

## Primary Teachers' and Students' Perception on the Use of ICT-Based Interactive Game in English Language Teaching

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### Abstract

*This study aimed at investigating (1) the teachers' perception on the use of ICT-based Interactive Game in teaching English, and (2) the perception of the sixth graders on the use of ICT-based Interactive Game toward their learning motivation and English achievement. Methodically, this study was quantitative research in which survey was employed. In order to collect the data, different questionnaires were administered primarily as the instrument both for teachers and students. The samples of this study were 6 English teachers and 152 students of the sixth grade in 6 primary schools in Sukasada District, Buleleng Regency. Prior to data analysis, the results of this study were computed by finding out the percentage of each item and its average in order to withdraw the conclusion descriptively. The results were (1) there was a positive perception of the teachers with regard to the use of ICT-based Interactive Game in teaching English to the sixth grade of primary schools in the cluster IV and V in Sukasada District and (2) there was positive perception of the students on the use of ICT-based Interactive Game toward their learning motivation and English achievement.*

**Keywords:** English Achievement, ICT-based Interactive Game, Learning Motivation, Perception

### 1. Introduction

English is increasingly important in the world as an international language. The global development in the 21<sup>st</sup> century is largely marked by the extensive use of a particular language that is English as lingua franca among most people across the globe. This phenomenon has promoted the significance of English as a means of communication in most countries in the world, since it has become the most dominant language in the world (Ghanizadeh & Razani, 2015).

In fact, English is differently used in most countries as their first language, second language, or foreign language. English is then assumed as being an important subject that must be taught in schools. Considering the importance, English has led Indonesia government to bring English in the earlier ages since 1994. The introduction of English in primary schools has taken place into the attempt in accelerating the improvement of human resources. However, there is a number of problems with this action appeared. Teachers were limited in using teaching media especially ICT, consequently, in designing the activity, mostly teachers use conventional method in which textbook oriented learning is the common one. Those problems as the facts proved by (Ni Made Ratminingsih, 2010) who found that some teachers in Buleleng and Sukasada district, Buleleng regency generally adopted the conventional teaching technique in which a more deductive learning of teaching grammar and vocabulary becomes the main characteristics of learning. In addition, she also found that, mostly the learning process was teacher centered in which teachers play dominant roles in classroom.

As the result, students tend to get bored instead of actively involves in language learning especially English language learning. This has led students' learning motivation and learning achievement was low. In this study, learning motivation classified into 3 dimensions, achievement goals, self-efficacy, and active learning strategies (Tuan, Chin, & Shieh, 2005). While human learning achievement as in Bloom's taxonomy is comprised of cognitive, affective, and psychomotor domain (Wilson, 2013).

Dealing with these problems, government institution should take into account in improving primary English teachers by giving training specifically to English language teaching. As supposed, as been conducted by Universitas Pendidikan Ganesha, in this case executed by (N.

M. Ratminingsih & Mahadewi, 2016) who developed teaching media and gave in-service training program about ICT in English language teaching to primary English teachers in cluster IV and V in Sukasada District, Buleleng Regency. A survey study was then conducted through this program by (Ni Made Ratminingsih, 2016) after the training. Considering the result, she proposed that teachers should be given regular and continuous training programs for the purpose of enhancing their competence especially in teaching English for young learners (TEYL).

Other experts state that teachers should not rely on material that will be taught only. It is necessary for the teachers to consider the characteristics of the learners who are taught in order to have a successful and meaningful learning (Juhana, 2014) (Ebrahimi & Zamanian, 2014). (Juhana, 2014) obviously notes that "the important thing to know further about the young learner's characteristics is to have effective teaching such as teaching style, methods, learning materials, lesson plan, and the way of getting along with them." According to Harmer (2007), age of learners plays crucial role which influences the effectiveness of teaching. He states that young learners have a short attention span: they can easily get bored after 5-10 minutes. Additionally, (Ersoz, 2007) also notes that young learners have low concentration whose tend to play rather than learning.

In a line with that (Gürsoy, E., & Korkmaz, 2012) argue that young learners like to interactive activity such as playing games while they are learning. They are active learners who tend to learn new language or pattern while they are playing and having fun with movement (Ni Made Ratminingsih, 2012). Hence, an appropriate media in teaching young learners which is interactive to attract young learners' attention and engagement is very important for teachers to implement. This is also stressed by (Sanjaya, 2008) who explains that teaching media becomes greatly important which influences the successful of learning. In this study, one of the teaching media proposed is ICT-based Interactive Game (N. M. Ratminingsih & Mahadewi, 2016).

