

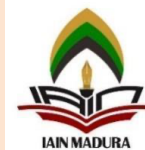


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Entry-Level Assessment to Assess Readiness and Predict Study Success of Prospective College Students

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Abstrak

Kata Kunci:

Penilaian tingkat
masuk;
Menilai kesiapan;
Memprediksi
keberhasilan studi;
Calon mahasiswa
perguruan tinggi.

Penelitian ini bertujuan untuk mengevaluasi efektivitas Entry-Level Assessment (ELA) dalam mengukur kesiapan akademik dan memprediksi keberhasilan mahasiswa baru selama tahun pertama studi mereka. Penelitian ini menggunakan pendekatan metode campuran, yang mengintegrasikan analisis kualitatif untuk menggambarkan karakteristik item tes dengan analisis kuantitatif untuk mengeksplorasi hubungan antara skor ELA dan pencapaian akademik, yang tercermin dalam Indeks Prestasi Kumulatif (IPK) semester satu dan dua. Data dikumpulkan dari dokumen ELA, skor ELA, dan IPK dari 132 mahasiswa. Temuan penelitian menunjukkan bahwa ELA mencakup tes yang menilai potensi akademik, literasi, numerasi, dan bahasa Inggris, dengan fokus khusus pada keterampilan berpikir tingkat tinggi. Analisis korelasi menunjukkan adanya hubungan positif antara skor ELA dan IPK pada semester pertama; namun, korelasi ini melemah pada semester berikutnya. Temuan ini menegaskan bahwa ELA memiliki validitas prediktif yang kuat untuk keberhasilan akademik jangka pendek, tetapi memiliki keterbatasan dalam meramalkan kinerja jangka panjang. Penelitian ini memberikan kontribusi signifikan terhadap perkembangan ujian masuk perguruan tinggi dengan merekomendasikan perbaikan dalam desain item, meningkatkan relevansi indikator kognitif, dan memperluas kerangka penilaian untuk mencakup keterampilan sosial dan emosional. Implikasi temuan ini sangat penting bagi institusi pendidikan tinggi dalam mengembangkan kebijakan seleksi mereka dan mendukung perjalanan akademik mahasiswa. Kata kunci: penilaian tingkat masuk, menilai kesiapan, memprediksi keberhasilan studi, calon mahasiswa perguruan tinggi.

Abstract

Keywords:

Entry-level;
assessment
Assess readiness;
Success
students;
prospective
college
student.

This study aimed to evaluate the effectiveness of the Entry-Level Assessment (ELA) in measuring academic readiness and predicting the success of new students during their first year of study. The research utilized a mixed-methods approach, integrating qualitative analysis to describe the characteristics of test items with quantitative analysis to explore the relationship between ELA scores and academic achievement, as reflected in first and second-semester grade point averages (GPA). Data were gathered from ELA documents, ELA scores, and the GPAs of 132 students. The findings demonstrated that the ELA encompasses tests assessing academic potential, literacy, numeracy, and English, with a particular focus on higher-order thinking skills. Correlation analysis revealed a positive relationship between ELA scores and GPA in the first semester; however, this correlation weakened in subsequent semesters. These

findings affirm that the ELA possesses strong predictive validity for short-term academic success but has limitations in forecasting long-term performance. This study makes a significant contribution to the advancement of college entrance tests by recommending enhancements in item design, improving the relevance of cognitive indicators, and broadening the assessment framework to include social and emotional skills. The implications of these findings are vital for higher education institutions in developing their selection policies and supporting students' academic journeys.

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INTRODUCTION

Entry-Level Assessment (ELA) is a critical component of higher education, designed to serve as a diagnostic tool for measuring the competencies of prospective students. This type of assessment plays a pivotal role in evaluating the academic readiness of incoming students, thereby aiding decision-making processes related to student admissions and informing the adaptation of teaching strategies (Cassady et al., 2022). Furthermore, in the context of the global education landscape, there is an increasing emphasis on integrating higher-order thinking skills (HOTS)—such as critical analysis, problem-solving, and creativity—into assessment instruments to better align with contemporary educational demands (Setiawan et al., 2021).

The ongoing paradigm shift in higher education has highlighted the need for assessment instruments that evaluate basic knowledge and more complex cognitive abilities. In many countries, entrance assessments are now designed to measure analytical and critical thinking skills, ensuring that prospective students are adequately prepared to meet the academic demands of university-level education (Kania et al., 2024). This shift aligns with a global trend emphasizing equipping students with the advanced cognitive skills necessary to navigate an increasingly complex and dynamic world. Traditional assessments focusing solely on memorization can no longer predict students' academic or professional success (Yarun et al., 2023). Consequently, incorporating HOTS into entry-level assessments has become essential for evaluating students' initial competencies and potential to thrive in rigorous academic environments that require them to excel in their studies (Ling & Sing Ling, 2024).

