

Developing Moral Responsibility of Grade 9 Students Through an Active Learning on an Online Platform

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Abstract

This research aimed to develop the moral responsibility of Grade 9 students through active learning on an online platform to achieve the requirement for at least 70% of the standard. The students who participated in this research were thirty-two students of Grade 9 students who were studying in the second semester of the academic year 2021 from a secondary school, Chaingyuen Pittayokhom School, in Maha Sarakham Province, Thailand. Eight lesson plans for active learning in the context of genetic inheritance for a total of 12 h were employed. Four aspects of moral responsibility, specific responsibility towards oneself, responsibility for performing duties and assigned tasks, responsibility for their actions, and responsibility towards others were evaluated using the observation and interview approach

according to the standard IOC.

The research findings revealed that over all, the moral responsibility of the students was at a moderate level with a total average score of 38.69, representing 64.48% for the first spiral of learning organization and at a moderately high level with the total average score of 49.31, representing 82.19% for the second spiral of the learning organization.

The results obtained from this research obviously indicate that the active learning on the online platform is a suitable format to develop the moral responsibility of the students with a satisfactory achievement and can be applied to other learning managements.

Keywords: Moral behavior for responsibility, Active learning, Online platforms

1. Introduction

The ultimate goal of the Thai Ministry of Education is to provide people with psychics, morality, ethics and values in the creative use of science and technology. The new direction of education also tends to raise awareness, cultivate attitudes, social values, morality, ethics, self-esteem, and social responsibility (Raab & Bogner, 2021). Moreover, it has been reported that a greater learning responsibility can assist the students how to learn and get the job done, and to study the impact on problems and the needs of the community (Steinke & Fitch, 2007).

Due to epidemic of COVID-19 affects the negative impacts on economy, society and education worldwide, most schools are unable to offer traditional classroom learning. To continue educating and learning with safety living, the teachers have to organize their teaching style and select the appropriated tools and technologies that aid in teaching both theoretical and practical sections, meanwhile the students can more efficiently access knowledge sources, increase their opportunities to learn independently and review lessons at any time. In an age when communication has no boundaries and the diversity of technologies, the online teaching method is applied to ensure continuity of learning. The teachers and students can communicate with one another using elements and formats which are appropriate for the study course's nature and the learners' context, resulting in the use of digital technology for effective online classroom management (Wayo et al., 2020; Abuhmaid, 2020). Numerous schools have been focused primarily on transferring the educational content into the online virtual world (Wu et al., 2020).

An online platform is one of the most utilized platforms for managing distance learning for developing lessons and transferring knowledge through the screen. It provides the same environment as in a traditional classroom and the students can easily assess to complete quizzes, exams and complete the assignments (Ocak, 2020). Besides, the online learning environments can help the students to achieve their learning more efficiently (Laurillard, 1998; Tegmark et al., 2011; Moorefield-Lang et al., 2016; Lamon et al., 2020).

In the context of the learning management, the social networks used in daily life can bring about the alterations in the way they are organized, learning and improving by motivating and engaging students in the learning process (Ramirez & Gordy, 2020) similar to the school environment, and the students and classmates increase their interaction with technology

(Gabor, 2020). The students are designed to be active to create an alteration in meaning through the activities. The active learning environment, students' active participation and students' learning responsibility have been thought to be influenced the view, quality of skill and academic knowledge of the students (Nugroho & Wulandari, 2017).

Active learning is a learning management model that can develop the students to do things on their own (Bonwell & Eison, 1991). It is performed through activities and/or classroom discussion, focused on thinking at a high level and often involved working in groups (Freeman et al., 2014). It is suitable for engaging students in self-learning in a desired performance, encouraging students to be active and responsible for learning, and participating by doing (Barkley & Major, 2018). It has been documented to be a method of a learning management that increases maximum efficiency and beneficial of learning. Base on the course of genetic inheritance contains both theoretical and practical sections and this course can be learned from the surrounding environment together with technology media, focused on the students to discuss and interact with learning arrangements to stimulate students' higher-order thinking processes, let the students to do real-world action in a proactive learning management model, and developed the students into a human being with complete intellectual, emotional, social, and creative thinking responsible and enthusiastic, therefore the study on genetic inheritance should be beneficial for active learning management in a connection with the online platform as a tool to develop students to become knowledgeable person and have ethical behavior in relation to learning responsibility.