The role of Information and Communication Technology (ICT) has become more diverse within teaching over the last two decades. Lim in (Ziden, Ismail, Spian, & Kumutha, 2011) states that the use of ICT in teaching and learning allows students to be active in finding information and build knowledge from information. Moreover, a study conducted by (Ziden et al., 2011) found that ICT in education could give improvement to students' achievement in their learning outcomes. This is also strengthened by (Moore, 2005) who discovered that ICT had positive impact of ICT on pupils' learning such as increased students' motivation to stay on-task and lead them to be better in behaving and producing high quality work. Specifically, (Fu, 2013) argues that ICT in the education context refers to the use of several devices, including computers, internet, and electronic delivery systems such as radios, televisions, and projectors among others. Therefore, since ICT is being applied successfully in instruction and learning, nowadays ICT is considered a powerful tool for educational change and reform (Fu, 2013).

In addition, it would be greater to combine between game and ICT in language learning. According to (Yolageldili & Arikan, 2011), games have become crucially important for English language learners and teachers, not only because they provide enjoyment and relaxation, but also as they encourage students to use their language in a creative and communicative manner. Empirically, using games in teaching could enhance students' motivation, confidence, and vocabulary acquisition, (Wang, Shang, & Briody, 2011), improved students' engagement and concentration (Hamari et al., 2016), and increased student engagement, experience and achievement (Leaning, 2015). Specifically in English language learning, (Tengku Mohamad Maasum, Mustafa, & Stapa, 2015) in their research also found that games had a positive impact on students' learning. Their finding indicates that pupils had positive perceptions on learning English using games. Moreover, (Ebrahimi & Zamanian, 2014) in their findings showed that using language games had significant effect on vocabulary retention of the elementary EFL learners. Another study conducted by (Boeker, M., Andel, P., Vach, W., & Frankenschmith, 2013), discovered that teaching using Game based E-learning (GbEI) had significantly better than using script method. This is also proven by the finding of (Badea, 2015) who teachers' perception was positive on the effectiveness of using games in teaching grammar and vocabulary.

Henceforth, teachers in conducting an effective teaching are demanded to be effective in teaching English to the students especially for young learners. One of them is by using game specifically ICT based interactive game as an interactive teaching media in this study. In this case, ICT-based Interactive Game is the game in the form of interactive slideshow in Microsoft Office Power Point presentation program. This game is offline and made up of pictures, sounds, animation, graph, and language element (letter, words, phrases, and sentences). The material in the game is thematic based, following the material of English subject in elementary schools, especially of the fourth, fifth, and sixth grade developed by (N. M. Ratminingsih & Mahadewi, 2016) as the new media in teaching English for young learners in cluster IV and V in Sukasada District, Buleleng Regency.

Based on the problems and studies proposed abovementioned, it is greatly necessary to investigate the perception of the teachers and students in conducting teaching and learning process by using ICT-based Interactive Game. By this study, it will give a view that games specially ICT based Interactive Game whether or not gives impact on the success of the game as appropriate teaching media to increase students' learning motivation and English achievement. Thus, as the study under the umbrella of (N. M. Ratminingsih & Mahadewi, 2016), the researcher investigated further about (1) the teachers' perceptions on the use of ICT-based Interactive Game in teaching English to the sixth grade of primary schools in cluster IV and V in Sukasada District in the academic year 2016/2017 and (2) investigating perceptions of the sixth graders on the use of ICT-based Interactive Game toward their learning motivation and English achievement in primary schools in cluster IV and V in Sukasada District in the academic year 2016/2017.

## 2. Method

This study was conducted in primary schools in the cluster IV and V in Sukasada District. Prior to time, this study was done in even semester in the academic year 2016/2017. Specifically, there were six schools which became the place where the data obtained, i.e. SDN 1 Sukasada, SDN 2 Sukasada, SDN 3 Sukasada, SDN 1 Panji, SDN 2 Panji, and SDN 3 Sambangan. The design of this present study was quantitative in which survey was used as a method to collect the data. Basically, survey is quantitative research employed to obtain or identify trends, opinions, behaviors, or characteristics of a population through sample (Creswell, 2012; (Noor, 2011)). The population of this study was 6 English teachers and 152 students of the sixth grade in primary schools in two clusters (cluster IV and V) in Sukasada District, Buleleng Regency in the academic year 2016/2017 especially in cluster IV. This study used non-probability technique sampling especially saturated sampling technique. Therefore, since there was a limited number of population, all of the population number was treated as the sample (Noor, 2011).

This study primarily used questionnaires as the instruments to collect the data, therefore, the method was questionnaires administration. Considering the language proficiency of the respondents, the questionnaires were presented in the form of Indonesian language. There were three questionnaires employed in this study namely one questionnaire for teachers and two questionnaires for students (learning motivation and English achievement). The questionnaire used to measure the teachers' perception toward teaching English by using ICT-based Interactive Game was developed from (Sanjaya, 2008) theory comprising of five dimensions namely: objectives, teaching material, students' interest, needs, and condition, effectiveness and efficiency, and ability to operate.

