IJIMR
INTERNATIONAL JOURNAL OF INNOVATIVE AND MULTIDISCIPLINARY RESESARCH

ISSN: 3116-5990 online / 3116-5982 print
Volume 1 Issue No. 1

DOI: https://doi.org/10.66206/eduheart.ijimr.14

Competence and Common Errors in Multiple-Choice Test Construction Among Junior High School English Teachers: Foundation for a Proposed Intervention Program

Lagmay, Bernadette S.
Viernes, Myrna V. PhD
Aldersgate College, Inc., Solano, Nueva Vizcaya
bernadette.lagmay001@deped.gov.ph , myrna.viernes@aldersgate.edu.ph

ABSTRACT

This study assessed the competence and common errors in multiple-choice test construction among junior high school English teachers at Solano High School and used the findings to inform a proposed intervention program. Specifically, it examined teachers' demographic and professional profiles, their level of competence in constructing multiple-choice tests in terms of test format, item construction, and test directions, and the common errors found in teacher-made tests. The study employed a quantitative descriptive-correlational design and documentary analysis of teacher-made test papers, along with a competence questionnaire administered to the participating teachers. Findings showed that the teachers were generally moderately competent in multiple-choice test construction, but they exhibited recurring errors in test format, item construction, and test directions. The results also indicated that several demographic and professional variables were associated with differences in competence, suggesting that training and teaching experience may influence assessment practices. Based on these findings, the study proposed an intervention program designed to strengthen teachers' assessment literacy and improve the quality of multiple-choice tests they construct. The study highlights the need for continued professional development in test construction to ensure valid, reliable, and fair classroom assessments.

Keywords: multiple-choice test construction, assessment literacy, teacher competence, common errors, intervention program

INTRODUCTION

Assessment is an essential component of the teaching and learning process because it provides evidence of what learners know and can do, while also informing teachers' instructional decisions. In classroom practice, tests are among the most common assessment tools used to determine whether learning objectives have been achieved and to measure learners' progress systematically. When well-constructed, tests become reliable sources of information that guide instruction, support learning, and contribute to more valid evaluation of student performance.

Among the various forms of objective testing, multiple-choice tests are widely used because they are efficient, objective, and capable of covering a broad range of content within

ISSN: 3116-5990 online / 3116-5982 print

DOI: https://doi.org/10.66206/eduheart.ijimr.14

a limited amount of time. In English instruction, they are often used to assess grammar, vocabulary, reading comprehension, and language application. However, the usefulness of multiple-choice tests depends largely on the teacher's competence in constructing items that are clear, valid, reliable, and aligned with instructional objectives.

Despite the frequent use of multiple-choice tests in schools, many teachers still have difficulty preparing items that adhere to accepted test-construction principles. Common problems include ambiguous stems, implausible distractors, grammatical clues, poor formatting, and unclear test directions. Such errors can weaken the validity of the test and may lead to an inaccurate interpretation of learner performance. Because of this, teachers need strong assessment literacy and regular professional support to ensure that the tests they prepare reflect both curriculum expectations and sound assessment practice.

In the Philippine context, the need for high-quality classroom assessment is reinforced by Department of Education policies that emphasize objective, standardized, and fair testing practices. However, limited local evidence exists on the competence and common errors in multiple-choice test construction among junior high school English teachers, particularly in Solano High School. This study was therefore conducted to assess teachers' competence and identify common errors in their teacher-made tests, with the findings serving as the basis for a proposed intervention program.

Theoretical Framework

This study is anchored on Bloom's Cognitive Domain Taxonomy and Assessment Literacy Theory. Bloom's Taxonomy, particularly its revised form by Anderson and Krathwohl (2001), explains the hierarchy of cognitive processes from remembering and understanding to analyzing, evaluating, and creating. In multiple-choice test construction, this framework helps teachers ensure that items assess not only recall but also higher-order thinking skills appropriate to the intended learning outcomes (Bloom, 1956; Anderson & Krathwohl, 2001).

The study is also grounded in Assessment Literacy Theory, which emphasizes the knowledge and skills teachers need to design, implement, interpret, and use assessments effectively (Stiggins, 1991; Popham, 2009). Assessment literacy includes the ability to write clear test items, avoid common item-writing flaws, and make use of assessment results to improve instruction. In this study, the theory supports the examination of teachers' competence in constructing multiple-choice tests and identifying errors that may weaken the validity and reliability of classroom assessments.

