

GO GOLD GENERATION WEB-BASED QUIZ FOR TEACHING AND LEARNING GRAMMAR IN SENIOR HIGH SCHOOL: RESEARCH AND DEVELOPMENT

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Abstract

This research aims to establish the Go Gold Generation (3G) Web-Based Quiz for teaching and learning grammar that focused on simple past tense, present perfect tense, and past continuous tense, to discover the appropriateness of 3G web-based quiz for teaching and learning grammar, and to find out the teachers' and students' responses toward the use of 3G web-based quiz for teaching and learning grammar to the tenth-grade students. The researchers adapted Sugiyono's research and development framework as a reference. The adaption has been formulated into three phases, which were: foundational research; design and development; and perception test and finalization. The research result showed that the validation score was 89,73% included in the "Very Valid" category. The result of teachers' and students' responses score was 89,09% included in the "Very Good" category. It means that a 3G web-based quiz can be applied as an alternative media for teaching and learning grammar to the tenth-grade students in senior high school. Furthermore, the final product of the model consisted of 3G Web-Based Quiz, guidebooks for teachers and students, and assessment guidelines.

Keywords: Go Gold Generation (3G), Web-Based Quiz, Grammar, Learning Media

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1. INTRODUCTION

English as a foreign language specified that the EFL refers to those who learn English in non-English-speaking countries. This statement is supported by Yoko Iwai in (Si, 2019) who argues that Indonesian citizens who study English in their own country are students of the EFL, Furthermore, ESL refers to those who are studying English in states where English is used as a medium of communication and pronounced formally (e.g. Americans who are studying English, are ESL learners). Teaching and learning English as a foreign language in Indonesia has been taught in kindergarten school up to university. It is very complex and the achievement of the students still poor. According to Komur in (Sulistiyo, 2015) and Zhang & Zhan in (Al-mubireek, 2012) revealed that English as a Foreign Language (EFL)/English as a Second Language (ESL) teacher's schooling suggests that there is a critical need to complete EFL/ESL student teachers with sufficient knowledge and skills teaching to assure that students are interested in study English in the classroom.

English is considered a complicated subject for students in Indonesia, because it has many different aspects from the Indonesia. For examples: they are not the same in terms of pronunciation, vocabulary, and grammar. Furthermore, In learning English, there are four skills that we need for completing communication. These skills are Listening, Speaking, Reading, and Writing. Moreover, English has sub-skills such as pronunciation, grammar, vocabulary, etc. From these skills and sub-skills, the students have difficulty in learning grammar. Based on site selection criteria and techniques and study case the difficulties in learning grammar (tenses) occurred in Tenth Grade Senior High School Students in Blitar, for examples in SMA Negeri 1 Kesamben, SMA Negeri 1 Ponggok, and SMA Negeri 1 Kademangan.

Learning grammar is also essential to master communicative skills in English. Grammar refers to the rules of language. This statement is supported by Gocer & Sayin in (Demir, 2018) who stated that grammar rules are like adhesives in the ability to use language correctly and effectively; because understanding and use of grammar rules are required for successful speech and writing. Besides, Huang in (Demir, 2018) said that grammar rules lead a person to use a language that he/she can speak in a more accurate and aware way. Furthermore, the theories and applications that concentrate on teaching grammar for centuries in the field of language education, importance has been gained.

Erdem & Celik in (Demir, 2018) declared that teaching grammar requires word attack skills in which language knowledge is provided and positive, explanatory, and coordinating teaching strategies. Whereas, Singaravelu in (Demir, 2018) reported that as a result of

successful language education, students would have the ability to compare the grammar structure of the target foreign language with the language of the target language and to solve problems. This condition is challenging for teachers so they should have the ability to define the correct forms of grammar orally and in written form.