Furthermore, the questionnaire used to determine students' perception on the use of ICT based Interactive Game toward their learning motivation was developed from the theory of (Tuan et al., 2005), covers three dimensions, achievement goals, self-efficacy, and active learning strategies. Finally the questionnaire used to determine students perception on the use of ICT based Interactive Game toward their English achievement was developed from the Bloom's theory in Wilson (2013). In this case, there were two domains measured, cognitive and psychomotor domain. In addition, the questionnaires used closed-ended statements both for teachers and students. The questionnaires were originally designed, using Likert scale containing 3 scales of range, namely 1 (disagree), 2 (undecided), and 3 (agree). Additionally, all

of the respondents of this study responded to each item by giving check mark (√) in the scale provided.

To analyze the content validity of the instrument, before the instruments were administered, the researcher inquired two expert judges to examine the items appropriately in relation with the dimensions. The results were then analyzed by using Gregory's formula to obtain the content validity of the instrument. Afterwards, all of the instruments showed high level of content validity (1.00, 1.00, and 0.93). Thus, since all the values are higher than 0.70, it can be inferred that the instruments are valid. The data from the tried out instruments were analyzed by using Ms. Excel Program to attain the *Pearson Product Moment* in which the critical value used was 0.344 for the students' questionnaire and 0.361 for the teachers. Afterward, from 30 items of the teachers' questionnaire, there were 10 items invalid, therefore, there were only 20 items employed to collect the data. Meanwhile, from the 30 items in the students' questionnaire on learning motivation, there were 6 items invalid, hence the complete instrument consisted 24 items only. At last, students' questionnaire used to measure students' English achievement which included 28 items in try out, there were 4 items invalid after the result computed accordingly. Consequently, there were only 24 items ready for collecting data. The reliability of the instruments which were administered both for teachers and students were analyzed by using SPSS 17.0 program in order to gain the Cronbach Alpha coefficient. As results, the reliability coefficient of teachers' questionnaire was 0.84, the students' questionnaire on learning motivation was 0.84, and students' questionnaire on English achievement was 0.88. These results showed that all instruments exceeded 0.79, meaning that they were in very high level of reliability.

In analyzing the obtained data, the researcher used Microsoft Office Excel Program in order to gain descriptive statistical result. Both teachers' response and students' response in the questionnaires were computed to find out the percentage prior to the Likert scale of each option. The percentage was calculated for each items comprising of three parts namely in term of "agree", "undecided", and "disagree". Afterward, the percentages were then computed in order to obtain the average percentage of each response overall. From the average of the percentage, the conclusions were drawn accordingly whether the perception was positive or negative toward the use of ICT-based Interactive Game in teaching English (for teachers' questionnaire) and both dealing with students' learning motivation as well as students' English achievement (students' questionnaires)

### 3. Results and Discussion

#### a) Teachers' Perceptions on the Use of ICT-based Interactive Game in Teaching English

To answer the first research question, a questionnaire used to assess teachers' perceptions was administered for the 6 English teachers. The following are the teachers' response on the use of ICT-based Interactive Game to teach English seen from the theory suggested by (Sanjaya, 2008).

**Table 1.** Teachers' perception on the use of ict-based interactive game in teaching English

Dimensions	Number of Items	Teachers' Response		
		Agree (%)	Undecided (%)	Disagree (%)
Objectives	1	100.00	0.00	0.00
	2	100.00	0.00	0.00
	3	100.00	0.00	0.00
	4	100.00	0.00	0.00
	5	100.00	0.00	0.00
	6	100.00	0.00	0.00
Teaching material	7	83.33	16.67	0.00
	8	100.00	0.00	0.00

Dimensions	Number of Items	Teachers' Response		
		Agree (%)	Undecided (%)	Disagree (%)
Students' interest, needs, and condition	9	100.00	0.00	0.00
	10	100.00	0.00	0.00
	11	100.00	0.00	0.00
	12	100.00	0.00	0.00
	13	100.00	0.00	0.00
Effectiveness and efficiency	14	100.00	0.00	0.00
	15	100.00	0.00	0.00
	16	100.00	0.00	0.00
Ability to operate	17	100.00	0.00	0.00
	18	100.00	0.00	0.00
	19	100.00	0.00	0.00
	20	100.00	0.00	0.00
Average		99.17	0.83	0.00