According to the critical circumstance as above and in the worldwide context of online learning rapidly and urgently expanding in response to COVID-19, active learning has been transformed into online platforms which allow the students to participate, develop their experience, study on the lessons on the website at any time and any places, and keep them in engaging and working together. According to the report of online learning in the COVID-19 crisis, Thai education of the Office of the Education Council Secretariat found that the teachers still use the method of learning emphasizing content and giving lectures. The student participation in self-study and the students-teachers interaction are relatively low. In addition, the administration of learning in the internet-based framework alone in this manner is less successful and the students are unable to apply the knowledge gained in daily life and create innovations from technology media (Office of the Education Council, 2020). Furthermore, the teachers can not completely survey the moral way of behaving of understudies in learning (Bali & Liu, 2018).

In the current crisis of COVID-19, utilization on online learning management revealed that the responsibility for learning and participation of the students at Chiang Yuen Pittayakhom School, a secondary school in Maha Sarakham Province, Thailand is less than 70% of the standard due to the students lack of enthusiasm and a sense of responsibility, learning activities cannot be done, and the students cannot apply their knowledge gained and innovative technological media in daily life with limited practical knowledge.

As student responsibility is found to be one of the most important desirable characteristics. Being responsible and held accountable for one's actions is a necessary behavior for all

members of society. In response to the ultimate goal of the Thai Ministry of Education for the management of learning under the COVID-19 circumstance and to create the enthusiasm and the sense of responsibilities of the students to meet the achievement, learning management is needed to adopt the learning platforms that allow the students to learn both in and out of the classroom, allow the students to practice switching lectures, apply what they have learned through sharing discussions, encourage students to take action in the surrounding environment and able to promote skills in thought processes and have rational learning to meet the goals required, and have the same environment as in a normal classroom. Therefore, this research was carried out to develop the learning organization and moral responsibility of Grade 9 students by using an active learning on online platform.

2. Method

This research is action research. It was carried out to develop the moral responsibility of Grade 9 Students through an active learning on online platforms. It was conducted as previously described by Altrichter et al. (2002) with slight modifications. This action research was designed to use two spirals of learning organization. Each spiral is provided in terms of plan, act, observe, and reflection. The first spiral of learning organization was carried out and the moral responsibility of the students was observed. In case, the moral responsibility was less than the achievement, the plan to improve and develop of the moral responsibility was conducted and utilized in the second spiral of learning organization. The conceptual frame of this research is illustrated in Figure 1.

