

Wanted: Good Teachers for Good Teaching Using Games

Nikolaus Pasassung¹, Ahmad², Wd. Ekadayanti³, La Sisi⁴, Yulius Tandisapan⁵

{npas61@yahoo.com.au¹, ahmad.edukasi@gmail.com², waodeekadayanti@gmail.com³,
lasisilapadaku@gmail.com⁴, Tandisapanyulius@gmail.com⁵}

Universitas Sulawesi Tenggara, Kendari, Indonesia^{1,2,3,4}, Universitas Halu Oleo, Indonesia⁵

Abstract. Games are part of human life. Both traditional and modern societies create games as part of their culture for various purposes such as for rituals in their beliefs, values teaching, or just for fun. It is commonly believed that playing games is one of the human favorite activities which can kill boredom due to their entertaining effects. Nowadays, a lot of games are created for entertaining and for educational purposes. This article is going to support the argument that bringing games into the classroom teaching can contribute to the improvement of not only the quality of students' learning, but also their personal quality. It will conclude with the calling for good teachers who can effectively use games as multifunction method for classroom teaching.

Keywords: classroom learning, classroom teaching, games, playing games

1 Introduction

Teaching is primarily aimed at inspiring students to learn, no matter how it takes place. In other words, learners are the subject of classroom activities, hence learning performance is more important than teaching performance. Constructivists have long argued that learning can take place effectively when in the learning process learners “build their own knowledge, connecting new ideas and experiences to existing knowledge and experiences to form new or enhanced understanding.”[1]. Constructivism has successfully swung the orientation of classroom teaching-learning process, from teacher-centered to student-centered. In the latter paradigm, the student – rather than the teacher – is the main performer of classroom activities under the facilitation of the teacher. Indeed, active participation of students has long been believed to be crucial in attaining the goal of classroom teaching. Under this belief educationists and pedagogists have developed various approaches such as the Cooperative Learning, Team-based Learning (TBL), Process-oriented Guided Inquiry Learning (POGIL), Peer-led Team Learning, Problem-based Learning (PBL), and the Flipped Classroom Model.

Another approach worth considering is the use of games in classroom instructions. Many argue and provide strong evidence that using games in the classroom is effective in enhancing the quality of teaching-learning quality. Indeed, games are familiar part of human culture. We play games for fun and for values teaching in ritualistic and formal occasions. Nowadays, a lot of games are created for entertaining and for educational purposes. This article is going to support the argument that bringing games into the classroom teaching can contribute to the improvement of not only the quality of students' learning, but also their personal characters.

2 Why Using Games in the Classroom

Gamification has become a trending approach to teaching and learning in the classroom. A lot of information has been available online emphasizing the importance and benefits of the inclusion of game-based activities in the classroom. For example, Malloy [2] contends that children enjoy playing games and through games they can develop many skills. Victoria [20] argues that indeed “games are fantastic for learning at any age, but they are particularly important for young learners”, and research has shown that games are essential for healthy development in early childhood and beyond. She also reported that games “...can foster young children's learning, cognitive development, skill building, social interactions, physical activity, and healthy behaviors. If we agree that classroom activities should be student-oriented, involvement of students in game-based learning activities is highly recommended.

Games can be effective to be used in classroom learning since they are usually challenging and competitive. A challenging game will call for students focus and attention, and being focus will further affect their knowledge gain. Also, there are competitive games involving opposing teams. In such games everyone wants to contribute the way he can to bring their team to winning, to beat other teams. This can happen anytime anywhere, including in the classroom learning contexts. Similarly, a challenging game also calls for students' hard efforts. Despite the fact that games is by no means a new phenomenon in classroom context, decisions to introduce or to use games need to be well-based on learning theories. Based on the theory of psychology, Plass, Homer, & Kinzer [3] argue that Game-Based Learning is a good approach since a cleverly designed game engages learners affectively, behaviorally, cognitively, and socio/culturally. They contend that Games are a complex genre of learning environments that cannot be understood by taking only one perspective of learning. In fact, as our review shows, many of the concepts that are important in the context of games, such as motivation, have aspects relating to different theoretical foundations—cognitive, affective, motivational, and sociocultural. We argue that for games to achieve their potential for learning, all these perspectives have to be taken into account, with specific emphases depending upon the intention and design of the learning game.

