

Shaping Future Certified Public Accountants: Through Policy to Quality Accounting Education in a University

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Publication Date: July 28, 2026

DOI: 10.5281/zenodo.21633835

Abstract

One of the most arduous licensure examinations in the Philippines is the Certified Public Accountant Licensure Examination (CPALE) administered by the Board of Accountancy (BOA) of the Professional Regulations Commission (PRC). Moreover, the success of students aspiring to become CPAs depends on the quality of the educational services provided by the educational institution. This study aims to assess the University of Cebu-Banilad's admission and retention policies for the Bachelor of Science in Accountancy program.

This study employed a descriptive correlational research design using secondary data from the Guidance Center, the Registrar's Office, and the Professional Regulations Commission. Using a purposive sampling technique, there were twenty-five (25) research subjects in this study. For data analysis, simple percentages, Pearson Product-Moment Correlation, and the Chi-square test of independence were used.

The research subjects had average IQ, abstract and arithmetic reasoning abilities, language proficiency, and good performance in accounting and taxation subjects. Also, there is a significant relationship between the research subjects' performance in the accounting and taxation courses and their performance in the entrance examination. Moreover, there is a significant relationship between the pre-board and CPA Board Examination performance of the BSA graduates. Furthermore, the admission of average performance in the entrance exam and the retention policy with a cut-off grade of 2.5 relate to graduates' ability to pass the licensure examination. So, the teaching strategy should emphasize strengthening students' mathematics and related subject skills.

Keywords: *Student policy, admission, retention, entrance examination, accounting, taxation, preboard, CPA Board examination, predictive relational, Cebu City*

INTRODUCTION

Some theorists believe intelligence is a fundamental ability that affects all cognitively oriented tasks, from computing mathematical problems to writing poetry or solving riddles. Evidence for this position comes from correlational evaluations of intelligence tests. Despite the correlations among the various examinations of different abilities, some psychologists insist on several different primary mental abilities. Years ago, Thurstone listed verbal comprehension, memory, reasoning, spatial visualization, numerical ability, word fluency, and perceptual speed as the superior mental abilities underlying intellectual tasks (Woolfolk, 2001).

What does the term intelligence mean to psychologists? Some experts describe knowledge as the ability to solve problems. Others define it as the capacity to adapt and learn from experience. Still, others argue that intelligence includes characteristics such as creativity and interpersonal skills. The problem with intelligence is that it cannot be directly measured, unlike height, weight, and age. One cannot peel back a person's scalp to see how much intelligence he or she has. He or she can evaluate only indirectly by studying and comparing the intelligent acts that people perform (Santrock, 2012).

The primary components of intelligence are similar to the cognitive processes of memory and thinking. The differences in how these cognitive processes are described and how knowledge is discussed lie in individual differences and assessment concepts. Individual differences are stable, consistent ways in which people are different from one another. Individual differences in intelligence have generally been measured by intelligence tests designed to determine whether a person can reason better than others who have taken the test (Neukrug & Fawcett, 2010).

Because of such limitations, when vital decisions are made about students, a group intelligence test should always be supplemented with other information about the student's abilities. For that matter, the same strategy applies to an individual intelligence test, despite its superior accuracy. However, a decision to place a class or a gifted-students class should not be based solely on a group test. In such instances, extensive relevant information about the student's abilities should be obtained outside the testing situation (Santrock, 2012).

Anyone who has failed the CPA Exam has asked why it is so difficult. It has been ruminated on by many people at various stages of taking the exam. For the non-accountant friends, the answer makes them ask, "Why even bother?" Nevertheless, honestly, why is the CPA Exam so tricky? It follows that the aged adage, "If it were easy, then everyone would do it." Breaking down that adage, a person concludes that it is meant to be a differentiator. It rules out those who do not possess the necessary skills or abilities. Bearing the title of CPA carries a great deal of meaning and respect behind those three letters. It vouches for the bearer in universal acknowledgment of his or her skills and abilities within the accounting discipline. They do not just hand them out all willy-nilly. It is designed to be difficult (Galaif, 2019).