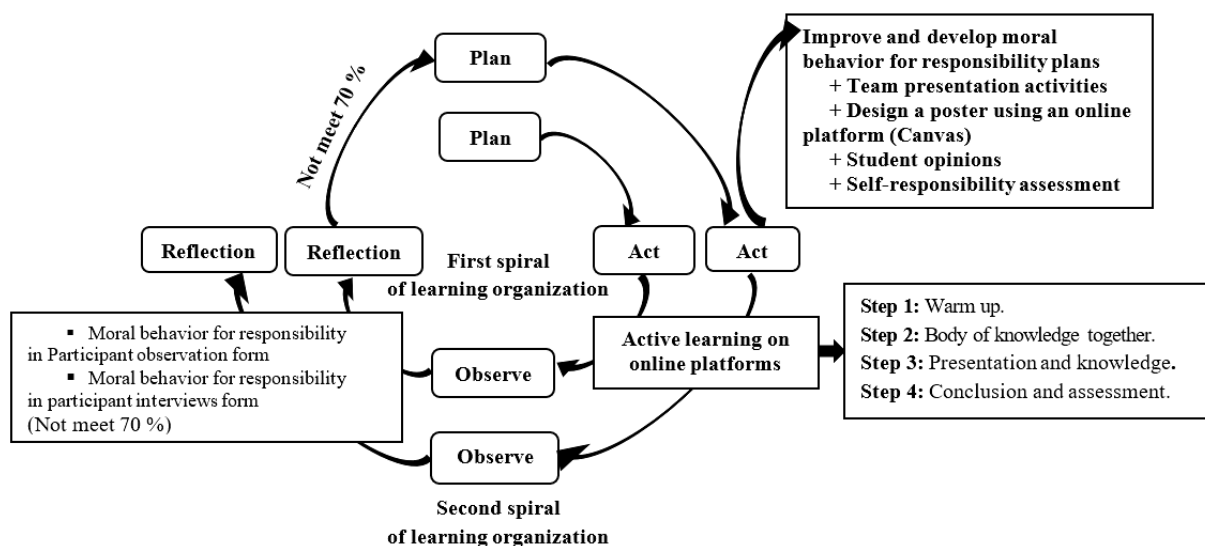


Figure 1. Conceptual frame of development of the moral responsibility of Grade 9 students using active learning on online platform

2.1 Research Processing

The researchers carried out the research by,

- (a) Training to conduct the research in humans;
- (b) Proposing the project to the Human Ethics Advisory Committee of Mahasarakham University, Thailand to review and approve. The research project was endorsed with Human Research Certification No. 379-401/2564;
- (c) Surveying, assessing and analyzing the problems of online learning management during of COVID-19 outbreak at Chiang Yuen Pittayakom School;
- (d) Planning to solve the problems;
- (e) Selecting the target group;
- (f) Conducting the research.

2.2 Target Group

Total of two hundred eighty-two students of Grade 9 Student in a secondary school, Chiang Yuen Pittayakhom School, Maha Sarakham Province, Northeastern Thailand were the investigated population. Thirty-two students of Grade 9 student who had been reported to have moral responsibility less than 70% of the standard were purposively selected to be a target group in this research.

2.3 Research Instruments

The research instruments used in this research were performed according to the standard IOC. They consisted of 1) eight action plans of active learning on online platforms (IOC 4.76-4.82) as shown in Table 1 and 2) forms for data collection, including participant observation form and the individual interview form of moral responsibility (IOC 0.60-1.00).

Table 1. Eight action plans of the active learning on online platforms

Spiral of Learning organization	Action plans		Class	Teaching date
	No.	Name		
First	1	Chromosomes, DNA and genes from local plant simulations.	1-2	4/01/2022
	2	Let's learn the structure of DNA from a computer model!	3	6/01/2022
	3	Why are living beings different? (Genetic inheritance)	4-5	11/01/2022
	4	Professional detectives: Genetic traits that go beyond Mendel's law (Blood group system)	6	13/01/2022
Second	5	Genetic disorder info graphic design	7-8	25/01/2022
	6	Genetic modification	9	28/01/2022
	7	The benefits and effects of genetic modification	10-11	1/02/2022
	8	Biodiversity	12	4/02/2022

2.4 Data Collection and Analysis

Data collection was conducted according to Altrichter et al. (2002) by 4 steps, including plan, act, observe, and reflection. Two spirals of the learning organization for improving moral responsibility were performed as follows;

Plan: Studying the research papers related to the creation of moral responsibility using an active learning on online platforms, exploring and analyzing the condition of common problems among teachers and students involving the moral responsibility problems that need to be solved or developed, developing the learning activity plans, and building the research tools.

The aspects of moral responsibility are these:

- Aspect 1: Responsibility towards oneself;
- Aspect 2: Responsibility for performing duties and assigned tasks;
- Aspect 3: Responsibility for their actions;
- Aspect 4: Responsibility towards others.

The steps of active learning are these:

- Step 1: Warm up;
- Step 2: Body of knowledge together;
- Step 3: Presentation and knowledge development;
- Step 4: Conclusion and assessment.

Act: Conducting tutorial managing active learning on an online platform and developing step by step, analyzing and criticizing the problems and impediments that occurred between teachers and students, from the first spiral of learning organization to revise and improve the plans, and developing the moral behavior for responsibility of the students who had the scores less than 70% of standard to perform the second spiral of learning organization

Observe: Observing and collecting the data using observation form has been reviewed by experts. Index of Item-Objective Congruence (IOC) between the questions of the observational questionnaire on moral responsibility and learning objectives ranged from 0.60-1.00, high level. (20 items with total score of 60 scores for 5 items on each aspect) and individual interview form, the concordance between the questions of the moral responsibility interview form was obtained. Moral responsibility and learning objectives from 0.60-1.00, high level.

