Personality Preferences and Success in Introductory Accounting

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Abstract

Introductory accounting is a crucial course for students considering a career in accounting as well as accounting educators seeking to identify students who will excel in the profession. This study examines student performance in introductory accounting to determine if those with a sensing preference, as measured using the Myers-Briggs Type Indicator, have significantly higher performance. This study adds to the literature by replicating studies conducted at larger universities and improves upon the methodology of many prior studies by incorporating a control variable to account for students' general academic aptitude. The results confirm that students with a sensing preference have higher performance. Based on the results, educators should consider incorporating a wide range of learning activities to engage students with both sensing and intuitive preferences.

Keywords: personality type, Myers-Briggs Type Indicator (MBTI), introductory accounting

Introduction

The availability of accounting positions and attractive compensation has increased the number of incoming college students considering accounting as a major (AICPA, 2013). The introductory accounting course frequently reveals if students have an aptitude for accounting and helps them identify their preference for accounting tasks. Thus, performance in introductory accounting is of interest both to students considering a career in accounting as well as educators involved in introducing these students to the field of accounting.

This study examines student performance in introductory accounting to determine if those with a sensing preference as measured using the Myers-Briggs Type Indicator (MBTI) have significantly higher performance. Prior studies suggest students with a sensing preference frequently perform better because accounting requires tasks that coincide with their inherent strengths. This study adds to the literature by replicating studies conducted at larger universities and improves upon the methodology of many prior studies by incorporating ACT score as a control variable to account for students' general academic aptitude. Inclusion of this variable

produces a model that explains more of the variance in student performance, enhancing the results.

The next section discusses the MBTI and its application to educational research in accounting. Then, the results of similar studies are reviewed, followed by the methodology, results and implications of the current study.

Literature Survey

Learning Style

Carl Jung first asserted that human behavior can be understood based on an individual's personality type (Jung, 1971). Jung's theory of psychological type, operationalized using the Myers-Briggs Type Indicator (MBTI) has been used extensively and has provided a useful framework for explaining human behavior. Jung's theory can be used to identify student learning styles. The MBTI was selected for this study because of its extensive use, validity and reliability. For a thorough review of these attributes, see Wheeler's (2001) review of MBTI-based research in accounting.

Jung's theory posits that individuals have two preferred attitudes toward the world; they can be introverted (I), preferring the inner world of ideas and concepts or extroverted (E), preferring the outer world of people and things. Jung stated that individuals perceive their environment using either a sensing (S) or intuitive (N) preference. As discussed below, this preference determines how a person will organize input received through the five senses and can be used to predict a person's preferred method of learning. In addition, Jung inferred that individuals make decisions using a thinking (T) or feeling (F) preference. Those with a thinking preference prefer an objective decision-making process while those with a feeling preference will be more attune to the impact a decision has on people and relationships. Briggs-Myers, elaborating on Jung's theory, posited that people prefer one of two ways of dealing with the world. They prefer judging (J), a planned orderly lifestyle or perceiving (P), a spontaneous, flexible lifestyle. These four pairs of contrasting preferences result in 16 possible personality types (See Table 1).

Table 1: Myer-Briggs Type Indicator Preferences

	Preference	
Attitude Toward the World	Introverted (I)	Extroverted (E)
Perception of Environment	Sensing (S)	Intuitive (N)
Decision-making	Thinking (T)	Feeling (F)
Lifestyle	Judging (J)	Perceiving (P)

Individuals are able to operate using either preference, but they are most comfortable when operating in their preferred mode. For example, when a situation requires extroverted behavior (e.g. hosting a party), an introverted individual can be very outgoing. However, the majority of the time he will follow his preference, speaking less often and spending a greater proportion of time by himself. A preference is analogous to being left- or right-handed. A right-handed basketball player can shoot with her left hand and she is trained to do so. However, in crucial

game situations, she will shoot with her right hand, the one with which she is most confident. The perception preference (sensing or intuitive) is closely connected with learning style. This preference and its impact on learning is discussed next.

