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Effectiveness of Interactive Learning Strategies in Teaching World History

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Abstract. The study aimed to identify the effectiveness of interactive learning strategies in teaching world history of Grade 8 students. This quasi-experimental phase of the study involved 30 match-paired number of Grade 8 students of Southville I Integrated National High School, academic year 2019 – 2020. Statistical formula like mean, standard deviation, and paired t-test analysis were utilized in determining the significance of the differences between the formative, pre-test and post-test mean scores of the students in the experimental group and comparison group. Based on the findings of the study, it was concluded that there is no significant difference between the post-test mean score of the experimental and comparison group. Likewise, it was concluded that the two groups partly upheld the null hypothesis such that there is no significant difference between the mean scores of the students in the formative test. In the result, there is only one rejected hypothesis wherein the entire group had shown high scores because of the given learning strategies to the learners. The null hypothesis stating that there is no significant difference between the post-test mean score of the comparison and experimental group is hereby rejected. There is a large effect on the given exercises to the learners due to its own given problem that some of the students who had been experiencing the new way of teaching really give an evaluation of high scores rather than in the traditional way of teaching.

Keywords. Students' Araling Panlipunan Performance, Interactive Learning

I. Introduction

Social studies generally concern with the studies on human beings relative to what is real or practical. The recognition of human being as the most important aspect of learning and development of purposeful skills and knowledge to enable him/her to function well in society is one noticeable fact that was recognized in social studies. In teaching, it is important for teacher to use child centered methods in order to realize the stated objectives goals, and aims of the subject. As a child centered method, Abu-Raheem (2011) noticed that in teaching social studies lessons, good teaching, adequate instructional materials to motivate students can certainly help to achieve the lesson's objectives. Thus,

As mentioned by Pagaduan (2019), teachers worry a lot on how they can teach the lessons effectively. Perhaps, they are thinking about what strategies can they apply so that the students can fully understand what they are teaching and how they can design good-teaching process so that there will be a good output.

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To become an effective and competent teacher entails hard work. It also requires the awareness of the different learning materials available in the community where they belong. Educators need to enhance the curriculum for a better comprehension and application of learning.

Because of this, Republic Act No. 10533 which is also dubbed as Enhanced Basic Education Act of 2013 was created in order to improve the Philippines Basic Education System by strengthening its curriculum and increasing the number of years for basic education. As stated on Section 10.2.a "The curriculum shall be student-centered, inclusive and developmentally appropriate." It is for this reason that DepEd continuously supports the means and ways to further enhance the teaching-learning process. Seminars, training and workshops were given to teachers to enhance their capability to become effective facilitators.

Through the years, students have evolved differently. They are more active whenever new challenges are given, specifically, if the challenges given are done collaboratively. Students learn to develop their knowledge using variety of methods to find answers to their questions. As educators, it is a sole responsibility to think of ways on how to keep the students engaged in the lessons. As mentioned in the DepEd Mission, educators should develop life-long students.

Numerous ways of teaching academic and professional skills to children and adults have been tested using multimedia technologies in the form of software products, educational computer individualized learning or video individualized learning (VGs) (Kebritchi et al. 2010; & Royeret al. 2010).

Annetaet (2009) said that although there is an idea that individualized learning is not new effective learning tools, it has recently become a subject of experimental research. Some researchers claim that individualized learning permit constructive, situated and experiential learning, which is enhanced by active experimentation and immersion in the game (Hainey et al. 2011). Their adopted perspective highlights the great advantage of individualized learning

compared with traditional methods such as face-to-face or pencil-and-paper teaching.

Gregory and Chapman (2013) emphasized that students learn and process information in different ways. Some students prefer certain methods of learning, and it is important that educators utilize a wide variety of teaching activities to address learning preferences of the students. Being able to identify the various learning styles of students and teaching them with an informed awareness of those differences can assist students to achieve a better academic result and improve their attitudes towards learning.

Teachers of Araling Panlipunan, during the implementation of the new curriculum, faced challenges in terms of strategies, methodologies, evaluation and assessment tools because of the new features of this subject under the new curriculum and the fact that there is a need to become 21st century teachers so that they can catch up with the 21st century students.