Reflection: Analyzing, interpreting and applying the results obtained from the first spiral of learning organization to improve and develop the learning plans for the second spiral of learning organization.

The data analyzed were based on the basic statistics, including percentage, mean and standard

deviation. The average scores of moral behaviors for responsibility were interpreted using the rating scales at 3 levels (Nilkaew, 1998) as shown in Table 2.

The developing moral responsibility of Grade 9 students through an active learning on an online platform was assessed using dependent sample t-tests for the mean average score of various aspects of moral responsibility of the Grade 9 students using the active learning on online platform in the first and the second spiral of learning organization, while the moral responsibility of the students in various aspects from the first and second spiral of learning organization was reported by mean scores and their standard deviation.

Table 2. Average score range and interpretation

Average score range	Interpretation
2.50-3.00	high level
1.50-2.49	moderate level
1.00-1.49	low level

3. Results

3.1 The First Spiral of Learning Organization

Table 3 shows the moral responsibility of the Grade 9 students using the active learning on online platforms in the first spiral of learning organization. The responsibility towards oneself, the responsibility for performing duties and assigned tasks, the responsibility for their actions, and the responsibility towards others of 32 students were moderate with the average score of 2.3, 1.88, 1.83, and 1.89, respectively. The total average score of the moral responsibility of all aspects was 38.69, representing 64.48% with a standard deviation of 0.64. Nevertheless, eleven students were found to have most of each aspect of moral responsibility at low level and which resulted in their moral responsibility was less than 70%.

Table 3. Moral responsibility of the students in various aspects from the first spiral of learning organization

Student No.	Moral responsibility							
	Aspect 1	Aspect 2	Aspect 3	Aspect 4	All aspects	S.D.	Full score (60)	%
1	2.60	2.20	2.00	2.20	2.25	0.25	45	75.00
2	2.80	2.20	2.00	2.40	2.35	0.34	47	78.33
3	2.40	2.40	2.00	2.00	2.20	0.23	44	73.33
4	3.00	2.00	2.00	2.60	2.40	0.49	48	80.00
5*	1.60	1.00	1.20	1.20	1.25	0.25	25	41.67
6	2.80	2.20	2.40	2.00	2.35	0.34	47	78.33

7	2.20	2.40	2.00	2.20	2.20	0.16	44	73.33
8*	1.40	1.00	1.00	1.40	1.20	0.23	24	40.00
9	2.60	2.00	2.20	2.20	2.25	0.25	45	75.00
10	2.80	2.20	2.40	2.00	2.35	0.34	47	78.33
11*	1.40	1.80	1.40	1.40	1.50	0.20	30	50.00
12	2.40	2.00	2.00	2.60	2.25	0.30	45	75.00
13	2.60	2.00	2.00	2.20	2.20	0.28	44	73.33
14*	2.80	1.20	1.20	1.20	1.60	0.80	32	53.33
15	2.40	2.40	2.40	2.00	2.30	0.20	46	76.67
16	2.40	2.20	2.40	2.20	2.30	0.12	46	76.67
17*	1.00	1.00	1.00	1.00	1.00	0.00	20	33.33
18*	1.60	1.40	1.20	1.40	1.40	0.16	28	46.67
19	2.60	2.00	2.00	2.20	2.20	0.28	44	73.33
20	2.60	2.20	2.20	2.00	2.25	0.25	45	75.00
21	2.20	2.40	2.00	2.20	2.20	0.16	44	73.33
22	2.60	2.40	2.20	2.20	2.35	0.19	47	78.33
23*	1.40	1.40	1.60	1.40	1.45	0.10	29	48.33
24	2.40	2.00	2.00	2.20	2.15	0.19	43	71.67
25	2.00	2.20	2.40	2.00	2.15	0.19	43	71.67
26	2.20	2.20	2.20	2.40	2.25	0.10	45	75.00
27	2.20	2.00	2.20	2.40	2.20	0.16	44	73.33
28*	1.40	1.60	1.20	1.40	1.40	0.16	28	46.67
29	2.00	2.20	2.20	2.20	2.15	0.10	43	71.67
30*	1.40	1.40	1.00	1.20	1.25	0.19	25	41.67
31*	1.00	1.20	1.20	1.20	1.15	0.10	23	38.33
32*	1.40	1.40	1.40	1.40	1.40	0.00	28	46.67
Mean	2.13	1.88	1.83	1.89	1.93	0.13	38.69	64.48
S.D.	0.58	0.46	0.47	0.47	0.45	-	9.08	15.13
Interpretation	Moderate level	Moderate level	Moderate level	Moderate level	Moderate level	-	-	Less than 70% of standard