In spite of the claim that the moment of playing games is always a pleasant moment for students and enhance motivation to learn, there are still teachers who rarely or do not bring games into their teaching. This could be attributed to the fact that there are still teachers who do not know that games can be effective teaching tools, when and how to play a game in their instructional sessions. Worst of all is that there might be teachers who consider that playing games in the classroom is not a good idea because they believe classroom activities needs to be formal and serious, the nature that is reduced by the implementation of games which are full of fun activities. Yet, a lot of arguments have been developed to argue that playing games in the classroom positively affect the quality of learning and increase seriousness. As claimed by Nguyen [4], studies have indicated that when teachers bring games in their classroom teaching, students will participate more actively in their learning activities, will learn emotionally and socially, and will even be more motivated to take risks, which in the end affect their learning achievement significantly .

Due to the positive contribution of playing games in the classroom Victoria [5] strongly suggests that a class be exposed to one game a day. The following part of this article will provide considerations on why games are recommended to be used in the classroom.

2.1 Games for Learning Motivation

The role of motivation has long been agreed as so important in learning, and that classroom instructions should be in such a way that is motivating to students. To be motivating, a classroom instruction should not be stressful, rather should be full of fun, interest, and enjoyment, but challenging, purposeful, and competitive. These are factors motivating students to participate actively. Studies have shown that games can bust students learning motivation [6]; [7]. Awareness of the effectiveness of games in enhancing student motivation, *Gemma Insani Indonesia*, an NGO active in creative and innovative education, conducted a workshop aiming at improving teacher classroom management skills, knowledge of learning psychology, and the use of games as motivating buster [8].

2.2 Games for Student Participation

As previously mentioned, studies have indicated that one of the positive influences of using game in the classroom is that students will have more opportunities to participate in classroom activities [4]. Traditional methods of teaching, more particularly in a feudalistic society, tend to be very formal under rigid rules. More time is used by teachers to present the teaching materials with the primary objectives being students understand, memorize, and recite what is taught. This suggests that students spend more time to listen to what teachers say and explain than to actively participate and engage by doing in classroom activities. Although listening is not necessarily a passive activity [9], many experts consider it as passive, and argue that active is something to be physical and mental [10]). As mentioned previously for a learning activity to be considered engaging students actively, it should be engaging affectively, behaviorally, cognitively and socially/culturally, and these kinds of engagement are accommodated in the Game-Based Learning Approach [3].

Reasons for students to actively participate in a game have been discussed extensively in the world of education. This is due to the fact, as indicated previously, that a good teaching session is student-centered atmosphere, within which students actively involved. For instance, study conducted by Lai, Lee, Jong, and Hsia [11] reported that students eagerly participate in learning under games because games made the course became more interesting and challenging. As for these students, a boring lesson can be made interesting and absorbing when a game is in place. It is also clearly seen that games can capture students' attention and participation. They can motivate students to want to learn more.

For students to be more active in the classroom instructions, it is necessary that teachers create a more student-centered activity by allowing their talking time to be less than students'. Of course, teachers need talking time, but this should only be used in relation to instructions for a task, answering students' questions, and other procedural things. In other words, student talking time should be longer than teacher talking time.

2.3 Games for Learning Achievement

Closely related to the claim that classroom games increase students' participation is the learning achievement of the students. The logics of teaching is that students are inspired to learn materials presented by the teacher, and expand it to their own real life. Under today's

perspectives, only when students actively participate, can they better achieve the learning objectives. As, for instance reported by McCarty, students who take part in active learning actually learn more than they think they do[12]. Therefore, teachers are demanded to prepare more challenging and interesting activities in their lessons. Games, as previously mentioned, are the kind of aids that reducing the boredom and increase the motivation of students to learn.