To ensure that Bachelor of Science in Accountancy (BSA) program graduates successfully pass the Certified Public Accountants Licensure Examination (CPALE), the program should implement a retention policy. According to Ginsberg and Whaley (2010), most institutions have

formal admission and retention policies, though the admission policies are more fully developed. Many universities reported having formal systems to consider student dispositions for teaching. However, no single policy is used by more than one-third of the universities surveyed (most employ informal means). Teacher preparation programs have greater legal latitude than is currently applied to admission and retention decisions, and it is recommended that the field establish professional norms for retention policies and for assessing student dispositions for teaching. Moreover, an entrance examination is a test that educational institutions administer to select prospective students for admission. It may be held at any stage of education, from primary to tertiary, although it is typically held at the tertiary level.

For the Bachelor of Science in Accountancy program, there are specific requirements students must meet before they are admitted to the BSA course or program. Before enrolment, students need to take an entrance examination consisting of intelligence quotient (IQ), abstract reasoning, arithmetic, and language comprehension, and must achieve a rating of at least average. Once admitted to the course, they must maintain a 2.0 grade point average, especially in professional subjects, and must not receive a failing grade in any subject, general or professional. This admission and retention policy is imposed to ensure that students who will graduate with the BSA degree will pass the CPA Licensure Examination, administered twice by the Board of Accountancy (BOA) of the Professional Regulations Commission (PRC). In this line, this study must be undertaken.

FRAMEWORK

According to Gardner's (1983, 1993) theory of multiple intelligences, there are at least eight different types of intelligence, such as linguistic (verbal), musical, spatial, logical-mathematical, bodily-kinesthetic (movement), interpersonal (understanding others), intrapersonal (understanding self), and naturalistic (observing and understanding natural and human-made patterns and systems). Gardner stresses that there may be more kinds of intelligence -eight is not a magic number (Gardner, 1998).

Today's most widely accepted view is that intelligence, like self-concept, has many facets and is a hierarchy of abilities, with general knowledge at the top and more specific skills at lower levels (Sternberg, 1998). General ability may be related to the maturation and functioning of the brain's frontal lobe, while specific skills may be connected to other parts of the brain (Byrnes & Fox, 1998).

At a recent meeting of the American Psychological Association, it was speculated that there might be a ninth existential intelligence or the ability to ask big questions about the meaning of life (Gardner, 1999). He bases his notion of separate skills partly on evidence that brain damage (from a stroke) often interferes with functioning in one area, such as language, but does not affect working in other areas. Also, individuals may excel in one of these eight or nine areas but have no remarkable abilities in the other seven. Still, these "separate abilities" may not be so separate after all. Recent evidence linking musical and spatial skills has prompted Gardner to consider that there may be connections among intelligence (Gardner, 1998).

Gardner (1998, 1999) contends that intelligence can solve problems and create products or outcomes valued by a culture. Varying cultures and eras of history place different values on the eight bits of intelligence. Naturalist intelligence is critical in farming cultures, whereas verbal and mathematical intelligence are essential in technological cultures. Also, Gardner believes that knowledge has a biological basis. Intelligence "is a biological and psychological potential; that potential is capable of being realized to a greater or lesser extent as a consequence of the experiential, cultural, and motivational factors that affect a person. Some critics suggest that Gardner's multiple intelligences are multiple talents (Sternberg, 1985). However, Gardner rejects the distinction between talent and intelligence. He believes that the common notion of knowledge is simply a certain set of talents in the linguistic or logical-mathematical spheres (Gardner, 1998).

Intelligence pertains to the ability to solve problems and to adapt and learn from experiences. Nevertheless, even this broad definition does not satisfy everyone. Robert Sternberg (2009, 2010a, b) proposes that practical know-how should be considered a form of intelligence. In his view, information involves weighing options carefully, acting judiciously, and developing strategies to address shortcomings. Also, a definition of knowledge based on a theory, such as Lev Vygotsky's, would have to include the ability to use the tools of the culture with help from more skilled individuals. Because intelligence is such an abstract, broad concept, it is not surprising that it is defined differently (Santrock, 2012).

Low-ability classes seem to receive lower-quality instruction in general. Teachers tend to emphasize lower-level objectives and routine procedures with a less academic focus. Often, there are more student behavior problems, along with increased teacher stress and decreased enthusiasm. These differences in instruction and the teachers' negative attitudes may reflect low expectations for students. Attendance may drop along with self-esteem (Woolfolk, 2001).

Limited information about the exam is available in the Western literature, even though it determines the future of millions of young people and is increasingly relevant to Western university educators (Davey et al., 2010).