Despite growing awareness of the importance of HOTS, their representation in Entry-Level Assessments in Indonesia remains limited. Many of these assessments prioritize basic cognitive skills, such as recalling and understanding information, rather than addressing more advanced competencies like analysis, synthesis, and evaluation (Erdiana & Panjaitan, 2023). This insufficient emphasis on HOTS diminishes the

predictive validity of entrance examinations, potentially leading to inaccurate assessments of students' readiness for the academic challenges of university-level education (Almarabheh et al., 2022).

This study aims to analyze the ELA test used for university entrance selection and evaluate its effectiveness in predicting students' success during their first year of study. The research employs cross-sectional data to examine the relationship between assessment results and academic performance, enabling a comprehensive analysis.

The first focus of this study is to evaluate the areas covered by the test and the characteristics of the questions. This analysis is crucial for determining whether the test aligns with the cognitive demands of higher education (Nainggolan et al., 2022). The second focus is to assess the competencies of prospective students as reflected in their assessment results. These competencies include subject-specific knowledge and skills in critical thinking, complex information analysis, and problem-solving (Liu et al., 2014). The third focus investigates the relationship between Entry-Level Assessment scores and academic achievement in the first year of university. Understanding the test validity is essential for evaluating its effectiveness in identifying students with strong academic potential (D'Alessio et al., 2019).

The findings of this study offer valuable insights into the alignment between the skills assessed and the expectations of higher education institutions. These results highlight the need for education policymakers to enhance the design of entrance assessment instruments to evaluate advanced cognitive skills. Consequently, the ELA can be better as a selection tool and diagnostic instrument that more accurately maps students' academic potential (Sabanal et al., 2024).

Several previous studies have investigated aspects of HOTS in assessments. For instance, Putri et al. (2023) examined students' abilities in completing HOTS-based Indonesian language tests. However, their study was limited to evaluating students' competencies and did not explore the correlation between assessment results and academic performance in higher education. Similarly, Cloke (2024) conducted research to assess critical thinking using Merrill's Learning Principles but did not address the broader spectrum of HOTS within the context of entrance assessments in Indonesia. These gaps highlight the importance of understanding the predictive validity of entrance assessments to evaluate prospective students' likelihood of academic success (Riyanti et al., 2022).

This study addresses a critical gap in the literature by examining the representation of HOTS in ELA and exploring the relationship between students'

entrance test results and their academic achievement after matriculation. This study contributes empirical data to improving the quality of assessment practices and policies in higher education. The findings, as Ali et al. (2019) said, underscore the importance of policy reforms to improve the design of assessment instruments to reflect the complex cognitive skills essential for success in higher education. Additionally, this study offers practical recommendations for optimizing ELA as a more effective diagnostic and predictive tool.

THEORETICAL FRAMEWORK

Entry-Level Assessment (ELA)

The ELA is a standardized test to evaluate students' basic competencies as they enter higher education. Its primary purpose is to diagnose students' readiness for college-level work by determining whether they possess the essential skills to succeed in more advanced courses. Ananda & Setiawan (2023) noted that this assessment focuses on fundamental linguistic skills and basic subject knowledge. Recent international research highlights the significance of this assessment in ensuring student readiness and contributing to a direct impact on their subsequent academic success (Santosa et al., 2024 & Sholikhah et al., 2021).

The characteristics of ELA include validity, reliability, and alignment with curriculum standards. Validity refers to the extent to which a test measures what it is intended to measure, while reliability pertains to the consistency of results across different administrations (Petra & Aziz, 2020). Furthermore, alignment with curriculum standards ensures that the test content accurately reflects the knowledge and skills required for academic success (Cliff et al., 2007). Despite the critical role of this assessment, research indicates that traditional tests often focus on lower-level cognitive skills, neglecting the evaluation of higher-order thinking skills essential for college-level learning (Johansson, 2020).

Higher-Order Thinking Skills (HOTS)

HOTS refers to advanced cognitive processes that extend beyond the mere recall of information. These skills encompass critical thinking, problem-solving, analysis, synthesis, and evaluation. Such competencies are essential for students to effectively address complex problems and engage in deep, meaningful learning (Krathwohl, 2002). Recent research indicates that students with strong HOTS are more adaptable

and better equipped to tackle the challenges of higher education, where they must apply acquired knowledge to novel situations (Yadav, 2022).

The core characteristics of HOTS include the ability to think critically, reason logically, and integrate information from diverse sources to generate new insights. For instance, critical thinking involves evaluating arguments, identifying biases, and drawing conclusions, while problem-solving requires analyzing evidence to develop effective solutions (Meirbekov et al., 2022). Additionally, the principles of HOTS in assessment encompass complexity, transferability, and metacognition. Complexity refers to tasks that challenge students to manipulate and synthesize a variety of information; transferability is the ability to apply skills across different contexts; and metacognition involves self-reflective thinking, allowing students to monitor and adapt their cognitive strategies (R. N. Putri & Sulistyaningrum, 2021).

