

Content Validity of The Reading Skills Teaching Module Through a Foreign Language Teaching Approach

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KEYWORDS:

Content Validity
Content Validity Index
Reading Comprehension
Reading Skills
Teaching Module

CITATION:

Mohd Hafiz Mohamad Tarmizi¹ & Dahlia Janan. (2022). Content Validity of The Reading Skills Teaching Module Through a Foreign Language Teaching Approach. *Malaysian Journal of Social Sciences and Humanities (MJSSH)*, 7(12), e001990. <https://doi.org/10.47405/mjssh.v7i12.1990>

ABSTRACT

Reading skills are basic skills needed by students as early as primary school. However, there are still students who are able to read but do not understand the reading material read. Therefore, a teaching module through foreign language teaching approach was develop to help teachers to implement teaching and learning especially in the aspect of reading comprehension. This study aims to look at the aspects of content validity of the modules that had been develop through content validity index (CVI) and frequency and percentage involving three experts. The results of the study showed that the overall value of the content validity index of I-CVI and S-CVI was high with value of 1.0 and the overall percentage of module content was obtained as 94%. The findings of the study also found the whole construct; module usability (96.7%), module content (90.8%), teaching assignments and activities (93.2%), module suitability (95.6%) and teaching evaluation (93.8%) obtained values above 90% while I-CVI and S-CVI with a value of 1.0 for each construct. Overall, these findings indicate that the content of the modules meet the standards for the content and quality aspects of a module. This module is suitable for students and teacher and is easy to use in teaching and learning reading skills, especially aspects of reading comprehension.

Contribution/Originality: This study showed that the use of two methods to obtain content validity from experts. Although the overall CVI value (I-CVI, S-CVI) indicates universal acceptance with a high value; of 1.0, the use of percentages in content validity can also provide an overview of aspects that can be improved by researchers. This combination of CVI and percentage in content validity will give a broad view to researchers out there.

1. Introduction

Difficulty in comprehending the text being read can inhibit a student's intellectual development and will certainly affect the student's reading comprehension. The content of a text read by a student can affect their reading. Text content that has a vocabulary that is understood or often spoken by the reader, interest in the text, interpretation or expectation of the text and desire to read affect the reader's reading comprehension (Augustine, 2014). This is because reading is an area that makes the greatest contribution to a person's mental development (Sağirli, 2019) during the reading process, thoughts, feelings and information transform into mental concepts that can be stored and interpreted in the mind (Sağirli, 2019). In helping students to derive meaning from the text, teachers need to help students by relating students' existing knowledge and experience and students need diverse strategies to improve reading comprehension (Zahoor ul Haq, Bushra Ahmad Khurram, & Arshad Khan Bangash, 2019).

The Malay language needs to move a step forward by creating an approach to teaching and learning Malay as a foreign language that can be used by the community in Malaysia and around the world. Foreign language teaching and learning refers to the teaching of a non-native speaker's language outside of a commonly used environment (Moeller & Catalano, 2015). Thus, teaching modules through a foreign language approach require studies such as classroom management, language use and teaching methods (Macias, 2018) that are appropriate to the Malay language. In foreign language teaching, various strategies and skills in the classroom are necessary for a student (Michinov et al., 2011; Tsan & Cheng, 2016) not only basic language skills but the culture and perspective of the language learner (Atmaca & Gunday, 2016).

Based on a study that has been conducted previously through the needs analysis, design and development phase, a module has been developed to help teachers to teach reading comprehension to non-native Malay speakers. This module applies the approach of teaching foreign languages in the teaching of Malay, especially involving the aspect of reading comprehension of Malay texts. The module developed needs to get content validation from experts so that this module can be used in real situations, following the target group of the study and meeting the aspects of teaching content to non-native speakers of Malay. Therefore, this study aims to look at the validity of the content of the modules that have been developed through the views of experts covering aspects of module usability, module content, teaching assignments and activities, module suitability and teaching evaluation.

