Teachers and Participatory Management to Develop Students' Responsibility Skills

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Abstract

This research focused on developing the Teachers and Participatory Management project to enhance Students' Responsibility Skills at Buayaipitayakom School. The study employed the Participatory Action Research (PAR) methodology and was conducted over two cycles, each lasting one semester during the academic year 2021. There were three primary objectives for development: 1) achieving both expected and unexpected improvements, 2) facilitating collaborative learning among researchers, participants, and the school, and 3) acquiring Knowledge from practice within the specific context of Buayaipitayakom School. The study involved nine teachers and a target group of 353 students. The findings revealed positive changes, with assessments of students' responsibility skills demonstrating improved averages across three phases: before the first Cycle, after the first Cycle, and after the second Cycle. Participants—including educators, and school staff—recognized the importance of teamwork and project-based learning management. Ultimately, the Knowledge gained from this initiative culminated in the "operational model for developing responsible skills in students at Buayaipitayakom School."

1. Introduction

Responsibility is vital for human life as it empowers us to shape our destinies. It equips us with essential skills for success and instills the determination to do our best consistently. This principle holds whether one is accountable for personal choices, family, or others (Azhar, 2022). Responsibility gives us a sense of purpose and fosters resilience in the face of challenges, benefiting both individuals and society (Ross, n.d.).

Consequently, teaching responsibility in the classroom is crucial. We must guide students to be accountable in school settings, at home, and in their communities. Mastering this skill is a lifelong journey we must nurture from an early age. Educators play a significant role in preparing students for future academic challenges by establishing a robust educational foundation today. Moreover, teachers need to foster an environment where students understand the importance of acting responsibly and appropriately within the classroom.

Magnus Health (n.d.) emphasizes that students need to learn about responsibility and the consequences of their actions from a young age. Educators can contribute to a better world by instilling these fundamental life skills. Such lessons will help children become better students and more responsible members of society. Each student should recognize their role within a learning community, taking ownership of their actions to create a secure and positive classroom atmosphere. Students embracing responsibility promotes learning and enhances their academic performance and achievements.

This aligns with Bernaby Schools' (n.d.) beliefs, which assert that student success is closely tied to responsibility. This includes attending classes punctually and regularly, being prepared with necessary supplies, taking care of school property, diligently completing homework assignments, managing time effectively, respecting themselves and others, reading frequently, and striving to do their best.

Furthermore, Ed (2010) outlines ten strategies to encourage students to take responsibility for their learning: avoid making all the decisions for them, refrain from guessing their thoughts, engage in less talking, model positive behaviors and attitudes, request feedback, minimize testing, promote goal-setting and self-reflection, avoid over-planning, prioritize learning over tasks, and facilitate student-led conferences. By implementing these strategies, we can empower students to take charge of their educational journeys.

From a personal growth perspective, students need to understand the value of responsibility from an early age. This awareness influences their school life and shapes how they integrate into society as adults. As educators, we strive to instill a sense of responsibility in our students. However, the evolving digital landscape needs to be clarified regarding how best to hold students accountable.

In our quest for solutions, we discovered a wealth of ideas and strategies from various writers worldwide, addressing the development of student responsibility. These insights have inspired our research into this literature, allowing us to consider a broad spectrum of issues and perspectives.

Our initiative, termed the "Teachers and Participatory Management to Develop Students' Responsibility Skills" project for Buayaipitayakom School, employs the Participatory Action Research (PAR) methodology. This approach emphasizes collaborative development among researchers and participants, ensuring all voices are valued throughout the Planning, Acting, Observing, and Reflecting (PAOR) process.

This methodology is designed as an ongoing cycle, enabling continuous improvement and sustainable development through active participation. By committing to this collaborative strategy, we aim to learn through practice and foster a new understanding of cultivating student responsibility skills, ultimately creating a model for future educational practices.

1.1 Research Objectives

The research at Buayaipitayakom School used participatory action research (PAR) methodology to enhance students' responsibility skills. By examining relevant literature, researchers sought to provide participants with insights that they could integrate with their knowledge and experiences, thus boosting their developmental capabilities. The study involved nine teachers and targeted the development of 353 students, operating on the principle that "theory and practice should be interwoven" (Flinders University, 2022). Expected outcomes include 1) Improved student responsibility skills, measured through comparative assessments across three phases before and after two practice cycles. 2) Learning derived from the practical experiences of researchers and participants. 3) New Knowledge grounded in the specific context of the school.

