

A Preliminary Study in Developing a Contrastive and Error Analyses-based German Grammar Textbook

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ABSTRACT

This study aims to describe the results of the validation of the textbook developed using both contrastive and error analyses. This study, however, did not test the textbook's effectiveness in improving students' understanding of learning German grammar. The results of the study provide an overview of elements of the textbook that should be improved and maintained based on the inputs and evaluation from the validators. The study used a quantitative method. Material experts, textbook experts, and students as users were employed to be the validators. The instrument of validation assessed material quality, material presentation, layout, and the use of the language. The results of the study showed that the overall assessment indicators fell into the feasible-to-use category. One of the strengths of the textbook is the material presented. The contrastive and error analyses used to develop the textbook allow the materials to be well presented and effectively adapted to students' needs.

Keywords: *Contrastive analysis, error analysis, German grammar textbook, linguistics*

1. INTRODUCTION

Foreign language learning has been investigated by several researchers to improve its quality (Şengül & Türel, 2019; Hopp Vogelbacher, Kieseier, & Thoma, 2019; Schneegass, Kosch, Schmidt, & Hussmann, 2019; Andujar, Salaberri-Ramiro, & Martínez, 2020; Chua & Azlan, 2019). The studies attempt to offer strategies and methods using either ICT or other learning media that teachers can use to boost students' foreign language competency. One of the learning media that has been developed by many researchers and play an important role in foreign language learning is textbook (Maijala & Tammenga-Helmantel, 2019; Mohammadnia & Moghadam, 2019; Arshad & Mahmood, 2019; Huang, 2019).

Foreign language learning is not focused only on listening, reading, writing, and speaking skills. A crucial aspect that enhances those four skills is the students' mastery of grammar (Kusumastuti, Pratiwi, & Husnussalam, 2019; Arifin, 2019; Utari, 2019; Diarani & Syamsi, 2019). One of the obstacles that students commonly face in learning grammar is the interference of the learners' first or second language in learning the foreign language. Interference is defined as language error created by another language, such as the first language, second language, or a foreign language

(Kaweera, 2013; Watcharapunyawong & Usaha, 2013; Solano et al., 2014).

One of the linguistic approaches related to the interference in foreign language learning is contrastive analysis. It has been investigated and implemented by many researchers in foreign language learning (Khansir & Pakdel, 2019; Mensah & Ojukwu, 2019; Choi, 2017). This approach is focused on comparing and contrasting two or more languages to find similarities and differences in grammar, culture, or other linguistic aspects. The similarities and differences of the languages will help learners aware of the errors that they will potentially make when learning a foreign language, especially its grammatical aspect.

German is one of the foreign languages learned by people from many different countries, including Indonesia. Indonesian learners also face a similar problem. They find it hard to learn German grammar because Indonesian grammar highly contrasts with German grammar. Mantasiah et al. (2019b) stated that the grammatical differences between Indonesian and German will potentially lead to errors that students make when using German. Additionally, comparing grammar between Indonesian and German can help learners grasp German grammar more easily (Mantasiah, Amir, Yusri, & Anwar, 2019a).

The current study is preliminary in developing a German grammar textbook with the basis of contrastive and error analyses, which can be integrated. Several studies have implemented the two approaches integrated into foreign language learning (Mantasiah et al., 2019b; Yildiz, 2016; Kirmizi & Karci, 2017; Khansir & Pakdel, 2018). The role of contrastive analysis in the textbook development can be seen from the method of presenting the materials, which is done by comparing between Indonesian and German. Besides, the materials can be selected using the error analysis. The materials considered to be more difficult for learners are explained more comprehensively than those considered to be easier for learners.

This study specifically describes the results of the validation of the developed textbook. However, it did not run the test to see the effectiveness of the textbook in improving students' understanding of learning German grammar. The results of the study showed the areas that the textbook needs to improve on and maintain based on the validators' inputs and assessment. The validators assessed the selected materials, presentation of the materials, layout, the use of the language, and other indicators. This study will later focus on the trial of the textbook in German language learning.

2. METHOD

This study used the R&D (Research and Development) approach to develop a German grammar textbook by integrating contrastive analysis and error analysis. In general, the research procedure consisted of three stages: defining, planning, and developing. In the defining stage, the observation was conducted using error analysis to investigate which materials both learners and teachers needed. In the planning stage, the draft of the textbook materials was created to be later developed using the data of contrastive analysis. In the developing stage, the textbook that had been developed was validated by the validators. The focus of the study was to describe the third stage, which is about the results of the textbook validation.

