Scoring Rubric Development of Writing Assessment for EFL Students

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ABSTRACT

The purposes of this research were to design scoring rubric criteria of writing assessment for EFL students and to validate the scoring rubric model of writing assessment for EFL students. Action research was used for research design. The sample group was 62 EFL students. Research tool was writing scoring rubrics. Data were analyzed by descriptive statistics, Pearson Correlation Coefficient, and Confirmatory Factor Analysis (CFA). Results indicated that 1) Scoring rubric criteria of writing assessment for EFL students consisted of criteria which are Content/ Organization, Grammar, Mechanics, Unity, and cohesion; 2) The scoring rubric model of writing assessment for EFL students fit with empirical data. Results showed that $\chi^2 = .25$, df = 2, p = .882, GFI = 1.00, AGFI = .995, RMSEA = .000. It can be interpreted and proved that scoring rubric criteria of writing assessment is the effective tool for EFL students, and it showed that scoring rubric criteria of writing assessment has a construct validity.

Keywords

Scoring Rubric, Development, Writing Assessment, EFL Students

INTRODUCTION

Writing performance is a productive competence in which students are strived to the educational context. It plays a vital role in students' academic performance, paragraph writings, essays, reports, and research articles. Assessing L2 writing performance becomes more challenges to evaluate the EFL students' writing ability for those whose English is not a native language. When it is considered, some critical factors for assessing L2 writing performance are discussed as follows: proficient in vocabulary and grammar, cohesion, content. Studies from the literature are strived to enhance the students' writing performance are examined (Bui, and Vuong, 2022; Mahmoudi, and Buğra, 2020; Trinh, L.H., 2020) [1] [2] [3]. It is a fact that the outcome of students' writing performance in EFL contexts are overall poor with unsatisfactory results. One factor is predicted that learners are not exposed to language thoroughly in everyday life because writing task performance is literally limited in educational contexts. Hence, L2 assimilation in writing skills are insufficient in students' perceptions. It results in having poor writing performance in academic setting. To fill this gap, developing a scoring rubric in L2 writing performance based on CEFR for Thai context is investigated. Therefore, this study is conducted to investigate as follows: 1) to design scoring rubric criteria of writing assessment for EFL students and 2) to validate the scoring rubric model of writing assessment for EFL students.

RESEARCH OBJECTIVES

The purposes of research were to design scoring rubric criteria of writing assessment for EFL students and to validate the scoring rubric model of writing assessment for EFL students.

LITERATURE REVIEW

A. Scoring rubric

Scoring guides called rubrics are used in many countries in assessing writing skills. Three types of rubrics are used in the assessment for writing performance: Primary trait, holistic and analytic" (Weigle, 2002, p. 109) [4]. Primary attribute rubrics are primarily used to assess a student's basic writing skills concerning a specific writing task for more information, see (Weigle, 2002, pp. 109-112) [5]. A holistic rubric is an assessment tool for assessing student work, scoring attributes with scores corresponding to the attributes identified and intended to define ostensibly different levels of achievement (Elbow Gunning, 2006) [6]. According to this tool, the overall evaluation involves giving a single score, or one point for all text, and combining measurements and evaluations of the various characteristics that make up a typeface. On that point, it is debatable.

Many techniques have found ways to write lessons in a second language. (Silva, Leki, and Carson 1997: 399) [7] point out, " Second-language writing sits on the borderline

between second-language research and writing research." The research we put in place will significantly contribute to our understanding of both the process and the outcome of the L2 writing test" (Kroll, 1998, p. 222) [8]. He is one of the rubrics that the L2 teacher borrowed from a fellow teacher in her L1 writing class. Similar to those used in first-language classrooms, second-language writing program rubrics began to provide teachers with a standardized method for assessing student writing. It is also used to place students on the right level. Today, "most, if not all, writing programs have entry and exit criteria or assessment rubrics that teachers can use as a guide different level of the program (Ferris, 2009, p. 121) [9].