Jung suggests that people have a unique preference for learning based on how they perceive their environment. Jung maintained that an individual prefers either sensing or intuition. Those with a sensing preference obtain input through the five senses and draw conclusions based on a sequential ordering of this information (Lawrence 1983, 52). They tend to focus on the concrete aspects (facts) of the environment and prefer to learn material in step-by-step fashion. They are skilled at noticing details and their procedural aptitude makes them adept at taking an idea and implementing a process that brings it to fruition.

In contrast, those with an intuitive preference receive input and organize the information into patterns, forming a global perspective (Lawrence 1983, 53). Those with an intuitive preference are adept at dealing with abstract concepts because they "see the big picture." This perspective allows them to see innovative problem solutions and generate insightful ideas. Those with an intuitive preference dislike detail-oriented work and repetition, preferring to move on to new problems.

Accounting Education Research Using the MBTI

Much of the accounting research using the MBTI surveyed the personality types of accounting professionals and students majoring in accounting. Two personality types predominate: ISTJ and ESTJ. In his review of MBTI research in accounting, Wheeler (2001) notes that the personality types of accounting professionals is consistent among firms and shows little change over time.

The personality types of accounting students mimic that of accounting professionals. Abdolmohammadi, Fedorowicz, and Davis (2009) compared the cognitive styles of U.S. accounting graduates in 1990 and 2005 and found no significant differences-in both groups more than 65% had a sensing preference. Briggs, Copeland, and Haynes (2007) also found consistency in the personality types of a large sample of Australian accounting students over a five-year time period. Kovar, Ott, and Fisher (2003) point out that this tendency is not easily changed. In their study, recruiting efforts and changes in pedagogy resulted in no significant changes in the Myers-Briggs types of accounting majors over the eight-year time period of the study.

Prior research reveals that a high percentage of accounting majors have a sensing preference. A survey of recent MBTI-based accounting education research (Table 2) reveals that the percentage of students with a sensing preference in accounting courses is typically over 70%. These studies include a range of courses from introductory accounting for non-majors to graduate courses. Research by Briggs, Copeland, and Haynes (2007) supports the hypothesis that this occurs because students with unique personality types self-select into accounting. They found significant differences between the Myers-Briggs types of accounting and psychology majors at the University of South Australia with the biggest difference being the sensing/intuitive preference.

Table 2: Percentage of Students with a Sensing Preference in Accounting Education Research

Authors	Sample	Percentage of Students with Sensing Preference
Oswick and Barber (1998)	344 business majors	46
Ramsay et al. (2000)	132 accounting majors	72
Kovar et al. (2003)	310 accounting majors	83
Bealing et al. (2006)	61 accounting majors	75
Briggs et al. (2007)	821 accounting majors	76
Abdolmohammadi et al. (2009)	252 recent accounting graduates	71
Andon et al. (2010)	93 accounting majors	44
	94 masters of accounting	43
Garlick et al. (2013)	59 business majors	65

Several studies have examined the relationship between performance of students in accounting courses and personality type. Some studies reveal that students with a sensing preference earn significantly higher grades in accounting courses compared with those possessing an intuitive preference, while other studies failed to find any difference.

Nourayi and Cherry (1993) found students with a sensing preference earned significantly higher grades in three (Tax, Auditing and Intermediate Accounting II) out of seven accounting courses. Their sample consisted of 103 accounting majors at a large private university. Bealing, Staley, and Baker (2009) found the same result in their sample of 95 business majors in introductory accounting at a large state university. Ott, Mann, and Moores (1990) found students with a sensing preference earned higher exam scores under the lecture method than under computer-assisted instruction. Their sample consisted of 88 students in introductory accounting at Texas Tech University. These studies provide evidence that a sensing preference has a positive effect on student performance in accounting courses.

