Effective Teaching and Learning by Using Educational Software

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Abstract

This review was led to foster English training media by utilizing instructive programming to instruct addressing Students of Public Junior High School. The issues of the review were: (1) How English showing media by utilizing instructive programming is created to show talking at Students of Public Junior High School? (2) How successful is English training media by utilizing instructive programming to show talking at Students of Public Junior High School? The goals of the review were: (1) To depict how English showing media by utilizing instructive programming is created to show talking at Students of Public Junior High School. (2) To portray the adequacy of utilizing instructive programming to show talking at Students of Public Junior High School. The creator directed the concentrate through innovative work (R&D) as the technique for the review which created items and estimated the viability of the turn of events. The aftereffects of the review showed that English showing media by utilizing instructive programming was successful and proper to instruct addressing middle school understudies. It was upheld by the aftereffects of the autonomous example t-test showed the worth of t-acquired was - 10.422. At the importance level $p< 0.05$ for the two-followed testing with the level of opportunity 27. The basic worth of the t-table was 2.052. One might say that there was altogether unique and compelling among pre and post-test. Consequently, instructive programming was successful for learning English and it very well may be applied in the educating and educational experience at Junior High School.

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INTRODUCTION

In English, four language abilities ought to be dominated: tuning in, talking, perusing and composing. From the abilities, talking is the most troublesome on the grounds that figuring out how to communicate in another dialect is difficult. It is as expressed that talking isn't simply to complete the sounds or words since expressing is an instrument to communicate the thoughts are ready to be created to the necessities of audience members [1]. Thus, the speaker ought to have the option to successfully pass on to the audience members mind with the goal that the audience can figure out the importance conveyed by the speaker. Student can scarcely comprehend anything by any stretch of the imagination, except if the speaker is discussing things the student is noticing, or except if the language being learned is firmly connected with some other language the student knows

Training understudies to communicate in English is a troublesome thing to do by the English educators. The hypothesis of showing talking in the accompanying: "Oral abilities have barely been ignored in EFL/ESL courses (witness the tremendous number of discussion and other talking course books on the lookout), however how best to move toward the educating of oral abilities has for quite some time been the focal point of strategic discussion."

In light of the hypothesis above, educators ought to have the option to really convey his considerations. Thus, the instructors ought to know what is happening of the discussions, both for the most part and independently [2].

Since this study is centered around creating English helping media to show talking ability, so the creator would find the issues which connected in the media and the parts of talking. Consequently, it is vital to know the viability of involving media in a learning action to obtain the information, abilities, or mentalities. In the future, those are additionally a few issues would be established in the parts of talking that would be seen by the creator. Those are familiarity, sentence structure, jargon, articulation, and cognizance [3]. A customary game will be down that comes from the practice and culture in each district in Indonesia. As such, all areas in Indonesia have their own customary game. On other hand, conventional game is the exercises that develop and foster in a specific region, which is wealthy in social qualities and given over through the ages and contains the qualities, for example, "great", "positive", "worth" and "attractive". It is as that the game is each setting between the players who collaborate with one another by keeping specific guidelines to accomplish specific objectives also [4]. Game instrument is all the play devices are utilized by the kids to satisfy their playing impulses and have different properties, for example, dumping, gathering, joining, searching for coordinating, hanging, molding, idealizing a plan, or incorporating as per their unique structure. These varieties additionally happen as various instructive programming game. Instructive programming game typically played by 2 to 5 young ladies and directed in an open region.