Table 1. The score criteria of questionnaire with Likert scale

Score	Criteria
4	Good / interesting / decent / easy / appropriate
3	Quite good / interesting enough / decent enough / quite easy / quite appropriate / quite right.
2	Less good / less attractive / less feasible / less easy / less appropriate / less precise.
1	Not good / not interesting / not feasible / not easy / not appropriate / not precise

Table 2. Assessment sheet by the learning media and textbook development experts

Validated Aspects	Indicators
The Technique of Presentation	1. Systematics 2. Coherence
The Feasibility of Presentation	1. Administration Pages 2. Introduction 3. Content
The Feasibility of the Graphics	1. Book Size 2. Cover Design 3. Design of Book Content

Both qualitative and quantitative data were used in the study. The qualitative data were obtained from interviews and FGD with the validators and students as German language learners. On the other hand, the quantitative data were acquired from the validators' assessment sheets and the results of the small-scale trial. Five validators were experts in the development of learning media and textbook and five validators who were experts in German grammar. Besides, 30 students were involved in the small-scale trial, which aimed at gathering responses from students as textbook users. The validation and response sheets used the Likert scale with four answer options (1-4) for each component. The results of the assessment were interpreted qualitatively, so the validity level of the developed textbook could be identified. More detailed information can be seen in Table 1. The developed instrument was the validation sheet used by the validators with expertise in learning media, textbook development (Table 2), and German grammar (Table 3).

Data of the validators' assessment results were analysed using descriptive statistics to determine the average score, standard deviation, maximum value, and minimum value of each assessment item. The data were then classified according to the validity criteria which can be seen in Table 4.

3. FINDINGS AND DISCUSSION

The first validation process involved learning media and textbook, development experts. Five validators were involved in the assessment of the textbook using several assessment indicators. The primary focus of the validation process was not the material substance, but the components that a textbook must generally have. The results of validation by the learning media and textbook development experts can be seen in Figure 1.

Figure 1 shows that the strengths of the textbook lie in the presentation technique and the content. The content was designed not to focus on the substance, but to correspond with the curriculum. The two aspects were classified as very valid, while others were categorized as valid. The validators offered some suggestions regarding certain components. First, the textbook size should be reduced to A4. The textbook initially used F4 paper size, but this size is too large for a textbook, which in turn can

cause students' inconvenience to carry around the book. Second, the administration page should explain the guides to use the textbook and the meaning of symbols used in it.

Table 3. Assessment sheet by a German grammar expert

Validated Components	Indicators
Material Feasibility	<ul style="list-style-type: none"> a. Each topic in the book is explained clearly and completely. There is no missing material b. The instructions for using the book and for working on the exercises are clearly explained c. The material accuracy is maintained (no wrong concept) d. The use of contrastive analysis in the book is very helpful for students in understanding the material described e. The examples of sentences, words, or phrases given vary. Make it easy for learners to understand the topic explained
Presentation Feasibility	<ul style="list-style-type: none"> a. The presentation of the material is coherent, systematic, straightforward, and easy to understand b. The materials of the book material do not contradict SARA (ethnicity, religion, race, and social relations), do not contain pornography, and accommodate diversity and gender insight c. The connection among chapters, subchapter, terms and concepts is good d. The font type and size are easy to read
Language Feasibility	<ul style="list-style-type: none"> a. The language is easy to understand b. The use of terms, symbols and or icons is accurate

Table 4. Value scale and validity level

Value Scale (%)	Validity Level
85.01 – 100.00	Very valid (applicable but needs a small revision)
70.01 –85.00	Valid (can be applied but needs a small revision)
50.01 – 70.00	Less valid (applicable but needs major revisions)
01.00 – 50.00	Invalid (maybe not applicable)

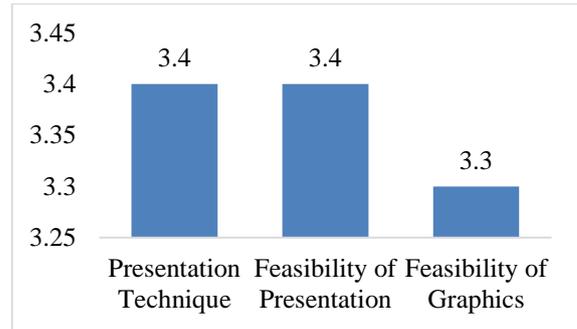


Figure 1 Results of validation by the learning media and textbook development experts.

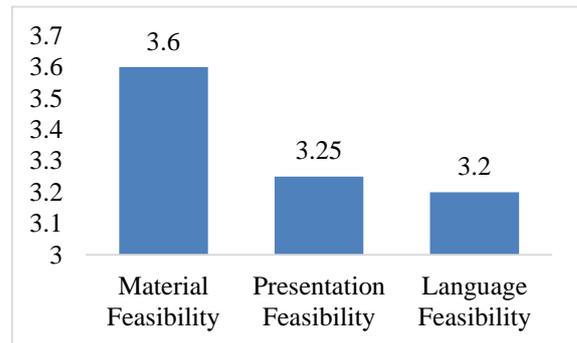


Figure 2 Results of validation by German grammar experts.