Moreover, Wang (2014) opined that college entrance examination policies are the criteria developed by the government, institutions of higher education, and community organizations for the authoritative distribution and regulation of more top education opportunities. College entrance examination policies are the most immediate and most important factor affecting equal access to higher education. In the thirty years since the restoration of the college entrance examination, policy discussions and empirical studies exploring fairness issues in examination policies have shown that different orientations or biases in specific college entrance examination policies have surreptitiously exacerbated existing inequalities in access to higher education. To address the factors impeding fairness in college entrance examination policies, equal opportunities in higher education should be promoted through policy adjustments informed by systematic analysis and reasoning. At present, special attention is needed to ensure compensatory policies that increase equal access to higher education for disadvantaged groups.

The Stanford-Binet is an individual intelligence test that is administered to one student at a time by a trained psychologist and takes about 2 hours. Most of the questions are asked orally and do not require reading or writing. A student usually pays closer attention and is more motivated to do well when working directly with an adult. Psychologists have also developed group tests that can be given to whole classes or schools. Compared to individual analysis, a group test is much less likely to yield a specific group; they may do poorly because they do not understand the instructions, because their pencils break, because other students distract them, or because they do not shine on paper-and-pencil tests. As a teacher, one should be wary of IQ scores based on group tests (Woolfolk, 2001).

For Group Intelligence Tests, students may also be given an intelligence test in a group. Group intelligence tests include the Lorge-Thorndike Intelligence Tests and the Otis-Lennon School Ability Test (OLSAT). Group intelligence tests are more convenient and economical than individual checks, but they do have their drawbacks. When a test is given to a large group, the examiner cannot establish rapport, determine the student's level of anxiety, or assess other aspects of the student's state of being. Students might not understand the instructions in a large-group testing situation or be distracted by other students (Santrock, 2012).

Binet developed the concept of mental age (MA), an individual's level of spiritual development relative to others. In 1912, William Stern introduced the intelligence quotient (IQ), which is a person's mental age divided by their chronological age (CA), multiplied by 100. That is $MA/CA \times 100$. If a person's mental age equals their chronological age, then their IQ is 100. If the mental age is greater than the chronological age, then the IQ is greater than 100. For example, a 6-year-old with a mental age of 8 would have an IQ of 133. If the mental age is below the chronological age, then the IQ is less than 100. For example, a 6-year-old with a mental age of 5 would have an IQ of 83. This test has been revised many times to incorporate advances in the understanding of intelligence and intelligence testing. These revisions are called the Stanford-Binet tests (because they were developed at Stanford University). By administering the test to large numbers of people of different ages from different backgrounds, researchers have found that scores on the Stanford-Binet test approximate a normal distribution. Because of such limitations, when vital decisions are made about students, a group intelligence test should always be supplemented with other information about the student's abilities. For that matter, the same strategy applies to an individual intelligence test, despite its superior accuracy. However, a decision to place a class or a gifted-students class should not be based solely on a group test. In such instances, extensive relevant information about the student's abilities should be obtained outside the testing situation (Santrock, 2012).

Intelligence all people, including teachers, have an intuitive notion of intelligence; how "sharp" people are, how much they know, how quickly and efficiently they learn, and how perceptive and sensitive they are. People react to others, and teachers respond to students based on these intuitions (Eggen & Kauchak, 2004). Experts define intelligence as having three dimensions: (a) the ability to acquire knowledge, (b) the capacity to think and reason in the abstract, and (c) the ability to solve novel problems (Snyderman & Rothman, 1987; Sternberg, 1986). Some learning theorists equate a student's ability to acquire knowledge with aptitude. In this view, learners with high aptitude are lower. By noticing that Juan was falling further and

further behind, Tim was intuitively reacting to this dimension. From another perspective, intelligence is defined as the attributes that intelligence tests measure. Items like the following are commonly found on these tests, and people's intelligence is inferred from their test performance (Eggen & Kauchak, 2004).

According to Libertus et al. (2012), in their study on an intuitive sense of number correlates with math scores on college-entrance examination, they investigated the link between ANS precision and mathematics performance in adults by testing participants on an ANS-precision test and collecting their scores on the Scholastic Aptitude Test (SAT), a standardized college-entrance exam in the USA. Two correlational studies found that ANS precision correlated with SAT-Quantitative (i.e., mathematics) scores. This relationship remained robust even when controlling for SAT-Verbal scores, suggesting a small but specific connection between our primitive sense of numbers and formal mathematical abilities.