B. Scoring rubrics in the ESL/EFL Classroom

In the field of second language writing, the ECP or ESL Composition Profile is probably one of the most recognizable rubrics, and "(i)t, or its offspring, will be familiar from workshop handouts or Xeroxes left behind in faculty coffee rooms" (Haswell, 2005, p. 107) [10]. This rubric was developed in 1981 using research taken from the compositions of first language students. Three researchers from Educational Testing Services (ETS) took research in 1953 on the grades and comments on the written assignments of first-year students studying at Middlebury College, Cornell, and the University of Pennsylvania to develop a rubric composed of five main traits. These traits were then broken into several sub-traits that the researchers believed could be used to objectively grade English compositions written by second-language speakers (Haswell, 2005) [11]. One benefit of the ESL Composition Profile is to establish to have a high degree of both internal and external validity, with scores given on the rubric being shown to be both consistent between raters and as being "highly correlated with (student's scores on) the TOEFL and Michigan Test Battery" (Bacha, 2001, p. 374) [12]. It is no accident that this rubric was designed by researchers working for a testing organization. The ECP provides these testing services with an invaluable tool that allows them to grade many student essays using multiple raters while maintaining a high level of inter-rater reliability. For this reason, other ESL/EFL testing companies are also using rubrics to score the writing portion of their test. Although the characteristics may vary between trials (see Figure 2), the basis and basic principles remain the same.

C. Using rubrics in the L2 writing classroom

The importance of rubrics in students' assessments, specifically in writing tasks (Anderson & Mohrweis, 2008; Carson & Kavish, 2018) [13][14]. For instance, research writing requires extensive writing describing empirical based research. Such complex and demanding tasks require a specific and detailed assessment rubric. With such analytical rubric, students would be able to improve their writing skills and their understanding of the task and materials (Timmerman et al., 2010) [15]. Essentially, rubrics have been used in writing for various purposes in many disciplines. A good rubric incorporates expectations of both mechanical skills and content development for students prior to starting their writing. In a writing course, rubrics help to assess and provide feedback to students' understanding and knowledge

of key criteria based on intended learning outcomes ultimately to meet course and program objectives.

RESEARCH METHODS

Action Research was used for research design following the step of PAOR which refers to Plan, Act, Observe, and Reflect. The target group of the research was 62 EFL students. The tool for data collection was scoring rubric criteria of writing assessment. Data were analyzed using descriptive statistics, Pearson Correlation Coefficient, and Confirmatory Factor Analysis (CFA). The step of PAOR can be designed as the following procedures.

Plan: Study the literature review concerning with scoring rubric, design the scoring rubric criteria and discuss in small group, propose to EFL teachers.

Act: Employ the scoring rubric criteria to assess students' writing ability.

Observe: observe students' writing ability and collect data.

Reflect: analyze data and reflect from results.

The Analysis of Construct Validity

The construct validity was measured by Confirmatory Factor Analysis (CFA). To measure the construct validity of the obtained data, the researcher has analyzed the correlation between variables to obtain the matrix of correlation coefficient between variables in each construct. The purpose is to check whether the components of each variable, the data is suitable for factor analysis or not. The coefficient of correlation describes the relationship between two variables. Interpreting the correlation coefficient, low or near zero values indicates weak relationship or less relevant or no correlation, while those nearer to +1 or -1 suggest stronger relationships. It is not necessary to apply the matrix that has no correlation coefficient to measure the factor analysis. For the hypothesis statistic of Bartlett's Test of Sphericity and Kaiser Index (Kaiser – Meyer – Olkin Measure of Sampling Adequacy = KMO), KMO should be close to 1. If the value is less, the correlation between the variable is less, and it is not suitable for measuring factor analysis. The details of KMO index are between 0.00 – 1.00 as below criteria. [16]

Index of Kaiser – Meyer – Olkin (KMO)	Suitable for CFA
KMO > .90	Marvelous
.80 < KMO < .89	Meritorious
.70 < KMO < .79	Middling
.60 < KMO < .69	Mediocre
.50 < KMO < .59	Miserable
KMO < .50	Unacceptable

To examine the construct validity and analysis the model fit by using statistical computer program requires the preparation of correlation coefficient matrix between variables of each construct. Interpreting the correlation coefficient, the researcher used the interpretation of the correlation dimension as follows.