From table 1, starting from the first dimension, all respondents gave their agreement to the use of game which is directed to reach the objectives of the learning itself. In a line with the first dimension, the third, the fourth, and the fifth dimension showed the similarities in terms of the number of the percentage. In fact, 100.00% from the total number of the English teachers agreed that ICT-based Interactive Game in relation with those dimensions. However, there is an exception for item number 7 concerning on the second dimension in which one teacher was doubtful whether or not the media, ICT-based Interactive Game is suitable with the teaching material in the sixth grade in term of English complexity. In other words, this item was responded positively by 5 teachers (83.33%) from the total number of respondents. To conclude the overall findings on teachers' perception, as shown in table 4.1, the average of each response was (0.00%) teacher disagreed with all of the items, 0.83% were doubtful, while 99.17% agreed that the use of ICT-based Interactive Game is suitable with the principle of the use of media in learning process.

#### b) Students' Perception on the Use of ICT-based Interactive Game toward Learning Motivation

After it was employed and computed, the results were presented in the following table.

**Table 2.** Students' perception on the use of ict-based interactive game toward learning motivation

Dimensions	Number of Items	Students' Response		
		Agree (%)	Undecided (%)	Disagree (%)
Achievement Goals	1	96.05	3.95	0.00
	2	86.84	13.16	0.00
	3	86.18	13.82	0.00
	4	84.21	15.79	0.00
	5	87.50	10.53	1.97
	6	82.24	15.79	1.97
	7	67.11	32.23	0.66
Self-efficacy	8	67.11	30.92	1.97
	9	74.35	23.68	1.97
	10	64.48	30.26	5.26
	11	80.92	17.11	1.97
	12	73.68	25.66	0.66

Dimensions	Number of Items	Students' Response		
		Agree (%)	Undecided (%)	Disagree (%)
Active learning strategies	13	74.35	20.39	5.26
	14	69.08	26.97	3.95
	15	55.92	39.47	4.61
	16	62.50	28.29	9.21
	17	61.84	35.53	2.63
	18	90.13	8.55	1.32
	19	66.45	26.32	7.23
	20	63.82	20.39	15.79
	21	84.87	12.50	2.63
	22	84.21	13.16	2.63
	23	70.39	25.6	3.95
	24	80.26	9.87	9.87
Average		75.60	20.83	3.56

It was discovered that 75.60% from the total number of students give their agreement on the use of ICT-based Interactive Game could enhance their motivation in English language learning. Moreover, 20.83% from 152 students were doubtful about the use of the game the total number of students who disagree was 3.56%.

### c) Students' Perception on the Use of ICT-based Interactive Game toward English Achievement

Similarly with learning motivation questionnaire, this questionnaire was also administered to 152 students from 6 primary schools then. Subsequently, after it was calculated, the results were presented in the following table.

**Table 3.** Students' perception on the use of ict-based interactive game toward English achievement

Dimensions	Number of Items	Students' Response		
		Agree (%)	Undecided (%)	Disagree (%)
Cognitive	1	86.18	13.82	0.00
	2	80.92	19.08	0.00
	3	76.97	23.03	0.00
	4	81.58	18.42	0.00
	5	63.81	35.53	0.66
	6	73.69	23.68	2.63
	7	78.29	19.08	2.63
	8	78.95	19.08	1.97
	9	79.60	19.08	1.32
	10	81.58	16.45	1.97
	11	62.50	36.84	0.66
	12	80.92	19.08	0.00
	13	84.87	15.13	0.00
	14	57.89	40.79	1.32
	15	61.18	38.16	0.66
	16	76.32	22.36	1.32
	17	61.18	35.53	3.29
	Psychomotor	18	75.00	23.68
19		76.32	23.02	0.66
20		57.89	39.48	2.63
21		57.89	40.14	1.97

Dimensions	Number of Items	Students' Response		
		Agree (%)	Undecided (%)	Disagree (%)
	22	67.76	30.92	1.32
	23	84.21	13.16	2.63
	24	88.16	11.18	0.66
Average		73.90	24.86	1.23

From the finding above, it can be inferred that the average percentage was 73.90% for agree, 24.84% not decide, and 1.23% disagree, meaning that the majority of the respondents agreed on the use of ICT-based Interactive Game which could enhance their English achievement.

The results above show the different response both teachers and students in the sixth grade of primary schools in the cluster IV and V in Sukasada District seen from the average of the percentage of all respondents. Teachers' perception on the use of ICT-based Interactive Game in teaching English to young learners was positive. It means that the great majority of English teachers agree the implementation of game in the learning process is suitable with the five principles of the use of teaching media proposed by (Sanjaya, 2008). Concerning on the first dimension related with the media function, it is very obvious that all English teachers agreed that the game is relevant with the learning objectives. These finding describes that game used in teaching are not essentially as entertaining device or do not merely to ease the teachers in delivering material, yet, game is used accordingly to gain the objectives of learning (Sanjaya, 2008).