Based on the preliminary observation in three senior high schools in Blitar regency, it was found that the students got difficulties in learning grammar especially on the use of tenses. It was proved by the result of the interview with an English teacher that reported the student achievement was below the Minimum Criterion Mastery of the school (75,00). The student result above caused by some factors such as; (1) lack of media, (2) the teacher used conventional method in teaching, (3) the proportion of teaching grammar was very limited, (4) mismatch between form and function, (5) contrast between English and mother tongue, and (6) English is full of exceptions of grammar rules.

To overcome problems in these schools, especially in teaching and learning grammar needed interesting media. One of the interesting media that can be used in teaching grammar is a web-based quiz. The web is also called e-learning or electronic learning.

According to Burdette, Greer, and Woods in (Rahmawati, 2014) stated that e-learning is characterized as a program or course in which students receive some or all of their education via a networked device, such as the Internet. Accordingly, e-learning requires technology, website, and internet connectivity. It allows the less active students to become more active.

Moreover, According to Algahtani in (Abaidoo, 2014) stated that the possible benefits of e-learning are greater than the benefits of conventional learning if e-learning is used and implemented correctly. In addition, Kassing in (Sulistiyo, 2016) said that an English teacher is required two positions to play at the same time: (i) teaching English and (ii) making the learning-learning method as engaging as feasible to get involved students in learning.

The effectiveness of using the web in learning grammar had been proved by some researcher such as; (1) (Ima, 2017) reported that *Instructional Media web-blog* can increase grammar for the Tenth-Grade Students of Senior High School 11 Makassar which were could be known that the average validity of media achieved 4.32 and categorized as a valid media. (2) (D L Saraswati, R N Azizah, D Dasmo, I Y Okyranida, R A Sumarni, 2018) stated that *web-based and e-learning media* can increase in physics in SMA 1 Pusaka Jakarta with suitable criteria of the test material and media experts recover the result that these experts stated 80.8% media created applies to the stable and acceptable to operate by students in school.” (3) (Yunita Sari Putri Hestiningrum, Supriyono, 2019) revealed that *English Keren Rek (EKR) Web Base Quiz Application Model* can increase grammar especially tenses in SMA N 4 Blitar

with before using the model, the average students' achievement was (51) and after using the model it achieved (85.05) this concluded that the product was appropriate and effective to implement for X grade students in the second semester to enrich English grammar achievement.

From the problems faced by the students in three Senior High Schools, the result of previous studies that proved a web-based quiz was effective in teaching and learning grammar. From their product of previous studies, no explanation of the quiz was made. The researchers want to create the product equipped with the explanation and a picture for each question under the title "The Model of Go Gold Generation (3G) Web-Based Quiz for Teaching and Learning Grammar in Senior High School: Research and Development."

2. METHODS

This research employed both qualitative and quantitative approaches. The qualitative approach concern with natural phenomena having data in the type of words (verbal and non verbal) and deeds of humans Afrizal in (Yunita Sari Putri Hestiningrum, Supriyono, 2019).

This would be related to the first phase and the second phase of this research which were policy study, case study (field study), literature study, and design of the development. Meanwhile, the quantitative data include the result of documentation, validation experts, and teachers' and students' responses to know their responses toward the product. Furthermore, the quantitative data include the result of documentation, validation experts, and teachers' and students' responses to know suggestion about the product.

The design of this research was Research and Development that focused on developing Go Gold Generation (3G) web-based quiz as an English teaching and learning media. The researchers adapted Sugiyono's RnD framework as a reference. The adaption has been formulated of three phases, which were: foundational research; design and development; and perception test and finalization into the following framework figure.