Incorporating HOTS into early-level assessments is crucial to ensure that these tests align with the cognitive demands of higher education. Traditional assessments, which emphasize memorization, often fail to capture the full range of students' abilities, particularly in areas such as analytical thinking and creative problem-solving (Gopalan & Hashim, 2021). By integrating HOTS-focused tasks, early-level assessments can offer a more comprehensive understanding of students' readiness for the challenges of college-level education. This approach enables educators to identify areas where additional support may be necessary (Zimmermann et al., 2024).

Academic Success in Higher Education

Academic success in higher education is commonly measured by a student's ability to achieve the learning outcomes established by their institution, reflected in their GPA (Grade Point Average) and overall course performance. This encompasses subject-specific knowledge, critical thinking, creativity, and effective communication skills. Tanujaya et al. (2017) highlighted a significant positive correlation between students' HOTS and academic performance, particularly in STEM fields such as mathematics and science.

Previous research indicates that students with HOTS tend to excel in academic environments that demand critical analysis and problem-solving (Aljehani, 2024). Zhou et al. (2023) emphasized that HOTS in entry-level assessments is a predictive tool for identifying student success in rigorous college curricula. This predictive capability is crucial for educators, as it enables them to design targeted support systems and interventions to improve student learning outcomes (Peng & Kievit, 2020).

METHOD

This study employed a mixed-methods approach, combining both qualitative and quantitative methods. According to Creswell (2014), mixed methods allow researchers to analyze qualitative and quantitative data, providing a more comprehensive understanding of the research topic. This study used a qualitative approach to describe the test subjects, the characteristics of the test content, and the variety of question types represented in the ELA. A quantitative approach was applied to (1) assess the initial competencies of new students through descriptive statistical analysis of their entry-level test scores, and (2) examine the correlation between students' initial competencies and their academic performance in the first and second semesters. This combined approach was selected to offer a more holistic perspective on the representation of higher-order thinking skills in the test and its impact on students' academic success.

The participants in this study were students who had completed two semesters of coursework at the State University of Malang (UM). Due to the large student population, purposive sampling was used to select participants from the Department of Indonesian Literature, Faculty of Letters, UM. The sample consisted of 45 students from the Indonesian Language and Literature Education program, 39 from the Indonesian Language and Literature program, and 50 from the Library Science program. Two of the 134 students did not have a GPA for the second semester, so the final sample size of 132 students.

This study utilized three types of documents as primary data sources: (1) the ELA test question used in the Malang State University entrance exam, (2) the ELA test scores of the sample students who participated in the entrance selection for the Indonesian Literature Department, and (3) the academic achievement scores of students from semesters 1 and 2. The data related to the first research focus consisted of verbal information regarding the test subjects, question formats, and the content of the questions; data for the second and third research focuses consisted of numerical data, including entry-level test scores and academic achievement scores.

Data collection in this study was conducted in two main stages: document collection and data analysis. First, the researcher submitted an official letter of permission and a research proposal to the UM entrance test committee to request access to documents, including the test questions and entry-level test scores. After the committee granted permission, the researcher accessed, verified, and copied the

document. Second, the data from the test documents were analyzed following the methodology outlined by Miles et al. (2014). The documents were carefully reviewed to understand the structure and content of the questions. Key components were recorded, including cognitive levels (C1 to C6 in Bloom's taxonomy), types of questions, and the content covered. Meanwhile, student score data were entered into statistical tables using Excel software for further analysis.

The researchers conducted data analysis using the following techniques.

1) Qualitative analysis of verbal data

The verbal data, in the form of test script presentations, were analyzed qualitatively following the approach outlined by Miles et al. (2018). This process involved data reduction, presentation, and conclusion. Verbal data regarding the characteristics of the questions were simplified and categorized according to the elements of higher-order thinking present in the test scripts. The reduced data were organized into tables or diagrams that illustrated the characteristics of the questions and their associated cognitive levels. Furthermore, the presented data were interpreted to provide a comprehensive description of the characteristics of the entry-level test questions.

2) Quantitative analysis of entry-level test scores

The ELA test scores were analyzed using descriptive statistics to assess students' initial competencies. The analysis steps included (1) basic statistical calculations using SPSS to find the mean, median, mode, and standard deviation of the ELA test scores, (2) data visualization to figure out the distribution of the test scores was presented in the form of a histogram, and (3) interpretation of results to evaluate the characteristics of students' initial competencies. Additionally, correlation analysis was employed to examine the relationship between ELA test scores and students' GPAs for semesters 1 and 2. The steps for this analysis included (1) testing normality of data using the Kolmogorov-Smirnov test to examine the data distribution, and (2) applying a correlation test using the Spearman correlation, due to the data was found to be non-normally distributed, to assess the relationship between the variables.

The researchers acknowledge that documents related to the entrance selection questions and student test scores are confidential and belong to Universitas Negeri Malang. To ensure the confidentiality of these documents, the researchers adhere to ethical standards. First, the researchers obtained official permission from the institution to access these documents. Second, the researchers are committed to not disclosing

these documents to unauthorized parties. To further maintain data confidentiality, the following measures were implemented: (1) digital documents are encrypted to prevent unauthorized access, (2) physical documents are stored with restricted access, and (3) individual identities are excluded from the publication of research findings to protect participant privacy.

