



## Acceptability of Technology and Livelihood Education Specialization Profiler

Nikki Mae B. Tangao, MaEd and Renith s. Guanzon, PhD (EdM), PhD (ScEd-Math)  
Mansilingan Agro- Industrial High School  
STI West Negros University  
Bacolod City, Negros Occidental, Philippines  
[nikki.barber@deped.gov.ph](mailto:nikki.barber@deped.gov.ph)  
[renithguanzon10@gmail.com](mailto:renithguanzon10@gmail.com)

### Abstract

In the rapidly evolving educational landscape, ensuring that students have informed choices to make regarding the future academic and career pathways they would like to pursue is seen as needing utmost importance. As specialized focus areas gain more emphasis in the K-12 curriculum, tools helping students identify their strengths and preferences have gained more prominence. The Technology and Livelihood Education (TLE) Specialization Profiler was created as a tool to assist incoming Grade 9 students in choosing their interest areas under TLE. In this context, this study aims to assess the acceptability level of the profiler, among incoming Grade 9 students during the school year 2024-2025, in a highly urbanized city in the Central Philippines. The profiler aims to help students choose TLE specializations that match their skills, interests, and career goals amid ongoing K-12 reforms. A verified and trustworthy researcher-made instrument was used to collect data from 60 respondents as part of a descriptive research design. Content (Mean- 4.80), language (Mean-4.84), and usability (Mean- 4.82) all gave the profiler good approval ratings. The study revealed no significant difference across various groups, with high levels of acceptability consistently observed regardless of sex, age, teaching experience, or educational attainment. This study recommend the TLE Specialization Profiler be implemented across schools for incoming Grade 9 students, with further research to assess its long-term impact on academic and career decision-making.

**Keywords:** Technology education, specialization profiler, assessment, vocational guidance

### Bio-profile

Nikki Mae Barber-Tangao is a licensed public elementary school teacher currently assigned to a school under the Schools Division of Bacolod City. She is in the process of completing her Master's degree in Administration and Supervision. Dedicated to both academic and technical-vocational education, she takes on multiple responsibilities in her school, including serving as the Section Counselor of Grade 10-Azure and as a Technology and Livelihood





Education (TLE) teacher specializing in Dressmaking for Grades 9 and 10. Her passion for guiding students in their career paths and honing their practical skills has inspired her research titled “*Acceptability of TLE Specialization Profiler*.”

## Introduction

### Rationale

Technology and Livelihood Education (TLE) is a key component of the Philippines' K to 12 Basic Education Curriculum and continues to play a significant role under the newly implemented MATATAG Curriculum. As a subject that promotes both personal development and vocational preparedness, TLE provides learners with practical, hands-on experiences aimed at equipping them with life skills essential for employment or entrepreneurship. It is categorized into four major areas: Home Economics, Industrial Arts, Information and Communication Technology (ICT), and Agri-Fishery Arts. These areas are introduced in Grades 7 and 8 through exploratory subjects, giving students the opportunity to discover their strengths and interests before choosing a specialization in Grade 9 (DepEd, 2023).

Despite this structured approach, students still struggle to make informed decisions regarding which TLE specialization to pursue in Grades 9 and 10. Interviews and observations reveal that many students remain undecided, citing confusion about aligning their skills, interests, and academic performance with the available specializations (Constantino, 2019; Cabarrubia, 2019). Inconsistencies in how schools assign specializations further compound this issue. Methods vary widely—some rely on exploratory grades, others let students list their preferences, while some use a first-come, first-served system or base decisions on student sections (Butial, 2021; Raton, 2023). These inconsistent practices often lead to mismatches between student competencies and their assigned TLE specializations, highlighting the urgent need for a standardized and objective assessment tool.

To address this challenge, educators have turned to diagnostic exams and profilers that assess students' baseline knowledge, skills, and potential prior to specialization (Alsong, 2019). These tools often include both formative and summative components to track student progress throughout the course (Staake, 2024).

### Literature Review

This study is based on Holland's RIASEC Theory of Career Choice, which links six personality types—Realistic, Investigative, Artistic, Social, Enterprising, and Conventional—to career satisfaction and success (Nauta, 2022). In Technology and Livelihood Education (TLE), this model guides students in selecting specializations that fit their interests and strengths. The TLE Specialization Profiler, built on this framework, supports informed educational and





vocational decisions. Recent research (Sembiring, 2023; Wille et al., 2022; Song et al., 2024; Porfeli & Lee, 2023) confirms that matching personality with career choice improves engagement and motivation. This study evaluates the profiler's acceptability in content, language, and usability among incoming Grade 9 students and educators, aiming to standardize specialization assignment and better align students' strengths with career paths.

## Objectives

This study aimed to determine the level of acceptability of the Technology and Livelihood Education (TLE) specialization profiler for upcoming Grade 9 students in a large division of a highly urbanized city in Central Philippines during the School Year 2024-2025. More Specifically, this paper sought to determine (1) the level of acceptability of the Technology and Livelihood Education (TLE) Specialization Profiler in terms of content, language, and usability; (2) the profiler's level of acceptability when grouped according to demographic variables such as sex, age, educational attainment, and Teaching Experience; and (3) whether significant differences exist in the level of acceptability based on these variables.

## Methodology

This section discusses the research methodology used, the study's respondents, the research instruments used, the validity and reliability of the instruments, the procedure for data gathering, ethical considerations, and the statistical tools and procedures for data analysis.