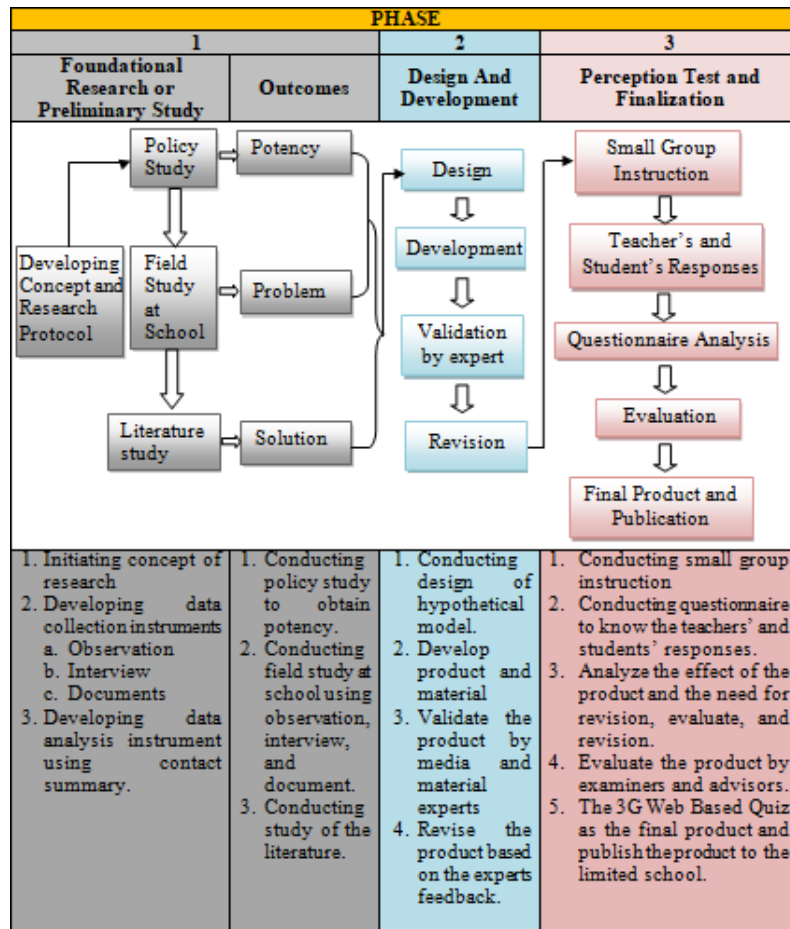


Figure 1. Research framework of 3G Web Based Quiz for teaching and learning grammar, adapted from Sugiyono, (2016: 298).

This framework was elaborated into the following working procedures: Phase one was foundational research contained policy, field, and literature studies. The policy study concerned the analyses of policy to find out the potency. The field study was selected by using the criteria of a field study which was done by using observation, interview, and document to obtain the information on the problem. The literature study was the analysis of research results and theories to find out the solution. Both the policy and literature studies used content analysis. The field study was analyzed by using Miles and Huberman in (Yunita Sari Putri Hestiningrum, Supriyono, 2019) interactive model.

The data collected through three types of observation which were concluded descriptive observation, selective observation, and focused observation. There was analyzed by using observation contact summary after being reduced in the process of analysis from field notes. The data collected through the interview by using purposive sampling to determine the first key informant and snowballing to determined the next keys informant. The interview was conducted by using an in-depth interview through inserting probing. It was to find out the

specific information which was analyzed by using the interview contact summary after being reduced in process of analysis by using the transcription. The data collected through documentation were directly taken from records of students' mean scores and lesson plans.

Based on the result of clarification in phase one, the researchers designed the product by referring to the principles of instructional development which is called the ADDIE Model. According to Aldoobie in (Christian Misobi Budoya, 2019) said that the ADDIE model is one of the most popular models used in the field of instructional design. It supports instructional designers and teachers to create an efficient, and effective teaching design by applying the processes of the ADDIE model. Moreover, Moradmand, Datta, and Oakley, and Ahmadigol in (Christian Misobi Budoya, 2019) stated that ADDIE is an acronym for (1) analysis (2) design (3) develop (4) implement and (5) evaluation. In addition, Generic ADDIE instructional design can handle learning needs.