The high percentage shows of the teachers agreed on the use of game which supports the learning objectives especially English. In other words, game is believed as useful media in order to accomplish the objectives of learning. This finding supports the theory of Lengelling and Malarcher as cited in (Mahmoud & Tanni, 2014) who argue that game must have an objective to be effective and useful in the process of teaching and learning English. In term of the relevancy of the media (game) with teaching material, it also gained high number of percentage. Since the game is thematic based, designed by following the themes being learnt by the elementary schools students (N. M. Ratminingsih & Mahadewi, 2016), therefore the teachers perception was positive in relation with the teaching material. This current finding has very strong relation with a variable of a research done by (Koh, E., Kin, Y. G., Wadhwa, B., & Lim, 2012) who discovered teachers' perception was positive on the relevancy of game with material taught. Besides that, this finding in a line with the argument by Lengelling and Malarcher as cited in (Mahmoud & Tanni, 2014) in which game should be related with the content of the lesson being learnt. The next dimension is something to do with students' interest, needs, and condition.

By considering the result of some studies before, it is believed that game is clearly suitable with students' characteristic especially young learners. As stated that young learners prefer to interactive activity such as playing game while they are learning (Gürsoy, E., & Korkmaz, 2012). This stresses the finding that the game is relevant with students' characteristics who like playing as noted by (Ersoz, 2007) that young learners have low concentration and tend to playing rather than learning. Thus, in this case, according to the finding, all of the respondents agreed that the teaching media (game) could accommodate the learners' interest, needs, and condition. This empowers a study by (Mahmoud & Tanni, 2014) who found that games could help the learners to sustain their interest in learning. Considering the effectiveness as well as the efficiency of game, the use of ICT-based Interactive Game was perceived positively by the English teachers. Most of them believed that game used in teaching English is effective to reach learning objectives.

They agreed that the implementation of game is not wasting time in the learning process or not only an entertaining media however it is useful in order to obtain the objectives. As the game was created simply by considering the level of English proficiency of the students, it is not a peculiarity that the respondents agreed on the practical use of game in teaching English. So

then, this finding emphasizes the research conducted by (Allsop & Jessel, 2015) who withdrew the conclusion from their findings that game-based learning is an effective tool for teaching. In a line with that, (Mahmoud & Tanni, 2014) also inferred that games are effective as energizer and educational tool. They note that game can provide enjoyment, pleasure intense, passionate involvement, structure, and motivation among other benefits for the students. The last dimension is about based on teachers' ability to operate the game. Based on the finding above, the teachers think that ICT-based Interactive Game is appropriate with their skill in using technology. Basically, this game was designed by using Microsoft Power Point Presentation program. Therefore, the operation is very simple. Since then, all respondents gave their positive point of view on the ability needed in operating the game which is very relevant with their skill. This might happen because all of the teachers already have their ability in using such kind of learning media especially computer program. In fact, some of this skill in relation with utilizing ICT-based Interactive Game in classroom already gained by the teachers after they were trained by the game developer, (N. M. Ratminingsih & Mahadewi, 2016) through the in-service program.

The second finding was focused on the implementation of game, ICT-based Interactive Game in English learning toward students' learning motivation. As the motivation theory is comprised of three dimensions as been pointed out by (Tuan et al., 2005), it is very understandable that students' learning motivation is identified affirmatively after using the current game. With regard to students' motivation, this finding supports others previous study on the implementation of game in English learning. As supposed, a study carried out by (Wang et al., 2011) which emphasized on the use of game to enhance students' motivation. They then conclude that game gives a positive impact on the motivation the students. Moreover, another study also empowers this finding, as conducted by (Mahmoud & Tanni, 2014) who focused on the use of game to promote students' motivation in the english learning. Their finding confirms this present study that instructional media especially game can increase and promote students' motivation. Additionally, a study by (Tengku Mohamad Maasum et al., 2015) also supports this present finding. In their research, motivation was one of the items which showed positive perception from the pupils. Hence, it can infered that game used in learning process could enhance students' learning motivation to be actively engaged learning while playing.