## Research Design

This study used a descriptive-developmental research design to assess the acceptability of the TLE specialization profiler for upcoming Grade 9 students in a large urban division in Central Philippines during School Year 2024-2025. This approach combines descriptive and developmental methods to evaluate and improve educational tools. According to Clark-Plaskie and Lang (2022), developmental research builds on real-world experience to create or enhance materials, while in instructional technology, it focuses on improving design, development, and evaluation of instructional tools (Richey, 2023).

## Respondents

The study's respondents were 30 head teachers, master teachers, and subject coordinators for Technology and Livelihood Education. These teachers were chosen using a purposive sampling method.

## Instrument



The researcher developed a validated survey to assess the acceptability of the TLE Specialization Profiler for incoming Grade 9 students. The questionnaire had two parts: Part I collected demographics (age, sex, education, and TLE teaching experience), while Part II included 30 items (10 each for content, usability, and language) rated on a 5-point Likert scale from “Very Highly Acceptable” to “Highly Not Acceptable.” The data helped analyze educators’ perceptions and informed a capacity-building plan to improve the profiler’s implementation and effectiveness.

### Procedure for Data Collection

A formal request was sent to the Division Office and school heads asking permission to conduct the study and administer the questionnaire to the respondents. After approval was obtained, the master teachers, head teachers, or subject coordinators were requested to meet with the researcher. The researcher explained the purpose of the research, and detailed instructions were given on how the representatives would administer the questionnaire to the respondents objectively and honestly. After answering, their responses were retrieved, saved, compiled, and tabulated.

### Data Analysis and Statistical Treatment

The study used a descriptive-analytical approach for Objectives 1 to 3: Objective 1 used mean scores to assess acceptability in terms of content, usability, and reliability; and Objective 2 used mean scores to evaluate acceptability across respondent groups. For Objective 3, a comparative-analytical approach and the Mann-Whitney U test were used to identify significant differences in acceptability based on demographic variables.

### Ethical Considerations

The researcher secured formal consent from Grade 8 students and their guardians before the reliability test to ensure informed participation. Participant identities were kept confidential and anonymous, with no self-identifying information used. Ethical standards protected privacy, dignity, and safety while minimizing potential risks such as emotional distress or reputational harm. Precautions were taken to uphold the highest ethical responsibility throughout the study.

## Result and Discussion

This section provides a concise overview of the study’s discoveries stemming from thorough data collection, rigorous analysis, and insightful interpretation. Following this, key conclusions were drawn from the initial analytical phase, thereby offering valuable insights.

### Acceptability of Technology and Livelihood Education Specialization Profiler

Table 1



*Level of Acceptability of the Test Questionnaire for the Technology and Livelihood Education Specialization Profiler in terms of Content*

Content		
Statement	Mean	Verbal Description
1. Questions are clear and easy to understand.	4.80	Very High
2. Questions are relevant to the daily activities of the learner.	4.93	Very High
3. The content of this item is relevant to the learning objectives or competencies.	4.87	Very High
4. Items are a suitable measure for knowledge and skills.	4.87	Very High
5. Test items free from ambiguous or misleading information.	4.70	Very High
6. The scenarios or examples used in the questions are culturally neutral and inclusive.	4.83	Very High
7. The number of questions per area represents all the questions needed for the research.	4.67	Very High
8. Questions free from any bias (cultural, gender, or socio-economic).	4.77	Very High
9. The test item directly relates to the key concepts or skills it is intended to measure.	4.83	Very High
10. The item measures the appropriate cognitive level (recall, understanding, analysis, application) based on the learning objectives.	4.77	Very High
<b>Overall Mean</b>	<b>4.80</b>	<b>Very High</b>

Table 1 presents the acceptability level of the TLE Specialization Profiler in terms of content, with an overall mean of 4.80, interpreted as very high. These results indicate strong content consistency and alignment with students’ real-life experiences. Supporting Super’s self-concept theory, the findings affirm that the profiler effectively helps students make informed specialization choices, reinforcing its value in learner-centered curriculum design and policy development.

**Table 2**

*Level of Acceptability of the Test Questionnaire for the Technology and Livelihood Education Specialization Profiler in terms of Language*

Language		
Statement	Mean	Verbal Description
1. Word usage matches the language of the learners.	4.97	Very High
2. Use of words is arranged to prevent misinterpretation.	4.80	Very High
3. Jargon and terminology used are appropriate for the grade level.	4.87	Very High
4. Language promotes cultural sensitivity and good values.	4.83	Very High



5. Words that are interesting and have a fair appeal, such as the respondents will be induced to respond and accomplish them fully.	4.83	Very High
6. The language reflects the students' reading comprehension level without being overly simplistic or complex.	4.87	Very High
7. The key terms and phrases used consistently throughout the test.	4.83	Very High
8. The question can be interpreted in only one way by students of varying abilities.	4.73	Very High
9. The sentence structure is simple enough to prevent misinterpretation.	4.83	Very High
10. Language reflects the students' reading comprehension level.	4.83	Very High
<b>Overall Mean</b>	<b>4.84</b>	<b>Very High</b>

Table 2 shows the acceptance of the test questionnaire for the Technology and Livelihood Education (TLE) specialization profiler based on language criteria. The overall mean score for language acceptability was 4.84, under the "very high" acceptability category. These findings align with best practices in assessment development, emphasizing the importance of linguistic clarity and cultural relevance to enhance the test (Bachman, 2010). Furthermore, clear and well-structured test questions contribute to fairness and accessibility in educational assessments (Brookhart, 2013).