Correlation Score	Description
0.0 - 0.3	Correlation is very low
0.3 – 0.5	Correlation is low
0.5 – 0.7	Correlation is moderate
0.7 – 0.9	Correlation is high
0.9 – 1.0	Correlation is highest

Construct reliability should be 0.7 or higher to adequate the convergence or internal consistency. To establish the convergent and discriminant validity of the studies constructs and find the correlation coefficient matrix between variables of each construct, the researcher analyzes the Confirmatory Factor Analysis (CFA) by using data from the Scoring Rubric Criteria distributed to 62 samples.

RESEARCH RESULTS

1. Scoring rubric criteria of writing assessment for EFL students consisted of criteria which are Content/ Organization, Grammar, Mechanics, Unity, and cohesion as below table 1.

Table 1: Scoring rubric for writing assessment

Criteria	Description				
	5	4	3	2	1
Content/ Organization	Paragraph has topic sentence, supporting sentence, and concluding sentence with comprehensive and sufficient evidence.	Paragraph has topic sentence, supporting sentence, and concluding sentence with some critical evidence.	Paragraph has topic sentence with some limited supporting sentence with limited evidence.	Paragraph is relevant to topic with topic sentence.	Paragraph is not relevant to the topic
Grammar	Proficiency in grammar use with no errors	Good in grammar use with minor errors, not interfere with understanding	Some minor errors in grammar choice, interfering with understanding	Many errors in grammar choice, interfering with understanding	Serious errors in grammar choice, interfering with understanding
Mechanics	Paragraph has no errors in punctuation, capitalization, spelling.	Paragraph has one to three errors in punctuation, capitalization, spelling.	Paragraph has four to six errors in punctuation, capitalization, spelling.	Paragraph has seven to nine errors in punctuation, capitalization, spelling.	Paragraph has ten or more errors in punctuation, capitalization, spelling.
Unity and cohesion	Well organized, logical, and critical paragraph with excellent connectors and transition	Well organized, logical, and critical paragraph with good connectors and transition	Fair organized paragraph with good connectors and transition	Poor organized paragraph with connectors and transition	Poor organized paragraph without connectors and transition

Marking criteria – Writing a paragraph (20 marks)

Marks are awarded for the following criteria:

- content/ organization (maximum of 5 marks)
- Grammar (maximum of 5 marks)
- Mechanics (maximum of 5 marks)
- Unity and cohesion (maximum of 5 marks)

2. Analysis results of the scoring rubric model of writing assessment for EFL students

Construct validity of writing skill (WRITS), the analysis of the correlation between variables using Pearson's correlation coefficient, the variables that identified component of writing skill (WRITS), the coefficient of correlation was between .715 - .885, the statistical significance

level at .01. The correlation between variables was positively correlated from moderate to high. The highest correlation coefficient were Content/Organization (B1) and Grammar (B2) and followed by Content/Organization (B1) and Mechanics (B3). Bartlett's Test of Sphericity was 224.065 (p = .000) indicating that the matrix correlation coefficient differs significantly from the identity matrix. Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) was equal to 0.849 indicating that the observed variables of data are sufficiently correlated to analyze the confirmatory factor analysis which indicating as below table.

Table 2 Mean, Standard Deviation, Pearson Correlation Coefficient between observed variables of Writing Skill (WRITS)

Variables	B1	B2	B3	B4
B1	1.000			
B2	.885**	1.000		
B3	.833**	.798**	1.000	
B4	.797**	.742**	.715**	1.000
Mean	3.242	2.919	2.984	2.887
S.D.	1.126	1.106	0.983	0.907

Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) = 0.849
Bartlett's Test of Sphericity Approx. Chi-Square = 224.065, df = 6, Sig. = 0.000