Some validators also advised that the time estimate allocated for each topic should be given. For example, one meeting (2x45 minutes) is allocated to explain the first topic. However, this advice is not taken since each class faces different conditions, such as the number of students, the homogeneity of students' competency, and supporting facilities. These conditions affect the duration of the learning process. Thus, the textbook does not provide the time estimate for each topic. Nevertheless, the results of validation generally show that the textbook is applicable after the revision of some components. The second process of validation involved material experts who were lecturers and teachers of German teaching German grammar. Five validators took part in the assessment of the textbook using several assessment indicators. The validation was primarily focused on the material substance and the methods to explain the materials to students. The results of the material experts' validation can be seen in Figure 2.

In general, the results of validation indicate that this book is feasible to use since it is categorized as valid. However, several revisions should be made to improve the substantive quality of the textbook. Data in Figure 2 show that the strengths of the textbook include the clear and complete explanations of the materials so that students do not need any other textbooks or additional reference books; the use of error analysis to develop the textbook by which students' difficulties in learning

German grammar have been accurately identified. These are of the strengths of using error analysis in foreign language teaching (Baker, 2017; Basher, Elmenfi, & Gaibani, 2019; Zafar, 2016). Thus, this book is developed by taking the level of difficulty of each material into account. The materials with a high degree of difficulty are explained more comprehensively and provided with various examples.

The use of contrastive analysis adds the strength of the textbook. Several topics are explained by comparing German grammar and Indonesian grammar to aid students in understanding the materials. This is in line with the results of previous studies, suggesting that the use of contrastive analysis in foreign language learning can make it easier for learners to understand a foreign language (Choi, 2017; Khansir & Pakdel, 2019; Al-Sobhi, 2019). The following are the results of contrastive analysis included in the textbook:

“The difference in verbs between German and Indonesian is the conjugation of verbs. Indonesian verbs do not experience conjugation with the subject in a sentence. Unlike German, verbs are conjugated with the subject in a sentence.”

“In German, adjectives must be conjugated with the modified nouns. For example, “Schoenes Madchen”, “Klueger Man. Unlike German, Indonesian adjectives do not conjugate.”

“Indonesian does not have articles, while in German every noun has an article, such as Der, Die, and Das.”

Furthermore, the various examples of sentences, phrases, and words are the strength of the textbook based on the scores given by the validators. Although categorized as valid, the textbook needs some revisions as suggested by the validators. For example, the symbols and the font size should be used more consistently; linguistic theories given to explain some parts of the book were difficult to understand, so they need to be simplified; some materials were redundant. The third process of validation involved users or German language learners. Several indicators were used by 30 students involved in the assessment of the textbook. The primary focus of the validation was the collection of responses from the students as German language learners to the textbook.

Five statements were used to measure students’ responses to the textbook. Based on Table 5, all students gave positive responses to each statement as no students chose “disagree” or “strongly disagree”. In general, students’ responses correspond with the validators. Students agreed that the use of contrastive analysis help them understand German grammar more easily. Besides, several topics are explained and connected with linguistic theories that aid students in understanding the topics. Students believe that learning German grammar involves linguistic processes, so they find it important to learn

about the linguistic processes. Based on students’ responses, another strength of the textbook is the presentation technique of the materials. A more comprehensive explanation is provided for the materials with a higher degree of difficulty. This is the result of the use of error analysis in developing the textbook.

4. CONCLUSION

Results of the study showed that the overall indicators suggest that the textbook is feasible to use despite necessary revisions to some parts of the book. One of the strengths of the textbook is the presentation technique of the materials.

Table 5. Students’ responses to the developed grammar textbook

No	Questions	Student’s Response (%)			
		Strongly Agree	Agree	Disagree	Strongly Disagree
1	The language used is simple, so it is easy to understand.	66.67	33.33	0	0
2	The use of contrastive analysis is helpful to understand the grammar.	86.67	13.33	0	0
3	Materials with a higher degree of difficulty are explained more comprehensively than those with a lower degree of difficulty.	83.33	16.67	0	0
4	Exercise are given vary, so learners can understand the materials better.	80	20	0	0
5	Some topics are explained and connected with linguistic theories, so learners can understand the topics more easily.	93.33	6.67	0	0

Employing contrastive analysis and error analysis in developing the textbook allows the materials to be presented effectively to adapt to the students’ needs. Students responded positively to the use of contrastive analysis in the textbook as it facilitates them to comprehend German grammar. The incorporation of linguistic theories in explaining grammar contributes to students’ better comprehension of the topics. Students assume that learning German grammar is not simply

about grammar, but also linguistic processes embedded in the grammar.

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