The third finding was concerning on ICT-based Interactive Game used in the learning process which affected students' English achievement. The result shows that students' perception was positive on the use of game by giving impact on their English achievement. This finding directly echoes a study conducted by (Leaning, 2015) that the use of games and gamification could enhance student engagement, experience and achievement. In this case, achievement is becoming the focus in relation with this present study. Specifically, discussing about the first dimension, cognitive domain, it is related with students' cognition in which they are able to remember and understand the material given. Based on the number of percentage from 16 items provided, the average percentage gained was 75.33% of the students agreed that ICT-based Interactive Game enable them to increase their English achievement in term of cognitive domain. In fact, this stresses the research carried out by (Boeker, M., Andel, P., Vach, W., & Frankenschmith, 2013) regarding to the effect of game on students' cognitive knowledge which showed significant difference and better comparing conventional instructional method. (Koh, E., Kin, Y. G., Wadhwa, B., & Lim, 2012) who discovered that game could improve students' cognitive skill besides psychomotor and affective skill. Furthermore, it is not different with the most current study conducted by (Badea, 2015) who found that game can improve students' learning achievement. The second dimension in the second questionnaire of the students was dealing with the psychomotor domain. In sum, after the computation of the average from the eight items' percentage, the great majority of the students (71.05%) agreed that ICT-based Interactive Game give impact on their English achievement especially in the context of psychomotor skill. Again, it is in relation with the finding discovered (Koh, E., Kin, Y. G., Wadhwa, B., & Lim, 2012) that game could improve students' English achievement in term of psychomotor skill besides affective and cognitive skill. In addition, this present study is in relation with (Badea, 2015) which concerned with students vocabulary and grammar mastery.



Moreover, (Ebrahimi & Zamanian, 2014) finding about the effect of practical game to young learners which was due to the students' vocabulary mastery, indicated that using language games has significant effect on vocabulary retention of the elementary EFL learners. Their result was emphasized by the present finding of which game could give impacts on students' English achievement.

To sum up, it can be stated that, game (ICT-based Interactive Game) had positive impact on students' English learning as the same with the study by (Tengku Mohamad Maasum et al., 2015) in which their finding indicated that the pupils had positive perceptions on learning English using games in general. Specifically to this present study, game was also perceived positively which could enhance students' motivation in a line with several studies which were conducted previously ((Wang et al., 2011); (Tengku Mohamad Maasum et al., 2015)). Additionally, game (ICT-based Interactive Game) was also impactful to increase students' achievement as in study by (Koh, E., Kin, Y. G., Wadhwa, B., & Lim, 2012), (Ebrahimi & Zamanian, 2014), (Badea, 2015), (Leaning, 2015) in the context of English language learning

#### 4. Conclusion

Based on the results and discussion previously, it can be inferred that (1) there was a positive perception of the teachers on the use of ICT-based Interactive Game in teaching English as good teaching media viewed from the principle of designing and using teaching media as been proposed by (Sanjaya, 2008). (2) Students' perception was positive on the implementation of ICT-based Interactive Game toward their learning motivation as well as concerning on their English achievement.

Furthermore, as the suggestions, it is necessary for the next researchers who are interested to conduct research in the same topic to research in more detail one. Since, this current study used one type of data collection only, which closed ended questionnaires were administered, a deeper study by employing additional research instrument is needed. In other words, as supposed structured interview is needed in order to get specific data in the field, besides by using open-ended questionnaire. Additionally, the writer suggests that the number of population of the study is not only in the same grade, but also across the grade, hence there will be numerous data gained.

#### References

- Allsop, Y., & Jessel, J. (2015). Teachers' Experience and Reflections on Game- Based Learning in the Primary Classroom: Views from England and Italy. *International Journal of Game-Based Learning*, 5(1), 1–17. <https://doi.org/10.4018/ijgbl.2015010101>
- Badea, M. (2015). English classes and effectiveness of games in higher education. *Journal Plus Education*, 12(2), 81–88.
- Boeker, M., Andel, P., Vach, W., & Frankenschmith, A. (2013). Game based e Learning is more effective than a conventional instructional method a randomized controlled trial with third year medical students. *A Peer Reviewed, Open Access Journal*, 8 (12), 1–11.
- Copland, F., & Garton, S. (2014). Key themes and future directions in teaching English to young learners: Introduction to the Special Issue. *English Language Teaching Journal*, 68(3), 223–229. <https://doi.org/10.1093/elt/ccu030>
- Cresswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. USA: Pearson Educational, Inc.
- Digras, A., Kokkalia, G., & Lytras, M. D. (2015). ICT and collaborative co learning in preschool children who face memory difficulties. *Computers in Human Behavior*, 1–7.
- Ebrahimi, F., & Zamanian, M. (2014). Practical game: Implementing practical game on Iranian early EFL learners. *International Journal of English and Education*, 3 (2), 115–131.
- England, E., & Finney, A. (2011). *Interactive Media— What's that? Who's involved? ATSF White Paper—Interactive Media UK*. Retrieved from [http://www.atsf.co.uk/atsf/interactive\\_media.pdf](http://www.atsf.co.uk/atsf/interactive_media.pdf)
- Ersoz, A. (2007). *Teaching English to young learners*. Ankara: EDM Publishing. EDM Publishing. <https://doi.org/1999>

