The Use of Multiple Intelligence Enhanced Techniques and Role-Playing Activities Facilitates Rapid Success for Speaking and School Study

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Abstract

The objectives of this research were 1) to develop a learning management plan by integrating the multiple intelligence theory with role-play activities for students in grades 12 at the Demonstration School of Suan Sunandha Rajabhat University, 2) to compare the achievement of School Study between the pre-test and the post-test before and after using a learning management plan and 3) to study the students' satisfaction in studying by integrating the multiple intelligence theory with role-play activities in the classroom. The sample of this study was obtained from a stratified sampling, totaling 45 students in semester 2, the academic year 2023. The research instruments were the learning management plan, the School Study test of integrating the multiple intelligence theory with role-play activities, and the questionnaire on students' opinions on studying by using the Multiple Intelligence-enhancing techniques and Role-Playing activities to develop speaking skills and School Study. Data were analyzed with mean, standard deviation, and t-test dependent. The Results are Thai lesson plans of commendable content validity, as evidenced by the experts in education who assigned a high score, the independent samples t-test confirmed that post-test results surpassed pre-test scores, the attitudes of the students were positive, and they enjoyed studying.

Keywords: Multiple Intelligence; Role-Playing Activities; Speaking Skills

Introduction

The Multiple Intelligences Theory by Gardner (1983) revolutionized the educational landscape. Gardner defined eight intelligences, each forming the core of cognitive information processing models (Weller, 1996: 136.). Teaching through the application of multiple intelligence theory enables students to develop and enhance various intellectual skills. Gardner and Stenberg (1988) emphasized that enriching learning experiences allow teachers to nurture learners' individual focus. They rejected the notion of a monolithic and fixed conception of intelligence, opposing the idea of identifying and measuring intelligence solely through tests. Gardner proposed that humans are better characterized by possessing a series of relatively independent intelligence rather than having a single intelligence determined solely by IQ (Intelligence Quotient) (Weller, 1996).

The theory of multiple intelligences originated from the work of Howard Gardner (1983), who challenged the narrow definition of intelligence by proposing various basic human intelligence types: linguistic, logical-mathematical, musical, spatial, bodily-kinesthetic, and interpersonal. Although the theory initially comprised seven intelligences, an eighth intelligence, "naturalistic intelligence," has been added to the list. Furthermore, the possibility of a ninth intelligence, referred to as "emotional intelligence" (Armstrong, T., 2009) or "spiritual intelligence" (Albert, D. H., & Reed, J., 2008), has been suggested.

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Continuing with Gardner's theory of multiple intelligences, educators differentiate between various learning styles among students. Each student applies the classroom material in accordance with their dominant intelligence and preferred learning style, which facilitates more effective learning. Aligning learning styles with dominant intelligences, as per Gardner's multiple intelligences theory (MI), enhances the learning processes among students (Sener & Cokcaliskan, 2018: 125-132). Simultaneously, the multiple intelligences theory emphasizes an active learning process and employs active learning methods in diverse ways. Teaching based on students' preferred learning styles can foster and reinforce learners' skills and strengths (Calik & Birgil, 2013: 1-12.). Thus, when teachers adopt a multiple intelligences approach, students are better able to fully develop their potential. The multiple intelligences concept particularly underscores the practical application of intelligence in real-life situations, wherein integrating teaching with multiple intelligences can assist educators in facilitating multifaceted instruction and students in broadening their abilities beyond subjects emphasized in traditional education, thereby enhancing current teaching methodologies.

Linguistic intelligence shines as the foremost form of intelligence, as effective communication is pivotal. Proficiency in speaking, a communicative skill of paramount importance, offers numerous benefits in daily life, including supporting personal and professional growth across diverse employment fields, job roles, and ranks. Training aimed at enhancing speaking skills is a catalyst for effective communication. Individuals with adept speaking skills often flourish in their careers. Offering students opportunities to practice speaking skills across a range of contexts enables them to refine and apply these skills, thereby better preparing them for their future career paths after completing the course. An evaluation of the speaking skills of Grade 12 students at the Secondary Demonstration School of Suan Sunandha Rajabhat University revealed that while most students were capable of self-expression, their speaking skills required refinement for practical application in real-world scenarios.