Talking is a cycle during which speakers depend on all the accessible data (foundation and semantic) to make messages that will be reasonable and significant to the target group. It is as expressed that the elements of talking is the sorts of purposeful demonstrations a language client can perform through discourse, for example, alluding, mentioning, and making sense of. The meaning of the ability to talk comprised of an etymological portrayal perceiving two significant parts: exactness (i.e., elocution, sentence structure, and jargon). It is as expressed that familiarity is the capacity to peruse without a hitch, effectively, and promptly with independence from acknowledgment issues. Creating implies attempt to have further developed political and financial frameworks and instructive innovative work alludes to an efficient cycle for creating and approving an instructive item. Media is the middle person connect which is situated between the two gatherings, or method for correspondence like paper, magazines, radio, TV, film, banners, and flags. There are three components of game as follows: (1) game as an inclination, (2) games as a unique situation, and (3) games as a way of behaving that can be noticed, game is a term that implies any action embraced for delight created, no matter what the end-product. The entire framework and construction of a language or of dialects by and large, normally taken as comprising of sentence structure and morphology (counting expressions) and at times likewise phonology and semantics. The terms jargon, lexis and vocabulary are interchangeable [5].

In view of the meeting was directed by the creator to the English educator and understudy. The creator discovered a few issues in English educating and learning action. The issues were the educator's concerns and understudies' concerns. The first was the issues looked by the English educator [6]. The issues were the understudies' capacity in understanding the materials and communicating in English. The educator dealt with certain issues in showing talking, like elocution, syntax, jargon dominance, and familiarity. The second was the issues looked by the understudies. The issues were the educator seldom involved the media in the homeroom, a few understudies didn't concentrate when the instructor made sense of the materials, the understudies didn't comprehend about the materials were made sense of by the instructor, understudies were challenging to communicate in English, and understudies' inspiration in learning English was low.

Other than that, the creator additionally got some information about the media ought to be produced for language learning, particularly for showing talking since she felt that talking ability is the hardest expertise that ought to be dominated by the understudies. Then again, the creator got some information about the media that are most preferred by the understudies. The understudies preferred pictures, music, and games which can be utilized inside and outside the homeroom. The understudies said the media would be created by the creator ought to have the option to work on understudies' talking skill. So the understudies would handily work on communicating in English.

Hence, the creator was keen on directing a review entitled: Developing English Teaching Media by Using Educational programming to Teach Speaking to Students of Public Junior High School.

METHOD

In creating English training media by utilizing instructive programming to instruct addressing the understudies of Junior High School, the review utilized the R and D methodology. Innovative work is an industry-based improvement model in which the discoveries of the exploration are utilized to plan new items and methods, which then, at that point, are deliberately field-tried, assessed, and refined until they meet determined rules of viability, quality, or comparative principles [7].

Hence, Research and Development (R and D) in training is the cycle used to create and approve instructive items. So the target of this study was to the introduction of another item or improvement of old items to upgrade the exhibition of schooling, this intended that through the aftereffects of Research and Development (R and D) of this review was supposed to be more compelling instructive interaction and/or following requests.

Innovative work (R and D) model in creating English showing media by involving instructive programming as a bunch of procedural advances was led by the creator. Thusly, the creator involved seven basic moves toward directing this review.

Technique for Analyzing the Data

In this part, the author explained the technique for analyzing the data by using the formula. The formula used to analyze the questionnaire and the test. In this study, the data was analyzed by using questionnaire. To analyze the data from the questionnaire, the author used percentage analysis. The formula was as follow:

$$\mathrm{P} = \frac{\mathrm{F}}{\mathrm{N}} \mathrm{X}100\%$$

Next the test was analyzed for measuring the effectiveness of this study. On this step, the author applied pre-experimental single case and post-test design. The author used the SPPS 20 (Statistical Package for Special Science) program. Next, the results of pre and post-test were calculated by using this formula:

$$t = \frac{\overline{x_1} - \overline{x_2}}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2} - 2r\left(\frac{s_1}{\sqrt{n_1}}\right)\left(\frac{s_2}{\sqrt{n_2}}\right)}}$$

Moreover, the author used paired sample t-test by using SPSS 20.0 (Statistical Package for Special Science). In this study, normality test was not used because the test was in the form of oral test so that the author only calculated the statistical test to know the effectiveness of using the media were related on students' speaking ability.

In calculating the data by using SPPS 20.0, the author performed three stage of statistical process. The first was paired sample statistics to find the mean (average) between pre-test and post test, standard deviation and standard error of mean. The second was paired sample correlations to find correlation strength of both sample and sig value. The last was paired sample test to look for difference test of paired sample mean, standard deviation, standard error of mean, the highest and lowest interval value. So t-obtained was counted then matched to two-tail test of t-table.