The Department of Education (DepEd) organized a series of mass training like Teacher Inductive Program, School Learning Action Cell, and other Division Seminar and courses of all public school teachers every year by virtue of Republic Act (RA) 10533, for the gradual and successful implementation of the K to 12 (Enhanced Basic Education Curriculum or EBEC). Teachers are exposed to remarkable changes in the curriculum, most especially the current changes in Araling Panlipunan for Junior High School.

Teaching and learning process should be raised by student's engagement. The student has the probability of taking all procedures to be a scientist. Role-play simulation is a student engagement tool for enhancing learning effectiveness, collaborative capacity, and facilitating social learning (Rumore et al., 2016). Although role-play simulation has given benefit for

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students, the teacher also should consider the format and preparation in teaching (Stevens, 2015).

1.1 Objective of the Study

This study examined the effectiveness of interactive learning strategies in teaching world history among junior high school students. It also determined the significant of interactive between conventional ways of teaching.

II. Methods

The quasi-experimental research Design used in this study incorporated the characteristics of pre-test – post-test non-equivalent quasi experimental research design. After the pre-test, the causal impact of teaching with interactive learning strategies on the performance of the experimental group was measured through formative test. On the other hand, the comparison group was exposed to a conventional instructional approach and received the formative test. Post-test was administered to measure the effectiveness of the treatment on the experimental group over the comparison group.

Meanwhile, in quasi-experimental design, pre-test-post-test, comparison group design, the data was analyzed to determine if there is a significant difference between the pre-test and post-test mean scores of the comparison and experimental group and to find out if interactive learning strategies were effective instructional tools in understanding significant details in Grade 8 Araling Panlipunan Lesson. Match pairing was used as the sampling procedure in selecting the Grade 8 participants from Southville I Integrated National High School, S.Y. 2019-2020. Students were selected from two sections which composed from a population of 50 students per section. Those who obtained same scores during the pre-test were involved. Sixty (60) of them were chosen and grouped into comparison and experiment. Thirty (30) students were part of the experimental group and they were under interactive learning strategies such as virtual fieldtrip, role playing and gamification in understanding significant details in Grade 8 Araling Panlipunan Lessons. Another thirty (30) students who composed the comparison group and used the conventional way of understanding lessons in grade 8 Araling Panlipunan Lessons. Assigning of experimental and comparison group were determined by draw lots.

A teacher-made research instruments which were administered for the pre-test, formative and post-test to the two sections of Grade 8 in Southville 1 Integrated National High School. The teacher-made was validated first before administering it to the respondents. Its content were the lessons and topics of *Ang Pag-usbong ng Daigdig* covered in the 3rd quarter of School Year 2019-2020. The lessons under the *Ang Pag-usbong ng Daigdig* are divided into three lessons: *1)Paglakas ng Europe, 2)Paglawak ng Kapangyarihan ng Europe, 3)Kaugnayan ng Rebolusyong Pangkaisipan sa Rebolusyong Pranses at Amerikano.* The aforementioned lessons were tackled using interactive learning strategies such as virtual fieldtrip, role playing and gamification. A general impression were obtained from Social Studies teachers for the content validity, specifically accuracy of content and relevance to the curriculum, as well as, design of the test item regarding its adherence to guidelines in constructing a teacher-made test. Then, the test was administered and the scores were tabulated to measure the effectiveness of Interactive Learning Strategies in teaching World History to the experimental group in relation with the performance of participants in the comparison group.

The validators evaluated the instruments as highly acceptable in terms of accuracy and relevance of the curriculum.

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III. Results and Discussion

Table 1. Pretest mean scores of the students in experimental group and comparison group

Group	Mean	Std. Dev.	Descriptive Interpretation
Experimental Group	18.73	3.14	Low
Comparison Group	18.73	3.14	Low

Legend: 38 – 50 = High; 25 – 37 = Average; 1 – 24 = Low

The Table 1 reveals the result of the given pre-test which was used as basis in match pairing of the two groups of respondents. As a result, the pairs of Grade 8 students who obtained scores from 12 to 26 were included in comparison and experimental group and their mean scores were low. Both groups of respondents garnered a mean score of 18.73 from 50-item test. A standard deviation of 3.14 was obtained for both groups. It showed that the individual score obtained by students included in the experimental and control groups were varied.