The second phase was design development. The design development result was validated by Sri Lestanti, S. Kom., M.T, Ni'ma Kholila, M.Cs, and Rini Dwi Kanthi Rahayu, S.Pd as media experts and Miza Rahmatika Aini, SS, MA, Yusniarsi Primasari, M, Pd, and Emi Darwati, M, Pd as material experts. After design validation, the researchers conducted design revision based on validation results.

The third phase was the perception test and finalization. The researchers conducted teachers' and students' responses by using a questionnaire, the subject of this research was taken by using purposive sampling. The subjects were the random teachers and X grade students of SMA Negeri 1 Kesamben, SMA Negeri 1 Ponggok, SMA Negeri 1 Kademangan, SMA Negeri 1 Garum, SMA Negeri 4 Blitar, SMA Alam Al- Ghifari Blitar, and SMA Mambaus Sholihin Blitar to conduct validity and appropriateness. After having the teachers' and students' responses, the product was evaluated by experts by using the evaluation criteria. Upon having approval from all experts, the product was finalized for a senior high school publication.

3. RESULTS AND DISCUSSION

3.1 Result

3.1.1 The Hypothetical Model of Go Gold Generation as a Teaching and Learning Grammar Media for the Tenth Grade Students Senior High Students

The researchers designed the model of the product that would be developed as a solution. In this case, the researchers developed the model of 3G Web Based Quiz for teaching and learning grammar in Senior High school. The hypothetical model of the 3G Web Based Quiz for teaching and learning grammar to the tenth-grade students shown in this figure below:

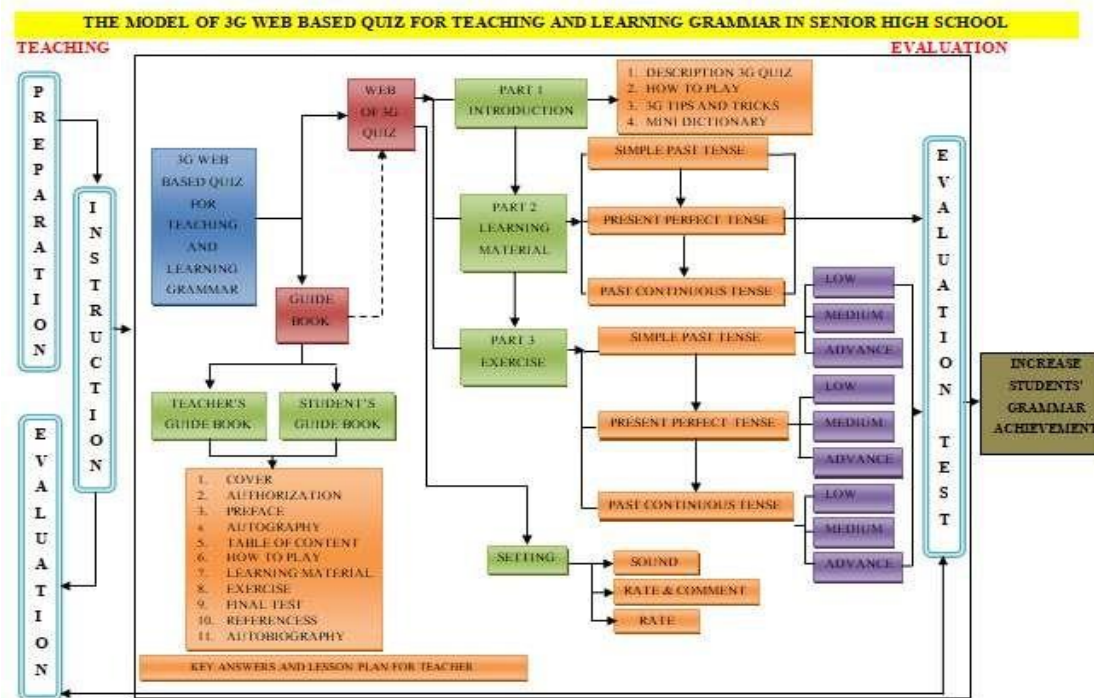


Figure 2. Hypothetical Model of 3G Web Based Quiz by Nurur Riszkasari

3.1.2 The Result of Experts Validation

The researchers conducted the validity and appropriateness of the media and material. The criteria of media validation in this research would cover the following aspects; (1) software, (2) visual communication, (3) form and appearance of the guide book, and (4) usefulness. It was conducted from Tuesday, July 14th, 2020 until Wednesday, July 12th, 2020. The researcher gave the questionnaire directly and online to the 3 experts. The result was calculated based on media experts showed that the media was valid.

Furthermore, the criteria of material validation in this research would cover the following aspects; (1) suitability of material with core competencies and basic competencies, (2) questions, (3) language, (4) usefulness. It was conducted from Tuesday, 14th July 2020 until Wednesday, 15th July 2020. The researcher gave the questionnaire directly and online to the 3 experts. The result was calculated based on the material experts showed that all material and questions were valid. The average of experts validation showed in table 1 as follows.

Table 1. The average experts' validation

	Expert	Component	Σ Score	Percentage (%)	Criteria
1	Media Expert	Media	369	94,93%	Very Valid
2	Material Expert	Content of English Material	317	84,53%	Very Valid
			Average	89,73%	Very Valid

This concluded the product got a good assessment from the experts and the product is feasible to go to the next step.

3.1.3 The Result of Teachers' and Students' Responses

To know the teacher's and students' perception toward the use of the product, the researchers gave questionnaire. The aspect of the questionnaire for teacher includes, (1) display, (2) operation, (3) material, and (4) motivation & usefulness, while for the student includes, (1) display, (2) operation, (3) material, and (4) motivation & usefulness. It was conducted on Tuesday, 21st July 2020 until Friday, 25th July 2020 to the teachers and students of the tenth grade. The result of teachers' and students' responses was shown in table 2 as follows.

Table 2. The average of teachers' and students' responses

No	Expert	Σ Score	Percentage (%)	Criteria	
1	Teachers' Responses	545	90,83%	Very Good	
2	Students' Responses	1747	87,35%	Very Good	
			Average	89,09%	Very Good

The total score is 544 of criteria score 600 and the percentage result of the teachers' responses is 90,6% the value is included $80\% < x \leq 100\%$ and the criteria score is agreed. It means the teachers' responses toward the media were very positive. Furthermore, the total score is 1747 of criteria score 2000 and the percentage result of the students' responses is 87,35% the value is included $80\% < x \leq 100\%$, and the criteria score is agreed.

It means the students' responses toward the media were very positive. The mean score result of teachers' and students' responses were 89,09%. The result of teachers' and students' responses got good criteria, so the web-based quiz is valid, appropriate, and be able to use for teaching and learning grammar to the tenth-grade students second semester in senior high school.

3.1.4 Product Evaluation

The product evaluation was obtained after the researchers have done the validation product and teachers' and students' responses. The researchers got suggestions from the experts, examiners, and advisors for the final product. There was some revision based on comments and suggestions of them, they were; (1) to revise the menu of part 2 learning material that the button "Learning" become "Description", "Exercise" become "Example", and

add the button/icon “Back to Main Menu”, (2) to relieve the exclamation marks in the questions, (3) to change the sticker (front cover, inner cover, flash disk box place, university logo’s in the flash disk box, and the writer’s name and web logo’s), and (4) to change the management class of web.