- Evans, B. (2007). Student Attitudes, Conceptions, and Achievement in Introductory Undergraduate College Statistics. *The Mathematics Educator*, 17(2), 24–30. Retrieved from papers3://publication/uuid/3312CC9C-62A1-4919-890C-BC55508B7B02
- Feng, H.-Y., Fan, J.-J., & Yang, H.-Z. (2013). The relationship of learning motivation and achievement in EFL: Gender as an intermediated variable. *Educational Research International*, 2(2), 50–58. Retrieved from www.savap.org.pk
- Fu, J. S. (2013). ICT in Education: A Critical Literature Review and Its Implications. *International Journal of Education and Development Using Information and Communication Technology (IJEDICT)*, 9(1), 112–125. Retrieved from <http://myelearning.sta.uwi.edu/file.php/28905/Barriers/EDICT-2012-1541.pdf>
- Garris, R., Ahlers, R., & Driskell, J. E. (2002). Games, Motivation, and Learning: A Research and Practice Model. *Simulation & Gaming*, 33(4), 441–467. <https://doi.org/10.1177/1046878102238607>
- Ghanizadeh, A., & Razani, A. (2015). The impact of using multimedia in English high school classes on students' language achievement and goal orientation. *International Journal of Research Studies in Educational Technology*, 4(2), 31–42.
- Gürsoy, E., & Korkmaz, S. C. (2012). Teaching young learners: The role of theory on practice. *ELT Research Journal*, 1(2), 109–119.
- Hamari, J., Shernoff, D. J., Rowe, E., Coller, B., Asbell-clarke, J., & Edwards, T. (2016). Challenging games help students learn: An empirical study on engagement, flow and immersion in game-based learning. *Computers in Human Behavior*, 54(1), 170–179. <https://doi.org/10.1016/j.chb.2015.07.045>
- Haque, M. F., Haque, M. A., & Islam, M. S. (2014). Motivational theories – A critical analysis. *ASA University Review*, 8(1), 61–68.
- Hengki. (2015). Persepsi masyarakat tentang pelayanan Puskesmas 24 Jam di Desa Pulau Sapi Kecamatan Mentarang Kabupaten Malinau. *E-Journal Pemerintahan Integratif*, 3(1), 115–125.
- Hung, C., & Young, S. S. (2015). An investigation of game embedded handheld devices to enhance English learning. *Journal of Educational Computing Research*, 52(4), 548–567.
- Juhana. (2014). Teaching English to Young Learners: Some Points to be Considered. *Asian Journal of Education and E-Learning*, 2(1), 43–46.
- Koh, E., Kin, Y. G., Wadhwa, B., & Lim, J. (2012). Teachers perception of games in Singapore. *Simulation and Gaming*, 43(1), 51–56.
- Lai, E. R. (2011). *Motivation: A review literature*. New York: Pearson.
- Lawrence, a S. A., & Vimala, A. (2012). School environment and academic achievement of standard IX students. *Journal of Educational and Instructional Studies in the World*, 3(3), 210–215. Retrieved from <http://files.eric.ed.gov/fulltext/ED542331.pdf>
- Leaning, M. (2015). A study of the use of games and gamification to enhance student engagement, experience and achievement on a theory-based course of an undergraduate media degree. *Journal of Media Practice*, 16(2), 155–170. Retrieved from <http://eds.b.ebscohost.com/eds/pdfviewer/pdfviewer?vid=17&sid=808814a3-0f5d-4073-b293-f9290f907434%40sessionmgr106&hid=104>
- Lepp-Kaethler, E., & Dörnyei, Z. (2013). The role of sacred texts in enhancing motivation and living the vision in second language acquisition. *Christian Faith and English Language Teaching and Learning: Research on the Interrelationship of Religion and ELT*, 171–188. <https://doi.org/10.4324/9780203337738>
- Mahmoud, A. A., & Tanni, Z. A. (2014). Using Games to Promote Students' Motivation towards Learning English. *Journal for Educational & Psychological Research & Studies*, 2(5), 11–33.
- Masri, A. A., & Najjar, M. A. (2014). The Effect of Using Word Games on Primary Stage Students Achievement in English Language Vocabulary in Jordan. *American International Journal of Contemporary Research*, 4(9), 114–152.
- Moore, C. D. (2005). Is ICT being used to its potential to improve teaching and learning across the curriculum? Retrieved from [www.teacherresearch.net/tr\\_ma\\_4484\\_cdmoore.pdf](http://www.teacherresearch.net/tr_ma_4484_cdmoore.pdf)