2. Content Validity

If we look at the interpretation of validity, validity is the extent to which the instrument (Abdullah, et al., 2022) or the measure measures what it wants to measure (Mohd Zulfadli et al., 2022), the development of solid evidence in demonstrating test or construct interpretation (Creswell, 2012) as well as a measuring tool (Sidek & Jamaludin, 2005) that has high validity if the degree of its ability to measure what must be measured is high and can measure accurately what should be measured (Sidek & Jamaludin, 2005; Mohammed Afandi et al., 2020) or corresponding to the proposed use (Creswell, 2012). Whereas content validity can be defined as the extent to which elements of an evaluation instrument are relevant and represent constructs targeted for specific evaluation purposes (Yusoff, 2019) and the process of determining the extent to which conceptual elements can be successfully defined (Norliza et al., 2021) for a product. A module that has

high content validity when obtaining validity of 70% and above is considered to achieve high validity (Tuckman & Waheed, 1981; Sidek & Jamaludin, 2005). In addition to looking at the value of content validity proposed by Sidek and Jamaludin (2005), this study also looked at content validity through the content validity index (CVI).

In determining the value of CVI received, the value of CVI agreed upon depends on the number of specialists recruited. Amatan et al. (2021) stated the CVI value should exceed 0.8 for four to five experts while five to six people should obtain a minimum value of 0.78 and be considered to have high content validity. Similarly, for content validity involving more than three experts, the CVI value should exceed 0.8 (Mohd Matore et al., 2017). Yusoff, (2019) stated that CVI values involving two experts should be at least 0.80, three to five experts should be 1.0, six to eight experts 0.83 and 0.78 for content validity involving at least nine experts. As for the value of S-CVI, Shrotryia and Dhanda (2019) stated that the minimum value should be 0.8 different from the view of Guo et al. (2020) who stated that the value of S-CVI between 0.78 to 0.83 indicates an acceptable value.

3. Methodology

This study is quantitative and was conducted on field experts involving three different locations. The study was administered online following the Covid-19 pandemic situation in Malaysia which physically restricted encounters. This study also received ethical approval from the Human Research Ethics Committee (RIMC UPSI Code: UPSI/PPPI/PYK/ETIKA (M)/014 (94)) for the required data collection.

3.1. Sample

Content validation is conducted to specialists who have expertise, experience and suitability with the developed product (Juppri et al., 2020). In obtaining the validity of module content, experts are required to make such an assessment (Demir Kaymak et al., 2021). Looking at the number of experts, Shrotryia and Dhanda (2019) state that content validity requires at least three experts. Therefore, the experts were selected based on the following characteristics; has a Doctor of Philosophy (PhD) degree, has at least 15 years of experience, is knowledgeable and has a specialization in the field of Malay language.

3.2. Instrument

Another instrument used in this phase is the content validation form used to obtain content validity assessments from experts. This form is distributed to specialists using an online service through Google Forms. This content validity form was adapted from a checklist form developed by Lim and Lee (2007) to see the applicability of this module. In obtaining scores from experts, a 4 -point Likert scale was used. The use of a 4 -point Likert scale in content validity was suggested by Lynn(1986), Yusoff, (2019) and Amatan et al. (2021) and was also used in previous studies (Zamanzadeh et al., 2015; Jokiniemi et al., 2018; Juppri et al., 2020; Kamarudin et al., 2020; Mohammed Afandi et al., 2020; Amatan et al., 2021). The use of 4 points of this scale also coincides with the study of Chang (1994) who compared 4 points of the Likert scale and 6 points of the Likert scale which showed that 4 points of the Likert scale have higher reliability.

3.3. Instrument

Content validation. Data were analyzed using two methods because content validity requires in-depth statistical evaluation (Mohd Matore et al., 2017). To obtain the validity of the modules that have been developed, the following is the formula used to obtain the validity of the content from experts:

$$\frac{\text{Expert Total Score}}{\text{Maximum Score}} \times 100\% = \text{Module Validity Value}$$

Module validity values over 70% are accepted and indicate high validity (Tuckman & Waheed, 1981; Sidek & Jamaludin, 2005; Juppri et al., 2020). To obtain the CVI value, the following Table 1 is the calculation used:

Table 1: Calculation of CVI, I-CVI, S-CVI/Ave and S-CVI/UA

Index CVI	Formula	Source
CVI (<i>content validity index</i>)	$\text{CVI} = \frac{\text{Total score of each expert}}{\text{Total actual score}}$	Hashimah et al. (2018)
I-CVI (<i>item-level content validity index</i>)	$\text{I-CVI} = \frac{\text{agreed item}}{\text{number of experts}}$	
S-CVI/Ave (<i>scale-level content validity index based on the average method</i>)	$\text{S-CVI/Ave} = \frac{\text{Total score of I-CVI}}{\text{total items}}$	Yusoff (2019)
S-CVI/UA (<i>scale-level content validity index based on the universal agreement method</i>)	$\text{S-CVI/UA} = \frac{\text{Total score of UA}}{\text{Total items}}$	

After the module validity value was obtained, the researcher also obtained the content validity index (CVI) value from the same data source based on Yusoff (2019). Since this study involved three experts for content validity, Yusoff (2019) set the accepted CVI value to be 1.0 for all three CVI indices; I-CVI, S-CVI/Ave and S-CVI/UA for the validity of the content of the modules that have been developed.