3.1.5 The Final Model of Go Gold Generation as a Teaching and Learning Grammar Media for the Tenth Grade Students Senior High School

The final model of the 3G web-based quiz model was in the form of a web-based quiz which operated and used softcopy of web quiz file as data and the Xampp 7 as a supplementary application to help it could be run and accessed through google chrome, browser, or scans this QR code or through the link that available. Theoretically, it was the theories of English grammar learning that were contributed to teaching English. This context was enabled that was the increasing grammar occurred because of the presence of visuals. It turned out to confirm the theory of teaching and learning media by (Novawan, 2019) revealed that visual can usually be used to attract and retain the learner’s interest in learning grammar, to help learners understand grammatical rules easily, to illuminate complicated grammatical subjects, and to encourage learners to keep up with teaching materials. The result of this research turned out to confirm the previous study by (Ima, 2017) proved that *Instructional Media web-blog* can increase grammar, (D L Saraswati, R N Azizah, D Dasmo, I Y Okyranida, R A Sumarni, 2018) proved that *web-based and e-learning media* can increase in physics, (Yunita Sari Putri Hestiningrum, Supriyono, 2019) proved that *English Keren Rek (EKR) Web Base Quiz Application Model* can increase grammar achievement especially tenses.

This means that the final model of this research supported these theories, but did not duplicate the theories and previous study concerns. Practically, the final model already experienced improvement during the research based on the field research in situational, such as the requirement of learning materials and some button as part of the product to support the product easy to teach and implemented. Therefore, because this research could be applied in other situations and conditions, but it did not state that the research result made the situation wider in general. Therefore, the product contributed the teaching and learning English practically and helpful teachers and students. Go Gold Generation (3G) web-based quiz model could be applied practically by valuing procedures that were covered of teacher’s preparation to teach such as prepared the lesson plan, understood the media, and how to operate the media, mastery the materials, and used the relevant sources. The final product of this research was shown in this figure below:

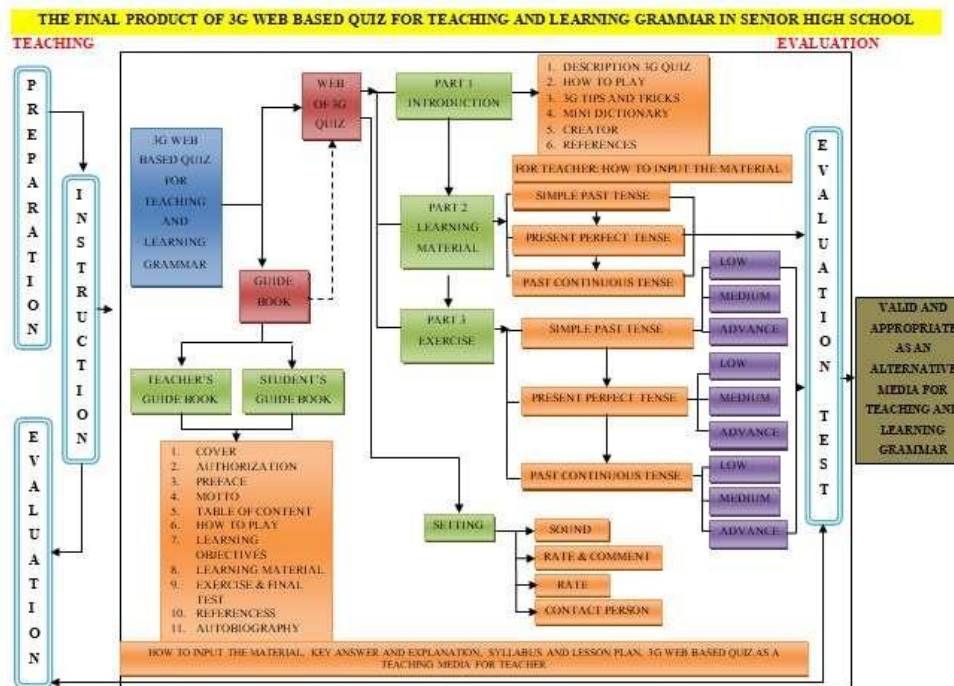


Figure 3. The Final Product of 3G Web Based Quiz for Teaching and Learning Grammar in Senior High School

The product of 3G Web Based Quiz for teaching and learning grammar consist of Web of 3G Quiz which divided into three parts, they were; part 1 (introduction), part 2 (learning), and part 3 (exercise) with additional setting features. Part 1 (introduction) consists of a description, how to play, tips and tricks of 3G web-based quiz, mini dictionary, creator, and references. Part 2 (learning) consists of simple past tense, present perfect tense, and past continuous tense materials with each example. Part 3 (exercise) consists of simple past tense, present perfect tense, and past continuous tense questions with the final test. Setting features which consist of sound, rate & comment, share, and contact person.