1.2 Literature Review

The research primarily examined relevant literature based on the concepts discussed in the research objectives. To enhance the breadth of theoretical Knowledge, the researchers engaged participants in integrating these insights with their existing Knowledge and experiences, aiming to foster more effective responsibility skills among students. The investigation covered theoretical perspectives across six key areas:

1) Definitions of Responsibility Skills: This area included perspectives from various sources such as Content Team (2016), Deuren (2014), Hamariweb (2019), Macmillan Dictionary (2017), Schaefer (n.d.), Seisdedos (2017), Visser (2012), and Vocabulary (n.d.).

2) Significance of Responsibility Skills: Insights were drawn from Devi (2010), Kovacevic (n.d.), Mishra (n.d.), Oasis Movement (2017), and Rohilla (2018).

3) Characteristics of Responsibility Skills: This section was informed by the viewpoints of Banda (2017), Frankl (2011), Ivy (2009), Jamestown Community College (2020), MBA Research (n.d.), and Reference (2019).

4) Developmental Approaches to Responsibility Skills: The researchers explored various approaches articulated by Bielefeld (2018), Gvozdecka (2018), Mountain Springs Preparatory Academy (2019), Myers (2012), Chen (2017), Parent Toolkit (n.d.), Queen (2015), Schwarz (n.d.), Stoner (2016), and Sweetland (n.d.). Notably, the participants' brainstorming outcomes defined 44 common development approaches, detailed in Table 1.

5) Procedures for the Development of Responsibility Skills: Sources such as Learningtogive (n.d.), Lifehack (n.d.), Los Banos Junior High School (2020), Popstoolkit (n.d.), and Sorgius (2020) contributed insights into this area.

6) Assessment of Responsibility Skills: The assessment framework was based on the works of Hsu et al. (2014), León-del-Barco et al. (2018), Li et al. (2008), and Mergler et al. (2007).

For these six topics, the researchers focused on articles from academics or academic agencies. This choice ensured that the content aligned closely with the research needs, which is often more relevant than sources from academic textbooks.

2. Research Methodology

2.1 Types of Action Research Used in Research

Carr and Kemmis (1992) categorize operational research into three distinct levels: *1. Technical Action Research:* At this level, the researcher serves as an external expert who adopts established concepts. *2. Practical Action*

Research: Here, the researcher becomes more involved with research associates, functioning as a consultant and motivator. This level encourages thoughtful practice, observing results, and reflecting on findings. 3. *Emancipatory Action Research/ Participatory Action Research (PAR)*: This stage promotes a collaborative approach, where researchers and associates engage in research as equals.

For this study, the PAR methodology was employed, which aligns with the research conducted by various faculty members at Mahamakut Buddhist University, Isan Campus. Notable studies include those by Phramaha Paijit Uttamadhammo (Sakhong) and Phrakrusutheejariyawattana (2021), Poonvichaen and Sutheejariyawat (2022), Roobtam and Sanrattana (2021), Sarapoom and Phrakrudhammapissamai (2021), as well as Thawinwong and Sanrattana (2022), all utilizing PAR in their investigations.

The analytical and synthetic research of Sanrattana (2018) draws on perspectives from various scholars, including Arhar et al. (2001), Carr and Kemmis (1992), Coghlan and Brannick (2007), and others. The PAR methodology is rooted in Critical Social Theory and Postmodernist Theories, emphasizing participation and democracy in processes and outcomes, fostering change, learning, and knowledge generated through practice.

The methodology highlights the importance of Participatory Teacher Development, involving educators in collaborative efforts. This cultivates a culture of continuous improvement and shared ownership of professional growth, empowering teachers to take initiative in their development while enhancing their skills in collaboration with peers (Hargreaves & Fullan, 2012).

Characterized by a collaborative process, this methodology allows the researcher to partner with research associates and engage in cycles of Planning, Acting, Observing, and Reflecting (PAOR). This cyclical framework supports ongoing improvements and serves as a dynamic model for professional growth.

2.2 Cycles, Steps

The Participatory Action Research (PAR) methodology is a continuous spiral cycle. In the 2021 academic year, nine teachers participated, targeting the development of 353 students through the following steps.

Cycle 1:

Step 1: Preparation involved three key activities: 1. Clarifying the Research Process: Participants must understand the research process, ensuring voluntary participation by respecting their rights.2. Collaborative Design: Engaging participants in the research design, with joint recommendations approved by all parties. 3. Reviewing Lessons: Analyzing and critiquing actions to foster a systematic collaborative learning approach.

Step 2: Planning included four activities: 1. Brainstorming: Participants discussed ways to develop student responsibility skills and recognize community expertise. 2. Presenting Theoretical Developments: Researchers shared insights from relevant literature, ensuring equal access to information. 3. Developing an Action Plan: Participants and researchers crafted an action plan, integrating diverse perspectives and achieving consensus on 44 development approaches. 4. Reviewing Lessons: Reflecting on the planning process.