Intelligence tests are designed to measure an individual's ability to acquire knowledge, the capacity to think and reason in the abstract, and the ability to solve novel problems (Eggen & Kauchak, 2004). For the Bachelor of Science in Accountancy Program, the entrance or psychometric examination consists of Intelligence Quotient (IQ), abstract reasoning, arithmetic reasoning ability, and language ability.

An aptitude test is an analysis used to predict a student's ability to learn a skill or accomplish something with further education and training (Santrock, 2012). The concept of intelligence quotient (IQ) was introduced after Binet's test was brought to the United States and revised at Stanford University to create the Stanford-Binet test. An IQ score was computed by comparing the mental-age score to the person's actual chronological age. The formula was intelligence quotient = mental age/chronological age $\times$ 100. The practice of computing a mental age has proven problematic because IQ scores calculated on the basis of mental age do not retain the same meaning as children get older. To cope with this problem, the concept of deviation IQ was introduced. The deviation IQ score is a number that tells exactly how much above or below the average a person scored on the test, compared to others in the same age group (Woolfolk, 2001).

In the Wechsler intelligence test, the average score is 100. Fifty percent of the general population will score above 100, and fifty percent will score below 100. About 68 percent of the population will score between 85 and 115. Only about 16 percent of the population will receive scores below 85, whereas only about 16 percent will receive ratings above 115. The correlation between scores on the Wechsler test and school achievement has been reported to be reasonably robust. (Sattler, 1998). However, previous research (Sattler, 1988) called into question the extent to which an individual's IQ score is correlated with success in later life, since other factors, such as motivation, years of formal education, and emotional intelligence, complicate the picture (Parsons et al., 2001).

The abstract reasoning test assesses students' ability to use non-verbal reasoning skills. Such reasoning is widely applicable across the curriculum and beyond the school and is related to academic outcomes. Such items are beneficial when assessments need to be done

independently of language skills. Abstract items require the students to solve problems by hypothesizing, identifying, and applying patterns and relationships presented in diagrammatic form (Australian Council for Educational Research, 2011).

The abstract reasoning test is also called the conceptual reasoning test. It measures a person's lateral thinking skills or fluid intelligence, which are the ability to quickly identify patterns, logical rules, and trends in new data, integrate this information, and apply it to solve problems. It measures what most people would refer to as 'street smarts and the ability to 'think on your feet. The ability to quickly identify relationships, patterns, and trends in organizational data, such as customer purchasing behavior or market research, is crucial to their capacity to think strategically, grasp the bigger picture, and solve problems quickly. Therefore, employers typically expect them to have reasonable abstract reasoning capabilities (Institute of Psychometric Coaching, n.d).

The arithmetic reasoning test will assess a person's knowledge of number concepts. Hence, one can expect to face questions on basic arithmetic like addition, subtraction, division, and multiplication; percentages for calculating cost price, sale price, discount, and others. Such knowledge is also needed in ratio and proportion to questions that are solved using simple formulas; questions on interest including questions on simple and compound interest (in which a person will need to utilize various formulas learned during your high school years); and numbers that require knowledge of whole numbers, fractions, decimals, real numbers, and imaginary numbers is an integral part of this subtest (ASVAB Tutor, 2019).

Proficiency refers to the ability to perform an action or function. It refers to one's ability to use language for real-world purposes to accomplish real-world linguistic tasks across a wide range of topics and settings. It differs from an achievement test, which measures knowledge of specific information (what a person knows); a proficiency test targets what an individual can do with what he or she knows. As in a driver's test, an achievement test would consist of paper-and-pencil questions on the written examination, while a proficiency test would assess how well the person can drive the car. The language proficiency test evaluates how well a person can use language to communicate in real life (Language Testing International, 2019).