**Table 3**

*Level of Acceptability of the Test Questionnaire for the Technology and Livelihood Education Specialization Profiler in terms of Usability*

Statement	Usability	
	Mean	Verbal Description
1. The test's layout is simple to understand and move between sections and items.	4.83	Very High
2. Questions that are logically arranged and numbered for easy navigation.	4.83	Very High
3. The directions are arranged so test-takers can quickly locate and review them.	4.87	Very High
4. The test structure is suitable for the evaluated content.	4.73	Very High
5. The format facilitates usability for students with varying learning styles or aptitudes.	4.67	Very High
6. The pupils reasonably finish the test in the allocated time.	4.90	Very High
7. The target student group can easily understand the font's size, style, and spacing of the questions.	4.80	Very High
8. Students will find it easier to follow if the instructions, question types, and structure are consistent throughout the sections.	4.80	Very High
9. Test structure allows flexibility without compromising its usability.	4.87	Very High



10. The questions and response options are easily understood by the students, who do not frequently require clarification.	4.87	Very High
<b>Overall Mean</b>	<b>4.82</b>	<b>Very High</b>

Table 3 shows the level of acceptability of the Technology and Livelihood Education specialization profiler in terms of usability, which was evaluated based on various criteria. The overall mean score is 4.82, which indicates a "very high" level of usability. Aligning with the Social Cognitive Career Theory by Lent, Brown, and Hackett (1994), this finding emphasizes the significance of providing diverse learning opportunities that cater to individual aptitudes. It highlights the need for further refinements in test design to bolster its usability for all students, thereby maximizing their potential for academic success.

**Table 4**

*Level of Acceptability of the Test Questionnaire for the Technology and Livelihood Education Specialization Profiler in terms of Content when grouped according to Sex*

Statement	Content according to Sex			
	Male		Female	
	Mean	Verbal Description	Mean	Verbal Description
1. Questions are clear and easy to understand.	4.80	Very High	4.80	Very High
2. Questions are relevant to the daily activities of the learner.	4.90	Very High	4.95	Very High
3. The content of this item is relevant to the learning objectives or competencies.	4.90	Very High	4.85	Very High
4. Items are a suitable measure for knowledge and skills.	4.80	Very High	4.90	Very High
5. Test items free from ambiguous or misleading information.	4.90	Very High	4.60	Very High
6. The scenarios or examples used in the questions are culturally neutral and inclusive.	4.70	Very High	4.90	Very High
7. The number of questions per area represents all the questions needed for the research.	4.70	Very High	4.65	Very High
8. Questions free from any bias (cultural, gender, or socio-economic).	4.80	Very High	4.75	Very High
9. The test item directly relates to the key concepts or skills it is intended to measure.	4.80	Very High	4.85	Very High
10. The item measures the appropriate cognitive level (recall,	4.80	Very High	4.75	Very High



understanding, analysis, application)  
based on the learning objectives.

Overall Mean	4.81	Very High	4.80	Very High
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Table 4 presents the content acceptability of the TLE Specialization Profiler by sex, with males rating it at 4.81 and females at 4.80—both under the "very high" category. These findings show strong agreement across sexes, suggesting the profiler is consistently effective in evaluating student competencies. The slight difference highlights potential for minor improvements, reinforcing the importance of clear and fair assessment tools (Brown, 2019).

**Table 5**

*Level of Acceptability of the Test Questionnaire for the Technology and Livelihood Education Specialization Profiler in terms of Content when grouped according to Age*

Statement	Content according to Age				
	Younger (51 years old below)			Older (51 years old and above)	
	Mean	Verbal	Description	Mean	Verbal Description
1. Questions are clear and easy to understand.	4.90	Very High		4.75	Very High
2. Questions are relevant to the daily activities of the learner.	5.00	Very High		4.90	Very High
3. The content of this item is relevant to the learning objectives or competencies.	5.00	Very High		4.80	Very High
4. Items are a suitable measure for knowledge and skills.	5.00	Very High		4.80	Very High
5. Test items free from ambiguous or misleading information.	4.70	Very High		4.70	Very High
6. The scenarios or examples used in the questions are culturally neutral and inclusive.	4.90	Very High		4.80	Very High
7. The number of questions per area represents all the questions needed for the research.	4.60	Very High		4.70	Very High
8. Questions free from any bias (cultural, gender, or socio-economic).	4.90	Very High		4.70	Very High
9. The test item directly relates to the key concepts or skills it is intended to measure.	4.90	Very High		4.80	Very High
10. The item measures the appropriate cognitive level (recall,	4.80	Very High		4.75	Very High







analysis, application) based on the learning objectives.

<b>Overall Mean</b>	<b>4.78</b>	<b>Very High</b>	<b>4.88</b>	<b>Very High</b>
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Table 6 shows that the TLE Specialization Profiler test questionnaire received very high acceptability ratings based on content from both educational attainment groups—Master’s (mean = 4.78) and Doctorate (mean = 4.88). These findings affirm the tool’s clarity, fairness, and alignment with curriculum goals, consistent with standards set by AERA, APA, and NCME. The slightly higher ratings from the Doctorate group highlight expert confidence in the test’s quality and equity in assessing student competencies.