Addressing this identified issue, the researcher devised various teaching methods gleaned from thesis proposals. These methods were designed to enhance methodological approaches for effective learning and to increase enjoyment during group-based learning. The utilization of Gardner's theory of multiple intelligences, along with the integration of hypothetical activities, facilitated naturalistic learning for students. This approach allowed students to learn based on the distribution of intelligences within the student body. For instance, multiple intelligences could be leveraged to identify gifted students and provide them with appropriate developmental opportunities, fostering growth and active participation in various role-playing scenarios assigned by the instructor. This dynamic learning environment not only prevented monotony but also spurred students' interest in learning (Chiung, 1963: 43). Moreover, the incorporation of hypothetical activities contributed to improved attitudes among students, fostering their progression in learning.

Role-play is an instructional activity that greatly aids in the development of speaking skills. This engaging technique involves communication through the enactment of roles, allowing teachers to recreate real-world scenarios within the classroom. By engaging in role-playing activities, students practice language use in a variety of situations. Consequently, role-play serves as an educational approach where participants adopt specific roles and improvise within those roles. The parameters of this activity are typically defined with realistic criteria, striving to immerse participants in lifelike situations. In recent years, with the rise of active methodologies and the increasing role of students in their own learning process, role-play has

garnered significant attention as an exceptionally effective tool applicable across various disciplines. Its integration in education has been particularly emphasized by numerous authors (Romero-Hall, E.; Adams, L., 2019: 123–132).

This study harnessed the advantages of learning activities grounded in the theory of multiple intelligences. The impetus for this approach was the researcher's aspiration to enhance students' speaking skills through role-playing exercises centered on the literary work "Romance of The Three Kingdoms," specifically the episode where Guan Yi accompanies Cou Cou. These exercises were conducted using hypothetical teaching methods with Grade 12 students at the Demonstration School of Suan Sunandha Rajabhat University. The implementation involved crafting Thai lesson plans and instructional enhancements, fostering an environment conducive to cooperative learning groups where students could enjoy speaking while honing their ability to organize diverse ideas. The integration of these communicative skills within the teaching activity enhanced the classroom environment and subsequently catalyzed learners' progress, leading to significant advancements in speaking proficiency. This approach stands as a prime example of effective teaching methodology.

Study Focus**:** 1) to develop a learning management plan by integrating the multiple intelligence theory with role-play activities for students in grades 12 at the Demonstration School of Suan Sunandha Rajabhat University, 2) to compare the achievement of School Study between the pre-test and the post-test before and after using a learning management plan and 3) to study the students' satisfaction in studying by integrating the multiple intelligence theory with role-play activities in the classroom.

Theoretical Background

Supporting the aforementioned quotation, Poole (2000) lucid portrayal of Multiple Intelligences classrooms offers valuable insights into comprehending the practical potential of this theory. Within integrated and cooperative Multiple Intelligences classrooms, educators utilize unconventional approaches to construct meaning, employing a flexible yet deliberate approach. Through small social groups and learner-centered activities, students are afforded opportunities to exchange information and develop a deeper understanding of the subject matter. In this relaxed and non-intimidating learning environment characterized by contextual cues, collaborative work facilitates the reception of comprehensible input. Poole's depiction of Multiple Intelligences classrooms underscores that the theory encapsulates familiar methodologies such as whole language and cooperative learning, transcending the boundaries of rote learning Poole (2000). Furthermore, Simoncini et al. (2018: 146–160) contend that teaching aligned with multiple intelligences emphasizes the creation of democratic, respectful, and diverse learning environments. This approach empowers each student to communicate their abilities, reinforce personal achievements, and kindle heightened interest in learning. Simoncini et al. further posit that such an approach can enable students to surpass their initially dominant intelligence domains in terms of learning outcomes. Similarly, Minnier et al. (2019: 169–175) underscore the distinction between applying multiple intelligences in teaching and traditional teaching methods. Teaching rooted in the multiple intelligences framework integrates a plethora of instructional strategies and activities. A wealth of studies indicates that adopting the multiple intelligences approach in teaching augments students' motivation and interest in learning.

