graduate MBA student results can be found in Table 4.

Discrepancies in Results

Undergraduate students believed that they did not have enough choices available to them. On the other hand, graduate students thought they had a good amount of choices available. While the literature review reported that undergraduate students have difficulty and are overwhelmed by the process of making choices regarding their major, the focus group participants perceived the opposite. A contributing factor to this result may be the grade level of the participants. Focus group participants were either juniors or seniors that had already made a decision regarding their major and could now retrospectively look at their learning path. The inclusion of freshmen and sophomores that have not yet committed to a major may have returned mixed results about the satisfaction of choices.

Both undergraduate and graduate students view their learning needs as developing new skills. While undergraduate students are expected to have the need to learn new skills given that they enter college with little to no specialization in a career, graduate students making career transitions would also have the need to develop new skills to succeed in their new career. Many graduate student responses to the survey identified themselves as changing career paths from liberal arts or engineering to business. If a graduate student is pursuing their master's degree in a field they did not study in their undergraduate career, then their learning needs would identify with developing new skills.

Both undergraduate and graduate students prefer a more structured learning style. The literature review cites adult learners prefer to be self-directed in their learning, but the majority of graduate student responses stated that they felt their learning style was more compatible with structure. These results may be attributed to the amount of respondents changing career paths. One respondent said: "Because topics like accounting and finance are so new to me, I need the

delivery to be very well defined because I don't need to be confused by both the content AND

the course structure." Graduate students preferring structure in their learning also coincides with

the type of master's program they are enrolled in. Many of the master's degree programs at the

University of New Hampshire follow an 8-week term schedule. One respondent said that having

more structure in shorter-term classes makes it easier for them to stay on track with their

assignments.

Both undergraduate and graduate students perceive themselves as having high levels of

self-awareness. While higher levels of self-awareness are expected in graduate students given

their age and maturity, self-awareness is generally reported as an underdeveloped skill in

undergraduate students. The results of undergraduate students perceiving themselves as having

high levels of self-awareness could be related to the age distribution of participants. Juniors and

seniors that have been enrolled in college for three or four years may have higher self-awareness

because of classes they have taken, longer exposure to social interactions, and participation in

jobs or internships.

Table 4

Comparing Undergraduate and Graduate Student Results

Characteristic	Undergraduate Result	Graduate Result
Choices	Not enough choices	Good amount of choices
Needs	Developing new skills	Developing new skills
Motivation	Motivated by external factors	Motivated by internal factors
Learning style	More structured learning style	More structured learning style
Self-awareness	Higher levels of self-awareness	Higher levels of self-awareness

Suitability of Educational Programs

Based on the discovered similarities in characteristics of undergraduate students and working professionals and the discrepancies between expected and actual results, the study was unable to draw definitive conclusions about the suitability of experiential learning or microcredentials for the learning needs of undergraduate students or microcredentials. A lack of consistency between the expected outcomes and the results does not necessarily mean either experiential learning or microcredentials are not suited to either group of learners. Rather, it implies that more research must be conducted to better understand undergraduate students and working professionals. For example, undergraduate students had the most compelling argument for their learning needs being compatible with experiential learning. However, experiential learning suiting undergraduate students' needs relies on the assumption that the perception of choices in majors varies by class standing, and self-awareness being a characteristic that rapidly develops in undergraduate students by the time they are juniors or seniors.

Implications

Implications for Education Administrators

The focus group and survey results revealed the differences between undergraduate students and working professionals are not as contrasted as predicted. Given that both groups exhibit similar characteristics, there is less of a need to differentiate undergraduate and graduate curricula. The results also revealed that undergraduate students want more choices in majors and options. While undergraduate students were satisfied with the starting number of options within Paul College's curriculum, they wanted more specializations within an option. For example, participants with marketing options thought the curriculum had a heavy emphasis on marketing

analytics and data and would have liked to see more classes focused on creative marketing. With insight into what undergraduate junior and senior students desire from their education, education administrators can look at developing more specializations within an option to satisfy student needs. For example, the marketing option could expand beyond analytics offerings to graphic design and creative writing.

Furthermore, the results revealed that undergraduate students have difficulty accessing the options available to them. One participant mentioned how their transferring to Paul College from community college formulated their opinion of not "necessarily having a problem with the amount of options to pick from but…more the accessibility to them." Difficulty in accessing available majors and options stems from students previously attending a different institution or the lack of flexibility within an option. The lack of accessibility to options discourages students from pursuing other fields of study and becoming more rounded in their education. Education administrators may consider reducing barriers to pursuing options for students.

Implications for Instructors

The results of the study also provide relevant implications for instructors. Understanding that undergraduate students are externally motivated and graduate students are internally motivated allows instructors to set differentiated expectations and goals in the classroom. For instance, motivating undergraduate students with extra credit to raise their grades will be more motivational to them rather than motivating them a promise of professional development. On the other hand, graduate students will be more motivated by professional development and goals oriented on internal factors. Additionally, understanding whether undergraduate and graduate students prefer more or less structure in their classes helps instructors set their course structure

up for student success. Instructors segmenting the goals of a class and the education style by learning groups will help students be more successful.