**Table 7**

*Level of Acceptability of the Test Questionnaire for the Technology and Livelihood Education Specialization Profiler in terms of Content when grouped according to Teaching Experience*

Statement	Shorter (21 years or less)		Longer (More than 21 years)	
	Mean	Verbal Description	Mean	Verbal Description
1. Questions are clear and easy to understand.	4.86	Very High	4.75	Very High
2. Questions are relevant to the daily activities of the learner.	4.93	Very High	4.94	Very High
3. The content of this item is relevant to the learning objectives or competencies.	4.79	Very High	4.94	Very High
4. Items are a suitable measure for knowledge and skills.	4.93	Very High	4.81	Very High
5. Test items free from ambiguous or misleading information.	4.64	Very High	4.75	Very High
6. The scenarios or examples used in the questions are culturally neutral and inclusive.	4.86	Very High	4.81	Very High
7. The number of questions per area represents all the questions needed for the research.	4.57	Very High	4.75	Very High
8. Questions free from any bias (cultural, gender, or socio-economic).	4.79	Very High	4.75	Very High
9. The test item directly relates to the key concepts or skills it is intended to measure.	4.79	Very High	4.88	Very High
10. The item measures the appropriate cognitive level (recall, understanding,	4.64	Very High	4.88	Very High



analysis, application) based on the learning objectives.

Overall Mean	4.78	Very High	4.83	Very High
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Table 7 shows that both less-experienced and more-experienced teachers rated the TLE Specialization Profiler test questionnaire as very highly acceptable in terms of content, with mean scores of 4.78 and 4.83, respectively. The highest ratings in both groups highlighted the relevance of items to learners’ daily activities and learning objectives, while slight variations suggested areas for refinement, particularly in item representation. Overall, the findings confirm strong content validity across experience levels, supporting the tool’s effectiveness and alignment with best practices in educational assessment.

**Table 8**

*Level of Acceptability of the Test Questionnaire for the Technology and Livelihood Education Specialization Profiler in terms of Language when grouped according to Sex*

Statement	Language according to Sex			
	Male		Female	
	Mean	Verbal Description	Mean	Verbal Description
1. Words used match the language of the learners.	5.00	Very High	4.95	Very High
2. Use of words is arranged to prevent misinterpretation.	4.70	Very High	4.85	Very High
3. Jargon and terminology used are appropriate for the grade level.	4.90	Very High	4.85	Very High
4. Language promotes cultural sensitivity and good values.	4.70	Very High	4.90	Very High
5. Words that are interesting and have a fair appeal, such as the respondents will be induced to respond and accomplish it fully.	4.90	Very High	4.80	Very High
6 The language reflects the students' reading comprehension level without being overly simplistic or complex.	4.90	Very High	4.85	Very High
7. The key terms and phrases used consistently throughout the test.	4.80	Very High	4.85	Very High
8. Questions should be interpreted in only one way by students of varying abilities.	4.60	Very High	4.80	Very High
9. The sentence structure is simple enough to prevent misinterpretation.	4.80	Very High	4.85	Very High
10. Language reflects the students' reading comprehension level.	4.70	Very High	4.90	Very High



Overall Mean	4.80	Very High	4.86	Very High
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Table 8 shows the language acceptability of the TLE Specialization Profiler by sex. Males rated it 4.80 and females 4.86—both “very high.” Both groups agreed that the language suits learners, though minor concerns about ambiguity and engagement were noted. This suggests the language is clear and appropriate, with room for slight refinements to further enhance clarity and effectiveness.

**Table 9**

*Level of Acceptability of the Test Questionnaire for the Technology and Livelihood Education Specialization Profiler in terms of Language when grouped according to Age*

Statement	Language according to Age			
	Younger (below 51 years old)		Older (51 years old and above)	
	Mean	Verbal Description	Mean	Verbal Description
1. Words used match the language of the learners.	5.00	Very High	4.95	Very High
2. Use of words is arranged to prevent misinterpretation.	4.90	Very High	4.75	Very High
3. Jargon and terminology used are appropriate for the grade level.	4.90	Very High	4.85	Very High
4. Language promotes cultural sensitivity and good values.	5.00	Very High	4.75	Very High
5. Words that are interesting and have a fair appeal, such as the respondents will be induced to respond and accomplish it fully.	4.90	Very High	4.80	Very High
6. The language reflects the students' reading comprehension level without being overly simplistic or complex.	5.00	Very High	4.80	Very High
7. The key terms and phrases used consistently throughout the test.	5.00	Very High	4.75	Very High
8. Questions should be interpreted in only one way by students of varying abilities.	4.80	Very High	4.70	Very High
9. The sentence structure is simple enough to prevent misinterpretation.	4.80	Very High	4.85	Very High
10. Language reflects the students' reading comprehension level.	4.90	Very High	4.80	Very High
<b>Overall Mean</b>	<b>4.92</b>	<b>Very High</b>	<b>4.80</b>	<b>Very High</b>



Table 9 shows the language acceptability of the TLE Specialization Profiler based on age. Younger teachers (below 51) rated it 4.92, while older teachers (51 and above) gave 4.80—both “very high.” These results indicate strong agreement that the language used is appropriate, clear, and learner-centered. As Bautista et al. (2009) emphasized, assessments must align with curriculum goals, using language that supports comprehension, cultural sensitivity, and value formation.