Taken together, these theories provide the framework for understanding why multiple-choice test construction requires both cognitive alignment and technical competence. Bloom's Taxonomy guides the content and level of the items, while Assessment Literacy Theory explains the teacher's ability to produce high-quality assessment tools. These theories are appropriate for the present study because they help explain both teachers' competence and the common errors found in their teacher-made tests.

Conceptual Framework

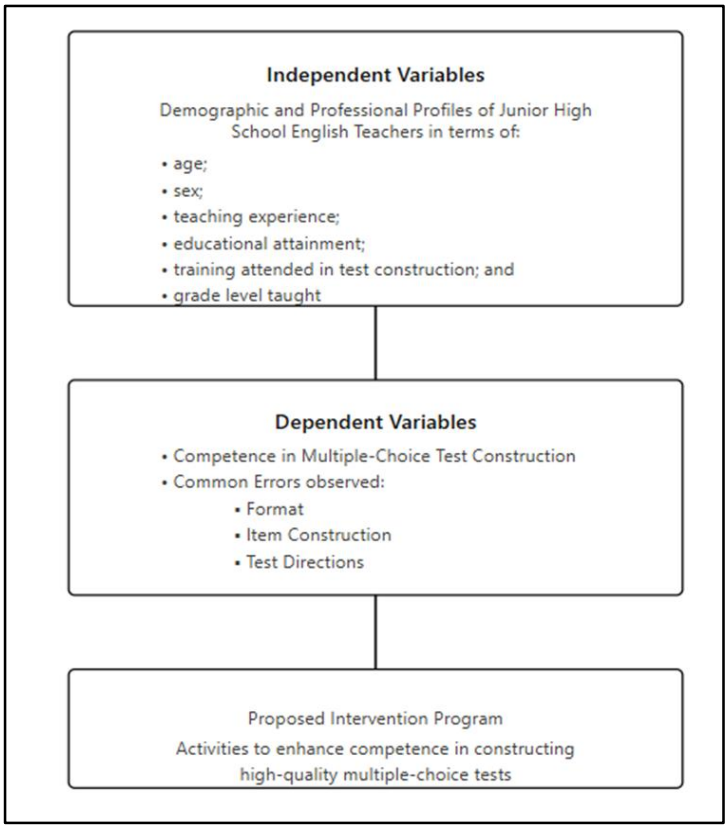
The conceptual framework of the study presents the relationship between the independent variables and dependent variables of the investigation. The independent

variables are the demographic and professional profiles of junior high school English teachers, specifically age, sex, teaching experience, educational attainment, training attended in test construction, and grade level taught. These variables are expected to influence teachers' competence in multiple-choice test construction and the kinds of errors that appear in their teacher-made tests.

The study's dependent variables are the teachers' competence in constructing multiple-choice tests and the common errors identified in their test papers. Competence is examined in terms of test format, item construction, and test directions, while errors are likewise grouped into the same three categories. The study assumes that stronger competence should be reflected in fewer construction errors, and that observed errors may serve as visible indicators of gaps in assessment literacy.

The framework's output is a proposed intervention program designed to improve teachers' competence in constructing high-quality multiple-choice tests. This program is grounded in the findings of the study and aims to address the weaknesses identified in the assessment practices of junior high school English teachers.

Research Paradigm



Statement of the Problem

This study aimed to assess the competence and common errors in multiple-choice test construction among junior high school English teachers at Solano High School through

ISSN: 3116-5990 online / 3116-5982 print

DOI: https://doi.org/10.66206/eduheart.ijimr.14

documentary analysis of teacher-made tests and a competence questionnaire. Specifically, it sought to answer the following questions:

1. What are the demographic and professional profiles of junior high school English teachers in terms of age, sex, teaching experience, educational attainment, training attended in test construction, and grade level taught?
2. What is the level of competence of junior high school English teachers in constructing multiple-choice tests in terms of test format, item construction, and test directions?
3. What are the common errors in teacher-made multiple-choice tests constructed by junior high school English teachers in terms of format, item construction, and test directions?
4. Is there a significant difference in teachers' multiple-choice test construction competence when grouped according to their demographic profile in terms of age, sex, teaching experience, educational attainment, training attended in test construction, and grade level taught?
5. What intervention program may be proposed to enhance junior high school English teachers' competence in constructing high-quality multiple-choice tests based on the findings of the study?