RESULTS AND DISCUSSION

Characteristics of ELA Tests

ELA tests consist of four subjects: Academic Potential Test, Literacy, English, and Numeracy. The characteristics of the subjects are summarized below.

1) Academic Potential Test

The Academic Potential Test assesses prospective students' initial abilities in inductive and deductive reasoning, figural analysis, and quantitative reasoning. The content of the Academic Potential Test questions includes verbal, figural, and quantitative reasoning, as outlined below.

- a) Verbal reasoning questions focus on (a) inductive reasoning: using specific data to draw general conclusions, and (b) deductive reasoning: applying general rules to derive specific conclusions.
- b) Figural reasoning questions evaluate (a) flexibility of closure and closure speed: the ability to quickly and accurately identify shapes, and (b) perceptual alterations and perceptual speed: the ability to adjust visual perception and process visual information swiftly.
- c) Quantitative reasoning questions include (a) reasoning with numbers: using Piagetian reasoning, which involves logical abilities in basic mathematics, and (b) reasoning with quantities: employing complex mathematical operations and faster processing.

2) Literacy Test

The Literacy Test is designed to measure the ability to analyze and evaluate the content of a text and the capacity to conclude it. The content of the literacy questions focuses on evaluation and inference skills, as detailed below.

- a) Evaluation aspect questions assess (a) the ability to evaluate the content of the text, (b) the ability to assess the appropriateness of the title about the text's content, (c) the ability to evaluate the logical flow of arguments within the text, (d) the ability to compare different opinions or perspectives presented in the text, and (e) the ability to assess the relevance of the text's content.

- b) Inferential aspect questions evaluate (a) the ability to draw conclusions based on the available data, (b) the ability to infer conclusions from specific sentences or the broader context of the text, and (c) the ability to deduce cause-and-effect relationships based on the information provided in the text.

3) English Test

The English test evaluates prospective students' abilities in critical reading, text summarization, writing, and understanding sentence structures. The test is divided into two main areas: reading and writing.

- a) **Inferring/Concluding Text Content** questions assess the ability to draw conclusions based on data and sentence context and the capacity to infer cause-and-effect relationships from the text.
- b) **Reading Comprehension** questions evaluate the ability to identify the main idea and make logical conclusions and inferences.
- c) **Paragraph Writing** questions measure the ability to construct grammatically correct sentences and to use appropriate diction, including vocabulary and word choice.
- d) **Sentence Structure** questions examine the ability to evaluate the subject-predicate agreement, use and parallel structures, and interpret the meaning of words, phrases, or sentences.

4) Numeracy Test

The Numeracy Test evaluates the ability to solve problems using arithmetic knowledge and assesses data analysis skills for effective decision-making. The content of the numeracy questions includes social arithmetic analysis and contextual data interpretation.

- a) **Contextual analysis** questions involve analyzing problems related to social arithmetic and applying this analysis to decision-making processes.
- b) **Data analysis** questions focus on interpreting data presented in the graphs, diagrams, and tables, and using the results of this analysis to make informed decisions.

Based on the descriptions above, the characteristics of the entry-level assessment question scripts can be summarized in the following classification table.

Num	Test Field	Content Substance of Questions	Indicators
1	Academic Potential Test	Verbal, Figural, Quantitative Reasoning	Testing induction, deduction, figural analysis, and quantitative reasoning
2	Literacy	Text Evaluation and Inference	Measuring the ability to evaluate text and infer text content
3	English	Reading and Writing	Testing the ability to understand text, conclude, and write sentence structures
4	Numeracy	Social Arithmetic and Data Analysis	Measuring the analysis of arithmetic problems and data for decision-making

Table 1. Classification of ELA Questions

ELA Test Score

The analysis results indicate that the mean score is 454.09, with a minimum score of 180 and a maximum score of 720, resulting in a range of 540 and a standard deviation of 110.54. The ideal maximum score for the test is 1,000. Therefore, it can be concluded that the mean score is below the expected average of 500. The score distribution forms a normal curve, slightly skewed to the left, with a mode of 480. This suggests that most participants scored below the average. The results are presented in Table 2 and Figure 1.

Descriptive Statistics							
	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
Entry Level Assessment	132	540	180	720	454.09	110.536	12218.251
Valid N (listwise)	132						