4. Result

The results obtained from the experts show encouraging findings. The following are the findings for each construct found in the content validity form. For the ease of the module, Table 2 shows the average value is 96.7% with six items achieving 100% content validity while four items reached 91.7% with a CVI value of 0.92. The expert rating of content for each module usability item showed an I-CVI value of 1.0. The average score for I-CVI for all items on the average scale also showed an S-CVI/Ave 1.0 value. All items and the universal agreement score (UA) showed an S-CVI/UA value of 1.0 for the overall average usability of the module.

Table 2: Percentage and value of CVI for the module's usability

Percentage of Content Validity			
No.	Item	Percentage (%)	Level
1	The module shows clear learning objectives	100	High
2	The module has procedures that are suitable for the users	91.7	High

3	The module has clear directions	91.7	High
4	The module has a clear presentation	100	High
5	The module has appropriate and editable instructions	100	High
6	The module involves students actively	91.7	High
7	The module uses simple words for the users	100	High
8	The module uses various teaching techniques	91.7	High
9	The module has the element of scaffolding	100	High
10	The module has teaching aids that help the teaching activity	100	High
Module's Content Validity Index (CVI)			
	Expert	Expert	Expert
Item	1	2	3
			Percentage
			%
			Level
			CVI
			Agreed. No.
			I-CVI
			UA
1	1	1	1
2	1	1	1
3	1	1	1
4	1	1	1
5	1	1	1
6	1	1	1
7	1	1	1
8	1	1	1
9	1	1	1
10	1	1	1
			S-CVI/Ave
			S-CVI/UA
Average			96.7
			High

CVI Content Validity Index, I-CVI Item-Level Content Validity Index, S-CVI Scale-Level Content Validity Index, Ave Average, UA Universal Agreement

Table 3 shows module content and the average value showed 90.8% with two items achieving 100% content validity, five items achieving 91.7% and three items reaching 83.3% with a CVI value of 0.83. The expert proportion of each module content item showed an I-CVI value of 1.0, the average score for I-CVI for all items on the average scale also showed an S-CVI/Ave value of 1.0. All items and the universal agreement score (UA) showed an S value-CVI/UA 1.0 for the overall average of the module content.

Table 3: Percentage and value of CVI for module's content

Percentage of Module's Content Validity									
No.	Item						Percentage (%)	Level	
1	Content organisation is clear, consistent and appropriate						91.7	High	
2	The module can attract users' attention						83.3	High	
3	The module contains vocabularies that are suitable for learning						91.7	High	
4	The module has new and interesting information						100	High	
5	The module has various cultural elements						91.7	High	
6	The module has various communicative aspects						91.7	High	
7	The module has interesting pictures, videos and graphics						83.3	High	
8	The module is relevant for the target group						91.7	High	
9	The module can be used in various situations						100	High	
10	Modul is authentic						83.3	High	
Content Validity Index (CVI) of Module									
	Expert	Expert	Expert	Percentage	Level	CVI	Agreed. No.	I- CVI	UA
Item	1	2	3	%					

1	1	1	1	91.7	High	0.92	3	1	1
2	1	1	1	83.3	High	0.83	3	1	1
3	1	1	1	91.7	High	0.92	3	1	1
4	1	1	1	100	High	1.0	3	1	1
5	1	1	1	91.7	High	0.92	3	1	1
6	1	1	1	91.7	High	0.92	3	1	1
7	1	1	1	83.3	High	0.83	3	1	1
8	1	1	1	91.7	High	0.92	3	1	1
9	1	1	1	100	High	1.0	3	1	1
10	1	1	1	83.3	High	0.83	3	1	1
S-CVI/Ave								1	
S-CVI/UA									1
Average				90.8	High				

CVI Content Validity Index, I-CVI Item-Level Content Validity Index, S-CVI Scale-Level Content Validity Index, Ave Average, UA Universal Agreement

For module assignments and activities in Table 4, the average value showed 93.2% with three items achieving 100% content validity, seven items achieving 91.7% and one item obtaining 83.3% with a CVI value of 0.83. The expert's proportion of content for task constructs and module activities showed an I-CVI value of 1.0. The average score for I-CVI for all items on the average scale also showed an S-CVI/Ave 1.0 value. All items and the universal agreement score (UA) shows an S-CVI/UA value of 1.0 for the overall average of module assignments and activities.