Findings and Discussion

The presented the findings of the study from interviews, tests and questionnaires. The author carried out research and development of English teaching media by using educational software to teach speaking to Students of Public Junior High School as place of preliminary research and tried out the media.

The first was Interview. Interview was conducted by giving a number of questions to English teachers and students. By conducting interview, the authorobtained the necessary data accurately. After obtaining the data of the interview result, the author analyzed and interpreted it by detailing it.

The second was questionnaires. The data was collected not only from the results of test, but also from the results of the questionnaires were given to the students. The questionnaire were given to the students consisted of 15 questions which was related to students' speaking ability and the use of English language learning media in the classroom [8]. The questionnaire asked developing English teaching media by using educational software to Students of Public Junior High School especially the students of class VIII was consisted of 28 people as the sample of the study.

The third was test. The author analyzed the output of paired sample test. Based on the output, mean of paired differences was -12.500, standard deviation of paired differences was 6.3465, standard error of mean of paired differences was 1.1994 with 95% confidence interval of the difference of lower interval was -14.9609 and upper interval of differences was -10.422. Then, the test statistics showed Sig. value of 2-tailed of t-table was 0.0001 and coefficient $\alpha = 0.05$ with -T score = - 10.422 and T table = 2.052. It can be inferred, because the value of Sig. <A or -T score < T Table then the decision was to receive H0 (Null Hypothesis).

In other words, there were significant and influential differences from the pre-test and post-test results, so the "Educational software" learning media was effective for learning English and this media can be applied in teaching and learning process at Junior High School.

The Results of Feasibility Test of Media

The plausibility test was completed by the group of specialists. They were two speakers and English instructor of Students of Public Junior High School. Coming up next was the aftereffect of plausibility trial of the "instructive programming" which was created by the creator and the assessment [9].

Based the aftereffect of the plausibility tests was approved by the specialists. It was gotten the level of media plausibility of the principal master was 73.39% (Good), second master was 80.64% (Excellent) and the English educator was 90.32% (Excellent). To find the typical score of attainability test score among three specialists. So the creator determined by adding the three outcomes and isolated by the absolute specialists. So the end-product was 81.45% with class "Phenomenal". It tends to be reasoned that "instructive programming" was created by the creator was generally excellent and can be utilized for talking and applied learning or it very well may be derived that the media was legitimate and plausibility to be utilized in Junior High School.

Developing Media

In this review, the creator created 5 items as instructive programming. They were instructive programming box, instructive programming pennant, coin, numbered card and the educator's manual. First was Educational programming box. Instructive programming box was planned by the creator to bundle instructive programming pennant, coin, numbered cards and educator's manual to look alluring and very much secured. The creator planned instructive programming to draw and utilize the space subject to make the instructive programming box look appealing to understudies. Second was instructive programming flag. Instructive programming flag was planned by the necessities of middle school understudies who love intelligent learning media in English language advancing particularly talking learning. Instructive programming pennant was planned as per a foreordained subject of room and utilized materials that were not difficult to utilize, waterproof, strong and simple to store. In this way, the creator involved flag as the fundamental part of instructive programming pennant. Third was coin. This coin was planned with a particularly fascinating and round shape with a width of 6 centimeters. This coin was made of lightweight wood material that has been smoothed and afterward painted utilizing red base tone and on the two sides the creator covered it with a space-themed sticker paper to make the coin looked alluring [10]. Fourth were the numbered cards. The numbered cards were planned by the creator curiously. The creator utilized some movement pictures and on the front perspective on the card, the creator planned with fascinating utilizing numbers from 1 to 10 with an intriguing plan. Then, at that point, the creator covered the cards were overlaid by utilizing plastic. What's more, the latter was the educator's manual. Instructor's manual was planned by the creator. The writer initialed the idea, formed the compositions, and the planned the educator's manual. In other hand, the creator was helped by benefactor who had the option to print the sticker and photograph paper. The patron additionally assisted the creator with working "Windows Photo Viewer" as the product was utilized in the design of the media.