Table 2. ELA Scores

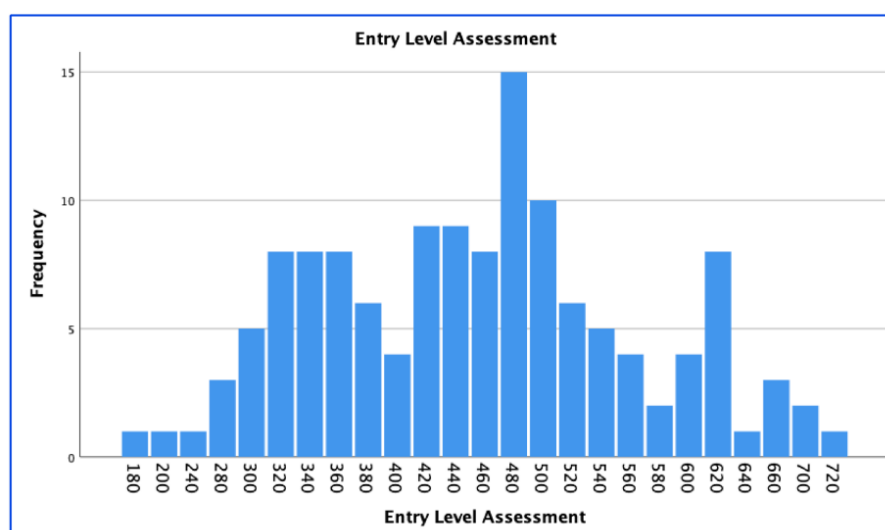


Figure 1. Distribution of ELA Test Scores

Grade Point Average (GPA) of Students

The mean GPA of students in semester 1 was 3.60, with the lowest GPA being 2.72 and the highest GPA reaching 3.91. Of the students, 77.3% achieved a GPA higher than 3.50, while the remaining 22.7% had a GPA below 3.50. No students had a GPA lower than 2.50.

In semester 2, the mean GPA was 3.56, with the lowest GPA at 2.30 and the highest at 4.00. Among the students, 63.6% earned a GPA above 3.50, while 36.4% had a GPA below 3.50. Only 0.8% of students scored below a GPA of 2.50. The GPA distribution for semester 1 formed a right-skewed curve, whereas the GPA for semester 2 did not follow a normal distribution. These results are presented in Table 3, Figure 2, and Figure 3.

Descriptive Statistics							
	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
Grade Point Average 1	132	1.19	2.72	3.91	3.6034	.21139	.045
Grade Point Average 2	132	1.70	2.30	4.00	3.5611	.28055	.079
Valid N (listwise)	132						