The researcher, along with several experts, has directed their studies toward learning theories that revolve around the student rather than the teacher. This shift has given rise to the concept of active learning, which entails students assuming a prominent role in constructing their own learning experiences. In this model, the teacher's role transforms from that of a guide and mediator to that of a facilitator. (Moreno-Guerrero, et al., 2020: 1–13). This approach aligns with the contemporary educational system's emphasis on creating environments of autonomous and guided discovery, fostering motivation. (Rondón, M.; Martínez, et al., 2020: 1–17). Romero-Hall (2019: 123–132) delineates role-play as an educational technique wherein participants adopt and improvise certain roles, with established guidelines that mirror real-life scenarios. The recent proliferation of active methodologies and the increased participation of students in their own learning have propelled role-play to the forefront as an exceedingly effective tool across disciplines, particularly within educational settings.

To effectively engage in role-play, participants must immerse themselves in their assigned roles and comprehend the specific role-playing context (Ladousse, 2019). This rationale underscores the incorporation of role-playing activities into teaching sessions, offering learners diverse avenues to grasp language roles and structures. These activities afford learners the opportunity to practice both speaking skills and language usage within a group setting. This group dynamic encourages learners to employ language in conversations within a secure and controlled environment, while also developing their ability to collaborate effectively in various situations, thereby bolstering their speaking confidence. This approach is supported by research conducted by Storti (2020: 31-32), which explored the use of role-playing activities as a means to facilitate communication practice. Students engaged in role-playing conversations, promoting fluency and confidence in conversational skills.

Linguistic theory, a facet of the multiple intelligences framework introduced by Howard Gardner (1983), represents a distinctive teaching approach that places emphasis on using language to convey contextually relevant meanings. The core tenets of this concept-based language teaching approach align with the principles of systematic language instruction. Accordingly, speaking constitutes a foundational element in language acquisition. Participants are tasked with delivering informative and persuasive speeches, as well as enacting select stories.

With this in mind, the researcher was motivated to implement role-playing activities based on hypothetical teaching within the context of the literary work "Romance of The Three Kingdoms," specifically the episode involving Guan Yi and Cou Cou. This approach was integrated into learning activities, aiming to propel students forward in their language skill development and facilitate progress.

Research Methodology

A. The research design

To answer the researched questions previously mentioned, it has established an empirical framework that guides the research process and focuses on the study intended to examine to get answers to the purpose of the study by the experimental research in the One – Group Pretest – Posttest Design.

B. The Study Sample

The participants in this research were students of grades 12 of the Secondary Demonstration School of Suan sunandha Rajabhat University in semester 2 of the academic year 2023, counting 120 people in total. The sample of this study is stratified sampling consisting of 45 students of 6/3 (23 students) and 6/4 (22 students) at the Secondary Demonstration School of Suan sunandha Rajabhat University in semester 2 of the academic year 2023.

C. Measurement Construction

Three instruments were employed in this research. Firstly, a set of eight a learning management plan incorporating the integration of the multiple intelligence theory with role-play activities. Secondly, the researcher developed a pre-test and post-test achievement of School Study assessment, consisting of thirty items each, to evaluate student performance before and after the instruction. Lastly, the measurement of students' attitudes was assessed through a Likert's summated rating scale questionnaire containing ten items.

D. Data Analysis

In this study, the researcher used descriptive statistics to analyze the data collected for the study that are simple descriptive statistics were attained to identify the group by means and standard deviation for analysis of a learning management plan, the pre-, and post-testing achievement of School Study, and the attitudes questionnaire. Independent samples t-test analysis was used to determine whether the post-test had a higher pretest level; the statistically significant difference was at ($\propto$ = 0.05), therefore integrating the multiple intelligence theory with role-play activities could effectively develop Grades 12 Speaking and School Study.

E. The Research Planning

The study comprised three phases, each following a specific procedure. The first phase involved conducting a pretest assessment of the School Study of 45 participants (Grade 12 students in the second semester of the academic year 2023 at the secondary demonstration school of Suan sunandha Rajabhat University). The second phase encompassed an eight-week experiment involving Thai lesson plan instruction that integrated the multiple intelligence theory with role-play activities (October 24 to December 15, 2023). Lastly, the third phase involved a post-test assessment of the School Study following the instructional experiment and asking the opinions of the students by attitudes questionnaire.