Game-based collaborative learning has also been reported to be more effective than traditional collaborative learning in enhancing students' learning achievement[11]. Similar finding has also been reported by Sri Widoretno, Setyawan, and Mukhlison [13] who studied the effectiveness of educational games on Indonesian young learners.

2.4 Games for Social Interaction

We are social beings. As Games are familiar part of human culture. We often play games for various purposes in formal and informal situations, as individual or social beings. We play games for fun and for values teaching in ritualistic and formal occasions. For many games are use just to kill boredom. Nowadays, a lot of games are created for entertaining and for educational purposes. Games are familiar part of human culture. We often play games for various purposes in formal and informal situations, as individual or social beings. We play games for fun and for values teaching in ritualistic and formal occasions. For many games are use just to kill boredom. Nowadays, a lot of games are created for entertaining and for educational purposes. social beings, we grow up learning from one another. Social learning is an important process of learning, especially in children. Albert Bandura, a social cognitive psychologist, developed a learning theory based on the fact that learning takes place during interactions of people in a social life. For a student to be able to find, process, and construct knowledge, he should actively involve in learning activities through direct experiences. Observing and doing are the best learning and these can only take place when students work in groups as members of a team which perfectly allowed by games.

Playing games in the classroom is a social life where students interact with others, as a team members or a competitors. In student's effort to win observation, modeling, and imitation are very likely to occur. Cooperation in a team, or competition among teams, needs a good observation to decide to model, imitate or to find other ways for our team to win a competition. Observation may result in good cooperation.

Classroom games can also be used as a team-building exercise. Griffiths, Hussain, Grüsser, Thalemann, Cole, and Davies [14] reported that the social aspects of the game were the most important factor for engaging in a game. This strongly suggests that games which are collectively played in the classroom can improve collaborative activities in the classroom. The more the students collaborate the better their social relation is. A lot of classroom games also require students to work as a team. "I think games are useful in that respect for bonding and for allowing kids to socialize and communicate with each other," says Kiang, who is a nationally recognized expert on game-based learning and technology integration. Kiang, an expert on GBL and technology integration points out that "games are useful in that respect for bonding and for allowing kids to socialize and communicate with each other," [4] More than just offering opportunities to students to work together as members of a team, games also enable students to learn from others, not only in their team mates, but also with their team competitors through observation. Modeling and imitating process are very likely to occur when playing games.

Students need to work together as a team when playing as a whole class against the teacher, or in small team groups when playing games. In this way, students learn how to take work cooperatively. Cooperation needs mutual respect among members of the team as well as the other team. In brief, playing games foster social learning as students develop their social capacity when interacting.

2.5 Games for Emotional Skills

Academic achievement should not be the only target of classroom instructions in the national curriculum. Gardner's studies in the 1980-s strongly suggested that emotional intelligence, otherwise known as Emotional Quotient, is better in predicting success than IQ [15]. His findings have shifted the paradigms that IQ is the indicator of the quality of and individual. This suggests that it is very important that students be exposed to activities developing their socio-emotional skills. Good games are good choices to help students develop their socio-emotional skills. A group-based game requires members to work with different individuals. This demands our patience, understanding, and tolerance. There are times when we need to control our emotion. We also need to learn to accept and understand other. Working together with others in one team demands self-control and self-esteem [16]. Through games students can improve their personal quality.

2.6 Games and Personal Quality

Every one of us is a different individual. None of us, no matter how genetically close we are, is a perfect copy of another. This is due to the fact that one is created as unique person in unique characters. This, however, does not mean that, characteristically speaking, one is totally different from others. There are also personal qualities that we slightly share because we are from a similar social background or at least from the same family. Due to our interaction with other people and our environment, we grow up as an individual with different personal qualities. Researchers have found that games potentially affect one's personality traits. For instance, playing video games excessively can affect the players negatively. [17]-[18]. As a social being, we interact with others and our environment. Through our social interaction, as social psychologist theorized, the process of observation and modeling, and coping take place. The level of sense of honesty, tolerance, dependability, cooperation. Similar process also takes place in the classroom, when communication among members of the class interacts socially. The frequency of classroom interaction among students might increase when students play a game, especially educational games.