Note. *The students having moral behavior for responsibility less than 70% of standard, Aspect 1 = Responsibility towards oneself, Aspect 2 = Responsibility for performing duties and assigned tasks, Aspect 3 = Responsibility for their actions, and Aspect 4 = Responsibility towards others.

3.2 The Second Spiral of Learning Organization

Due to the plan for learning organization on online platform which was developed and used in the second spiral of learning organization along with the utilization of observation and individual interview approach for the eleven students who had moral responsibility less than 70%, the results demonstrated as follows:

3.2.1 Using scientific habits of mind Test (Set 2) for the Grade 9 students demonstrated the moral responsibility of the Grade 9 students using the active learning on online platforms in the second spiral of learning organization as presented in Table 4. The responsibility for performing duties and assigned tasks, the responsibility for their actions, and the responsibility towards others were moderate with the average score of, 2.41, 2.44 and 2.39, respectively. Interestingly, the responsibility towards oneself was at the high level, with the average score of 2.63. Additionally, the total average score of the moral responsibility of all aspects was 49.31, representing 82.18% with a standard deviation of 0.50.

3.2.2 Using the interview form of moral responsibility for the Grade 9 students, who did not meet the criteria of 70%, using the active learning on online platforms in the second spiral of learning organization revealed as follows:

- (1) The students are more involved in activities, feel excited and fun, able to express their opinions, listen to and respect to each other's rights.
- (2) The students like and impress the learning activities at the introductory stage such as quiz games, able to practice in the experiment or group activities, and impress to do activities together with friends both in class and online.
- (3) The students feel happy to assist in building a body of knowledge together with the teacher in the presentation and development of knowledge, impress with the presentation of their work, experimenting and presenting using modern applications, and exchange ideas to improve the further work.
- (4) The students know and understand what they have learned and can do better from this learning activity, have more effort, learn willing more confidence and diligently researching information from the internet other than what was taught in the classroom.
- (5) The students want to do more and better after this learning activity is to have the courage to speak in front of the class, dare to show, develop their responsibility, finish their work on time, and have time more clearly in the learning activities in the classroom.
- (6) The students prefer learning on online platform than face-to-face classes as online learning platform provides more flexibility throughout their learning schedule. The students are given the flexibility to get prepared for every lesson as going to school is completely restricted during this pandemic, thus saves up on the traveling time.
- (7) The students believe that online communication has made learning more effective than a face-to-face class.

Moreover, the majority of the students show positive attitudes towards the fact that online discussions have made them more interactive and participative than in a physical class.

Table 4. Moral responsibility of the students in various aspects from the second spiral of learning organization