One measure of a program or course's academic success is students' performance on the board or licensure examination. An examination board (or exam board) is an organization that sets examinations, marks them, and distributes results. Governmental entities run some; some are run as not-for-profit organizations. In the Philippines, the Professional Regulation Commission is the instrument of the Filipino people in securing for the nation a reliable, trustworthy, and progressive system of developing professionals whose personal integrity and spiritual values are respected and dependable, whose competencies are globally competitive, and whose commitment to serving the Filipino nation and the whole community is strong and steadfast. For a comprehensive database of examination results by the PRC. The Professional Regulation Commission (PRC) is the agency mandated to implement the regulatory laws and policies for the various regulated professions (Professional Regulation Commission [PRC], n.d.).

The Board of Accountancy manages the Certified Public Accountants Licensure Examination (BOA). BOA explained that the practice of accountancy should constitute in a person, be it in his capacity, or as a partner or staff member in an accounting or auditing firm, holding out himself as one skilled in the knowledge, science, and practice of accounting, and as qualified to render professional services as a certified public accountant; or offering or providing, or both, to more than one client on a fee basis or otherwise, services such as the audit or verification of financial transactions and accounting records; the preparation, signing, or certification for clients of reports of audit, balance sheets, and other financial accounting and related schedules, exhibits, statements, or reports which are to be used for publication or for credit purposes, or to be filed with a court or government agency, or to be used for any other purpose; the installation and revision of accounting system, the preparation of income tax returns when related to accounting procedures; or when he represents clients before government agencies on tax matters related to accounting or renders professional assistance in matters relating to accounting procedures and the recording and presentation of financial facts or data. A Certified Public Accountant shall be considered in the practice of his profession if the nature and character of his employment, whether as an officer or employee in a private enterprise or educational institution, involves decision-making. Also, the nature of one's work requires professional knowledge in the science of accounting, or, when he represents his private employer before any government agency on tax matters related to accounting, since such a position requires that the holder be a Certified Public Accountant. There are also cases wherein he or she holds or is appointed to a position in the occupational accounting group in the government or in government-owned or controlled corporations, including those performing proprietary functions, where civil service eligibility as a Certified Public Accountant is a prerequisite.

This study also considers researchers on the admission and retention policies of educational institutions.

The study of Ginsberg and Whaley (2010) examined the legal climate regarding admissions and retention in teacher preparation programs and the current practices of selected applications. The study utilized legal/archival research and an online survey of 27 universities. Findings indicated that the legal parameters regarding admission and retention fall under the expectations established for other types of professional training. University officials have considerable latitude to make professional judgments. The survey found that most institutions have formal admission and retention policies, though the admission policies are more fully developed. Many universities reported having formal policies for considering students' dispositions in teaching. However, no single policy is used by more than one-third of the universities surveyed (most employ informal means). Conclusions include that teacher preparation programs have greater legal latitude than is currently applied to admission and retention decisions, and it is recommended that the field establish professional norms for retention policies and for assessing student dispositions for teaching.

In the investigation of Lucas et al. (1992), IQ was assessed in 300 children with an abbreviated version of the Wechsler Intelligence Scale for Children (revised Anglicized). Children who had consumed mother's milk in the early weeks of life had a significantly higher IQ at 7 1/2-8 years than those who received no maternal milk. An 8·3-point advantage (over half

a standard deviation) in IQ remained even after adjustment for differences between groups in mothers' education and social class ($p < 0.0001$). This advantage was associated with tube feeding mother's milk rather than with breastfeeding. There was a dose-response relation between the proportion of mother's milk in the diet and subsequent IQ. Children whose mothers chose to provide milk but failed to have the same IQ as those whose mothers elected not to produce breast milk. Although these results could be explained by differences between groups in parenting skills or genetic potential (even after adjustment for social and educational factors), our data point to a beneficial effect of human milk on neurodevelopment.

Also the of Pudadera (2008) determined the predictive power of academic grades and pre-board rating on the CPA Board Performance of accountancy graduates of Central Philippine University for school years 2000-2001 and 2001-2002. Sixty-nine of the 94 who took the CPA Licensure Examination responded to a questionnaire administered to collect the data needed. Correlation between variables was determined using Pearson's r , while multiple regression analysis was used to determine the predictive power of the independent variables on board rating. The results of the study show a significant positive correlation between the respondents' academic grades and pre-board rating and the CPA board performance. CPA board performance tended to increase with the increase in ratings in board-related subjects and pre-board examination. Ratings in board-related subjects and in the board review examination are significant predictors of CPA board performance, but the latter is a stronger predictor than the former