- Naz, A.A., & Akbar, R. A. (2012). Use of Media for Effective Instruction its Importance : Some Consideration. *Journal of Elementary Education*, 18(1), 35–40.
- Noor, J. (2011). *Metode Penelitian: Skripsi, Tesis, Disertasi, dan Karya Ilmiah*. Jakarta: Prenadamedia Group.
- Rahmi, R. (2014). The implementation of media in english language teaching. *E-Journal STKIP Getsempena*, 5(1), 1–17.
- Ratminingsih, N. M. (2010). Pengaruh teknik pembelajaran dan tipe kepribadian terhadap keterampilan mendengarkan bahasa Inggris: Studi eksperimen pada siswa SD LAB Undiskha Singaraja. *Disertasi Doktor*. Jakarta: Universitas Negeri Jakarta.
- Ratminingsih, N. M. (2012). Teaching techniques , types of Personality , and English listening skill. *Jurnal Ilmu Pendidikan*, 18(1), 23–29. <https://doi.org/http://dx.doi.org/10.17977/jip.v18i1.3379>
- Ratminingsih, N. M. (2016). Teachers' perception toward in-service training program in utilizing ICT-based interactive game in TEYL. In *International Conference on English Across Culture (p. 20)* (pp. 1–30). Singaraja: Ganesha University of Education.
- Ratminingsih, N. M., & Mahadewi, L. P. (2016). *IbM kelompok guru bahasa Inggris SD di Kecamatan Sukasada*. Singaraja: LPPM Undiksha.
- Robbins, S. P., & Judge, T. A. (2008). *Perilaku Organisasi Edisi Ke 12*. Jakarta: Salemba Empat.
- Sanjaya, H. W. (2008). *Perencanaan dan desain sistem pembelajaran*. Jakarta: Kencana.
- Talak-kiryk, A. (2010). *Using Games In A Foreign Language Classroom*.
- Tengku Mohamad Maasum, T. N. R., Mustafa, R., & Stapa, S. H. (2015). Young Learners' Perceptions of Learning English Using Language Games in a Non - Formal Context. *Mediterranean Journal of Social Sciences*, 6(6), 375–382. <https://doi.org/10.5901/mjss.2015.v6n6s5p375>
- Tuan, H., Chin, C., & Shieh, S. (2005). The development of a questionnaire to measure students' motivation towards science learning. *International Journal of Science Education*, 27(6), 639–654. <https://doi.org/10.1080/0950069042000323737>
- Wang, Y.-J., Shang, H.-F., & Briody, P. (2011). Investigating the impact of using games in teaching children English. *International Journal of Learning and Development*, 1(1), 127–141.
- Widodo, H. P. (2016). *Engaging young learners of English in a genre-based digital storytelling project*. Cambridge: Cambridge University Press. Retrieved from [http://languageresearch.cambridge.org/images/pdf/2015-16\\_Widodo\\_CUP\\_TRP\\_final\\_report.pdf](http://languageresearch.cambridge.org/images/pdf/2015-16_Widodo_CUP_TRP_final_report.pdf)
- Wojtowicz, L., Stansfield, M., Connolly, T., & Hainey, T. (2011). The Impact of ICT and Games Based Learning on Content and Language Integrated Learning. In *International Conference "ICT for Language Learning", 4th edition, Florence, Italy, 20 - 21 October 2011* (pp. 1–6). Scotland: University of the West of the Scotland Press. Retrieved from [http://conference.pixel-online.net/ICT4LL2011/conferenceproceedings.php%5Cnhttp://www.unifg.it/sites/default/files/allegatiparagrafo/21-01\\_2014/wojtowicz\\_et\\_al\\_impact\\_of\\_ict\\_and\\_games\\_based\\_learning\\_on\\_clil\\_2011.pdf](http://conference.pixel-online.net/ICT4LL2011/conferenceproceedings.php%5Cnhttp://www.unifg.it/sites/default/files/allegatiparagrafo/21-01_2014/wojtowicz_et_al_impact_of_ict_and_games_based_learning_on_clil_2011.pdf)
- Yolageldili, G., & Arikan, A. (2011). Effectiveness of Using Games in Teaching Grammar to Young Learners. *Elementary Education Online*, 10 (1), 219–229. Retrieved from <internal-pdf://76.0.6.192/Effectiveness of Using Games in Teaching Grammar to Young learners.pdf>
- Ziden, A. A., Ismail, I., Spian, R., & Kumutha, K. (2011). The Effects of ICT Use in Teaching and Learning on Students ' Achievement in Science Subject in a Primary School in Malaysia. *Malaysia Journal of Distance Education*, 13 (2), 19–32.