Furthermore, the 3G Web Based Quiz also completed with two guide books for teacher and a guide book for students which consist of a cover page (title, level of education and semester, class, writer), preface, motto, table of content, part 1 introduction (description, tips, and tricks, how to play the 3g web-based quiz, mini dictionary, creator, and references), part 2 learning (simple past tense, present perfect tense, and past continuous tense materials with each example), part 3 exercise (simple past tense, present perfect tense, and past continuous tense questions with the final test), setting features (sound, rate & comment, share, and contact person), references, autobiography. Besides, the menu of how to input the material, key answers and explanation, syllabus and lesson plan, 3g web-based quiz as a teaching media are especially just for the teacher.

It turned out to confirm the theory of teaching and learning media by Smedley in (Abaidoo, 2014) who revealed that the use of e-learning in English classroom can give benefit to the the institutions and provide the learners with flexible experience. . Furthermore, Harandi in (Wardoyo, 2016) explained that e-learning influences students' motivation to learn.

3.2 Discussion

Based on the result of expert validation and teachers' and students' responses. It was indicated that 3G Web Based Quiz media with the tenses material, especially simple past tense, present perfect tense, and past continuous tense was valid and appropriate as a teaching and learning media. By the research of (Ima, 2017), (D L Saraswati, R N Azizah, D Dasmo, I Y Okyranida, R A Sumarni, 2018), and (Sari Putri Hestiningrum, Supriyono, 2019) proved that the web very effective, valid, and appropriate to use in the learning process.

The development of the 3G Web Based Quiz was used to teach and learn the tenth-grade students of senior high school for grammar. The process of producing was carried out in stages and to produce the media that valid and appropriate for use in teaching and learning grammar. The validation process was carried out with media and material experts. Besides, the teachers' and students' responses were carried out by six teachers and twenty students in senior high school. After did the validation and teachers' and students' responses are intended to obtain data which is carried out revisions or evaluation to achieve proper and useful teaching and learning media for the user.

The result of validation both media and material got good criteria, it was known that the mean score of the validation was 89,73%. It means that the web-based quiz is very valid and appropriate as an alternative media for teaching and learning grammar to the tenth- grade student's second semester in senior high school. The result of teachers' and students' responses got good criteria, so the web-based quiz is very good and can use for teaching and learning grammar to the tenth-grade student's second semester in senior high school. The average of teachers' and students' responses was 89,09%. It means that the web- based quiz is very good and appropriate as an alternative media for teaching and learning grammar to the tenth-grade student's second semester in senior high school.

4. CONCLUSION

Based on the result presented above, it can be concluded that the model of 3G Web Based Quiz consists of 3 parts, setting features, and two guide books (for teacher and student). The researchers found the mean of media experts was 94,93% and material experts were

84,53% included in the "Very Valid" category. The teachers' responses were 90,85% and students' responses were 87,35% included in the "Very Good". From this result, it could be concluded that the 3G Web Base Quiz was valid, appropriate, and be able to use for teaching and learning grammar to the tenth-grade students second semester in senior high school.

The final stage of this research is the publication of the final product which has received several revisions. The final product that is published is a product that has been fit for use in the learning process which has been proven based on the result of experts, examiners, and advisor's suggestions. The product form is a web-based quiz of tenth-grade students published in product forms, 3G Web Based Quiz, and guidebooks for teacher and student.

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