**Table 10**

*Level of Acceptability of the Test Questionnaire for the Technology and Livelihood Education Specialization Profiler in terms of Language when grouped according to Educational Attainment*

Statement	Lower (Master’s Degree)		Higher (Doctorate Degree)	
	Mean	Verbal Description	Mean	Verbal Description
1. Word usage matches the language of the learners.	4.96	Very High	5.00	Very High
2. Use of words is arranged to prevent misinterpretation.	4.80	Very High	4.80	Very High
3. Jargon and terminology used are appropriate for the grade level.	4.88	Very High	4.80	Very High
4. Language promotes cultural sensitivity and good values.	4.80	Very High	5.00	Very High
5. Words that are interesting and have a fair appeal, such as the respondents will be induced to respond and accomplish it fully.	4.80	Very High	5.00	Very High
6. The language reflects the students' reading comprehension level without being overly simplistic or complex.	4.88	Very High	4.80	Very High
7. The key terms and phrases used consistently throughout the test.	4.80	Very High	5.00	Very High
8. Questions should be interpreted in only one way by students of varying abilities.	4.68	Very High	5.00	Very High
9. The sentence structure is simple enough to prevent misinterpretation.	4.84	Very High	4.80	Very High
10. Language reflects the students' reading comprehension level.	4.80	Very High	5.00	Very High
<b>Overall Mean</b>	<b>4.82</b>	<b>Very High</b>	<b>4.92</b>	<b>Very High</b>

Table 10 shows that both master's and doctorate holders rated the language of the TLE Specialization Profiler as very highly acceptable, with mean scores of 4.82 and 4.92, respectively. These results indicate that the questionnaire’s language is clear, accessible, and



appropriate for its intended audience. This supports Villanueva’s (2018) findings on the importance of clear communication in assessments to enhance student engagement and learning. The consistently high ratings affirm that language clarity and inclusivity in test design contribute to more accurate evaluations of student competencies.

**Table 11**

*Level of Acceptability of the Test Questionnaire for the Technology and Livelihood Education Specialization Profiler in terms of Language when grouped according to Teaching Experience*

Statement	Language according to Teaching Experience			
	Shorter (21 years or less)		Longer (More than 21 years)	
	Mean	Verbal Description	Mean	Verbal Description
1. Words used match the language of the learners.	5.00	Very High	4.94	Very High
2. Use of words is arranged to prevent misinterpretation.	4.79	Very High	4.81	Very High
3. Jargon and terminology used are appropriate for the grade level.	4.86	Very High	4.88	Very High
4. Language promotes cultural sensitivity and good values.	5.00	Very High	4.69	Very High
5. Words that are interesting and have a fair appeal, such as the respondents will be induced to respond to them and accomplish them fully..	4.93	Very High	4.75	Very High
6. The language reflects the students' reading comprehension level without being overly simplistic or complex.	4.86	Very High	4.88	Very High
7. The key terms and phrases used consistently throughout the test.	4.86	Very High	4.81	Very High
8. Questions should be interpreted in only one way by students of varying abilities.	4.71	Very High	4.75	Very High
9. The sentence structure is simple enough to prevent misinterpretation.	4.71	Very High	4.94	Very High
10. Language reflects the students' reading comprehension level	4.86	Very High	4.81	Very High
<b>Overall Mean</b>	<b>4.86</b>	<b>Very High</b>	<b>4.83</b>	<b>Very High</b>

Table 11 presents the acceptability level of the TLE Specialization Profiler test in terms of language, based on teaching experience. Respondents with less than 21 years of experience gave a mean rating of 4.86, while those with 21 years or more gave 4.83—both rated as very high. This indicates strong approval of the test's language quality regardless of experience.



Aligned with Cruz (2011), the findings underscore the importance of creating assessment tools that are responsive to learners and informed by real classroom experiences.

**Table 12**

*Level of Acceptability of the Test Questionnaire for the Technology and Livelihood Education Specialization Profiler in terms of Usability when grouped according to Sex*

Usability according to Sex				
Statement	Male		Female	
	Mean	Verbal Description	Mean	Verbal Description
1. The test's layout is simple to understand and move between sections and items.	4.90	Very High	4.80	Very High
2. Questions that are logically arranged and numbered for easy navigation.	4.90	Very High	4.80	Very High
3. The directions are arranged so test-takers can quickly locate and review them.	4.80	Very High	4.90	Very High
4. The test structure is suitable for the evaluated content.	4.70	Very High	4.75	Very High
5. The format facilitates usability for students with varying learning styles or aptitudes.	4.80	Very High	4.60	Very High
6. The pupils reasonably finish the test in the allocated time.	5.00	Very High	4.85	Very High
7. The target student group can easily understand the font's size, style, and spacing of the questions.	4.80	Very High	4.80	Very High
8. Students will find it easier to follow if the instructions, question types, and structure are consistent throughout the sections.	4.70	Very High	4.85	Very High
9. Test structure allows flexibility without compromising its usability.	4.90	Very High	4.85	Very High
10. The questions and response options are easily understood by the students, who do not frequently require clarification.	4.90	Very High	4.85	Very High
<b>Overall Mean</b>	<b>4.84</b>	<b>Very High</b>	<b>4.81</b>	<b>Very High</b>

Table 12 shows the level of acceptability of the TLE Specialization Profiler in terms of usability, grouped by sex. Both male (4.84) and female (4.81) respondents rated it as very high, indicating strong agreement on its user-friendliness. Consistent with Ramos (2020), the findings



highlight the importance of well-structured assessment tools that align with learners' language abilities and teachers' experiences to enhance teaching effectiveness and learning outcomes.