Two studies of students in introductory accounting failed to find differences in the performance of students with various MBTI preferences. Oswick and Barber (1998) did not find any significant relationships between grades in introductory accounting and any of the MBTI preferences in their sample of 344 undergraduate business students at a large research university in the United Kingdom. Garlick, Shurden, and Shurden (2013) did not find a significant difference between the grades of students with personality types typically associated with accountants (ISTJ and ESTJ) and others in introductory accounting. Their sample consisted of 52 business majors at a small college in the Southeastern United States. Neither of these studies controlled for students' general academic aptitude and Garlick, Shurden, and Shurden (2013) did not specifically examine the sensing/intuitive preference.

Research Question

This study examines students in introductory accounting, comparing the performance of students with a sensing preference with those possessing an intuitive preference. The accounting cycle procedure inherent in introductory accounting is congruent with the preferred learning style of students possessing a sensing preference. The process of recording transactions, updating account balances and other steps that lead to the preparation of financial statements is the type of sequential task preferred by these students. In addition, the attention to detail required in accounting utilizes one of their strengths. Therefore, the following research question was posed: *Research Question:* Will students with a sensing preference have significantly higher performance in introductory accounting than those with an intuitive preference?

Methodology

Students participating in the study completed the Jung Typology Test using an online assessment tool offered by HumanMetrics (2014) to determine their personality type. This was the most cost-effective method of obtaining this information. Students gave permission for the researcher to use their scores on course assignments and provided their ACT score and demographic information such as age, gender and declared major.

Performance was measured as the percentage of total points earned in the course. Ninety percent of course points were earned through in-class quizzes and examinations. Eighty percent of quiz and examination points were problem-solving versus conceptual questions. All students were taught by the researcher using the lecture method and all assignments were graded by the researcher to assure consistent grading.

Sample

The researcher taught six sections of principles of accounting at a small private university from 2011 to 2013. Students in these classes were invited to participate in a study investigating the learning process in principles of accounting. One-half of the students (56 students) agreed to participate. A comparison of those who participated and those who did not is provided in Table 3.

Table 3: Comparison of Students in Introductory Accounting Course

	Participants	Non-Participants
Number in Group	56	56
Males (%)	32 (57%)	37 (66%)
Mean Percentage of Course Points Earned (Standard Deviation)	.79 (.09)	.73 (.10)
Mean Improvement in Assessment Score (Standard Deviation)	.17 (.19)	.20 (.18)

All students completed an assessment on the first and last day of class to measure improvement in key course concepts. No difference was found between study participants and non-participants. However, a difference was found between the groups on percentage of course points earned; participants earned a significantly higher percentage of total points in the course ($p=.001$). Thus, there is evidence that some self-selection bias exists with the sample consisting of higher-performing students. However, there is no expectation that this bias would result in systematic differences between students with a sensing or intuitive preference.

Data Analysis and Results

Demographic information on participants is presented in Table 4. Similar to other studies of business majors, the predominant personality types were ISTJ and ESTJ, with 30% of participants possessing one of these two types. Similar to prior studies, the percentage of participants with a sensing preference is high: 68% for the overall sample and 84% for the accounting majors. Accounting majors differ from other participants in two respects: only 39% prefer extroversion and 100% have a judging preference.

Table 4: Participant Descriptive Statistics

	Total	Accounting Majors	Other Business Majors	Nonbusiness Majors
Number in Group	56	13	35	8
Percentage of Males	57%	46%	60%	62%
Percent with Extroversion Preference	62%	39%	66%	88%
Percent with Sensing Preference	68%	84%	60%	75%
Percent with Thinking Preference	45%	31%	46%	62%
Percent with Judging Preference	96%	100%	97%	88%
Mean ACT Score	23	25	23	25
Mean Percentage of Course Points Earned	79%	84%	75%	87%

Differences in the performance of participants were examined on each of the four pairs of preferences (E-I, S-N, T-F, J-P). No significant differences were found. In addition, no significant difference was found in the performance of male and female participants.

Data were analyzed using multiple regression. Percentage of course points earned was the dependent variable. Perception preference was included as a discrete independent variable to test for differences between students with a sensing preference and those with an intuitive preference. ACT score was included as a control variable and surrogates for general academic aptitude. Results are shown in Table 5.