Step 3: Acting consisted of four activities: 1. Preparing Assessments: Creating a questionnaire to measure implementation and responsibility skills before and after the practice. 2. Assessing Current Conditions: Evaluating the initial conditions using assessments. 3. Implementing the Action Plan: Following the action plan focusing on context and sustainable development. 4. Reviewing Lessons: Reflecting on the outcomes of the action phase.

These structured steps promote a collaborative and ethical research environment for continuous improvement.

Step 4 involves observing collected data from various activities using observational and in-depth interviews, journals, maps, and audio and video recordings. It adheres to the principle of recording all participant involvement and the code of conduct, which includes obtaining authorization for observations and respecting copyright.

Step 5 focuses on reflection and comprises three activities: 1) Assess current conditions after the 1st Cycle using specific assessments. 2) Reflecting on performance through group brainstorming, following principles such as listening to feedback, analyzing actions, and ensuring openness for critique. 3) Reviewing lessons based on previous principles.

The panel uses Kurt Lewin's Force-Field Analysis to evaluate the current status, driving forces for change, and resistance factors to assist in performance reflection. Recommendations include enhancing existing driving forces, seeking new ones, or adjusting both to improve overall effectiveness.

Cycle 2 comprised several steps for effective research and development:

Step 6: Planning involves creating an action plan and reviewing previous lessons.

Step 7: focused on following the action plan and ongoing lesson reviews.

Step 8: Observing consisted of gathering information via observational methods, in-depth interviews, and reviewing materials like journals and recordings, as done in Cycle 1.

Step 9: Reflecting included assessing post-implementation conditions using assessments, brainstorming performance reflections, and reviewing lessons learned.

Step 10: Conclusion involved synthesizing results through workshops where researchers and participants applied findings and reviewed insights. Three phases of assessment occurred: before the first Cycle, after the first Cycle, and after the second Cycle. Results were based on feedback, analysis, and learning from actions. Collaborative recommendations ensured transparency and openness to suggestions.

2.3 Research Site and Research Participants

The research site was Buayaipitayakom School in Khon Kaen province. Nine voluntary participants participated, and the focus was on 353 students.

2.4 Research Tools

The researchers employed several tools for information collection at different stages, guided by Mills's (2007) concepts: 1. Observational Form. 2. In-depth and Group Interview Forms. 3. Examination/Recording Materials (e.g., journals, maps, audiotapes, videotapes, artifacts, field recordings).

Researchers and participants developed a collaborative self-assessment tool to assess the implementation of alternative proposals. This assessment measured the developmental approach across three phases: before and after the 1st Cycle and after the 2nd Cycle, utilizing a five-point rating scale (most, very, medium, less, and least). Content validity was inherent to the "development line" concept agreed upon by all parties, negating the need for formal validation methods.

The Student Responsibility Skills Assessment Form was crafted based on studies by various authors and included 36 questions rated on the same scale. Five qualified experts validated This tool through the Index of Item-Objective Congruence (IOC), achieving IOC values above the 0.50 threshold, confirming alignment with developmental objectives (Chaichanawirote & Vantum, 2017). A pilot test with 30 non-research students using Cronbach's method demonstrated a high-reliability coefficient of 0.89, well above the 0.70 criterion (UCLA: Statistical Consulting Group, 2016).

2.5 Data Collection and Analysis

The researchers and participants were involved in data collection using various tools, adhering to the principle that all activities are recorded. Quantitative data from self-assessments were analyzed using descriptive statistics, while qualitative data were gathered through observations, interviews, and recordings. The analysis process included: 1) Verifying data integrity for its purpose; 2) Checking data reliability by comparing individual recording results and different data collection methods; 3) Presenting information critically and factually, supported by evidence such as statistics, graphics, and direct quotes from informants, highlighting diverse perspectives on the same issue.

3. Results

Based on the joint seminar activities between researchers and participants, the findings were summarized according to the research objectives as follows:

3.1 Expected Changes

To enhance responsible skills among students at Buayaipitayakom School, researchers and participants had two expectations: 1) the incorporation of more "principles/concepts/techniques/methods/activities" into participants' practices, and 2) an increase in students' responsible skills. The results were assessed across three phases: before and after the 1st Cycle, and after the 2nd Cycle.

3.1.1 First Expected Change

The action plan involving "principles/concepts/techniques/methods/activities" was implemented in three phases. The assessment results indicated average scores of 2.28, 3.30, and 4.67, showing progress in developing responsible skills as participants adopted the action plan, as shown in the overall and individual data analysis in Table 1.