Results

The results of the study are detailed as follows:

Part 1: The assessment outcomes of the first objective, which involves developing a learning management plan by integrating the multiple intelligence theory with role-play activities for students in grades 12 at the Demonstration School of Suan Sunandha Rajabhat University, were summarized in Table 1

Table 1 Assessment results of the first objective, which involves developing a learning management plan by integrating the multiple intelligence theory with role-play activities for students in grades 12 at the Demonstration School of Suan Sunandha Rajabhat University, as evaluated by academic experts in education.

Topic assessment.	Mean	S.D.	Suitability Level
1. Integrating learning multiple intelligence theory with role-play activities for developing Speaking and School Study had the principle appropriate for basic theories and good concepts.	5.00	0.00	Highest
2. Integrating learning multiple intelligence theory with role-play activities for developing Speaking and School Study had the objective that was suitable for basic theories and good concepts.	4.90	0.18	Highest
3. The objectives of the multiple intelligence theory with role-play activities for developing Speaking and School Study were clear and can show what the students hope for.	4.90	0.18	Highest
4. The learning material was suitable for teaching and learning activities.	5.00	0.00	Highest
5. The teaching and learning activities had the process of being suitable for the purpose and use of teaching and learning.	4.90	0.18	Highest
6. The teaching activities can facilitate rapid Success in Speaking and School Study.	5.00	0.00	Highest
7. The instructional media help was suitable for learning subjects.	4.80	0.42	Highest
8. The measurement and evaluation were appropriate following the theoretical good concepts and objectives.	4.90	0.18	Highest
9. The measurement and evaluation were appropriate following the teaching and learning good activities process.	5.00	0.00	Highest
10. Learning by integrating multiple intelligence theory with role-play activities for developing Speaking and School Study can be used to facilitate rapid success in speaking and school studies.	5.00	0.00	Highest
Total	4.94	0.04	Highest

From Table 1, it is the development to develop a learning management plan by integrating the multiple intelligence theory with role-play activities for students in grades 12 at the Demonstration School of Suan Sunandha Rajabhat University, based on evaluations from academic experts in education, demonstrated a notably high level of acceptance. The mean score was 4.94 with a standard deviation of 0.04.

Part 2: The assessment outcomes of the second objective which involves, the comparison of the achievement of the school study between the pre-test and the post-test before and after using a learning management plan for the 45 participants in Grade 12 at the Demonstration School of Suan Sunandha Rajabhat University, is presented in Table 2 and Table 3.

Table 2: Assessment results of the second objective, which involves, test results comparing the achievement of the school study before and after integrating the multiple intelligence theory with role-play activities from a learning management plan for 45 Grade 12 participants at the Demonstration School of Suan Sunandha Rajabhat University

Test	**N**	**Full score**	**Mean**	**S.D.**	**t**	**p**
Pre-test	45	30	11.52	1. 71	-24.547**	.000
Post-test	45	30	24.19	1.21		

**had significance at the .05 level.

From Table 2, the analysis reveals a significant difference in the achievement of the school study of the Grade 12 participants before and after the integration of the multiple intelligence theory with role-play activities aimed at a learning management plan. The mean score post-instruction (Mean = 24.19, SD = 1.21) is markedly higher than the mean score pre-instruction (Mean = 11.52, SD = 1.71), with statistical significance at the .05 level.

Table 3: Assessment results of the second objective, which involves, test results of achievement of the school study during the integration of the multiple intelligence theory with role-play activities, among 45 Grade 12 participants at the Demonstration School of Suan Sunandha Rajabhat University.