According to Marczewski, a gamification consultant (cited in Debek [19]), based on self-determination theory there are different intrinsic motives for playing a game, namely a sense of relatedness, autonomy, mastery, purpose, and disruption. The motive to play games, including educational games, differs among individuals [19]. Among characteristics required for being in good relation with others are good management of emotions, mutual understanding, tolerance, honesty, fairness, and of course, friendliness.

The sense of autonomy and mastery can only be developed under positive self-esteem and self-confidence. Similarly, game can bring new learning experiences, challenges, and become positive disruptors which can motivate students to change and be creative and innovative.

3 Good Teachers for Classroom Games

We believe that teaching is not the only teachers' duty, but when coming to what happens in the classroom is of teachers' business. Therefore, the outcome of classroom instructions is teachers' responsibility. Teachers cannot deny that they play very important roles in making classroom learning successful. In my view, a good teacher can make bad learners learn and this is the most important, though also the most difficult, part of the teaching business. Teacher education and training institutions are responsible for preparing quality teachers. It is their responsibility to prepare teachers who are updated with latest issues on learning theories and findings. For example, it is of necessity to prepare teachers who understand why classroom teaching should be student-centered rather than teacher-centered. Therefore, teacher training institutions are expected to design a more learning psychologically-based curriculum. They need to prepare teachers who really understand that classroom needs to be a fun, rather than a stressful, place, a place where the real learning takes place, an atmosphere fostering learning in a socio-emotionally and academically speaking cognitive, affective, psychomotoric aspects of a student can only be develop positively under distressful condition. Since teacher education and training period, teachers need to have real experiences in developing their socio-emotional and academic capacities under student-centered activities. However, there is still a big gap between the "need", the "want", and the "reality". What happens in the institution, what teacher students go through, and what they do in the classroom when becoming teachers seem to call for better attention.

Even though teaching is not easy, I am sure that every teacher wants to be a good teacher. According to Ur [20], a good teacher always reflect on what she has done and from the self-reflection she improve her teaching. Unfortunately, not all teachers try to reflect on their experiences. Many teachers might do teaching like "business as usual". These teachers do not try new, challenging approaches in their classrooms. They might just do ordinary, inherited ways of teaching, do not try to teach "out of the box". Many teachers do not want to be blamed for unsuccessful learning, but when it comes to classroom learning activities it is nobody's responsibility but teachers'.

One of the ways to make classroom atmosphere become more student-centered and fun is by using games. Significant number of supports that games increase student participations and learning motivation while reducing their stressfulness have been argued (see e.g.[1], , [8], [10], [11], [16], [21], [22]). Along with this, many educational games have been published to be used by teachers of different fields of study in their classroom or outside of classroom teaching programs. The use of games in formal, informal, and non-formal education has also been promoted by UNESCO MGIEP in order to achieve the UN SDG 4.7. This strongly suggests that teachers are called for bringing games into their instructions.

Literatures have shown that using games is growingly encouraged in classroom instructions for educational, pedagogical, and learning psychological reasons. This strongly suggests that the use of games in classroom teaching has been considered important and teachers are urged to pay their attention to this. In spite of the fact that the ability to implement games in teaching is not listed under what make a good teacher [20], [23], it is now believed that the use of games in classroom instructions is one of the best way to approach to student-participative learning, which prioritizes student engagement, teachers are also required to be able to skillfully implement games in their teaching. In my classroom observations I once saw a teacher using a game required many students to move around at the same time. The result was many students collided and class was messy. In several occasions I noticed teachers gave unclear, long game instructions causing difficulties for students to do what

required. In such cases, the games did not succeed to bring fun, neither did it succeed to achieve the learning objectives. In my own experiences, and in observing others using games with students, I have come to a conclusion that it is not always easy to use games in a class. What does a teacher need to be aware of when selecting a game for their teaching? A good teacher knows how to use and apply games in his teaching. He knows which games work and which are not in his classroom. With regard to using games in classrooms, a good elementary school teacher should take into account students, course, purpose, classroom setting and space, nature of games, and media when selecting games to use in his teaching.