Table 1. Comparison of the evaluation results of implementing the plan into practice in three phases: before and after practice in the 1st Cycle and after the practice in the 2nd Cycle

Action Plan "Principles/Concepts/Techniques/Methods/Activities"	Assessment results before practice in the 1st Cycle		Assessment results after practice in the 1st Cycle		Assessment results after practice in the 2nd Cycle	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
1. Teachers emphasize the importance of responsibility in enhancing student awareness.	2.33	0.78	3.33	0.73	4.78	0.44
2. Teachers value students who present their work on time and do not delay work.	2.50	0.71	3.17	0.67	4.44	0.53
3. Teachers urge students to engage in voluntary activities to develop a shared responsibility with others.	2.00	0.87	3.00	0.50	4.67	0.50
4. Teachers are good role models for students when cost-effectively managing learning and activities with limited resources.	2.25	0.87	3.33	0.53	4.78	0.44
5. Teachers provide assignments to students based on their aptitudes.	`2.42	0.67	3.25	0.50	4.56	0.53
6. Teachers dress appropriately and correctly as role models for students.	1.92	0.88	3.00	1.00	4.89	0.33
7. Teachers create knowledge-integrated learning environments and plan activities to help students develop morals and ethics.	2.08	0.67	3.25	0.50	4.44	0.53
8. Enable students to be aware of security.	2.50	0.88	3.50	0.50	4.67	0.50
9. Enable students to be aware of happiness.	2.50	0.87	3.25	0.87	4.78	0.44
10. Enable students to be aware of the danger.	2.25	0.71	3.58	0.44	4.78	0.44
11. Enable students to be aware of themselves.	2.50	1.00	3.50	0.71	4.89	0.33
12. Encourage students to be good role models.	2.33	0.60	3.58	0.44	4.78	0.44
13. Have students check themselves.	2.08	0.67	3.08	0.78	4.44	0.73
14. Allow students to set goals.	2.58	0.53	3.33	0.53	4.78	0.44
15. Enable students to develop communication skills.	2.17	0.60	3.25	0.87	4.78	0.44
16. Enable students to develop social skills.	2.33	0.60	3.58	0.44	4.67	0.50
17. Enable students to develop their academic skills.	2.17	1.05	3.67	0.33	4.89	0.33
18. Enable students to develop integration skills.	2.50	0.50	3.17	0.97	4.56	0.53
19. Enable students to develop decision-making skills.	2.50	0.87	3.58	0.44	4.89	0.33
20. Enable students to develop conflict resolution skills.	2.25	0.71	3.58	0.44	4.67	0.50
21. Encourage students to develop peer support skills.	2.08	0.44	2.83	0.44	4.56	0.53
22. Teach students to be accepting of their mistakes.	2.33	0.78	3.25	0.50	4.44	0.53
23. Allow teachers to avoid doing things for students that they can perform independently.	2.33	0.78	3.42	0.53	4.44	0.53
24. Provide students with leadership and peer mentorship.	2.50	0.71	3.33	0.53	4.44	0.53
25. Enable students to be aware of shame because shame is a powerful driving force.	2.25	0.71	3.33	0.53	4.44	0.53
26. Please encourage students to empathize with their peers and neighbors.	2.33	0.78	3.42	0.53	4.56	0.53
27. Allow students to volunteer in the community and demonstrate dependability.	2.25	0.50	3.17	0.44	4.89	0.33
28. Have students practice apologizing for mistakes.	2.33	0.60	3.17	0.44	4.56	0.53
29. Emphasize the importance of learning over teaching in teachings about responsibility and preparedness.	2.17	0.78	3.58	0.44	4.78	0.44
30. The teacher delivers clear and positive instructions for work and enough time to accomplish the task.	2.08	0.83	3.33	0.53	4.44	0.53
31. Teachers organize their instruction around a specific value.	2.42	0.44	3.25	0.50	4.44	0.53
32. Let students take care of themselves.	2.00	0.50	3.17	0.44	4.67	0.50
33. Encourage students to follow the self-support principle.	2.33	0.60	3.33	0.53	4.56	0.53
34. Push students to be more accountable.	2.33	0.78	3.00	0.50	4.78	0.44