Table 2. First formative test mean scores of the students in the two groups

Group	Mean	Std. Dev	Descriptive Interpretation
Experimental Group	8.37	1.16	High
Comparison Group	4.80	1.42	Average

Legend: 8 – 10 = High; 5 – 7 = Average; 1 – 4 = Low

Table 2 exhibits the first formative 10-item test was given to the respondents. Results showed that the experimental groups were at high level of performance based on the obtained mean scores of 8.37 (SD=1.16) after using the interactive learning strategies (Role Playing). Meanwhile, the students in comparison groups were identified in average level based on the obtained mean scores of 4.80 (SD=1.42).

The findings showed that the students taught using interactive learning strategies (experimental) performed better than comparison. It manifests advancement of learning competency of *Pag-usbong ng bourgeoisie*. The students in experimental group were able to critically examine the origin of the richest countries in Europe which is considered to be playing a vital role in order to maintain its status as one of the most progressive continents in the world. This includes the growing force of merchants which has strongly contributed to Europe's progressive state in the history. The comparison groups with the use of differentiated activities were able to identify the bourgeoisie in the present time along with their characteristics. Students acted out the roles and view the situation from different perspectives so that they built up rapport and empathy for each other. This is important in improving interpersonal skills. They also become more critical when they evaluated the role players' behaviours. Role play creates a particular situation where students experience different roles and view the situation from

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different perspectives. They practiced techniques required in the professional practice. The role player handled the situation that forms the basis of skills practice, assessment and development.

It was observed that using role playing students immediately apply content in a relevant to the context. Role-play exercises are usually given to fewer participants whose prescribed roles are aligned in terms of their preferences and objectives. Students make an effort to develop their characters and minds in order to respond to the given set of problems and conditions. Interactions within role-playing are more interpersonal. Role-play permits students to dwell into certain issues (making it more real and immediate) and reflect beyond their own perspective (Scott, 2001 as cited in Teja, 2019).

Table 3. Second formative test mean scores of the students in the two groups

Group	Mean	Std. Dev.	Descriptive Interpretation
Experimental Group	7.87	1.55	High
Comparison Group	4.90	1.92	Average

Legend: 8 – 10 = High; 5 – 7 = Average; 1 – 4 = Low

As shown in Table 3, the experimental grouped were at high level of performance. In the second 10-item formative test, Experimental group gained a mean score of 7.87 (SD=1.55) and it is interpreted as "high," while the comparison group got an average mean score of 4.90 (SD1.92) and it is interpreted as "average".

The findings showed that the competencies of *Pagtatag ng National Monarchy at Nation State* where the students used interactive learning strategies in experimental group (virtual worlds) greatly influenced student's interest to learn.

The students were able to value the establishment of National Monarchy as well as the steps taken in order to strengthen again the king's power and the reign of National Monarchy. They were able to list down the important information about the characteristics of a certain state and how a territory and power of a monarchy are being ran and developed. The comparison groups with the use of a chart were able to differentiate the nation and state. They were also able to give words and examples in connection to the topic including the reasons why the monarchy system changed and its regaining power by the king. This attributed to the used of interactive learning material used by the student, they were taught not only how to travel places but also the value of how they will spend precious time in achieving their dreams in the future. It was proven that virtual fieldtrip provide opportunities for teachers and students to establish personalized connections with the curriculum through an online learning environment. Through the use of technology students were motivated and gained interest in new content areas. Student comments related to the virtual field trip activity were overwhelmingly positive. Students appreciated the change from reading text document, viewing videos and responding to discussion probes. They also enjoyed the freedom to explore specific aspects of a destination specific to their individual interests and career goals.