METHODS

This study employed a quantitative descriptive-correlational research design to examine the competence and common errors in multiple-choice test construction among junior high school English teachers at Solano High School. The descriptive aspect of the study was used to determine the respondents' demographic and professional profile, their perceived competence in test construction, and the common errors found in teacher-made multiple-choice tests. The correlational aspect was used to determine whether significant differences existed in competence when respondents were grouped according to selected profile variables.

The study was conducted at Solano High School, Brgy. Quirino, Solano, Nueva Vizcaya. The respondents were the 15 junior high school English teachers assigned to Grades 7 to 10, selected through total enumeration. In addition, 112 teacher-made multiple-choice test papers were collected and analyzed for documentary evidence of common errors in test format, item construction, and test directions.

Two instruments were utilized in the study. The first was the Teachers' Multiple-Choice Test Construction Competence Questionnaire (TTCCQ-MC), which measured teachers' self-assessed competence in constructing multiple-choice tests. The second was the Multiple-Choice Test Error Analysis Checklist, which was used to identify and classify common errors in the test papers.

Both instruments underwent validation and reliability testing before the actual data gathering. The TTCCQ-MC yielded a Cronbach's alpha coefficient of .96, indicating excellent internal consistency and demonstrating that the instrument was highly reliable for measuring

perceived competence in multiple-choice test construction. The checklist was also reviewed for clarity, relevance, and appropriateness to the context of the study.

Data gathering was conducted after the necessary permissions had been secured from the school authorities. The researcher collected the teacher-made test papers and administered the questionnaire to the respondents, ensuring that all data were treated with confidentiality and used solely for research purposes. Ethical procedures were observed throughout the study, including voluntary participation, informed consent, and secure handling of all documents and electronic files.

The data were analyzed using frequency counts, percentages, means, standard deviations, independent samples t-test, one-way ANOVA, and Cronbach's alpha. Frequency and percentage were used to describe the respondents' profile and the prevalence of common errors, while mean scores and standard deviations were used to describe the level of competence. Inferential statistics were used to determine whether competence differed significantly according to age, sex, teaching experience, educational attainment, training attended, and grade level taught.

RESULTS

The study found that junior high school English teachers at Solano High School were generally Highly Competent in constructing multiple-choice tests, with a grand mean of 4.20. However, documentary analysis of 112 teacher-made test papers revealed recurring errors in test format, item construction, and test directions, including a universal omission of time allocation in all test papers.

Respondent Profile

Table 1

Age Distribution of Junior High School English Teachers

Age Bracket	Frequency	Percentage
20–25	1	6.67
26–30	2	13.33
31–35	4	26.67
41–45	3	20.00
46 and above	5	33.33
Total	**15**	**100.00**

Most of the respondents were 46 years old and above, while only one teacher belonged to the 20–25 age bracket. This shows that the English teaching workforce was generally composed of experienced and senior teachers.

Table 2

Sex Distribution of Junior High School English Teachers

ISSN: 3116-5990 online / 3116-5982 print

DOI: https://doi.org/10.66206/eduheart.ijimr.14

Sex	Frequency	Percentage
Female	14	93.33
Male	1	6.67
Total	**15**	**100.00**

The distribution shows a strong dominance of female teachers in the sample. This indicates that the English department at Solano High School is heavily feminized.

Table 3

Teaching Experience of Junior High School English Teachers

Teaching Experience	Frequency	Percentage
0–5 years	4	26.67
6–10 years	4	26.67
11–15 years	4	26.67
16 years and above	3	20.00
Total	**15**	**100.00**

Teaching experience was fairly distributed across the first three categories, with slightly fewer teachers in the 16 years and above group. This suggests that the department includes both early-career and veteran teachers.

Table 4

Educational Attainment of Junior High School English Teachers

Educational Attainment	Frequency	Percentage
Bachelor's Degree	7	46.67
Master's Degree	5	33.33
Finished Academic Units	2	13.33
Not Indicated	1	6.67
Total	**15**	**100.00**

Nearly half of the respondents held only a bachelor's degree, while one-third had a master's degree. This shows that several teachers have pursued graduate studies, although not all have completed advanced degrees.

Table 5

Training Attended in Test Construction

Training Attended	Frequency	Percentage
Seminar	6	40.00
None	5	33.33
Seminar with Other Training	2	13.33
Workshop	1	6.67
LAC Session	1	6.67
Total	**15**	**100.00**

The most common form of training was a seminar, while one-third of the teachers reported no training at all. This is important because the lack of training may help explain the errors found in the teacher-made tests.