Table 4: Percentage and CVI value for the assignments and teaching activities

Percentage of Module's Content Validity									
No.	Item						Percentage (%)	Level	
1	Provides suitable assignments for the students						91.7	High	
2	Exercises are appropriate for the students' levels						83.3	High	
3	Assignments are balanced and appropriate with language skills						100	High	
4	Various types of assignments are used in this module						91.7	High	
5	Assignments expose students to learn something new and challenging						91.7	High	
6	Assignments are relevant and can strengthen the content of teaching						91.7	High	
7	Assignments are flexible and open-ended						100	High	
8	Exercises can be implemented in various contexts						91.7	High	
9	Interaction between students						91.7	High	
10	Interaction between students and learning aids						100	High	
11	Direct interaction between teacher and students						91.7	High	
Content Validity Index (CVI) of Module									
Item	Expert 1	Expert 2	Expert 3	Percentage %	Level	CVI	Agreed. No.	I-CVI	UA
1	1	1	1	91.7	High	0.92	3	1	1
2	1	1	1	83.3	High	0.83	3	1	1
3	1	1	1	100	High	1.0	3	1	1
4	1	1	1	91.7	High	0.92	3	1	1
5	1	1	1	91.7	High	0.92	3	1	1
6	1	1	1	91.7	High	0.92	3	1	1
7	1	1	1	100	High	1.0	3	1	1
8	1	1	1	91.7	High	0.92	3	1	1
9	1	1	1	91.7	High	0.92	3	1	1

10	1	1	1	100	High	1.0	3	1	1
11	1	1	1	91.7	High	0.92			
S-CVI/Ave								1	
S-CVI/UA									1
Average				93.2	High				

CVI Content Validity Index, I-CVI Item-Level Content Validity Index, S-CVI Scale-Level Content Validity Index, Ave Average, UA Universal Agreement

Table 5 shows the suitability of the module with an average value of 95.6% with two items achieving 100% content validity while the other two items reached 91.7% with a CVI value of 0.92. The expert rating on content for the module suitability construct showed an I-CVI value of 1.0. The average score for I-CVI for all items on the mean scale also showed a value of S-CVI/Ave 1.0. All items and the universal agreement score (UA) showed a value S-CVI/UA 1.0 for the overall average of module suitability.

Table 5: Percentage and CVI value for the module's appropriateness

Percentage of Module's Content Validity									
No.	Item						Percentage (%)	Level	
1	The module considers students' cognitive domain						100	High	
2	The module contains students' details						91.7	High	
3	The module considers students' affective domain						91.7	High	
4	The module considers students' metacognitive domain						100	High	
Content Validity Index (CVI) of Module									
Item	Expert 1	Expert 2	Expert 3	Percentage %	Level	CVI	Agreed. No.	I-CVI	UA
1	1	1	1	100	High	1.0	3	1	1
2	1	1	1	91.7	High	0.92	3	1	1
3	1	1	1	91.7	High	0.92	3	1	1
4	1	1	1	100	High	1.0	3	1	1
S-CVI/Ave								1	
S-CVI/UA									1
Average				95.6	High				
CVI Content Validity Index, I-CVI Item-Level Content Validity Index, S-CVI Scale-Level Content Validity Index, Ave Average, UA Universal Agreement									

Finally, Table 6 shows the teaching assessment in the module obtained an average value of 93.8% with one item achieving 100% content validity while three items achieved 91.7% with a CVI value of 0.92. The expert rating on content for the teaching evaluation construct showed an I-CVI value of 1.0. The average score for I-CVI for all items on the average scale also showed a value of S-CVI/Ave 1.0. All items and the universal agreement score (UA) showed a value S-CVI/UA 1.0 for the average assessment of teaching in the module. There were three items in the module content construct and one item in the assignment and teaching activity construct that got the smallest percentage from experts.