OBJECTIVES OF THE STUDY

This study aims to assess the correlation between the admission and retention policy of the Bachelor of Science in Accountancy (BSA) program towards the success of the students in the Certified Public Accountants Board Examination. The results will be used as basis in formulating proposed program level intervention scheme. Specifically, aims to present the following: 1) research subjects' performance in the entrance examination prior to enrolment in the Bachelor of Science in Accountancy (BSA) program in terms of intelligence quotient (IQ), abstract reasoning, arithmetic reasoning ability, and language proficiency; 2) performance of the research subjects in the academic professional courses primarily in the accounting and taxation subjects; 3) performance of research subjects in the pre-board and Certified Public Accountants Licensure Examination (CPALE).

METHODOLOGY

This investigation applied a predictive relational research design using existing data on entrance examination results, performance in professional subjects, pre-board results, and Certified Public Accountants Board Examination results.

This study was conducted at the University of Cebu-Banilad College of Business and Accountancy (CBA). This academic department offers various programs, including Bachelor of Science in Accountancy (BSA), Bachelor of Science in Business Administration (BSBA), Bachelor of Science in Management Accounting (BSMA), and Bachelor of Science in

Accounting Information System (BSAIS). The student population of CBA at the time of the study was one thousand two hundred twenty (1, 220), with two hundred thirteen (213) students enrolled in the BSA program.

The data used in the study were the entrance examination results of the research subjects before their enrolment in the BSA program, obtained at the Guidance Center. Another data used in the analysis were their final grades in all accounting and taxation subjects from first to third year, since they had to comply with the cut-off grade of 2.0.

Using the purposive sampling technique, only twenty-five (25) graduates of the BSA program for the school years 2015-2018 were utilized as research subjects due to the limited availability of the entrance examination results at the Guidance Office and the final ratings in the aforementioned subjects.

During the study, permission was sought from the Campus Administrator, the Head of the Guidance Center, and the Registrar's Office to obtain the necessary information. Since the data used in this study were highly confidential, no identifying data were included in the records; instead, codes were used to maintain confidentiality and prevent data leakage.

A simple percentage method was used to interpret the entrance examination results, final grades in the accounting and taxation subjects, pre-board results, and CPA Licensure Examination results. Also, the Pearson R test was used to determine the significant relationships between the entrance exam results in intelligence quotient (IQ), abstract reasoning, arithmetic, and language proficiency, and the accounting and taxation subjects, and between the accounting and taxation subjects and the pre-board. Furthermore, the Chi-square test of independence was used to ascertain the relationship between the pre-board and the CPA Licensure Examination results. Finally, Multiple Logistic Regression Analysis was used to analyze which of the three above dimensions of accounting instruction can predict success in the CPA Board Examination.

RESULTS AND DISCUSSIONS

This part shows the data on the entrance examination results of the research subjects, research subjects' performance in the accounting and taxation courses, and performance in the preboard and Certified Public Accountants Licensure Examination (CPALE).

Table 1. Entrance Examination Tests Results (n = 25)

Components	Frequency (f)	Percentage (%)
Intelligence Quotient		
Superior	1	4.00
Above Average	4	16.00
Average	18	72.00
Below Average	2	8.00
Abstract Reasoning		
Above Average	6	24.00
Average	17	68.00
Below Average	2	8.00
Arithmetic Reasoning Ability		

Above Average	6	24.00
Average	17	68.00
Below Average	2	8.00
Language Proficiency		
Above Average	1	4.00
Average	22	88.00
Below Average	2	8.00

Table 1 shows that the majority (72%) of the research subjects had average Intelligence Quotient (IQ) scores, and only a few (8%) had below-average scores on the entrance exam before enrolling in the Bachelor of Science in Accountancy (BSA) program. This result indicates that BSA students at the university have a natural cognitive ability, which is essential for undertaking analysis in both accounting and taxation subjects.

An intelligence quotient (IQ) is a score derived from standardized tests designed to measure a person's cognitive abilities (intelligence relative to their age group. An IQ test does not measure intelligence the way a ruler measures height (absolutely), but rather the way a race measures speed (relatively) (Science Daily, 2019).

Also, the abstract reasoning of the majority of research subjects was average, while only a few (8%) had below-average abstract reasoning. This result indicates that the research subjects had a mediocre ability to comprehend connections and patterns among numbers, shapes, and other essential elements in solving problems in the major courses required in the BSA program.