Student No.	Moral responsibility							
	Aspect 1	Aspect 2	Aspect 3	Aspect 4	All aspects	S.D.	Full score (60)	%
1	2.60	2.40	2.60	2.80	2.60	0.16	52	86.67
2	2.60	2.20	2.20	2.40	2.35	0.19	47	78.33
3	3.00	2.60	2.60	2.40	2.65	0.25	53	88.33
4	2.80	2.40	2.80	2.60	2.65	0.19	53	88.33
5	2.60	2.40	2.20	2.00	2.30	0.26	46	76.67
6	3.00	2.60	2.60	2.00	2.55	0.41	51	85.00
7	2.80	2.80	2.60	2.00	2.55	0.38	51	85.00
8	2.40	2.00	2.00	2.00	2.10	0.20	42	70.00
9	2.80	2.60	2.80	2.20	2.60	0.28	52	86.67
10	3.00	2.60	2.80	3.00	2.85	0.19	57	95.00
11	2.20	2.20	2.20	2.00	2.15	0.10	43	71.67
12	2.80	2.80	2.60	2.60	2.70	0.12	54	90.00
13	3.00	2.40	2.40	2.40	2.55	0.30	51	85.00
14	2.20	2.40	2.20	2.40	2.30	0.12	46	76.67
15	2.60	2.80	3.00	2.40	2.70	0.26	54	90.00
16	3.00	2.40	2.60	2.80	2.70	0.26	54	90.00
17	2.40	2.20	2.60	2.40	2.40	0.16	48	80.00
18	2.60	2.00	2.40	2.40	2.35	0.25	47	78.33
19	2.80	2.80	2.60	2.60	2.70	0.12	54	90.00
20	2.40	2.40	2.40	2.60	2.45	0.10	49	81.67
21	2.80	2.40	2.40	3.00	2.65	0.30	53	88.33
22	2.60	2.40	2.60	2.60	2.55	0.10	51	85.00
23	2.60	2.20	2.00	2.20	2.25	0.25	45	75.00
24	2.80	2.40	2.40	2.20	2.45	0.25	49	81.67
25	2.60	2.20	2.60	2.60	2.50	0.20	50	83.33
26	2.60	2.60	2.40	2.60	2.55	0.10	51	85.00
27	2.60	2.40	2.60	2.60	2.55	0.10	51	85.00
28	2.40	2.20	2.40	2.00	2.25	0.19	45	75.00
29	2.40	2.40	2.20	2.20	2.30	0.12	46	76.67
30	2.40	2.40	2.00	2.00	2.20	0.23	44	73.33
31	2.20	2.20	2.40	2.40	2.30	0.12	46	76.67
32	2.40	2.20	2.00	2.00	2.15	0.19	43	71.67
Mean	2.63	2.41	2.44	2.39	2.47	0.11	49.31	82.18
S.D.	0.24	0.22	0.26	0.30	0.20	-	3.91	6.52
Interpretation	High level	Moderate level	Moderate level	Moderate level	Moderate level	-	-	Higher than 70% of standard

Note. Aspect 1 = Responsibility towards oneself, Aspect 2 = Responsibility for performing duties and assigned tasks, Aspect 3 = Responsibility for their actions, and Aspect 4 = Responsibility towards others.

In comparison, the mean average score of the moral responsibility of the students was higher in the second spiral of learning organization than that in the first spiral of learning organization in overall aspects as depicted in Figure 2.

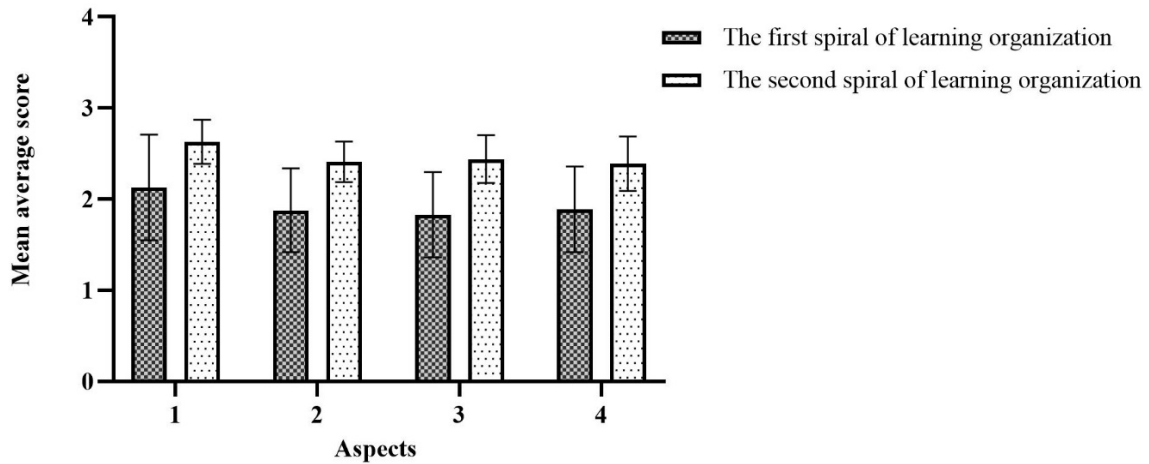


Figure 2. Mean average score of various aspects of moral responsibility of the Grade 9 students using the active learning on online platform in the first and the second spiral of learning organization

Note. 1 = Responsibility towards oneself, 2 = Responsibility for performing duties and assigned tasks, 3 = Responsibility for their actions, and 4 = Responsibility towards others.