**Table 13**

*Level of Acceptability of the Test Questionnaire for the Technology and Livelihood Education Specialization Profiler in terms of Usability when grouped according to Age*

Statement	Younger (below 51 years old)		Older (51 years old and above)	
	Mean	Verbal Description	Mean	Verbal Description
1. The test's layout is simple to understand and move between sections and items.	4.60	Very High	4.95	Very High
2. Questions that are logically arranged and numbered for easy navigation.	4.80	Very High	4.85	Very High
3. The directions are arranged so test-takers can quickly locate and review them.	5.00	Very High	4.80	Very High
4. The test structure is suitable for the evaluated content.	4.90	Very High	4.65	Very High
5. The format facilitates usability for students with varying learning styles or aptitudes.	4.60	Very High	4.70	Very High
6. The pupils reasonably finish the test in the allocated time.	5.00	Very High	4.85	Very High
7. The target student group can easily understand the font's size, style, and spacing of the questions.	4.80	Very High	4.80	Very High
8. Students will find it easier to follow if the instructions, question types, and structure are consistent throughout the sections.	4.90	Very High	4.75	Very High
9. Test structure allows flexibility without compromising its usability.	5.00	Very High	4.80	Very High
10. The questions and response options are easily understood by the students, who do not frequently require clarification.	4.90	Very High	4.85	Very High
<b>Overall Mean</b>	<b>4.85</b>	<b>Very High</b>	<b>4.80</b>	<b>Very High</b>

Table 13 shows the usability ratings of the TLE Specialization Profiler by age group. Younger respondents (below 51) rated it 4.85, while older respondents (51 and above) gave 4.80—both very high. This indicates broad agreement on its usability across age groups. In line



with Gomez & Tan (2021), these results affirm that a clear, user-friendly assessment tool like the profiler enhances instruction and learner engagement, making it effective and inclusive for diverse educators.

**Table 14**

*Level of Acceptability of the Test Questionnaire for the Technology and Livelihood Education Specialization Profiler in terms of Usability when grouped according to Educational Attainment*

Statement	Usability according to Educational Attainment		Usability according to Educational Attainment	
	Lower (Master's Degree)		Higher (Doctorate Degree)	
	Mean	Verbal Description	Mean	Verbal Description
1. The test's layout is simple to understand and move between sections and items.	4.80	Very High	5.00	Very High
2. Questions that are logically arranged and numbered for easy navigation.	4.80	Very High	5.00	Very High
3. The directions are arranged so test-takers can quickly locate and review them.	4.84	Very High	5.00	Very High
4. The test structure is suitable for the evaluated content.	4.72	Very High	4.80	Very High
5. The format facilitates usability for students with varying learning styles or aptitudes.	4.64	Very High	4.80	Very High
6. The pupils reasonably finish the test in the allocated time.	4.88	Very High	5.00	Very High
7. The target student group can easily understand the font's size, style, and spacing of the questions.	4.76	Very High	5.00	Very High
8. Students will find it easier to follow if the instructions, question types, and structure are consistent throughout the sections.	4.80	Very High	4.80	Very High
9. Test structure allows flexibility without compromising its usability.	4.84	Very High	5.00	Very High
10. The questions and response options are easily understood by the students, who do not frequently require clarification.	4.84	Very High	5.00	Very High
<b>Overall Mean</b>	<b>4.79</b>	<b>Very High</b>	<b>4.94</b>	<b>Very High</b>



Table 14 shows the usability of the TLE Specialization Profiler based on respondents’ educational attainment. Master’s degree holders rated it 4.79, while doctorate holders gave a higher rating of 4.94—both indicating a “very high” level of acceptability. This reflects strong agreement on the tool’s clarity and functionality. As Delos Reyes (2019) noted, high usability ratings across educational levels suggest the profiler is well-designed and accessible, meeting diverse learner needs. Minor score differences suggest opportunities for refinement to further improve inclusivity and enhance the learning experience.

**Table 15**

*Level of Acceptability of the Test Questionnaire for the Technology and Livelihood Education Specialization Profiler in terms of Usability when grouped according to Teaching Experience*

**Usability according to Teaching Experience**

Statement	Shorter (21 years or less)		Longer (More than 21 years)	
	Mean	Verbal Description	Mean	Verbal Description
1. The test's layout is simple to understand and move between sections and items.	4.71	Very High	4.94	Very High
2. Questions that are logically arranged and numbered for easy navigation.	4.86	Very High	4.81	Very High
3. The directions are arranged so test-takers can quickly locate and review them.	4.93	Very High	4.81	Very High
4. The test structure is suitable for the evaluated content.	4.71	Very High	4.75	Very High
5. The format facilitates usability for students with varying learning styles or aptitudes.	4.57	Very High	4.75	Very High
6. The pupils reasonably finish the test in the allocated time.	5.00	Very High	4.81	Very High
7. The target student group can easily understand the font's size, style, and spacing of the questions.	4.79	Very High	4.81	Very High
8. Students will find it easier to follow if the instructions, question types, and structure are consistent throughout the sections.	4.79	Very High	4.81	Very High
9. Test structure allows flexibility without compromising its usability.	4.93	Very High	4.81	Very High



10. The questions and response options are easily understood by the students, who do not frequently require clarification.	4.79	Very High	4.94	Very High
<b>Overall Mean</b>	<b>4.81</b>	<b>Very High</b>	<b>4.83</b>	<b>Very High</b>

Table 15 shows the usability of the TLE Specialization Profiler based on teaching experience. Teachers with less than 21 years of experience rated it 4.81, while those with 21 years or more rated it 4.83—both classified as “very high.” The highest score (5.00) was given by the less experienced group to the statement about test completion within the allotted time, while the lowest (4.57) concerned accommodating various learning styles. Similarly, the more experienced group rated time management highly (4.81), with slightly lower scores (4.75) for format and learning style adaptability. Overall, results show strong agreement on the tool’s usability, with minor areas for improvement.