No.		Mean	S.D.	Mean	S.D.	Mean	S.D.
35.	Let students make their own decisions and be accountable for the consequences of their behavior. Understanding that their actions are rewarded and penalized will aid in developing the desired social skills.	2.17	0.93	3.25	0.50	4.67	0.50
36.	Encourage teachers to employ questioning approaches rather than directives.	2.33	0.93	3.42	0.53	4.78	0.44
37.	Let students review themselves.	2.17	0.33	3.17	0.44	4.67	0.50
38.	Allow students to explore the "flaws" for themselves.	2.25	0.50	3.25	0.50	4.78	0.44
39.	Teachers assign tasks for students to do independently.	1.83	0.73	3.08	0.60	4.56	0.53
40.	Teachers organize behavior simulation activities.	2.42	0.44	3.33	0.53	4.67	0.50
41.	Teachers let children do household chores or things around the house. Children should start by making their beds in the morning and putting their toys in order.	2.17	0.78	3.17	0.44	4.67	0.50
42.	Let students find a pet they like and help them learn how to care for it. This teaching allows the child to be responsible for other beings.	2.50	0.50	3.42	0.53	4.78	0.44
43.	Teachers promote the management of free time.	2.42	0.44	3.17	0.44	4.67	0.50
44.	Let students practice taking life seriously.	2.33	0.78	3.25	0.50	4.89	0.33
Total		*2.28*	*0.11*	*3.30*	*0.23*	*4.67*	*0.13*

3.1.2 The Second Expected Change

Student responsibility skills assessment results indicate a significant improvement across three phases. Initially, in the pre-practice phase of the first Cycle, the average score was recorded at 2.60. Following the implementation of the practice during the first Cycle, this average rose impressively to 3.71. The upward trend continued into the second Cycle, where the average score reached 4.55 after further practice. This data showcases the effectiveness of the interventions put in place and highlights the positive trajectory of student responsibility skills over time, as shown in the overall, side-by-side, and individual data analysis in Table 2.

Table 2. Comparison of the results of three phases of student responsibility skills assessments: before and after practice in the 1st cycle and after practice in the 2nd cycle

Characteristics that characterize the student's responsibility skills		Assessment results before practice in the 1st cycle.		Assessment results after practice in the 1st cycle.		Assessment results after practice in the 2nd cycle.	
		Mean	S.D.	Mean	S.D.	Mean	S.D.
Personal Responsibility		*2.68*	*0.50*	*3.64*	*0.56*	*4.52*	*0.39*
1.	I am punctual, know my responsibilities, and carry them out well.	2.83	0.51	3.37	0.65	4.36	0.57
2.	I dare to admit and accept my faults.	2.48	0.68	3.72	0.71	4.59	0.51
3.	I am compassionate, respectful, and considerate of others.	2.66	0.66	3.69	0.84	4.55	0.59
4.	I must be unbiased, treat others with kindness, and listen to their hearts. I am not prejudiced.	2.64	0.66	3.65	0.70	4.53	0.50
5.	I trust myself, have a strong sense of self, accept the pardon, and be grateful.	2.81	0.73	3.82	0.71	4.68	0.48
6.	I can distinguish what is right from what is wrong.	2.50	0.86	3.97	0.78	4.70	0.47
7.	I always considered how my actions might influence those around me before acting.	2.76	0.79	3.31	0.86	4.25	0.64
8.	I'm starting to transform, learn, and enhance my duties.	2.79	0.70	3.59	0.71	4.52	0.53
Responsibility to Friends		*2.67*	*0.47*	*3.52*	*0.59*	*4.46*	*0.40*
9.	I must be cautious not to disturb my classmates.	2.78	0.59	3.56	0.77	4.46	0.52
10.	When I work with my classmates, I assume I am the primary cause of what happened to me.	2.72	0.55	3.46	0.71	4.45	0.55