Abstract reasoning tests require identifying relationships between shapes and figures, identifying rules and similarities, and quickly applying them to establish the answer (Practice Aptitude Tests, n.d.).

Likewise, most (68%) of the research subjects had average arithmetic reasoning ability, while only a few had below-average capacity. This data indicates that the research subjects have ordinary competence in solving arithmetic or math word problems.

According to Powers (n.d.), arithmetic reasoning tests contained questions designed to test the ability to use mathematics to solve various real-life math word problems.

Most of them (88%) had average language proficiency, while only a few had below-average proficiency. This result shows that the research subjects had a typical aptitude for using language in real-life situations to achieve tasks involving multiple languages.

The language proficiency test evaluates how well a person can use language to communicate in real life. This type of analysis compares a person's unrehearsed ability against a set of language descriptors (Language Testing International, 2019).

Table 2. Research Subjects' Performance in Accounting Subjects (n = 25)

Academic Performance	Frequency (f)	Percentage (%)
Good	22	88.00
Fair	3	12.00

Table 2 shows the accountancy students' performance at the University of Cebu-Banilad for 2015-2018 in the accounting subjects. Out of the twenty-five (25) accountancy students, the majority, or 88%, had good performance in the aforementioned subject, while only three (3), or 12%, had good performance. This result indicates that most research subjects had a grade within the range of 1.6-2.5, and that none were below the University's cut-off grade of 2.5 for students who wish to continue pursuing the BSA degree.

Moreover, the maximum cut-off grades mentioned above are implemented to ensure that BSA students, especially those in the first and second years, strive hard to perform well in accounting subjects, which is one of the means to pass the CPA Board Examination.

Table 3. Research Subjects' Performance in Taxation Courses (n = 25)

Indicators	Frequency	Percentage (%)
Good	23	92.00
Fair	1	4.00
Poor	1	4.00

Legend: 1.0- Excellent; 1.1-1.5-Very Good; 1.6-2.5-Good; 2.6-2.9-Fair; 3.0 and below-Poor

Table 3 shows the performance of the research subjects in all taxation courses. Out of twenty-five (25) accountancy students of the University of Cebu-Banilad during the school year 2015-2018, 92% had a good performance in the taxation subjects they took. Further, the data showed that only 1% or 4% had poor or fair performance in the course, as mentioned above. So most of them had a grade within the range of 1.6-2.5. Likewise, their grade was still within the cut-off grade of 2.5. So, this means they were able to maintain the University-imposed retention policy for the BSA program.

Table 4. Preboard and Board Examination Performance (n = 25)

Examination Performance	Frequency	Percentage (%)
Pre-Board Examination		
Passed	1	4.00
Failed	24	96.00
CPA Licensure Examination		
Passed	11	44.00
Failed	14	56.00

Table 4 shows that 96% of the respondents failed the pre-board examination, and only 1% or 4% passed the Certified Public Accountant Licensure examination; 11% or 44% passed, while 14% or 56% failed. This result indicates that the students were not yet prepared to take the licensure examination mentioned above, or the questions were far from what they had studied or covered during the review sessions. So, this indicates that they had to study more intensively and make adjustments to be well-prepared for whatever questions that will come up in the actual board examination.

Moreover, out of the 25 research subjects, fourteen (14) passed the Certified Public Accountants Licensure Examination after they graduated from the Bachelor of Science in Accountancy program at the University of Cebu. This result further indicates that most of them were successful in passing and achieving their aim of becoming CPAs.

Table 5. Results of the Test of Hypothesis on the Relationship Between the Entrance Examination Test Results and Performance in the Accounting Subjects

Variables	Pearson r Computed Value	df	Pearson r Critical Value	P-Value	Decision	Interpretation	Strength
Grades in Accounting subjects and: Intelligence Quotient	0.617	23	0.396	0.001	Reject	Significant	High Correlation
Abstract Reasoning	0.681	23	0.396	0.002	Reject	Significant	High Correlation
Arithmetic Reasoning Ability	0.606	23	0.396	0.001	Reject	Significant	High Correlation
Language Proficiency	0.741	23	0.396	0.000	Reject	Significant	High Correlation
Factor Average	0.661	23	0.396	0.003	Reject	Significant	High Correlation

Significant at $\alpha = 0.05$ level (2-tailed)

Table 5 shows a significant relationship between the research subjects' accounting grades and their intelligence quotient (IQ). This result indicates that a higher IQ is associated with their ability to pass accounting subjects.