Teaching	Workload		Workpiece		Results		Total		Interpretation
	Knowledge		Presentation and self-assessment		Communication and presentation activities				
By using multiple intelligence theory with role-play activities in speaking skills	Mean	S.D.	Mean	S.D	Mean	S.D	Mean	S.D	Good
1.Linguistic/Verbal	2.66	0.80	2.59	0.70	2.56	0.70	2.60	0.79	Good

2.Logical/ Mathematical	2.54	0.70	2.56	0.71	2.58	0.71	2.56	0.72	Good
3.Musical	2.70	0.81	2.68	0.71	2.56	0.72	2.64	0.80	Good
4.Spatial	2.58	0.74	2.56	0.72	2.57	0.71	2.57	0.71	Good
5.Bodily-kinesthetic	2.65	0.80	2.64	0.80	2.56	0.72	2.61	0.79	Good
6.Interpersonal	2.84	0.94	2.88	0.46	2.90	0.29	2.87	0.46	Good
7.Naturalistic/ Intrapersonal	2.79	0.85	2.78	0.54	2.78	0.54	2.78	0.54	Good
8.Spiritual/ environmental	2.56	0.72	2.65	0.82	2.63	0.79	2.61	0.79	Good
total	2.66	0.80	2.68	0.70	2.76	0.55	2.57	0.71	
	Score 1 = 6 persons Score 2 = 12 0.70 persons Score 3 = 27 persons								
Mean	2.64	0.80							
Full score	3								
Performance score	26.35								

From Table 3, it is evident that the scores reflecting the school study of the Grade 12 students during the application of the integrated learning approach combining multiple intelligence theory with role-play activities at the Demonstration School of Suan Sunandha Rajabhat University yielded an average score of 2.64 points. This average corresponds to a percentage of 0.80% and culminates in a Process Efficiency score (E1) of 26.35.

Part 3: The assessment outcomes of the third objective which involves, the students' satisfaction in studying by integrating the multiple intelligence theory with role-play activities in the classroom, are presented in Table 4.

Table 4: Assessment outcomes of the third objective which involves, Student attitudes of Grade 12 participants at the Demonstration School of Suan Sunandha Rajabhat University towards studying, as influenced by the integration of learning through multiple intelligence theory with role-play activities in the classroom.

Assessment item	**Agreement Level**			**No.**
	Mean	S.D.	Agreement	
1. Teaching and learning activities				
1.1 Encourage students to practice Linguistic/Verbal by Speaking and School Study.	4.54	0.56	High	4
1.2 Encourage students to practice Logical/ Mathematical skills by identifying relationships and solving problems in action on the show.	4.53	0.55	High	5
1.3 Encourage students to practice Musicals by knowing the melody, and singing a song of this story.	4.66	0.53	High	1
1.4 Encourage students to practice Bodily-kinesthetic by actually role-playing the character's personality.	4.57	0.66	High	2

1.5 Encourage students to apply their knowledge to create benefits for themselves and anyone.	4.55	0.58	High	3
Total Teaching and learning activities	**4.57**	**0.58**	**High**	**2**
2. Benefits received				
2.1 Using integrating learning multiple intelligence theory with role-play activities helps to improve students' Speaking and School Study.	4.59	0.52	High	5
2.2 Using integrating learning multiple intelligence theory with role-play activities provides students with a greater understanding of the world around them and high contemplation.	4.65	0.54	High	4
2.3 Using integrating learning multiple intelligence theory with role-play activities allows students to communicate more appropriately, clearly, and accurately.	4.70	0.50	High	3
2.4 Using integrating learning multiple intelligence theory with role-play activities makes students more creative.	4.83	0.55	High	1
2.5 Students can apply their knowledge and practice activities to more succeed in Speaking and School Study in real life.	4.77	0.52	High	2
Total Benefits received	**4.77**	**0.52**	**High**	**2**

From Table 4, the analysis reveals that the perceptions of Grade 12 students at the Demonstration School of Suan Sunandha Rajabhat University, regarding studying through the integration of learning that combines multiple intelligence theory with role-play activities to enhance Speaking and School Study, were consistently high. The mean score for these attitudes was 4.77, with a standard deviation of 0.52, reflecting the positive and that they enjoyed studying.