Additionally, the mean percentage and mean total score of the moral responsibility of the Grade 9 students using the active learning on online platform in the second spiral of learning organization were higher than those in the first spiral of learning organization as shown in Figure 3. Nevertheless, these were not significantly different.

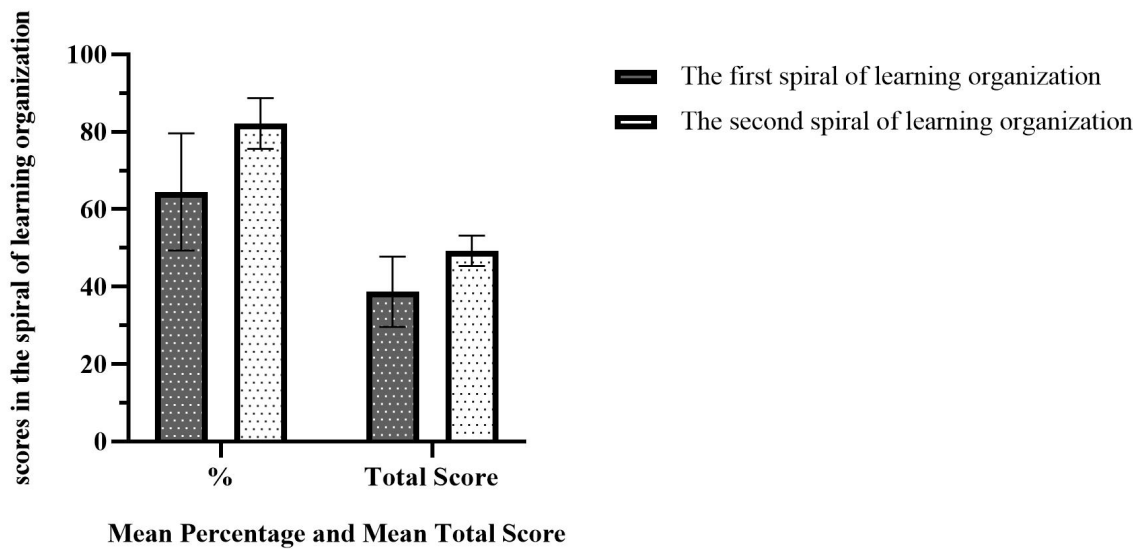


Figure 3. Mean percentage and mean total score of the moral responsibility of the Grade 9 students using the active learning on online platform in the first and the second spiral of learning organization

4. Discussion and Conclusion

The moral responsibility of all the students obtained from the first spiral of learning organization was not met the criteria of at least 70% of standard. This was mainly resulted from the eleven students which possessed the moral responsibility less than 70%. The lower responsibility of these students was due to 1) the students could not present their tasks and do the activities in a limitation time as there are a lot of contents and activities and some students take longer time to understand the contents; 2) the students lack of confidence and do not dare to ask, describe and discuss; and 3) the plan using for learning organization might not be an appropriate one.

The appropriate pedagogy and technology facilities adoption in the virtual settings of learning materials will increase the online learning effectiveness and experience among students. As there have been documented that the utilization online platforms with information technology in learning management is able to develop the lessons and format of knowledge that transfer through the screen with an excitement and fun under the cooperation between educational networks and the participation between the community and the learners in responds to the change in learning management in the current situation of the Coronavirus 2019 (COVID-19) epidemic (Vicheanpant, 2020). Additionally, active learning on online platform provides the students to do more efficiently access knowledge sources, increase their opportunities to learn independently, and review lessons at any time, comprehend the lesson and have fun learning (Charunphankasem, 2022).

In the present research, the development of the moral responsibility of the Grade 9 students using the active learning on online platform have been met the achievement is mainly due to

the researchers improved and developed the plans for moral responsibility and learning as in the following:

- (1) The plans for moral responsibility by using the observation and individual interview forms of moral responsibility for the Grade 9 students, who did not meet the criteria of 70%.
- (2) The plans to encourage the students to be the enthusiastic learning students and have desired characteristics in each step of active learning on online platform as follows:

Step 1: Warm up. The students feel excited, happy, have fun and enjoy playing word wars, interested in expressing their own opinions both in classroom learning activities and on a tablet, or Mentimeter on the online forum platform.