Further Research

To better understand the suitability of experiential learning or microcredentials for learning groups, further research on this topic with diversified age groups and backgrounds is needed. Defining the undergraduate participant pool by freshmen, sophomores, juniors, and seniors would provide insight into the nuances in characteristics amongst undergraduate students. For example, the University of New Hampshire reports 28% of incoming first-year students as being undeclared (Undeclared, n.d.). Undeclared students may be more likely to feel overwhelmed by the number of majors and options available to them in comparison to a junior who has declared their major. Similarly, segmenting the graduate respondent pool by graduate students who entered their MBA program immediately after completing their bachelor's degree, students who are pursuing their MBA with a bachelor's degree in business administration, and students who are pursuing their MBA while transitioning from a different career would better capture the educational needs of working professionals.

Further research could also be conducted to begin determining how Paul College can optimize their curriculum to satisfy student needs. Research on what fields of study students want to see in their option's curriculum could provide guidelines for how Paul College can improve class offerings to students. Expanding the number of specializations within an option could create better-prepared students. For example, a marketing student that has proficiency in both analytics and creative design may be a more attractive candidate in the job market. Additionally, research on how curriculum can be adapted to different class standings can better tailor the academic experience for students. Some examples of applications are expanding

experiential learning programs to freshmen and sophomores for early exposure and improving the accessibility of skill development opportunities for juniors and seniors.

Conclusion

After conducting a focus group of undergraduate students and distributing a survey to graduate students, it was concluded that the results of both research instruments cannot accurately determine whether experiential learning or microcredentials better suits the educational needs of undergraduate students or working professionals. While the responses of undergraduate students are the most consistent with being compatible with experiential learning suiting their needs, the inconsistencies between the expected and actual results require additional research. Although the results were inconclusive in determining the suitability of educational programs, the results provided valuable insight into how education administrators and instructors can better tailor curriculum to student needs. To gain a better understanding of the suitability of educational programs for different learning groups, more research on the topic is needed. By continuing this study to include a wider range of age groups and determining characteristics that further define learning groups, more accurate assumptions about the suitability of educational programs for different groups of learners can be made. Furthermore, the scope of this study can be expanded to research how Paul College curriculum can be improved to satisfy student needs.

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Appendix

Table A1

Graduate Student Participants' MBA Option

Respondent Number	Option
Respondent 1	N/A
Respondent 2	Information Systems & Business Analytics
Respondent 3	Analytics
Respondent 4	Business Analytics
Respondent 5	N/A
Respondent 6	Growth and Innovation
Respondent 7	Analytics
Respondent 8	Marketing
Respondent 9	Growth & Innovation
Respondent 10	N/A
Respondent 11	N/A

Table A2

Undergraduate Student Participant Results

Characteristic	Result
Choices	Not enough choices
Needs	Developing new skills
Motivation	Motivated by external factors
Learning style	More structured learning style
Self-awareness	Higher levels of self-awareness

Table A3

Graduate Student Participant Results

Characteristic	Result
Choices	Good amount of choices
Needs	Developing new skills
Motivation	Motivated by internal factors
Learning style	More structured learning style
Self-awareness	Higher levels of self-awareness

Focus Group Questions

1. Describe how you feel regarding the number of choices (majors, major options, career choices, etc.) available to you.

    a. Do you feel you have too many options? Or do you feel you have too few options?

2. Describe how you view your educational needs.

    a. Do you view your educational needs as developing skills? Or do you view your educational needs as transforming existing skills?

3. Describe what motivates you in an academic setting.

    a. Do you find yourself motivated by internal or external factors?

4. Describe your learning style.

    a. Do you feel that your learning style is more compatible with structure? Or do you feel that your learning style is more compatible with less structure?

5. Do you feel that you have a higher or lower level of self-awareness?

    a. Do you feel that education plays a role in developing your level of self-awareness?

Survey Questions

1. How do you feel regarding the number of choices (majors, major options, career choices, etc.) available to you?

    a. I feel that I have too many choices available to me

    b. I feel that I have a good amount of choices available to me

    c. I feel that I do not have enough choices available to me

2. Please elaborate on how you feel regarding the number of choices (majors, major options, career choices, etc.) available to you.

3. Do you view your educational needs as developing skills? Or do you view your educational needs as transforming existing skills?

    a. I view my educational needs more as developing new skills

    b. I view my educational needs more as transforming existing skills

4. Please elaborate on how you view your educational needs.

5. Do you find yourself motivated in an academic setting more by internal or external factors?

    a. I find myself more motivated by internal factors

    b. I find myself more motivated by external factors

6. Please elaborate on whether internal or external factors motivate you more in an academic setting.

7. Do you feel that your learning style is compatible with more or less structure?

    a. I feel that my learning style is compatible with more structure

    b. I feel that my learning style is compatible with less structure

8. Please elaborate on why and how your learning style is compatible with more or less structure.

9. Do you feel that you have a higher or lower level of self-awareness?

    a. I feel that I have a higher level of self-awareness

    b. I feel that I have a moderate level of self-awareness

    c. I feel that I have a low level of self-awareness

10. Do you feel that education plays a role in developing your level of self-awareness? Explain.