Another significant relationship is found between the performance of the research subjects in the accounting subjects taken and their abstract reasoning ability. This result indicates that accountancy graduates' aptitude for understanding patterns in numbers, figures, and shapes helps them solve tricky accounting problems.

Likewise, another significant relationship exists between the research subjects' performance in the accounting courses and their arithmetic ability. This result indicates that BSA graduates' higher competence in math helped them in solving accounting problems. So, those with higher mathematical aptitude are more likely to pass accounting subjects.

Further, language comprehension is correlated with the research subjects' performance in accounting subjects. This result indicates that students who are comfortable with English are more likely to handle accounting problems efficiently when they are expressed in English.

Table 6. Results on the Test of Significant Relationship Between the Entrance Examination Test Results and the Performance of the Taxation Subjects

Variables	Pearson r Computed Value	df	Pearson r Critical Value	P-Value	Decision	Interpretation	Strength
Grades in Taxation subjects and: Intelligence Quotient	0.646	23	0.396	0.000	Reject	Significant	High Correlation
Abstract Reasoning	0.623	23	0.396	0.000	Reject	Significant	High Correlation
Arithmetic Reasoning Ability	0.664	23	0.396	0.000	Reject	Significant	High Correlation
Language Proficiency	0.398	23	0.396	0.058	Accept	Not Significant	Slight Correlation
Factor Average	0.583	23	0.396	0.0145	Reject	Significant	High Correlation

Significant at $\alpha = 0.05$ level (2-tailed)

The data in Table 6 shows a significant relationship between the research subjects' IQ and their performance in the taxation subjects. This result indicates that the research subjects' intellectual ability enables them to comprehend the problems and cases in taxation courses.

Similarly, another significant relationship exists between the abstract reasoning ability of the research subjects and their performance in the taxation courses. This data indicates that the BSA students' competence in understanding and comprehending the underlying relationship of the figures, shapes, and other visual designs helped pass the taxation subjects.

However, there is no significant relationship between the language proficiency of the research subjects and their performance in the taxations subjects. This result denotes that the BSA students' ability to communicate using English does relate to whether they will pass the taxation courses.

Table 7. Results of the Test of Hypothesis on the Relationship Between Pre-board and CPA Licensure Examination Performance

Variables	Computed Value of Chi-Square	df	Critical Value	P-Value	Decision	Interpretation
Pre-board and CPA licensure Examination Performance	10.965	1	3.841	0.0009	Reject	Significant

Table 7 reflects the results of a significant relationship between the pre-board and CPA Licensure Examination Performance of the research subjects. The findings showed a substantial relationship between the pre-board and performance of accountancy graduates in the CPA board examination, as indicated by a computed chi-square value of 10.965, which exceeds the critical value of 3.841. Thus, the null hypothesis was rejected. This result indicates that the pre-board examination prepares BSA graduates to pass the CPA licensure examination. So, if they can pass the pre-board, they will have a high propensity to pass the board examination, since, more often than not, the questions in the pre-board were even more complicated than those in the actual examination.

CONCLUSIONS

Those who graduated from the Bachelor of Science in Accountancy program at the University had mediocre cognitive, mathematical, and language proficiency. This psychometric ability was essential in passing the accounting and taxation course and in the CPA board examination. Moreover, the admission of average performance in the entrance exam and the retention policy with a cut-off grade of 2.5 relate to graduates' ability to pass the licensure examination..

TRANSLATIONAL RESEARCH

Concerning the essential findings of this investigation, the teaching approach of the accounting and taxation subjects offered in the Bachelor of Science in Accountancy should focus on written activities and examinations that will strengthen the cognitive and arithmetic ability of the BSA students so that they will be able to pass the Certified Public Accountant Licensure Examination.

Moreover, the syllabus for all accounting and taxation subjects should enhance IQ, abstract reasoning, and arithmetic reasoning. Hence, the program should strengthen the implementation of the admission requirements for students seeking to enroll in the BSA program. Likewise, the retention policy requiring compliance with the 2.5 cut-off grade should also be strengthened to ensure success in the board examination.

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