11.	When participating in activities with classmates, I am emotionally aware and can control my emotions.	2.82	0.74	3.49	0.72	4.47	0.56
12.	I do not make fun of my peers for making mistakes.	2.63	0.78	3.58	0.74	4.48	0.57
13.	I have given my classmates essential information and fostered collaborative learning.	2.79	0.74	3.64	0.77	4.54	0.55
14.	I accept positive feedback and reviews from peers.	2.51	0.67	3.39	0.87	4.36	0.65
15.	I am concerned about my classmates' feelings, respect, and cooperation.	2.56	0.59	3.56	0.78	4.50	0.56
16.	I discuss my ideas with my peers to address conflicts and difficulties in the group.	2.53	0.67	3.46	0.93	4.42	0.62
School Responsibility		*2.61*	*0.50*	*3.78*	*0.54*	*4.54*	*0.36*
17.	I value other people's diverse ideas and viewpoints.	2.85	0.65	3.58	0.74	4.55	0.53
18.	I have demonstrated competence and academic ethics.	2.62	0.60	3.71	0.78	4.47	0.53
19.	I took part in the class. Laboratories and lectures are prepared and completed on time.	2.46	1.01	3.57	0.76	4.61	0.51
20.	I completed my assignments on schedule and with attention to detail.	2.72	0.72	4.08	0.83	4.54	0.50
21.	I understand and seek answers for a reason, not make excuses.	2.54	0.84	3.72	0.74	4.68	0.49
22.	I plan to learn diligently and patiently, participate in class, and submit assignments.	2.49	0.89	3.82	0.71	4.54	0.51
23.	I'm a volunteer contributor and dedicate enough time outside of class to schoolwork.	2.48	0.68	3.72	0.72	4.61	0.53
24.	I communicate with teachers, friends, and other members of schools with care and respect for individual rights.	2.63	0.78	3.66	0.70	4.47	0.58
25.	I am a good school member. I respect the rules and the social environment and follow the school's policies.	2.50	0.86	3.84	0.88	4.48	0.56
26.	I inspire myself. I set goals and implement plans to achieve educational goals.	2.82	0.74	3.82	0.72	4.55	0.50
27.	I attend school activities based on my interests and abilities.	2.62	0.60	4.08	0.76	4.45	0.54
28.	I respect the diverse thoughts and opinions of others.	2.85	0.65	3.58	0.74	4.68	0.38
Family Responsibility		*2.38*	*0.62*	*3.90*	*0.62*	*4.63*	*0.53*
29.	I assist with various chores in my family according to my abilities to lighten the burden on each other	2.50	0.83	3.84	0.88	4.65	0.48
30.	I consider myself a member of the family.	2.61	1.00	3.82	0.72	4.76	0.45
31.	I cleaned the house to make it a better place to live.	2.25	1.12	4.08	0.76	4.69	0.49
32.	I respect and abide by my family's agreement.	2.28	0.95	3.94	0.80	4.67	0.52
Social Responsibility		*2.53*	*0.81*	*3.81*	*0.62*	*4.64*	*0.37*
33.	I seek opportunities to get involved in various community and social activities.	2.52	1.02	3.73	0.74	4.59	0.53
34.	I serve and create prosperity for the community and society to the best of my ability.	2.61	0.86	3.98	0.68	4.78	0.42
35.	I'm not concerned with what people say for the sake of the community and society; I'm interested in doing what I believe is correct.	2.50	0.92	3.46	0.93	4.46	0.57

36.	I don't take advantage of people, things, or things that aren't necessary; instead, I use what's available in moderation.	2.50	0.92	4.08	0.83	4.74	0.47
Total		*2.60*	*0.47*	*3.71*	*0.52*	*4.55*	*0.34*

3.2 Unexpected Changes

The research yielded unexpected positive changes: 1) Applying participatory work principles fostered virtues within the group, leading to firm support and cooperation. 2) Initial confusion in lessons was addressed through collaborative problem-solving after 2-3 attempts. 3) The pandemic initially delayed students' responsibility skills development, but after allowing trial and error, progress was made with improved cooperation.

3.3 Learning from Practice

Researchers learned that: 1) Collaborative work enhanced idea exchange and supportive skills, improving overall achievement. 2) Teamwork promotes critical thinking, as problems motivate learning and informed decision-making.

Participants learned that: 1) Integrating moral projects into teaching encouraged cooperative learning. 2) Those who had prior integration realized the benefits of learning exchanges. 3) Project-based learning strengthened students' thinking, problem-solving, and responsibility skills.

The school recognized the importance of thought processes in creating new Knowledge and effective knowledge management, enhancing collaboration and shared responsibility among learners, leading to greater self-discipline and accountability.

3.4 Knowledge Gained from Practice

Knowledge gained from practice is framed within a theoretical context derived from implementing the driving force analysis conceptual framework, specifically Force-Field Analysis. This research utilizes a model that highlights the effects of executing an action plan, encompassing a range of principles, concepts, techniques, methods, and activities. These elements stem from integrating insights gathered from researcher participants and the literature reviewed by the researchers, totaling 44 items, as illustrated in Table 1.

The participants' practice levels were evaluated across three phases: before and after the practice in the 1st Cycle and after the practice in the 2nd Cycle. The findings revealed average scores of 2.28, 3.30, and 4.67, respectively. Notably, there was an observed enhancement in student responsibility skills across these phases, with averages climbing from 2.60 in the pre-practice phase of the 1st Cycle to 3.71 post-practice in the first Cycle and further to 4.55 after the second Cycle.