Table 6

Grade Level Distribution of Junior High School English Teachers

Grade Level	Frequency	Percentage
Grade 7	4	26.67
Grade 8	4	26.67
Grade 9	4	26.67
Grade 10	3	20.00
Total	**15**	**100.00**

The respondents were almost evenly distributed across the grade levels, with Grade 10 having slightly fewer teachers. This indicates a balanced assignment of English teachers across junior high school levels.

Perceived Competence

Table 7

Perceived Competence of Junior High School English Teachers in Multiple-Choice Test Construction

Item	Statement	Mean	SD	Descriptive Level
1	Aligned test items with learning objectives	4.40	0.63	Very Highly Competent
2	Posed clear and unambiguous test items	4.27	0.59	Very Highly Competent
3	Ensured appropriate difficulty level of items	4.07	0.80	Highly Competent

ISSN: 3116-5990 online / 3116-5982 print

DOI: https://doi.org/10.66206/eduheart.ijimr.14

4	Constructed items with plausible distractors	3.87	0.99	Highly Competent
5	Ensured correct keying of answers	4.47	0.74	Very Highly Competent
6	Arranged items from easy to difficult	3.93	0.88	Highly Competent
7	Constructed stems that present a clear problem	4.47	0.74	Very Highly Competent
8	Avoided irrelevant clues in the options	4.13	0.74	Highly Competent
9	Used homogeneous options in each item	4.40	0.74	Very Highly Competent
10	Avoided overlapping options	4.13	0.64	Highly Competent
11	Avoided grammatical clues in the options	3.73	0.70	Highly Competent
12	Avoided use of “all of the above” or “none of the above”	4.20	0.77	Highly Competent
13	Reviewed items for content accuracy	4.33	0.82	Very Highly Competent
14	Provided specific and complete instructions	4.40	0.74	Very Highly Competent
15	Allocated appropriate time for test completion	4.33	0.72	Very Highly Competent
16	Ensured proper formatting of the test	4.40	0.63	Very Highly Competent
17	Used consistent font size throughout the test	3.87	0.83	Highly Competent
18	Arranged items per specific objectives or topics	4.07	0.80	Highly Competent
19	Ensured logical ordering of answer options	4.27	0.80	Very Highly Competent
20	Applied test construction standards and guidelines	4.27	0.80	Very Highly Competent
Grand Mean		**4.20**	**0.58**	**Highly Competent**

The grand mean of 4.20 indicates that the teachers perceived themselves as Highly Competent in multiple-choice test construction. The highest-rated items were ensuring correct keying of answers and constructing clear stems, while the lowest-rated item was avoiding grammatical clues in the options.

Common Errors in Test Papers

Table 8

Frequency and Percentage of Test Format Errors in Teacher-Made Multiple-Choice Tests

Error Type	Frequency	Percentage
Alternatives not presented in some logical order	10	8.93
Detectable pattern of correct answers	12	10.71
Horizontal arrangement of options	3	2.68
Options appearing in different columns/pages	4	3.57
Page numbers not assigned	5	4.46
Poor arrangement of items/spacing	9	8.04
Font size difficult to see and read	13	11.61
Total Occurrences	**56**	—

The most frequent format error was font size that was difficult to see and read, followed by a detectable pattern of correct answers. These findings show that formatting and answer arrangement still need improvement.

Table 9

Frequency and Percentage of Item Construction Errors in Teacher-Made Multiple-Choice Tests

Error Type	Frequency	Percentage
Ambiguous items / more than one correct answer	10	8.93
Central theme not presented in the stem	7	6.25
Clues to the correct answer	11	9.82
Cluing and linking items	4	3.57
Grammatical, punctuation, and spelling errors	14	12.50
Heterogeneous options	6	5.36
Implausible distractors	11	9.82
No answer	2	1.79
Negative word not emphasized	3	2.68
Time for completion not indicated	12	10.71

ISSN: 3116-5990 online / 3116-5982 print

DOI: https://doi.org/10.66206/eduheart.ijimr.14

Use of “all of the above”	10	8.93
Wrong answer	2	1.79
Wrong key to the item	6	5.36
Wrong usage of “none of the above”	5	4.46
Total Occurrences	**103**	—

Item construction errors were more numerous than format errors, with grammatical, punctuation, and spelling errors as the most common. Implausible distractors, clues to the correct answer, and missing time allocation also appeared frequently.