Step 2: Body of knowledge together. The students are good at answering the questions from teachers and peers during classroom activities and presentations through the online platform, such as Google Apps. They can increase the ability to find the problems and connect them to their previous experiences evidenced by the students' discussions and arguments. They are also jointly answering the questions and doing work on their own and/or their own group.

Step 3: Presentation and knowledge. The students can clearly present their work and/or their group to meet the objectives and submit their work, such as posters in a specific period of time.

Step 4: Conclusion and assessment. The students can complete their activities, summarize their knowledge and rationally and assess the tasks or activities assigned by the teacher both in the personal notebook and in the Live Worksheet platform, and accept the results. Moreover, they can assess and disseminate the results through media or online platforms for daily utilization. The most enjoyable students' learning experience has reflected the active learning on online platform satisfaction in this current study.

In this research, the active learning on online platforms employed can encourage the students to have enthusiasm in learning and develop the moral responsibility of the students as evidenced by the enhancement and achievement of the moral responsibility from 64.48% in the first spiral of learning organization to 82.19% in the second spiral of learning organization (Figures 2 and 3). This is more likely due to an active learning, a method of the learning management, is suitable for engaging students in self-learning and the students are able to combine new knowledge with their own personal knowledge and experience, has the potential to promote self-directed learning, in-depth learning and practice, and create understanding. The students are involved and able to apply the knowledge gained in daily life (Barkley & Major, 2018). The study of classroom activities for teaching Kohlberg's Theory of Moral Development that allows the students to learn about Kohlberg's Theory of Morality using digital to promote proactive and experiential learning by watching videos of events generate moral of interest and activate the students to learn better than using the lecture-style

learning (Carmichael, 2019). Nevertheless, Sun (2016) and Bao (2020) observed that the effectiveness of online learning depends on the designed and prepared learning material as well as lecturers' engagement and interactions with the students in the online environment, and can be enhanced by constructing an efficient online learning infrastructure (Teo et al., 2018).

The present research shows the students' satisfaction with the learning materials, course activities, and the amount of workload assigned during their active learning on online platform. The results findings indicated a similarity to the study by Hammouri and Abu-Shanab (2018), mentioning how the quality of the information and relevancies of content can influence students' satisfaction. The convenience in accessing the learning materials and being able to complete their work fully online are some of the supporting reasons for their satisfactory claims for learning materials and activities. Furthermore, the introductions of simulation learning activities have attracted students' interest in learning even more. The implementation of simulation will be engaging and effective in students' learning with suitable learning content.

Organization of active learning on online platform in presents a significant challenge, not only in terms of addressing immediate COVID-19-related issues but also in terms of transforming crisis into an opportunity to create a new world of learning and ensuring sustainable learning quality (Pinyosinwat, 2020). Many educational institutions are able to continue teaching by utilizing multiple technologies as assisting tools in the development of an online teaching system (Charunphankasem, 2022)

However, not only the plans and the formats of learning organization influenced the moral responsibility for learning, the responsibility of the teachers is an important factor as well. Kotaiah (2014) stated that home is the first place while schools and teachers are the second place to influence the morality of the children. The teachers can bring up various moral qualities to the students through both curricular and co-curricular activities. The activities include class discussion, group projects, role play, celebration of festival, camp, etc. The teachers have responsibilities and should play important roles in developing students' morality (Gui et al., 2020). Teachers should be able to engage students in moral reasoning process which will help them to make morally-principled decision about their own lives. Furthermore, the parents and society should take the responsibilities as mentors, therapists, parent-substitute, and counselors (Okeke & Drake, 2014).

Base on the results obtained in this research, the active learning on online platform can be used to develop the moral responsibility as this format of learning is able to enhance the capacity of the students to think clearly, to feel intelligently, and to act knowingly and promote active learning and deliberate practice amongst the students. Also, it enhances collaborative learning and encouraged students to take the ownership of the learning process. The active learning on online platforms is one of the suitable learning managements and can be very helpful to ensure the continuous success in delivering learning content during the COVID-19 pandemic outbreak.

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