Despite these advancements, a specific resistance to change was encountered during the practice: 1) teachers typically dictated how students would engage in tasks, 2) students showed limited involvement in the planning process, 3) the duration of practice activities did not align with schedules, and 4) there was a lack of initial consultations. To address these challenges, the researchers collaborated to implement strategies that mitigated resistance to change: 1) fostering consultation and planning between teachers and students, 2) aligning practical activity sessions with the school's operational calendar, 3) weekly discussions of information and practical activities among all teachers, and 4) integrating pertinent Buddhist principles for additional insight.

The Knowledge acquired through these practices is encapsulated in "the operational model to develop responsible skills for students in Buayaipitayakom School." Illustrate this:
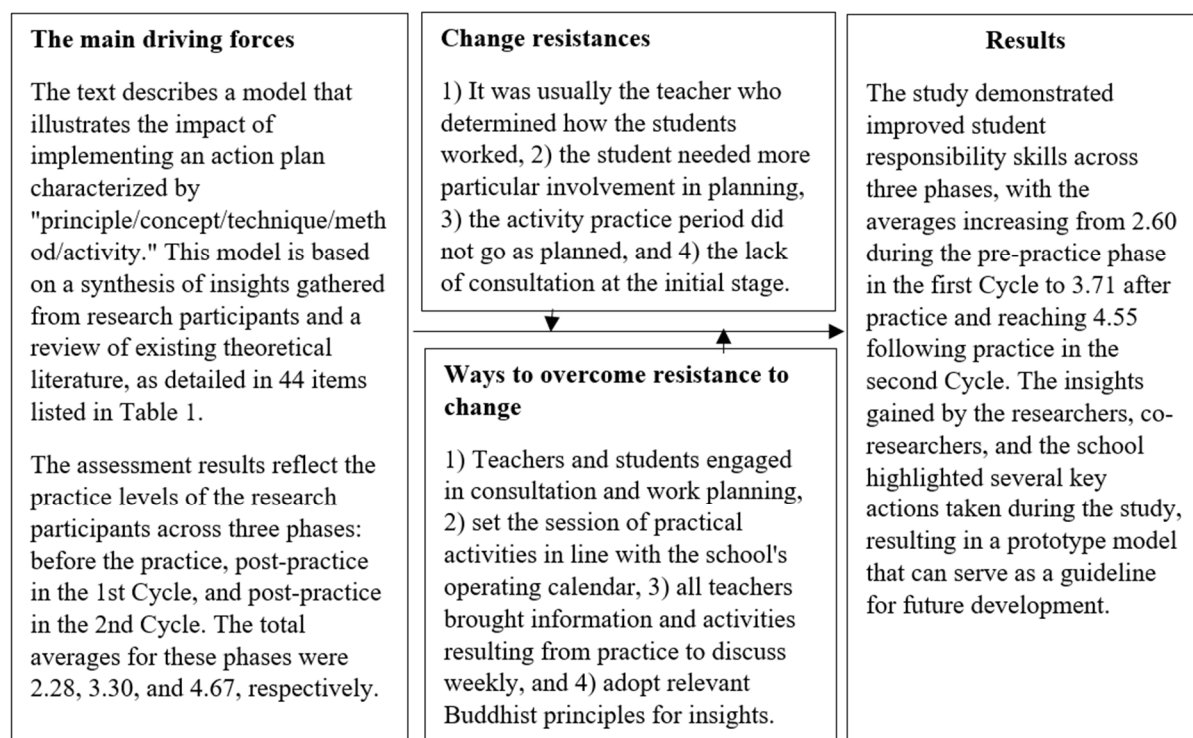
The main driving forces	Change resistances	Results
The text describes a model that illustrates the impact of implementing an action plan characterized by "principle/concept/technique/method/activity." This model is based on a synthesis of insights gathered from research participants and a review of existing theoretical literature, as detailed in 44 items listed in Table 1. The assessment results reflect the practice levels of the research participants across three phases: before the practice, post-practice in the 1st Cycle, and post-practice in the 2nd Cycle. The total averages for these phases were 2.28, 3.30, and 4.67, respectively.	1) It was usually the teacher who determined how the students worked, 2) the student needed more particular involvement in planning, 3) the activity practice period did not go as planned, and 4) the lack of consultation at the initial stage. **Ways to overcome resistance to change** 1) Teachers and students engaged in consultation and work planning, 2) set the session of practical activities in line with the school's operating calendar, 3) all teachers brought information and activities resulting from practice to discuss weekly, and 4) adopt relevant Buddhist principles for insights.	The study demonstrated improved student responsibility skills across three phases, with the averages increasing from 2.60 during the pre-practice phase in the first Cycle to 3.71 after practice and reaching 4.55 following practice in the second Cycle. The insights gained by the researchers, co-researchers, and the school highlighted several key actions taken during the study, resulting in a prototype model that can serve as a guideline for future development.