3.1 Why Considering Students?

Students are the subject of the learning, so they are the one who need to actively participate in the classroom. Because there are a number of games out there, an elementary teacher has to know that his students are still young, under 13 yrs. old, and coming from certain socio-cultural background. Not all games working for other of the same age do work for them because they might come from a different socio-cultural background.

3.2 Why Course?

A game may also be course-related – what good for mathematics might be not for language, history, or other social sciences. Therefore, in selecting and using games a teacher also needs to consider the course content he is teaching.

3.3 Why Purpose?

Some games are good for apperception to bust motivation and learning awareness, and others are good to convey the course content. A game for apperception might be simple and short. They can be used just as ice-breaking and for fun. On the other hand, games to achieve instructional goals probably need longer time and are more challenging, but still fun and motivating, and

3.4 Why Classroom Setting and Space?

Some educational games probably require spacious classroom because they demand students to move around a lot. A lot of the classroom are still arranged traditionally where desks are set in rows. This hinders students from moving around the classroom. For this kind of classroom setting, teachers are suggested to use games which do not require students to move a lot.

3.5 Why Game?

Games are used in teaching not just for student's active learning and competence achievement, but also for student's individual and social development. For instance, games with competition, used in language teaching teach linguistic skills as well as honesty, fairness, tolerance, and cooperation, self-confidence, and so on. This require teachers to be selective in deciding which games to be used for what courses.

3.6 Why Media ?

Certain games require special media while others may only require easily prepared media. Teachers are recommended to use games requiring more easily obtained or easily prepared media. In addition, teachers also need to use games which are environmentally friendly and familiar to their students.

4 Concluding Remarks

This paper has shown that game-based learning has been widely considered as an effective approach to classroom learning that fosters active learning. Games can accommodate learning psychological views and become educational tools that perfectly accommodate "student-centered" paradigm. The fact that many teachers never or rarely bring games into their classrooms suggests that a lot of efforts are still needed. First of all, there need to be efforts to make teachers aware of the advantages using games in teaching. Secondly, it is also necessary to provide training and workshops on game selection and use for teachers of all level of education. These all should be started by teacher training and education institutions.

As a final remark, it is important that teachers be made aware that games aren't substitutes for other forms of learning, so in the implementation of games as learning tools, they need to be well-planned and integrated to the learning objectives and teaching scenario.

References

- [1] H. Abd-Mutalib, I. R. Mustapa, and D. Salleh, "Enhancing Students' Class Participation through Gamification: Creating Motivational Affordance, Psychological and Behavioral Outcomes," *Univers. J. Educ. Res.*, vol. 7, no. 9, pp. 25–35, Jan. 2019, doi: 10.13189/ujer.2019.071604.
- [2] M. Maria, "The Importance of Games," 2017.
- [3] J. L. Plass, B. D. Homer, and C. K. Kinzer, "Foundations of Game-Based Learning," *Educ. Psychol.*, vol. 50, no. 4, pp. 258–283, 2015, doi: 10.1080/00461520.2015.1122533.
- [4] H. P. Nguyen, "How to Use Gameplay to Enhance Classroom Learning | Edutopia," no. Mmm, 2021, [Online]. Available: <https://www.edutopia.org/article/how-use-gameplay-enhance-classroom-learning>
- [5] Victoria, "11 Benefits to Playing Games in the Classroom," *Www.Teachstarter.Com*, p. Teaching Ideas, 2022, [Online]. Available: <https://www.teachstarter.com/au/blog/10-benefits-to-playing-games-in-the-classroom/>
- [6] N. Husna, E. Normelani, and S. Adyatma, "Hubungan Bermain Games dengan Motivasi Belajar