Table 3. GPA Semester 1 and 2

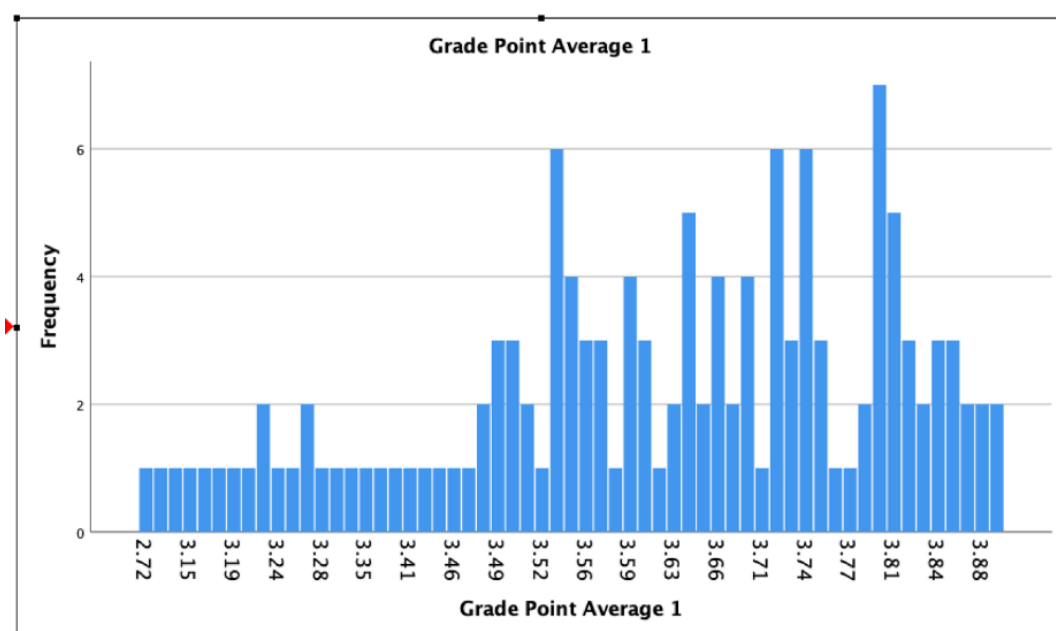


Figure 2. Distribution of GPA Semester 1

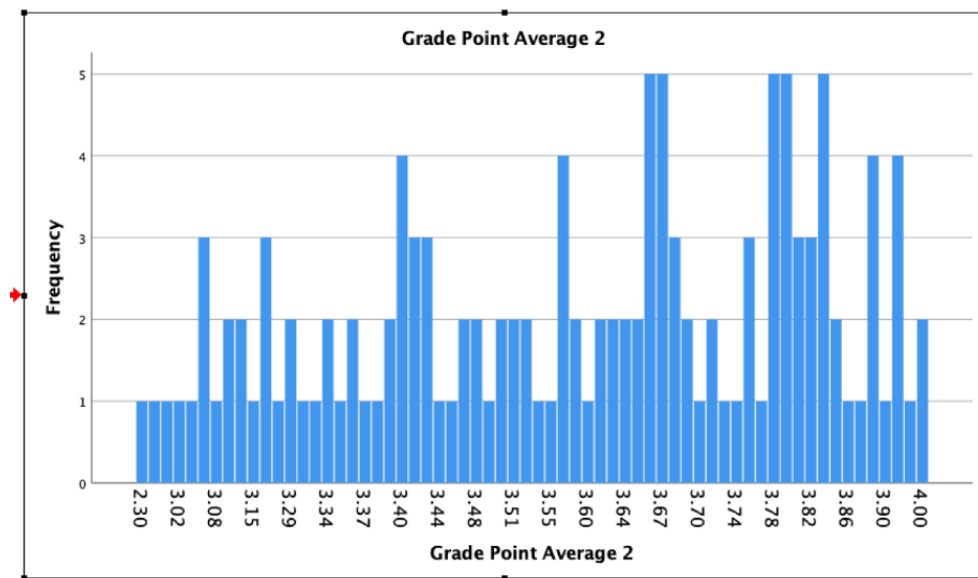


Figure 3. Distribution of GPA Semester 2

Correlation of ELA Test Scores with GPA

The results of the correlation analysis, conducted using Spearman's rho (due to the non-normal distribution of the data), show that the correlation coefficient between the ELA test scores and the semester 1 GPA was 0.173, with a significance level of 0.047. The correlation coefficient between the entry-level assessment test scores and the semester 2 GPA was 0.114, with a significance level of 0.194. The correlation between the ELA test scores and the semester 1 GPA (0.173) is higher than the correlation with the semester 2 GPA (0.114). These results are presented as follows.

Correlations				
Spearman's rho	Entry Level Assessment	Correlation Coefficient	Entry Level Assessment	Grade Point Average 1
			1.000	.173*
		Sig. (2-tailed)	.	.047
		N	132	132
	Grade Point Average 1	Correlation Coefficient	.173*	1.000
			.047	.
		N	132	132

*. Correlation is significant at the 0.05 level (2-tailed).

Table 4. Correlation of ELA Test Scores and GPA, Semester 1

Correlations			Entry Level Assessment	Grade Point Average 2
Spearman's rho	Entry Level Assessment	Correlation Coefficient	1.000	.114
		Sig. (2-tailed)	.	.194
		N	132	132
	Grade Point Average 2	Correlation Coefficient	.114	1.000
		Sig. (2-tailed)	.194	.
		N	132	132

Table 5. Correlation of ELA Test Scores and GPA, Semester 2

The mean score (Table 2) is 454.09. This indicates that the average score of the test participants is below the ideal mean score of 500. The low average score indicates that most test participants have not achieved the level of competency expected from the test. Their competency is generally below the required passing grade standard.

From the analysis results (Table 3), the mean GPA of students in semester 1 is 3.60, with a lowest GPA of 2.72 and a highest GPA of 3.91. These results suggest that the students' abilities are categorized as good, as no students have a GPA lower than 2.50. This outcome is likely since most courses in semester 1 are general subjects closely related to the high school curriculum, which helps students apply their prior knowledge and competencies.

The analysis results (Table 4) also show that the mean GPA of students in semester 2 was 3.56, with the lowest GPA of 2.30 and the highest GPA of 4.00. Although the mean GPA remains relatively high, some students saw an increase in their GPA (compared to semester 1), with a GPA of 4.00. On the other hand, some students experienced a decrease in GPA, with results below 2.50. Overall, the average GPA in semester 2 was lower than in semester 1. This decrease is likely because many of the courses in semester 2 were new and not directly related to subjects studied in high school, which could present a greater challenge for students.

The analysis results (Table 5) show that the correlation coefficient between the ELA test scores and the semester 1 GPA is 0.173, with a significance level of 0.047. This finding illustrates that the correlation between the ELA test scores and the GPA in the first semester is statistically significant at the 95% confidence level, though the correlation is very low. Possible factors influencing this low correlation include (1) the test material not being aligned with the subjects taken in semester 1, (2) course assignments not fully reflecting the test material, and (3) the test content not being an accurate predictor of students' academic success.

Table 5 also shows that the correlation coefficient between the ELA test scores and the semester 2 GPA is 0.114, with a significance level of 0.194. This indicates that the correlation is very low and statistically insignificant. The weak correlation can likely be attributed to the fact that many of the courses in semester 2 are unrelated to the test material. In semester 2, students take language courses that introduce new material, meaning students are essentially starting from scratch.

The Substance of ELA

ELA tests in higher education are tools for selecting, assessing, and predicting prospective students' abilities. These tests are crucial entry points for identifying both academic and non-academic capacities before students proceed with further education. According to the findings, this test encompasses various domains, such as the Academic Potential Test, Literacy, English, and Numeracy, to evaluate students' prior knowledge. The assessment is an entrance selection tool and a psychometric assessment that measures innate abilities and previous educational achievements (Anastasi & Urbina, 1997).