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Table 4. Third formative test mean scores of the students in the two groups

Group	Mean	Std. Dev.	Descriptive Interpretation
Experimental Group	9.43	1.04	High
Comparison Group	8.57	1.68	High

Legend: 8 – 10 = High; 5 – 7 = Average; 1 – 4 = Low

Table 4 reflects the third formative test means score of students in the two groups. Based on the result, both experimental and comparison group got a high mean score. The experimental group got a mean of 9.43 (SD=1.04), while the comparison group got a mean of 8.57 (SD=1.68). Though the performance of both groups was found at the same level and interpreted as high, still the experimental group gained a high mean score and performed better than the comparison group. These findings were manifested along with the contents of Grade 8 Araling Panlipunan and learning competency of *Mga Ambag ng Renaissance sa iba't-ibang larangan*. The experimental groups were able to enumerate the contributions in the field of arts, literature, science, and the reasons for the reign of Renaissance. It included the effects of having a new perspective in politics, religion, and education. The comparison group valued the good effects of the contributions of Renaissance in the present time on the everyday life of people. The results also revealed that the students in the comparison group managed to be at the same level of learning with the students in experimental group.

As observed, a little group activity was a perfect context for competing interactive board game because teacher guided the students to fulfill specific instructional goals by extending students to learn

vocabulary while playing the game. During group activities, students were more active and they concentrated more on playing the game. This is often because students did not feel disturbed by other students given that they were in a large group. It created the students to focus on the learning process by the games. The teacher ought to developed media to support the games. Interactive board game helped students to keep important memory and increasing concepts in functioning. It is because within the game activities, students more concentrate on seeking out the answers of the objects in order that they can keep the information by themselves and developing the information to the other students.

Table 5. Fourth formative test mean scores of the students in the two groups

Group	Mean	Std. Dev.	Descriptive Interpretation
Experimental Group	8.97	1.38	High
Comparison Group	6.80	2.23	Average

Legend: 8 – 10 = High; 5 – 7 = Average; 1 – 4 = Low

The result of table 5 shows that the experimental group gained a mean score of 8.97 (SD=1.38) interpreted as "high", while comparison group gained a mean score of 6.80 (SD=2.23) interpreted as an "average". The findings showed that the students taught using interactive learning material manifests advancement of learning competencies of *Repormasyon*

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at Kontra-Repormasyon. The experimental group was able to exhibit through role playing the important figures and how the changes on the administration of the Catholic Church propagated. They were also able to showcase how a person's credence towards God creates desperate denomination in religion.

The comparison group with the use of timelines allowed students to list down the important information about the reasons for having Reformation and Anti-Reformation along with the contributions of people in strengthening Europe in creating world awareness.

The findings implied that a number of students in experimental group achieved the learning competencies in Araling Panlipunan. This is a manifestation that the researcher had provided learning material that guided the students towards the attainment of the lesson's objectives.

The participation that students have when it comes to role-play sessions give them the opportunity to construct situations that allowed them to project their views on the issue under investigation. These situations became as a point reference for the students and enabled them to express their perceptions more clearly. Moreover, the discussions which followed these activities indicated that the student's engagement in the role-plays helped in contributing to the formation of a climate that allowed the discussions to flow freely. Students seemed to take the control of the situation during these discussions in the same way that the actors have a control over their audience during and soon after their performance. In that sense, students seemed to be empowered by their role in these situations. The validity of the interpretations that the observer of these activities made should be validated with the participation of the actors and with the use of other methods.

Table 6. Fifth formative test mean scores of the students in the two groups

Group	Mean	Std. Dev.	Descriptive Interpretation
Experimental Group	9.17	1.18	High
Comparison Group	8.40	1.40	High

Legend: 8 – 10 = High; 5 – 7 = Average; 1 – 4 = Low

Table 6 reveals that both two groups of students got a "high" mean score of 9.17 (SD=1.18) for experimental group and a mean score of 8.40 (SD=1.40) for comparison group.

The findings showed the competency of *Mga Dahilan at Epekto ng Unang Yugto ng Kolonisasyon.* Although the results of performance are both in the same level, it indicated that the experimental group obtained higher mean scores in all the results and outweighed the comparison group who used virtual fieldtrips. The students were able to identify the first part of West Imperialism and the 3 things which are considered as motives for colonization due to exploration. They identified those who lead the sailing and in which countries did they come from and visit. The comparison groups with the use of concept mapping were able to know the reason that affected the problems of the colonized countries such as loss of freedom, taking advantage of their natural resources by West colonizers.