CONCLUSION

During the time spent creating English showing media by utilizing instructive programming, the creator utilized Research and Development (R and D). On account of R and D task, under-graduate understudies might take limited scope projects were restricted R and D cycle. Accordingly, in this study the creator improved on the pattern of instructive Research and Development. They were exploration and data gathering, arranging, creating starter item, principal item update, primary field testing, second item correction, and delivering the end result.

In this review, the creator created English showing media as instructive programming. The media was created by the creator have been approved by the specialists to know the legitimacy of the media. The media have been created by the creator were instructive programming pennant, the coin, educator's manual, numbered cards were viable and proper for showing talking ability to Students of Public Junior High School.

The writer might want to give a few ideas to the English instructors, the understudies, and the perusers. The first is to The English educators. English educator ought to utilize fascinating learning media to further develop understudies' talking ability, for example, Educational programming which was created by creator. The second is to the Students. Understudies should effectively rehearse in learning English and ask the educator by utilizing English. The latter is to the perusers. The perusers would involve the consequences of this review and make it as a source of perspective for additional review and the utilization of English learning media in the educating and growing experience of English ought to be gotten to the next level.

REFERENCES

[1]. Barbosa, R., & Souza, R. (2021). Drivers and Indicators of Innovation to Educational Software. *Informatics in Education*, *20*(1), 1-17.

[2]. Chabay, R. W., & Sherwood, B. A. (2021). A practical guide for the creation of educational software. In *Computer-Assisted Instruction and Intelligent Tutoring Systems* (pp. 151-186). Routledge.

[3]. Cáceres-Narrea, F. L., Castillo-Santa María, I., Quipas-Bellizza, M. M., Rodríguez-Saavedra, L., & Villegas-Rivas, D. (2021). JCLIC Educational Software as a Teaching Resource to Improve Learning of Early Education Students. *Review of International Geographical Education Online*, *11*(6), 1047-1057.

[4]. Pérez Quichimbo, S. M., Barrera Quimbita, E. D., NavasMoya, M. P., &López Chico, X. (2022). Edufarmy: A Multisensory Educational Software System that Improves the Learning of Children with Dyslexia Using the Orton-Gillingham Approach. In *International Conference on Innovation and Research* (pp. 450-463). Springer, Cham.

[5]. Purnama, Y., Herman, F. A., Hartono, J., Suryani, D., &Sanjaya, G. (2021). Educational software as assistive technologies for children with Autism Spectrum Disorder. *Procedia Computer Science*, *179*, 6-16.

[6]. Leddo, J., & Liang, I. (2021). Incorporating Abstract Knowledge Structures in Machine Learning: Improving Question Answering, Problem Solving and Teaching in Personal Assistants and Educational Software. *International Journal of Social Science and Economic Research, 6 (2), 661*, *673*.

[7]. Rodríguez-Muñiz, L. J., Burón, D., Aguilar-González, Á.,&Muñiz-Rodríguez, L. (2021). Secondary mathematics teachers' perception of their readiness for emergency remote teaching during the COVID-19 pandemic: A case study. *Education Sciences*, *11*(5), 228.

[8]. Hossein-Mohand, H., Trujillo-Torres, J. M., Gómez-García, M., Hossein-Mohand, H., & Campos-Soto, A. (2021). Analysis of the use and integration of the flipped learning model, project-based learning, and gamification methodologies by secondary school mathematics teachers. *Sustainability*, *13*(5), 2606.

[9]. Kaimara, P., Fokides, E., Oikonomou, A., &Deliyannis, I. (2021). Potential barriers to the implementation of digital game-based learning in the classroom: Pre-service teachers' views. *Technology, Knowledge and Learning*, *26*(4), 825-844.

[10]. Sharipovich, R. K. (2021). Methodology for using software in the process of teaching mathematics in general education schools. *Academy*, (1 (64)), 83-85.