**Correlation is significant at the .01 level, n = 62, scoring 5 level.

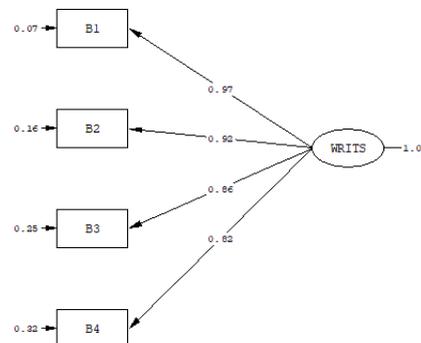B1= Content/ Organization, B2= Grammar, B3= Mechanics, B4= Unity and cohesion

The scoring rubric model of writing assessment for EFL students fit with empirical data. Results showed that χ^2 = .25, df = 2, p = .882, GFI = 1.00, AGFI = .995, RMSEA = .000. Analysis results can be shown as Table 3 and Figure 1.

Table 3 Confirmatory Factor Analysis (CFA) of Writing Skill (WRITS)

Variables	Factor Loading		t	R^2	Factor Score Coef.
	B(beta)	b(SE)			
B1	.97	1.09(.11)	10.28	.93	.51
B2	.92	1.01(.11)	9.35	.84	.20
B3	.86	0.85(.10)	8.51	.75	.14
B4	.82	0.75(.10)	7.86	.68	.11

χ^2 = .25, df = 2, p = .882, GFI = 1.00, AGFI = .995, RMSEA = .000

Remark: **p<.01

Chi-Square=0.25, df=2, P-value=0.88159, RMSEA=0.000

Figure 1 Confirmatory Factor Analysis (CFA) of Writing Skill (WRITS)

DISCUSSIONS

1. Scoring rubric criteria of writing assessment for EFL students consisted of criteria which are Content/Organization, Grammar, Mechanics, Unity, and cohesion. This result is consistent with the findings of Turgut and Kayaoğlu's (2015) study, revealed that the content, organization, vocabulary, language use, and mechanism should be considered in terms of identifying a clearer criterion for writing assessment using scoring rubric (p.54) [17].

2. The scoring rubric model of writing assessment for EFL students fit with empirical data. Results showed that $\chi^2 = .25$, df = 2, p = .882, GFI = 1.00, AGFI = .995, RMSEA = .000. It can be interpreted and proved that scoring rubric criteria of writing assessment is the effective tool for EFL students, and it showed that scoring rubric criteria of writing assessment has a construct validity. This result related to the finding of Turgut and Kayaoğlu's (2015) study indicated that the criteria of scoring rubric with explicit explanations are administrated to writing class, it can enhance students' writing performance (p.56).
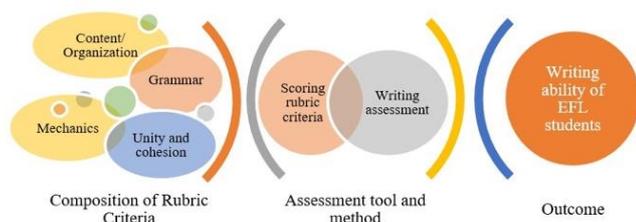
KNOWLEDGE FROM RESEARCH

Figure 2 Knowledge from research

CONCLUSION

This research on Scoring Rubric Development of Writing Assessment for EFL Students, and the purposes were to design scoring rubric criteria of writing assessment for EFL students and to validate the scoring rubric model of writing assessment for EFL students. Results showed that 1) Scoring rubric criteria of writing assessment for EFL students consisted of criteria which are Content/Organization, Grammar, Mechanics, Unity, and cohesion; 2) The scoring rubric model of writing assessment for EFL students fit with empirical data. It can be interpreted and proved that scoring rubric criteria of writing assessment is the effective tool for EFL students, and it showed that scoring rubric criteria of writing assessment has a construct validity.

RECOMMENDATIONS

Recommendation for applying the research results, there should have the pre-test and post-test and develop the scoring rubric either high school students or undergraduate students.

Recommendation for further research, Quasi-experimental research is one of the research methods that can design by creating learning innovation and test with the students, then, using scoring rubric criteria of writing assessment to collect data for the analysis.

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