During the class discussion and most interesting example was that nature speaks of history and students can see in all things of nature that they can use in real life. It gives the students and teacher opportunities to establish personalized connections with the curriculum through interactive learning environment. Through the use of technology, students were

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motivated and gained interest in new content areas. The internet provides an extensive range of virtual fieldtrips all over the world for all grade levels, providing experiences that would otherwise not be available to many students.

Table 7. Sixth formative test mean scores of the students in the two groups

Group	Mean	Std. Dev.	Descriptive Interpretation
Experimental Group	7.20	1.54	Average
Comparison Group	6.53	1.76	Average

Legend: 8 – 10 = High; 5 – 7 = Average; 1 – 4 = Low

Table 7 exhibits the last formative test given to the two groups. The mean scores of both groups appears "average", with a mean score of 7.20 (SD=1.54) for experimental group and 6.53 (SD=1.76) for comparison group. Although, the mean scores of both groups are in the same level of performance, yet experimental group obtained higher mean score in contrast to the comparison group. The findings showed that the competencies of *Rebolusyong Industriyal, Enlightenment at Industriya* using Interactive Board Games are powerful environments for learning in experimental group. Students were able to describe how industrial Revolution changed the agriculture and European industry and their everyday living. The comparison groups were able to illustrate the progress of the industry and how it helped everyday inventions.

Research consistently finds that players learn new skills, knowledge, insights, attitudes, or even behaviors, in games that challenge them to think, explore, and respond. It stimulates and supports learning. Typically, interactive games challenge players to solve compelling problems. Players learn by doing, in a virtual setting that responds to every move and decision they make. They interact with the game environment, develop skills to succeed in that environment, and rehearse those skills repeatedly. They have opportunities to experiment, fail, and try again until they succeed, and they receive help when needed.

Table 8. Post-test mean scores of the students in the two groups

Group	Mean	Std. Dev.	Descriptive Interpretation
Experimental Group	40.53	6.73	High
Comparison Group	26.67	4.44	Average

Legend: 38 – 50 = High; 25 – 37 = Average; 1 – 24 = Low

Table 8 shows the post-test result of the experimental and comparison groups. It shows that, students taught using interactive learning strategies (experimental) obtained a minimum of 28 points and a maximum of 50 points with a mean score 40.53 (SD=6.73) which is interpreted as "high". Meanwhile, the post-test scores of students taught using existing learning materials (comparison) obtained a minimum of 16 and a maximum of 37 points score with a mean score of 26.67 (SD=4.44) interpreted as "average".

After gathering all data from pre-test, formative test, post-test score. The results implied that the Grade 8 students taught using interactive learning strategies such as virtual

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fieldtrip, role playing and gamification manifest greater learning than those who have taught using the existing learning materials. This indicated that the "interactive learning strategies" had become very useful in the achievement of learning in teaching world history.Interactive learning is a hands-on, real-world approach to education. It actively engages the student doing the material. It energizes the classroom for both students and faculty. Lectures are then changed into discussions, and students and teachers become partners in the journey of knowledge acquisition. Interactive learning can take in many different forms. Students strengthen their critical thinking and problem-solving skills using a much more holistic approach to learning. Interactive learning can take place across the curriculum with or without technology. Historical interactive activities are available online to engage the history or Social studies students. Some activities ask students to become involved and learned more about journeying to a new world. Students can learn about astronomy or animals and the environment.

As shown in the table 10, there is a significant difference between the first five formative test mean scores of the two groups with t-values ranging from 2.292 ($p<.05$) – 10.640 ($p<.0001$) with 58 degrees of freedom.

Table 9. Test of significant difference between the post-test mean scores of the two groups

Test	Group	Mean	Mean Difference	Df	t-value	p-value
Post-test	EG CG	40.53 26.67	13.87	58	9.418**	<.0001

Legend: EG = Experimental Group; CG = Comparison Group; df = Degrees of Freedom
***Significant at .01 level*

The analyses present a significant difference between the experimental and comparison groups' post-test. The experimental group gained a mean score of 40.53, while comparison group gained a mean score of 26.67 with [$t(58)= 13.87$, $p < .0001$].