Table 10

Frequency and Percentage of Test Direction Errors in Teacher-Made Multiple-Choice Tests

Error Type	Frequency	Percentage
No clear instructions provided	12	10.71
Instructions are ambiguous or incomplete	8	7.14
Time allocation not specified	112	100.00
Total Occurrences	**132**	—

The most striking result is that time allocation was not specified in any of the 112 test papers. This makes test direction errors the most serious and consistent problem in the documentary analysis.

Differences in Competence

Table 11

Difference in Multiple-Choice Test Construction Competence by Grade Level

Grade Level	n	M	SD	F / p-value	Interpretation
Grade 7	4	4.25	0.40		
Grade 8	4	4.28	0.44		
Grade 9	4	4.50	0.54	F = 1.47, p = .276	No Significance
Grade 10	3	3.63	0.85		

There was no significant difference in competence when respondents were grouped according to grade level taught. Although Grade 9 had the highest mean and Grade 10 the lowest, the difference was not statistically significant.

Table 12

Difference in Multiple-Choice Test Construction Competence by Age Group

Age Group	n	M	SD	F / p-value	Interpretation
20–25	1	4.70	—		
26–30	2	4.47	0.39		
31–35	4	4.06	0.88		
41–45	3	3.95	0.65	F = 0.42, p = .793	No Significance
46 and above	5	4.25	0.44		

Age was not significantly related to competence. The highest mean was observed in the youngest age group, but the result was not statistically significant.

Table 13

Difference in Multiple-Choice Test Construction Competence by Sex

Sex	n	M	SD	t / p-value	Interpretation
Female	14	4.16	0.58		
Male	1	4.75	—	t = −0.98, p = .346	No Significance

There was no significant difference in competence when grouped according to sex. However, the result should be interpreted cautiously because only one male respondent was included.

Table 14

Difference in Multiple-Choice Test Construction Competence by Teaching Experience

Teaching Experience	n	M	SD	F / p-value	Interpretation
0–5 years	4	4.62	0.33		
6–10 years	4	3.80	0.72		
11–15 years	4	3.90	0.49	F = 2.99, p = .078	No Significance
16 years and above	3	4.57	0.03		

ISSN: 3116-5990 online / 3116-5982 print

DOI: https://doi.org/10.66206/eduheart.ijimr.14

Teaching experience showed a near-significant trend, but it did not reach the .05 level. The highest means were obtained by the least and most experienced groups.

Table 15

Difference in Multiple-Choice Test Construction Competence by Educational Attainment

Educational Attainment	n	M	SD	F / p-value	Interpretation
Bachelor's Degree	7	4.36	0.49		
Master's Degree	5	4.28	0.72		
Finished Academic Units	2	3.58	0.39	F = 1.04, p = .411	No Significance
Not Indicated	1	3.95	—		

Educational attainment did not significantly affect competence. Teachers with a bachelor's degree even recorded a slightly higher mean than those with a master's degree.

Table 16

Difference in Multiple-Choice Test Construction Competence by Training Attended

Training Attended	n	M	SD	F / p-value	Interpretation
Training Attended	**n**	**M**	**SD**	**F / p-value**	**Interpretation**
Seminar	6	4.55	0.19		
None	5	3.97	0.63		
Seminar with Other Training	2	4.15	0.64	F = 2.96, p = .075	No Significance
Workshop	1	4.55	—		
LAC Session	1	3.00	—		

Training attended showed the strongest pattern, although the result remained non-significant at the .05 level. Teachers who attended seminars reported the highest mean, while those with no training or only a LAC session had lower means.

Overall, the teachers perceived themselves as highly competent, but the documentary evidence showed recurring and serious errors in actual test construction. The most alarming finding was the universal omission of time allocation in test directions, which occurred in all

112 test papers. This suggests a clear gap between perceived competence and actual assessment practice.

DISCUSSION

The study revealed a clear discrepancy between the teachers' self-perceived competence and the actual quality of their teacher-made multiple-choice tests. Although the respondents obtained a grand mean of 4.20, interpreted as Highly Competent, the documentary analysis of 112 test papers showed recurring errors in format, item construction, and test directions.