ELA tests provide objective data on students' abilities, enabling universities to design programs that align with the participants' needs. These tests can be placement tests that allow universities to place students in academic tracks that match their competencies. For instance, numeracy tests offer insights into data analysis and decision-making skills, which are crucial for logic-based or science-oriented fields of study. The results of these tests are key predictors in creating a more adaptive learning experience (Zakeri-Nasrabadi & Parsam, 2022).

On a broader scale, ELA tests function as a national standard for mapping capabilities. With a consistent score range, universities can compare the quality of input from various regions or education systems. This facilitates a more equitable national education policy. For example, a mean score lower than the ideal score signals the need for intervention in the secondary education system. One such intervention could be synchronizing the school curriculum with the higher education requirements, thus improving student competencies (OECD, 2023).

The Academic Potential Test measures academic reasoning and predictive abilities, encompassing verbal, figural, and quantitative reasoning. These areas align with general guidelines for intellectual ability tests to evaluate reasoning dimensions, verbal and non-verbal, to predict future academic performance (Dawn P. Flanagan & Erin M. McDonough, 2022). Success in these tasks depends on the test taker's ability

to understand the problem, devise a solution, implement the plan, and evaluate the outcome (Polya & Conway, 2015).

Verbal reasoning sections in ELA tests focus on basic logic and mathematics, including geometry and comparison. For instance, questions involving area calculations and estimating the number of objects assess contextual problem-solving skills. However, the TPA should prioritize pure verbal reasoning over basic mathematics. Erlinawati & Muslimah (2021) noted that test questions misaligned with the measured indicators may lead to errors in interpreting results and decrease the test's validity.

Figural reasoning evaluates the ability to analyze patterns, visualize spatial relationships, and apply analytical logic through pattern recognition and three-dimensional projections. Questions that rely on visualization are valuable for assessing higher cognitive skills, such as analytical thinking and complex problem-solving (Pandya et al., 2024). However, some questions contain subtle differences between answer choices, which may cause ambiguity and confusion for test takers. A recent study by the Regional Center of Education & Training Professions, Institutions for Higher Executive Training, Tangier, Morocco & Hrich (2024) highlighted that questions with high ambiguity can reduce readability and increase the likelihood of guessing rather than logical analysis. To mitigate this issue, it is recommended to simplify answer choices or provide examples beforehand to reduce participant confusion.

The literacy test is designed to assess critical reading skills and contextual understanding. It focuses on the ability to infer meaning and evaluate texts. The questions in this test measure participants' capacity to comprehend the logic of statements, draw conclusions, and identify explicit information within the text. Research by Sultan et al. (2017) indicates that strong literacy skills encompass the ability to read critically and make logical inferences from texts. The literacy questions in the entry-level assessment incorporate indicators of critical reading skills, utilizing a variety of text types and related competencies.

One of the main strengths of this literacy test lies in its broad range of skills and the use of authentic texts that provide clear context for test takers. This approach aligns with the theory of contextual literacy, which posits that critical reading skills are more effectively developed when testees engage with texts reflecting real-life situations (Marek et al., 2024). However, the analysis reveals that the complexity of the questions still needs to be increased to accommodate participants with higher literacy skills.

The English test evaluates participants' ability to recognize text types, understand context, and make inferences. According to the theory of reading comprehension measurement, Utami et al. (2023) explain that a well-designed English test should assess the comprehension of individual sentences and the ability to understand the main ideas in paragraphs and the entire text. The findings show that the English questions in the entry-level assessment use authentic texts, such as news articles and scientific texts, that are relevant to the academic context. This authenticity enhances the test's ability to predict participants' performance with more complex academic texts.

The numeracy test in the ELA focuses on evaluating logical abilities, pattern recognition, and basic arithmetic skills. The numeracy questions assess key mathematical competencies, such as identifying number series patterns, analyzing letter series, and performing basic arithmetic operations. However, it was observed that the difficulty level of some series questions was too high, or they required an understanding of recursive concepts that may not be familiar to all test takers. To address this, the study recommends that test developers provide sample questions or similar exercises in advance to help participants familiarize themselves with the types of patterns presented in the test. According to numeracy theory, strong numeracy skills encompass mathematical calculations, logical reasoning, and problem-solving (Sari et al., 2023).

The Potential of ELA in Predicting Study Success

ELA tests are designed to assess prospective students' competencies across various domains. The assessment evaluates reasoning abilities, text analysis, language proficiency, and mathematical logic. These tests measure the prospective student's academic readiness and competencies. Anderson et al. (2018) emphasized that effective selection tests can provide insights into critical and analytical thinking skills.

The research findings show that ELA tests can provide insights into students' potential for academic success, although their predictive accuracy is limited. The study results indicate that test scores positively correlate with students' GPAs in the first semester, but this relationship weakens in subsequent semesters. This suggests that ELA tests can predict short-term performance rather than long-term academic success. Burrus et al. (2020) explained that selection tests are typically designed to predict initial success, rather than the entirety of a student's journey.