The results implied that the use of interactive learning strategies among students in experimental group provided them greater learning than those student taught using the existing materials. The enjoyment using virtual fieldtrip, role playing and gamification in teaching world history have created a new learning environment that broad the students' imagination. The happiness inside them led to create an experiential learning deeper than by just reading or listening. Also, a student's level of motivation and engagement with study material had greatly increased through taking advantage of interactive learning. Gamified, video-based study material ensures that multiple senses are active during each lesson — activating different parts of the neurological system, making it easier for them to digest and remember. Teachers can make use of interactive learning platforms to keep up to date with a student's study progress and to make their lessons more exciting to engage students in the class and motivate them to continue learning at home.

Meanwhile, post-test measures student learning. The comparison of these two tests can provide the teacher an opportunity to track the students' development (Kelly, 2017).

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Table 10 reveals the test of significant difference between the pre-test and post-test mean scores of each group.

Table 10. Test of significant difference between the pre-test and post-test mean scores of each group

Group	Test	Mean	Mean Difference	Df	t-value	p-value	Cohen's d	Effect Size
Comparison	Pre-test Post-test	18.73 26.67	-7.93	29	-8.074**	<.0001	1.85	Large
Experimental	Pre-test Post-test	18.73 40.53	-21.80	29	-16.940**	<.0001	4.15	Large

Cohen's d: 0.20 (Small); 0.50 (Medium); 0.80 (Large)
***Significant at .01 level*

It can be gleaned from Table 10 that there exists a significant difference between the pre-test and post-test mean score; the comparison group got a mean difference of -7.93 of those students who were under conventional teaching. The magnitude of mean difference of both group interpreted as "Large". However, a higher increase of -21.80 points exposed to interactive learning strategies suggests that the new teaching approach improves the performance of students under the experimental group. If this strategy would be continued, better academic achievement would be sustained. Attention lifespan can differ, but it is rather short. This is why when teachers use the same methods of teaching on continuous basis; students are bound to get bored regardless of how willing they are to master the materials. This is not possible to happen in an interactive classroom. Interactive learning comes with grand versatility in teaching and learning techniques and practices. There are opportunities for new learning materials and technologies everywhere on the web, making it possible for teachers to spice up the learning process for their students. Interactive learning has a grand trait – it is flexible. There are plenty of options that come with it. Finally, one of the biggest reasons why students love interactive learning- it is enjoyable and fun. When given the chance to collaborate with the peers and the teacher, share ideas and use technology to learn, students are having fun compared to the conventional methods students often find boring and repetitive, interactive learning allows for a wider range of activities and tools for mastering the same material. This, in return, enhances their motivation and boosts their engagement. Interactive learning allows students not only to use a variety of different tools and technology to study but also opens opportunities for them to be creative and enjoy the freedom of guiding their own learning processes.

IV. Conclusion and Recommendation

The null hypothesis stating that there is no significant difference between the post-test mean score of the two groups was rejected. This means that the group that used the interactive learning strategies performed better than the comparison.

The null hypothesis stating that there is no significant difference between the formative tests of the two groups is partly upheld. Based from the result of the six sets of formative tests conducted, the first five sets are significant while the 6th set is not significant. The entire group showed high scores due to the given learning strategies to the students. Meanwhile, the 6th set which resulted to not significant just gave a typical answer that the traditional way of teaching is no longer applicable to 21st century students.

The null hypothesis stating that there is no significant difference between the post-test mean score of the comparison and experimental group is hereby rejected. There is a large effect on the given exercises to the students due to its own given problem that some of the students who had been experiencing the new way of teaching really give an evaluation of high scores rather than in the traditional way of teaching.

Teacher may diagnose the student's strengths and weaknesses before instruction. Results may become the foundation of learning activities design by teacher which is congruent to the intended competencies in the curriculum.

Teacher may spend time on actual instruction with utmost consideration on learning progress of individual student by the use of Interactive Learning Strategies such as Virtual Field Trips, Role Playing and Gamification.

Teacher should conduct formative assessment that allows students to receive feedback from their class and quickly modify lesson plans and teaching methods in response to the data they collect. It is the foundation of a feedback loop that makes learning easier and more effective, and it is a key component in improved learning and student achievement.

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