Figure 1. The operational model for developing responsible skills for students in Buayaipitayakom school

4. Discussion

The "Teachers and Participatory Management to Develop Students' Responsibility Skills in Buayaipitayakom School" project utilized Participatory Action Research (PAR) methodology, highlighting the significance of participatory principles and teamwork. Our findings indicated two significant benefits:

1) Collaborative work facilitated the exchange of Knowledge, leading to outcomes superior to traditional individual efforts.

2) Teamwork enhanced critical thinking skills, leveraging problem-based learning as a stimulus. This process encouraged well-informed decision-making and promoted self-directed learning, aligning with Brown's (2016) five benefits of encouraging employee participation: fostering community, enhancing communication, reducing stress, increasing productivity, and improving product quality.

The operational model for developing responsible skills in students at Buayaipitayakom School will continue to be implemented in the future. It is essential to note that practice must be self-motivated rather than solely driven by the research team. Additionally, educational personnel may need to fully grasp or possess the skills necessary to implement the PAR methodology effectively. In such cases, concepts familiar to them, such as Theory Y—which advocates for an optimistic view of team members and a decentralized, participative management style—can foster collaboration and trust among managers and their teams (The Mind Tool Content Team, n.d.). Moreover, adopting procedures based on goal-setting theory mirrors aspects of PAR methodology by establishing clear goals, engaging with team members, utilizing the SMART framework (Specific, Measurable, Achievable, Realistic, and Time-bound), ensuring that individuals have the resources needed for success, and providing ongoing feedback (The Indeed Editorial Team, 2021).

Furthermore, this research emphasizes integrating approaches for developing students' responsibility skills, merging participant insights with theoretical perspectives gathered through a literature review. This aligns with the principle that "Theory and practice should be interwoven," envisioning the process as a braided rope—continuously connecting the two domains (Flinders University, 2022). This approach corresponds with the tenets of Knowledge Management (KM), which promotes a comprehensive strategy for identifying, capturing, evaluating, retrieving, and sharing an organization's information assets, including databases, documents, policies, procedures, and the untapped expertise of individual workers (Koenig, 2018).

In conclusion, as the operational model for developing responsible skills in students continues to unfold at

Buayaipitayakom School, it can also serve as a framework for other schools aiming to enhance various skills or address different issues, applying the intertwined principles of "Theory and practice" alongside the concepts of Knowledge Management (KM).

5. Conclusion

The research outcomes were fully aligned with the established research objectives, showcasing significant and positive transformations in students' responsibility skills. Assessments revealed a consistent upward trend in average scores during three critical phases: before the first Cycle began, right after the first Cycle concluded, and after the second Cycle was completed.

Participants, including dedicated educators and proactive school staff, developed a deeper understanding of how teamwork and effective project-based learning management contribute to nurturing these essential skills. This collaboration led to a collective commitment to improving the overall educational experience.

The insights from this comprehensive initiative resulted in the creation of an innovative "operational model for nurturing responsible skills among students at Buayaipitayakom School." This model provides a structured framework meant to systematically integrate responsibility into the school's learning culture, fostering deliberate practice and active engagement among students.

While the knowledge gained from this Participatory Action Research (PAR) methodology is primarily academic, efforts to disseminate it for broader use could be strengthened. Nevertheless, it lays a solid foundation for the school, supporting the ongoing development of student responsibility skills. Other schools are encouraged to explore and adapt this model to fit their unique contexts. The study's synthesis of development approaches, particularly summarized in the 44 approaches from Table 1, offers valuable insights for practical application.

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Acknowledgments

We would like to thank the teachers who participated in the group discussion to review the accuracy and usefulness of the learning modules used in the online self-training program, as well as the teachers and students who served as the experimental group to try out the program. We would also like to thank the measurement and evaluation experts who examined the research tools, as well as the teachers and students who tested them.

Authors contributions

Benyapa Saisin was responsible for conducting every step of the research. Starting with studying research problems, designing research methods, creating innovations for use in research, conducting field research, summarizing results, and reporting research results. Associate Professor Dr. Phramaha Suphachai Supakitjo provided advice and consultation in the research process. Benyapa Saisin drafted and revised the manuscript. Associate Professor Dr. Phramaha Suphachai Supakitjo approved the final manuscript.

Competing interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Informed consent

Obtained.

Ethics approval

The Publication Ethics Committee of the Canadian Center of Science and Education.

The journal's policies adhere to the Core Practices established by the Committee on Publication Ethics (COPE).

Provenance and peer review

Not commissioned; externally double-blind peer reviewed.

Data availability statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Data sharing statement

No additional data are available.

Open access

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