**Table 16**

*Mann-Whitney for the Significant Difference in the Level of Acceptability of the Test Questionnaire for the Technology and Livelihood Education Specialization Profiler in terms of Content*

Variable	Category	N	Mean Rank	Mann-Whitney U-test	p-value	Sig. level	Interpretation
Sex	Male	10	15.55	99.5	0.983		Not Significant
	Female	20	15.48				
Age	Younger (below 51 years old)	10	17.25	82.5	0.448		Not significant
	Older (51 years old and above)	20	14.63				
Educational Attainment	Lower (Master’s Degree)	25	14.86	78.5	0.385	0.05	Not significant
	Higher (Doctorate Degree)	5	18.70				
Teaching Experience	Shorter (21 years or less)	14	14.71	123.0	0.667		Not significant
	Longer (More than 21 years)	16	16.19				





Table 16 shows the Mann-Whitney U-test results on the content acceptability of the TLE Specialization Profiler across demographic groups. No significant differences were found based on sex ( $p = 0.983$ ), age ( $p = 0.448$ ), educational attainment ( $p = 0.385$ ), or teaching experience ( $p = 0.667$ ), indicating consistent high acceptability. These findings support the profiler's fairness and inclusivity, in line with DepEd Orders No. 55, s. 2016; No. 42, s. 2017; No. 8, s. 2015; No. 76, s. 2011; and No. 3, s. 2016.

### Conclusions

The TLE Specialization Profiler showed most high ratings of acceptability in all the parameters under content, language, and usability. The tool was sort of appreciated in terms of clarity and relevance to the user, as well as being friendly with mean scores falling under very high across varied groups on the demographics: sex, age, and levels of educational attainment, plus teaching experience. Meaning, there was wide agreement on its effectiveness in assessing student competencies and guiding academic decisions, together with confirming that it is aligned with the curriculum goals and educational standards.

It would seem that objections to the content of the tool earned great favor, and no significant differences across demographic groups made the tool fairly available and inclusive. The language is also well-appreciated but still subjected to minor refinements for further clarification and engagement. The usability ratings were similarly high, but slight differences between groups spoke towards areas of improvement, especially in considering the diversity of learning styles. TLE Specialization Profiler promises to be an effective tool in guiding students toward making informed choices about specializations.

On the basis of the continuing positive responses, it is advisable that the profiler be rolled out to schools, with minor adjustments for clarity and inclusivity. For future research, these areas may be improved upon to make the profiler even more effective and maximize its potential in raising student achievement in the K-12 curriculum.

### Acknowledgement

We would like to express our deepest gratitude to my panel for their guidance and support, the validators for their time and expertise, and the respondents for their valuable contributions. I am also deeply grateful to my family for their constant love, patience, and encouragement throughout this journey.

### Authorship Contribution Statement





**Tangao:** Concept and design, literature review, data collection, analysis, and interpretation. **Guanzon:** Reviewing and supervision.

### Conflict of Interest

The authors declare the absence of any conflict of interest that could have influence the content or conclusion of this paper. They affirm that no financial, personal, or professional relationship with other individual or organization have compromised the objectivity, integrity, or impartially of the research work. As a final point, no external parties influenced the study, data collection, analysis or interpretation

### References

- Alba, F. (2016). Profiling skills and achievements in the context of career education. In F. Alba (Ed.), *The Career Education Standard* (pp. 3–18). Denholm House.
- Alsong, T. L., & Alsong, L. A. (2019). Facilitating learning and academic performance of students in TLE under K to 12 curriculums. *International Journal of Innovative Science and Research Technology*, 4(11), 318. Retrieved from <https://www.ijisrt.com/facilitating-learning-and-academic-performance-of-students-in-tle-under-k-to-12-curriculums>
- American Psychological Association. (2020). *Publication manual of the American Psychological Association* (7th ed.). American Psychological Association.
- An, X., & Yung, Y.-F. (2014). *Partial least squares path modeling with SAS*. SAS Institute Inc. Retrieved from <https://support.sas.com/resources/papers/proceedings14/SAS364-2014.pdf>
- Anderson, L. W. (2021). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives* (Updated ed.). Pearson.
- Bautista, J. R. (2018, January 30). TLE and its importance. *PressReader*, p. 14.
- Butial, R. M. (2021). Implementation of Technology and Livelihood Education (TLE) in the K to 12 curriculum. *International Review of Education Journal*, 7(12), 35–43. Retrieved from <https://www.irejournals.com/formatedpaper/1704960.pdf>
- Cabarrubia, M. (2019, January 18). Implementing career guidance activities in selecting specialization course in T.L.E. among Grade 8 students. *Ascendens Asia Journal of Multidisciplinary Research Abstracts*, 3(2E). Retrieved from <https://ojs.aaresearchindex.com/index.php/AAJMRA/article/view/6267>
- Canzana, R. A. (2013). Perceived interest in choosing mini courses in TLE. Retrieved from <https://nebula.wsimg.com>
- Chatterjee, A. (2007). *Indian Student Research*. <http://indianstudentresearch.blogspot.com/>
- Chau, P. Y. (2001). Information technology acceptance by individual professionals. *Decision Sciences*, 32(4), 699–719. Retrieved from <https://doi.org/10.1111/j.1540-5915.2001.tb00978.x>
- Cherry, K. (2020, April 20). The types of aptitude testing. *Verywell Mind*. Retrieved from <https://www.verywellmind.com/what-is-an-aptitude-test-2794806>