Table 5: Regression Analysis of the Impact of Perception Preference on Course Performance

Model: Percent Points = b_0 Constant + b_1 ACT + b_2 Preference

Independent Variable:	**Coefficients (p-values)**
Constant b_0	.410 (.000)
ACT Score b_1	.605 (.000)
Preference b_2	.193 (.079)
Model Statistics:	
R^2	.387
Adjusted R^2	.363
F-Statistic	16.70 (.000)

The regression model is significant, indicating that a significant proportion of variation in course performance is explained by the independent variables. Adjusted R^2 indicates that the variables in the model explain 36.3% of the variation in the percentage of course points earned, a relatively high percentage compared with the results of other educational research.

Students with a sensing preference performed better in the introductory accounting course; the coefficient on Preference was positive and marginally significant (p=.079). This result was obtained with a relatively small sample. The coefficient on ACT Score was positive and significant. This measure of academic aptitude was a useful addition to the model, explaining a significant amount of variance in performance. Inclusion of this variable revealed the difference between students with a sensing and intuitive preference, a result not apparent in the univariate analysis.

Implications, Limitations and Conclusions

The results of this study support the results of similar studies which show that students with a sensing preference perform better in introductory accounting. In summary, there is a body of research that suggests a match between the requirements of introductory accounting and the inherent aptitude of students with a sensing preference. The procedural nature of this course and the attention to detail required coincides with the strengths of students who possess this preference. These students are more likely to be successful in their first accounting course. This success may confirm the choice of accounting as a major, or prompt those with other majors to consider accounting as a career.

However, students with an intuitive preference may also select accounting as a career or be required to master accounting fundamentals to succeed in business. Knowing up front that they will encounter some adversity in accounting can help them succeed. Ideally, this prompts them to devote more effort to mastering the procedural aspects of accounting, use strategies to assure all facts (details) are considered, and request assistance from course tutors.

Educators should be sensitive to the unique learning styles of students and provide alternative learning strategies. For example, efforts can be made to show multiple solutions to problems which appeal to students with either a sensing or intuitive preference. In addition, incorporating a

broad range of learning activities provides opportunities to engage students with different preferences. For example, providing diverse homework assignments and allowing students to choose which to complete can help meet the learning preferences of individual students.

Some instructors have noticed the difficulty many students encounter with accounting concepts and have developed innovative approaches that consider different learning styles. For example, Robilliard and Frampton (2011) have developed an approach to teaching introductory accounting that begins with a global perspective, which should appeal to students with an intuitive preference. Given the potential for attracting and retaining students with different learning styles, educators should seriously consider these alternative approaches. Efforts to make accounting appeal to a more diverse group of students are admirable given the homogeneity found in many studies of accounting majors and professionals.

The Accounting Education Change Commission (1990) funded initiatives to promote curriculum change in an effort to attract and educate students into the accounting profession who possess a broader range of skills. The accounting program restructuring described by Kovar, Ott, and Fisher (2003) was one of these initiatives. However, their changes failed to achieve diversity in the personality types of students in the accounting program. The results of this current study and similar prior studies confirm the preponderance of those with a sensing preference in the accounting student population. This failure to achieve diversity in personality styles continues to be an issue for accounting educators and the accounting profession.

This study demonstrates the importance of controlling for academic aptitude. In prior studies of the performance of introductory accounting students, this control variable was frequently omitted. However, incorporating some measure of general academic aptitude may be necessary to identify the impact of other variables of interest.

The results of this research have several limitations. First, the sample size is relatively small. A stronger result could have been obtained with more participants. However, at a university with relatively small class sizes, obtaining a larger sample would have significantly extended the time frame of the study. Second, the generalizability of results is limited since the study involved only one university and one instructor. Despite these limitations, the results of this study should be considered along with similar results found in other studies at larger schools and public universities. Taken together, they reveal a pattern of higher performance in introductory accounting by those with a sensing preference in a variety of venues.

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