Discussion

1) The result of the first objective shows this outcome underscores the efficacy of teaching through the integration of the multiple intelligence theory with role-play activities. This approach supports diverse student profiles in terms of motivation levels, learning strategies, and responsiveness to distinct learning environments, as emphasized by Jena (2018: 10-11). Moreover, learners' educational journeys are influenced by their experiences and the learning environment, at the same time, the main emphasis in education is made only on two intelligences: logical-mathematical and linguistic-verbal, in both teaching and assessment. The use and application of additional intelligence are possible in a different learning environment and a learning method that incorporates the use of additional intelligence (Barrington, 2004: 421-434), an aspect emphasized by Wilson (2018: 127-132.), who proposed that linguistic intelligence and interpersonal intelligence are cultivated through activities such as role-playing, enabling effective communication and emotional understanding. At the same time, multiple intelligence theory focuses on an active learning process and active learning methods in various

ways. Teaching based on the student's preferred learning style can promote and enhance the learner's skills and strengths (Calik & Birgil, 2013: 1-12.).

2) The result of the second objective shows this approach fosters an environment where students feel comfortable and confident, unencumbered by competition, and can instead showcase their intelligence and unique attributes, aligning with Felder & Brent's (2005: 57-72) assertion that students' awareness of their learning styles enhances their learning capabilities. This congruence between teaching and learning styles enhances the learning process, aiming to cultivate adaptable learning skills suitable for various learning types. Students with intra-personal intelligence are more aware of Role-Playing abilities, strengths, and weaknesses; they can show team members where they need support and where progress can be made. Students with intelligence tend to look at other ways for more creative and successful in School Studies (Green et al., 2005: 349-359). At the same time, the use of hypothetical role-playing activities can contribute to the holistic development of students, particularly in enhancing their speaking skills. Moreover, enhanced attitudes resulting from hypothetical activities enable learners to advance their speaking skills and also encourage learners to understand and apply speaking skills appropriately for future use and occasions (Chiung, 1963: 43).

3) The result of the third objective shows that the success of objectives, group activities, and quizzes, in the classroom contributes to joyful learning and collaborative work. This aligns with the notion that diverse learning styles can make students happy to study, as outlined by Sener & Cokcaliskan (2018: 125-132). In the same way, Storti (2020: 31-32) said that using activity role-playing in which the instructor sets a condition for students to practice communication through conversation. The students were assigned to role-play in a conversing activity where the students were exposed to a learning environment to encourage students to practice communication through conversation to enhance the students' fluency in conversing with confidence. In addition, the expression of multiple intelligences among learners depends on factors such as learning style, cultural background, and social environment. The integration of intelligence becomes noticeable when combined with study, daily activities, and real-life situations (Bordei, 2018: 204-212).

Conclusion

The objectives of this study encompassed three distinct goals.

The first objective yielded is the development to develop a learning management plan by integrating the multiple intelligence theory with role-play activities for students in grades 12 at the Demonstration School of Suan Sunandha Rajabhat University, based on evaluations from academic experts in education, demonstrated a notable high level of acceptance. The mean score was 4.94 with a standard deviation of 0.04.

The second objective unveiled a statistically significant distinction ($\alpha = 0.05$). the analysis reveals a significant difference in the achievement of the school study of the Grade 12 participants before and after the integration of the multiple intelligence theory with role-play activities aimed at a learning management plan. The mean score post-instruction (Mean = 24.19, SD = 1.21) is markedly higher than the mean score pre-instruction (Mean = 11.52, SD = 1.71)

Finally, the third objective underscored that the overall attitudes of the students were high level, the analysis reveals that the perceptions of Grade 12 students at the Demonstration School of Suan Sunandha Rajabhat University, regarding studying through the integration of learning that combines multiple intelligence theory with role-play activities to enhance Speaking and School Study, were consistently high. The mean score for these attitudes was 4.77, with a standard deviation of 0.52, reflecting the positive and that they enjoyed studying.

Therefore, the use of integrating the multiple intelligence theory with role-play activities can facilitate rapid success in speaking and school studies, and the students liked and enjoyed the learning process.

Suggestion

This data indicates that students' dominant intelligences change because of the changes in the environments in which learning is located, we will be able to offer has covering of integrating learning multiple intelligence theory with role-play activities of branches control structural material. There is a need for further research by applying multiple intelligence theory with the author's technique or material and integration with more studies on other subjects for further action.

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