The initial competencies measured by entry-level tests may not fully predict a student's success in higher education, as skills such as time management, motivation, and adaptability are not directly assessable through these tests. This is evident from the low correlation between test scores and students' GPAs in their initial semester. For instance, although the average test scores of participants fall below the ideal threshold, their GPAs still demonstrate relatively good performance. Kuh (2010) argued that student success is influenced by learning experiences rather than initial competencies alone. Therefore, there is potential value in expanding the scope of the assessment to include social and emotional skills. These competencies are increasingly recognized as vital for academic success, as non-cognitive skills significantly contribute to students' overall performance (Durlak et al., 2024).

The ability of ELA tests to predict academic success also depends on the specific content of the test. For instance, literacy tests that measure text evaluation and inference skills are more likely to predict success in reading-intensive and analytical courses. In contrast, areas of the Test of Potential Academic focusing on verbal and figural reasoning may be more relevant for students pursuing specific majors. The predictive value of these tests is enhanced when they are closely aligned with the prospective student's chosen field of study (Ali & Yousef, 2024).

The findings indicate that the correlation between ELA test scores and students' GPAs is relatively low, though statistically significant for the first semester. The correlation coefficient of 0.173 suggests that the test offers limited predictive value regarding students' long-term academic success. This aligns with the research conducted by French et al. (2024), which found that standardized tests explain only a small portion of the variation in students' academic performance in college. Similarly, Althewini (2019) emphasized that the relevance of test content to students' future academics is important to underscore test validity in measuring students' competencies.

The low correlation may also reflect a mismatch between the test content and college curricula. Nevertheless, this correlation retains predictive value in informing the intervention strategies for students. For instance, students who perform poorly on numeracy tests may still excel in courses unrelated to numeracy, such as those in the humanities or arts. By identifying gaps in initial competencies, universities can design targeted remedial programs or learning assistance. De Vries et al. (2022) demonstrated that effective initial assessments can enhance academic success by intervening in the appropriate support programs.

Enhancing The Predictive Validity of Entry-Level Assessment

Overall, the findings show that the ELA was well-designed to cover a broad range of cognitive skills for predicting the academic abilities of incoming students. However, some aspects require improvement, such as varying the complexity of the questions, simplifying the language of instructions, and offering sample questions. These changes are essential for enhancing the reliability and validity of the test and ensuring a fairer opportunity for participants with diverse educational backgrounds.

The findings indicate that ELA tests, including the Academic Potential Test, Literacy, English, and Numeracy, offer the advantage of measuring students' initial abilities. Although the correlation between the ELA scores and students' GPAs is low, the test results can still inform subsequent policy decisions. Wilson & Scalise (2006) argued that the predictive validity of an assessment depends on how well the test aligns with the competencies being measured, and the context of student learning. This study suggests that the low correlation may arise from the differences between the entry-level assessment content and the competencies required in the early stages of college studies, particularly in the first two semesters.

In alignment with this perspective, Messick (1995) explained that the validity of a test hinges on its ability to measure the intended construct and the consequences of its use. In the context of college entrance exams, while test scores can provide an overview of students' foundational abilities, the low correlation with GPA suggests that these assessments are more relevant for initial selection rather than predicting long-term academic success. This observation is further supported by the finding that students with high GPAs in the first semester often benefit from prior learning experiences in high school, which are still closely aligned with basic course material.

ELA could be supplemented with portfolio-based assessments or interviews to improve the predictive capacity of the tests. These methods could assess non-cognitive skills such as motivation, interpersonal abilities, and independent learning initiatives. Wisniewski et al. (2020) stress the importance of viewing academic success as the interaction between a student's prior knowledge and learning experiences.

As a recommendation, future development of entrance exams for prospective students should consider aligning the test content with the needs of the college curriculum in the first year. Pellegrino et al. (2001) emphasize the importance of "assessment alignment," referring to the alignment between learning objectives, assessment methods, and learning contexts. By incorporating applicable elements, such as case

studies or contextual data analysis supporting core courses, college entrance exams can serve as selection tools and accurate predictors of students' academic success.

CONCLUSION

This study underscores the role of entry-level assessment (ELA) tests in evaluating students' initial competencies, particularly in academic potential, literacy, numeracy, and critical reading skills. While the ELA scores show a positive but modest correlation with students' GPAs ($r = 0.173$ in the first semester), these tests alone provide limited predictive power for long-term academic success. Several factors, such as test content alignment with the curriculum, item validity, and assessment complexity, contribute to this modest correlation. These findings suggest that ELA tests, while useful, may not fully capture the multifaceted nature of academic potential.

For universities and policymakers, the findings highlight the need for a more holistic approach to student selection. While ELA tests are valuable for assessing cognitive skills, incorporating non-cognitive assessments or portfolio-based evaluations—considering factors like motivation, adaptability, and interpersonal skills—could offer a more comprehensive understanding of student potential. This approach may help identify students who, despite lower test scores, possess other qualities that contribute to academic success. Future research should focus on refining test designs to improve their predictive accuracy and exploring alternative assessment methods that better account for the diverse skills and attributes necessary for success in higher education.

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