- Siswa Sekolah Menengah Pertama (SMP) di Kecamatan Banjarmasin Barat,” *JPG (Jurnal Pendidik. Geogr.*, vol. 4, no. 3, pp. 1–14, 2017, [Online]. Available: <http://ppjp.unlam.ac.id/journal/index.php/jpg>
- [7] S. Gareau and R. Guo, “‘All Work and No Play’ Reconsidered: The Use of Games to Promote Motivation and Engagement in Instruction,” *Int. J. Scholarsh. Teach. Learn.*, vol. 3, no. 1, Jan. 2009, doi: 10.20429/ijstol.2009.030112.
- [8] dan D. A. T. Puspitasari, “Pendekatan Games dalam Meningkatkan Motivasi Belajar Siswa bagi Relawan Gemma Insani Indonesia, : Masyarakat, 1, 2, 2019:16-21,” *J. Komunitas J. Pengabd. Kpd. Masy.*, vol. 1, no. 2, pp. 16–21, 2019.
- [9] D. Didau, “Is listening really passive?,” *Learn. Spy*, 2014, [Online]. Available: <http://www.learningspy.co.uk/learning/exactly-mean-passive-active/>
- [10] and J. A. E. C. C Bonwell, “Active learning: creating excitement in the classroom,” Washington, D.C., 1991.
- [11] H. Y.-T. Lai Chien-Hung, Lee Tsung-Po, Jong Bin-Shyan, “, A Research on Applying Game-Based Learning to Enhance the Participation of Student .,” *Researchgate*, 2014.
- [12] P. Reuell, “Lesson in Learning,” *The Daily Harvard Gazette*, Harvard, Sep. 2019.
- [13] S. Widoretno and D. Setyawan, “PELUANG DIGITAL DI ERA INDUSTRI 4.0 MENUJU ERA 5.0’ EFEKTIFITAS GAME EDUKASI SEBAGAI MEDIA PEMBELAJARAN ANAK”.
- [14] M. D. Griffiths *et al.*, “Social interactions in online gaming,” *Int. J. Game-Based Learn.*, vol. 1, no. 4, pp. 20–36, 2011, doi: 10.4018/ijgbl.2011100103.
- [15] Anonym, “For More On Emotional Learning.” [Online]. Available: https://www.teach-nology.com/teachers/emotional_learn/
- [16] L. G Nemerow, “Do classroom games improve motivation and learning?,” *Teach. Chang.*, vol. 1, pp. 356–66, 1996.
- [17] S. Mihara & S. Higuch, “Cross-sectional and longitudinal epidemiological studies of internet gaming disorder: a systematic review of the literature *Psychiatry Clin. Neurosci.*,” vol. 71, pp. 425–444, 2017, doi: 10.1111/pcn.12532.
- [18] and R. L. N. M. M. Skoric, L. L. C. Teo, “Children and video games: addiction, engagement, and scholastic achievement,” *Ciberpsychol. Behav.*, vol. 12, pp. 567–572, 2009, doi: 10.1089/cpb.2009.0079.
- [19] M. Dėbek, “Why we play games : Player types and psychology,” 2022. [Online]. Available: <https://tryevidence.com/blog/why-we-play-games-player-types-and-psychology/>,
- [20] U. Penny, “‘Are Teachers Born or Made?’,” *EA J.*, vol. ,16, no. 1:, pp. 7–14, 1998.
- [21] J. S. Groff, “Using games in the classroom,” *Educ. Heal.*, vol. 24, no. 2, p. 22, 2006.
- [22] R. Garris, R. Ahlers, and J. E. Driskell, “Games, motivation, and learning: A research and practice model,” *Simul. Gaming*, vol. 33, no. 4, pp. 441–467, Dec. 2002, doi: 10.1177/1046878102238607.
- [23] R. C. Groundwater-Smith, S., *Teaching: Challenges and Dilemmas*. Sydney, 1998.