The most critical finding was the universal omission of time allocation in all test papers, indicating a systemic weakness in test direction writing rather than an isolated oversight. Other recurring problems, such as grammatical, punctuation, and spelling errors, implausible distractors, and clues to the correct answer, further suggest that teachers were not consistently applying established item-writing standards in actual practice.

The results also suggest that training plays an important practical role in improving test construction competence. Although no demographic or professional variable produced a statistically significant difference at the .05 level, training attended and teaching experience showed near-significant trends, implying that competence may improve with sustained and structured professional development.

CONCLUSION

The study concludes that junior high school English teachers at Solano High School generally perceived themselves as highly competent in constructing multiple-choice tests, yet the documentary evidence showed substantial weaknesses in actual test preparation. The most serious problem identified was the complete absence of time allocation in test directions, followed by frequent item-construction errors that may affect clarity, fairness, and validity.

The findings further indicate that demographic variables alone do not sufficiently explain differences in competence. Instead, the results point to the importance of assessment literacy training and school-based quality assurance mechanisms in improving the technical quality of teacher-made tests.

RECOMMENDATIONS

1. The school administration may implement the proposed intervention program to strengthen teachers' competence in multiple-choice test construction, with particular emphasis on test directions, item writing, and test formatting.
2. English teachers may use the Multiple-Choice Test Error Analysis Checklist as a standard self-audit and pre-administration review tool to reduce avoidable technical errors in teacher-made tests.
3. Regular seminar-workshops, LAC sessions, and school-based mentoring activities may be conducted to provide sustained training on distractor construction, grammatical accuracy, answer-key correctness, and complete test directions, including time allocation.

ISSN: 3116-5990 online / 3116-5982 print

DOI: https://doi.org/10.66206/eduheart.ijimr.14

4. The English department may institutionalize a peer-review or mentor sign-off system before any teacher-made test is reproduced and administered to ensure compliance with established assessment standards.
5. School administrators may provide targeted support for teachers or grade-level groups showing lower competence means or wider variability, particularly where test quality issues are most evident in the documentary analysis.
6. Future researchers may replicate the study in a larger sample across multiple schools or divisions to verify the near-significant effects of training and teaching experience and to strengthen the generalizability of the findings.

AI DECLARATION STATEMENT

AI-supported tools helped with grammar and structure in creating this article. No AI tools were used to collect, analyze, or interpret data; all authors are credited for their academic contributions.

REFERENCES

Adeosun, P. K., & Mogokwu, G. M. (2024). Teachers' competency in test construction in senior secondary schools in Edo State, Nigeria. Ilorin Journal of Education, 42(1), 88–102. https://ije.unilorinedu.sch.ng/index.php/ije/article/download/125/107

Alderson, J. C. (2023). Language test construction and evaluation. Routledge.

Barrientos, D. D. (2023). Assessing the knowledge of teachers in objective test construction procedure in the teacher education programs. International Journal for Multidisciplinary Research (IJFMR). https://www.ijfmr.com/papers/2023/5/5874.pdf

Bhandari, P. (2023). Correlational research. Methods, types, and examples. Scribbr. https://www.scribbr.com/methodology/correlational-research/

Bloom, B. S. (Ed.). (1956). Taxonomy of educational objectives. The classification of educational goals. Handbook I. Cognitive domain. Longmans, Green.

Anderson, L. W., & Krathwohl, D. R. (Eds.). (2001). A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives. Longman.

Bucio, C. M., & Baguio, J. B. (2025). Competence in test construction and teaching quality of novice English teachers in public secondary schools. Journal of Basic and Applied Research International, 31(4), 159–171. https://doi.org/10.56557/jobari/2025/v31i49573

Cristobal, J.-A. (2022). Test construction principles violated in selected summative tests in English. American Journal of Arts and Human Science, 1(2), 33–39. https://doi.org/10.54536/ajahs.v1i2.317

Daniels, L., Daniels, V., Firoozi, T., & Gierl, M. (2025, March 20). Multiple-choice item-writing guidelines for classroom assessment. A state-of-the-art review and use-inspired reframing. https://doi.org/10.31234/osf.io/u8yjv_v1

Department of Education. (2015). DepEd Order No. 8, s. 2015. Policy guidelines on classroom assessment for the K to 12 basic education program. Department of Education.

Department of Education. (2016). DepEd Order No. 55, s. 2016. Policy guidelines on the National Achievement Test. Department of Education.