- Chia, J., & Ball, J. (2015). Developing systems of comprehensive student profiling in schools. *Teaching and Learning*, 63–75.
- Constantino, J. (2019, November 19). Factors affecting the incoming selected Grade 9 students in choosing a mini course to specialize in TLE of the K to 12 program. Retrieved from <https://www.scribd.com/document/434561711/Factors-Affecting-Arriane>
- Costanzo, M., & Paxton, D. (1999, March). Multiple intelligences theory. *NCSALL*. Retrieved from <http://ncsall.net/index.php?id=368.html>
- Dalal, K. (2016). Educational evaluation. *International Journal of Educational*, 39.
- Davis, F. D. (1986). A technology acceptance model for empirically testing new end-user information systems (Doctoral dissertation, Massachusetts Institute of Technology). Retrieved from <https://doi.org/10.2307/249008>
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/10.2307/249008>
- Davis, F. D. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, 35(8), 982–1003. <https://doi.org/10.1287/mnsc.35.8.982>
- Department of Education. (2016). *K to 12 Curriculum Guide: Edukasyong Pantahanan at Pangkabuhayan (EPP) and Technology and Livelihood Education (TLE)*. Retrieved from <https://www.deped.gov.ph/wp-content/uploads/2019/01/EPP-CG.pdf>
- Department of Education. (2023, August 10). *MATATAG Curriculum Phase 1 SY 2024–2025*. Retrieved from <https://www.deped.gov.ph/matatagcurriculumk147/>
- DepEd. (2023). *Technology and Livelihood Education curriculum guide*.
- Elena-Iuliana, I., & Criveunu, M. (2014). Organizational performance – A concept that. *Annals of the Constantin Brâncuși University of Târgu Jiu, Economy Series*, 56–57.
- Franzen, M. D. (2011). *Neuropsychological assessment*. Springer Science+Business Media. Retrieved from [https://doi.org/10.1007/978-0-387-79948-3\\_1208](https://doi.org/10.1007/978-0-387-79948-3_1208)
- Frey, B. B. (2019). *The Sage encyclopedia of educational research, measurement, and evaluation*. Retrieved from <https://methods.sagepub.com/reference/the-sage-encyclopedia-of-educational-research-measurement-and-evaluation/i4749.xml>
- Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. Basic Books.
- Gee, C. (2016). What is enhancement? *Journal of*, 1–50.
- Gregorio, M. S. (2018). Technology and Livelihood (TLE) instruction of technical. *International Journal of Learning, Teaching and Educational Research*, 69.
- Gul, N. S. (2022). Item difficulty in item analysis of intelligence test items. *Pakistan Social Sciences Review*, 6(2), 122–131. Retrieved from [https://doi.org/10.35484/pssr.2022\(6-II\)09](https://doi.org/10.35484/pssr.2022(6-II)09)
- Igné, C. H. (2016). Availability, utilization and effect of instructional materials in teaching basic technology in secondary schools in ONELGA, Rivers State.
- International Organization for Standardization (ISO). (2018). *Ergonomics of human-system interaction — Part 11: Usability: Definitions and concepts (ISO 9241-11:2018)*. Retrieved from <https://www.iso.org/standard/63500.html>
- Ipsos. (2019, May 25). Ipsos encyclopedia: Product testing. <https://www.ipsos.com/en/ipsos-encyclopedia-product-testing>
- Jaffu, R. (2018). The influence of employee length of service on attitudes towards job-related factors: The case of HR in Kigoma Region, Tanzania. *Saudi Journal of Humanities and*





*Social Sciences*, 3(3), 357–364. Retrieved from

<https://saudijournals.com/media/articles/SJHSS-33-357-364-c.pdf>

Javier, E. A. (2019, July 22). Technology and Livelihood Education (TLE) and its best features.

*DepEd Tambayan*. Retrieved from

[http://www.depedbataan.com/resources/4/technology\\_and\\_livelihood\\_education\\_\(tle\)\\_and\\_its\\_best\\_features.pdf](http://www.depedbataan.com/resources/4/technology_and_livelihood_education_(tle)_and_its_best_features.pdf)

Jones, K. (2022). Multiple-choice questions: Pros and cons. *Evidence Based Education*.

Kagan, J. (2019, July 7). Aptitude test. *Investopedia*.

<https://www.investopedia.com/terms/a/aptitude-test.asp>

Krabbe, P. F. M. (2017). Test theory. *ScienceDirect*. Retrieved from

<https://www.sciencedirect.com/topics/social-sciences/test-theory>

Legris, P., Ingham, J., & Collette, P. (2003). Why do people use information technology? A critical review of the technology acceptance model. *Information & Management*, 40(3), 191–204. Retrieved from [https://doi.org/10.1016/S0378-7206\(01\)00143-4](https://doi.org/10.1016/S0378-7206(01)00143-4)

Lexico. (2020). Grade. Retrieved from <https://www.lexico.com/definition/grade>

Library, U. (2020). Research Guide: Introduction and research problem. *USC Libraries*.