Table 6: Percentage and CVI value for teaching assessment

Percentage of Module's Content Validity			
No.	Item	Percentage (%)	Level
1	Contains self-assessment at the end of teaching	100	High
2	Has feedback from the teacher to students within an appropriate time	91.7	High

3	Assessment is appropriate with the learning unit	91.7	High
4	Can provide a picture of the next learning unit and contribute to the overall quality of the learning process	91.7	High

Content Validity Index (CVI) of Module									
Item	Expert 1	Expert 2	Expert 3	Percentage %	Level	CVI	Agreed. No.	I-CVI	UA
1	1	1	1	100	High	1.0	3	1	1
2	1	1	1	91.7	High	0.92	3	1	1
3	1	1	1	91.7	High	0.92	3	1	1
4	1	1	1	91.7	High	0.92	3	1	1
S-CVI/Ave								1	
S-CVI/UA									1
Average				93.8	High				

CVI Content Validity Index, I-CVI Item-Level Content Validity Index, S-CVI Scale-Level Content Validity Index, Ave Average, UA Universal Agreement

5. Discussion

As a result of the validity of the content that has been implemented, the researchers would like to bring to four items; the ability of the module to attract users' attention, the use of pictures, graphics and videos, module presentation, and training appropriateness showing the least percentage (83.3%) compared to other items despite the values of I-CVI, S-CVI/Ave and S-CVI/UA achieving a value of 1.0 for which this value must be obtained accurately for researchers using three experts (Yusoff, 2019). If observed from the items, three of the four items touch on the aspect of module layout and one item regarding the suitability of the module for students, especially non-native Malay speakers. Therefore, researchers provide online teaching support materials to help this collaborative learning to be more interesting and have its appeal. This is because technology provides new methods to both native and non-native speakers (Li, 2020) in language learning.

Teachers also need to play a role in cultivating an interest in reading as well as correcting students' reading errors, encouraging students in group discussions and question and answer sessions as well as emphasizing that Malay language proficiency should start from primary school (Mohd Hafiz & Dahlia, 2022). Although the online environment there are some tensions and misunderstandings that hinder collaboration (collaborative learning) compared to face-to-face in which students are more willing to collaborate (Pavlov, Smirnova & Nuzhaia, 2021), this module leading to teaching materials that are capable of being implemented either face-to-face or online. Overall, the modules developed not only received good ratings among users but also from experts. This module also conforms to theories and models in teaching aspects of reading comprehension. In addition, this module also obtains the views and agreement of experts in the design and development of teaching materials to help students and teachers achieve the desired teaching and learning outcomes.

6. Conclusion

In summary, the modules that have been developed have received high validity from experts covering aspects of usability (96.7%), content (90.8%), teaching assignments and activities (93.2%), suitability to the target group (95.6%) and teaching evaluation (93.8%). These five constructs to be seen give an average percentage of 94% of the modules that have been developed. This gives the impression that the module is easy to use, the content of the material is interesting, the assignments and activities are

appropriate to the target skills, appropriate to the target group; non -native speakers of Malay as well as quality teaching assessment. These findings also explain that this module is very suitable for use in the teaching and learning of Malay, especially concerning aspects of reading comprehension. This study also helps other researchers as well as developers of products or teaching materials to obtain the validity of the content through different angles and not just rely on one method only.

Therefore, in this study, it can be seen that researchers highlight the use of two methods to obtain content validity from experts as shown in the previous section. Although the overall CVI value (I-CVI, S-CVI) indicates universal acceptance with a high value; 1.0, the use of percentages in content validity can also provide an overview of aspects that can be improved. Although the overall construct and item received encouraging approval from experts, this study attempts to highlight the diversity of content validity so that the content of the module or product not only gets expert evaluation but can add value to the product developer itself to always provide the best results. Researchers also suggest to researchers out there related to the use of CVR (Content Validity Ratio) to be combined with the percentage and CVI to get a more accurate picture of the content of a product. This also means that various evaluations can increase the validity of the content and course, the product or instrument developed can provide great benefits to consumers as well as the target group. This study also contributes to the existing literature by providing contributions, fresh views and suggestions, especially related to studies involving aspects of content validity, product development and the world of education.

Ethics Approval and Consent to Participate

The researchers used the research ethics provided by the Research and Innovation Management Center (RIMC) of Universiti Pendidikan Sultan Idris. All procedures performed in this study involving human participants were conducted in accordance with the ethical standards of the institutional research committee. Informed consent was obtained from all participants.

Acknowledgement

This research was conducted under the Federal Training Prize scheme provided by the Ministry of Education Malaysia. The author would like to thank the Faculty of Languages and Communication, Universiti Pendidikan Sultan Idris for the support given throughout this study.

Funding

This study received no funding and there has been no significant financial support for this work that could have influenced its outcome

Conflict of Interests

There are no conflicts of interest associated with this work and there is no potential conflict of interest with respect to the research, authorship, or publication of this article.

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