Department of Education. (2017). DepEd order no. 66, s. 2017. Guidelines on the conduct of action research in schools. https://www.deped.gov.ph/wp-content/uploads/2017/08/DO_s2017_066.pdf

Ehigbor, B. O., & Osumah, O. A. (2023). Assessment of multiple-choice construction competence among public junior secondary school teachers in Edo Central Senatorial District, Nigeria. International Journal of Research and Innovation in Social Science, 7(44), 516–525. https://doi.org/10.47772/IJRISS.2023.7442

Esmael, N. T., & Rabut, J. F. (2025). Evaluating teacher-made mathematics test and teachers' competency in assessment. International Journal of Research and Innovation in Social Science (IJRISS), 9(04), 1531–1547. https://doi.org/10.47772/IJRISS.2025.90400113

Griffith, C., & Villares, E. (2023). Research design. Quantitative approaches. In B. Zyromski & C. Dimmitt (Eds.), School counseling research. Advancing the professional evidence base (pp. 142–193). Oxford University Press.

Haladyna, T. M., & Rodriguez, M. C. (2013). Developing and validating test items. Routledge.

Kissi, P., Baidoo-Anu, D., Anane, E., & Annan-Brew, R. K. (2023). Teachers' test construction competencies in examination-oriented educational system. Exploring teachers' multiple-choice test construction competence. Frontiers in Education, 8, Article 1154592. https://doi.org/10.3389/feduc.2023.1154592

Kyaruzi, F., & Kisamo, K. (2025). Primary school teachers' competences in constructing quality multiple-choice questions in Tanzania. International Journal of Evaluation and Research in Education, 14(3), 2051–2060. https://doi.org/10.11591/ijere.v14i3.30825

Nguyen, D. T., & Pham, L. H. (2024). Bloom's taxonomy and learning outcomes. An empirical study in secondary education. Asian Journal of Education and Learning, 12(1), 14–28.

Nikolopoulou, K. (2023). Purposive sampling. Scribbr.

Olawale, O. (2024). Assessment of teachers' application of multiple-choice test construction procedures in secondary schools in Ekiti State, Nigeria. Sapientia Foundation Journal of Education, Sciences and Gender Studies, 6(2), 25–37.

Pascua, R. A. (2022). Take the test. An initial investigation on the common errors in multiple-choice questions in English quarterly assessments. Asian Journal of Language, Literature and Culture Studies, 5(3), 219–227.

Quainoo, E. A., Asamoah, D., Baidoo Anu, D., Ye, J., & Akuamoah Boateng, C. (2025). Examining profiles of classroom assessment literacy among basic school teachers. Cogent Education, 12(1). https://doi.org/10.1080/2331186X.2025.2558163

Ragma, F. G., & Valdez, F. B., Jr. (2023). Test construction proficiency of senior high school teachers in the Schools Division of Candon City. ResearchGate.

ISSN: 3116-5990 online / 3116-5982 print

DOI: https://doi.org/10.66206/eduheart.ijimr.14

Rodriguez, M. C. (2016). Selected-response item format and student performance. What do we know about multiple-choice items? Educational Measurement. Issues and Practice, 35(2), 24–32.

Sharma, R. (2023). Descriptive research design. Definition, methods, and examples. QuestionPro.

Stiggins, R. J. (1991). Assessment literacy. Phi Delta Kappan, 72(7), 534–539.

Popham, W. J. (2009). Assessment literacy for teachers: Faddish or fundamental? Theory Into Practice, 48(1), 4–11. https://doi.org/10.1080/00405840802577536

Haladyna, T. M., Downing, S. M., & Rodriguez, M. C. (2002). A review of multiple-choice item-writing guidelines for classroom assessment. Applied Measurement in Education, 15(3), 309–334. https://doi.org/10.1207/S15324818AME1503_5

Messick, S. (1989). Validity. In R. L. Linn (Ed.), Educational measurement (3rd ed., pp. 13–103). American Council on Education.

Fulcher, G., & Davidson, F. (2007). Language testing and assessment: An advanced resource book. Routledge.

Gonczi, A. (1994). Competency based assessment in the professions in Australia. Assessment in Education: Principles, Policy & Practice, 1(1), 27–44. https://doi.org/10.1080/0969594940010103

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. International Journal of Medical Education, 2, 53–55.

Ugada, C., & Ocheni, C. A. (2025). Influence of teacher-related variables on competence in multiple-choice test construction. FNAS Journal of Mathematics and Science Education, 6(3), 99–109.