

Using Service-Learning to Develop Civic Responsibility Through Clean-up Activities
Among Prospective Teachers

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ABSTRACT

This research focused on developing civic responsibility among prospective teachers at a teacher training institution through service learning. It was an action research study with a sample of prospective teachers of the teacher education program from the last semester. The objective was to develop civic responsibility among prospective teachers through multiple clean-up activities that gradually fostered a sense of responsibility. The research design used for this study was a single-group pretest-post-test experimental design. Students participated in groups. Researchers used a self-generated observation sheet (instrument) to observe civic responsibility during activities. This observation sheet served as the data collection instrument. The instrument consisted of 7 dimensions, including: active participation, task completion, cooperation, conflict resolution, volunteering, understanding needs, expressing and responding, enthusiasm and positivity, and reflection. The instrument was used to collect data at the pre-test and post-test stages. We implemented the clean-up activities, and we found that they enhanced civic responsibility among prospective teachers in the last semester of a teacher training institution.

Keywords: *service-learning, civic responsibility, clean-up activities, prospective teachers*

INTRODUCTION

Everyone knows how to live for themselves; living a life to comfort others as well is a responsibility. The purpose of education was to serve humanity and society. Civic responsibility means providing services you can to the community (Al-Shuaibi, 2014). Civic responsibility developed individuals, and they realized their own position in different situations (Kankindi, 2025). Taking the initiative to participate in community activities or volunteer in the community demonstrates civic responsibility. Civic responsibility was taught in classrooms from time to time, yet there were very limited chances for students to utilize civic knowledge in various tasks (Choi et al., 2023).

This study aimed to develop civic responsibility, and the target population was prospective teachers. In this research, we were using service learning to give students a chance to experience, explore, or utilize their knowledge related to civic learning (Saleem et al., 2021). An instrument was prepared to measure multiple dimensions of civic sense among students. In this research, we observed participation in cleanup activities, efficiency in completing the assigned tasks, working cooperatively with peers, sharing of tools and resources, resolving conflicts, volunteering for leadership roles, taking initiatives without prompting, demonstrating understanding of community needs, showing respect for public property, expressing ideas clearly, listening and responding appropriately, maintains enthusiasm

throughout activities, remains positive despite challenges, and able to reflect on learning and experience (Desintasari et al., 2025).

This study included cleanup activities according to the dimensions mentioned in the instrument. These activities not only included cleaning tasks but also included a reflection of their actions (Lin & Liu, 2025). The cleanup activities were divided into multiple sessions. During each activity, the students were observed, and progress was recorded. This will help to formulate the results of the research.

Responsible citizen or civic sense is the outcome of education (Bosio & de Wit, 2025). We noticed that the prospective teachers in the teacher education program from last semester are showing a deficiency in civic knowledge. They are not utilizing it in real life. Many of them ignore their responsibility, and some don't feel any responsibility. As they never experience such responsibility, they never have a course related to civic education. Civic education covers knowledge, behavior, attitudes, etc. (Haduong et al., 2024). These areas can be addressed through service learning, in which students learn by experience. However, due to limited research in this area, we don't have well-defined parameters or indicators to measure or observe such behaviors.

Objective of the Study

The objective of the present study was to develop civic responsibility (participation, task completion, cooperation, resolution of conflicts, volunteering, understanding needs, expressing and responding, enthusiasm and positivity, and reflection) through service learning (cleanup tasks) among prospective teachers in the teacher education program from the last semester of the teacher training institution.

Research Question of the Study

To what extent does service learning develop civic responsibility among prospective teachers in the teacher education program from the last semester?

LITERATURE REVIEW

Service learning is a kind of teaching method in which community services are designed in such a way that students learn to provide services, to support the community, and solve community/societal issues for the welfare or well-being of humanity (Preradović, 2015). In other words, we can say that service learning is 'learning by doing'. Service learning accelerates the learning process just like a catalyst who speed up any chemical reaction.

According to Giles and Eyler (1994), service learning was ignored by many theorists, but practiced by many practitioners. They shape service learning according to the concepts of J. DEWEY. In their article, they discussed both parts/components of 'service learning' separately and related it to DEWEY'S perspective. They referred to Dewey and said it is important for students to work in a community to experience 'mutuality'. Somehow, it is important for students, especially for undergraduates, to understand community service as they are at the edge when the welfare of society will be in their hands, and J. Dewey's work on educational setup has a clear picture of school as a 'miniature community'. That's why service learning develop sense of responsibility, civic sense, etc. (Giles and Eyler, 1994).

Service-learning allows us to engage students in community service. They participate and learn by doing service for the community to foster knowledge. Students participate in learning through experimental learning. Students become more active and engaged because they enjoy the practical implications of knowledge, and the information becomes knowledge when students implement or use knowledge in real settings (Thelma, 2024).

Saleem et al. (2021) found that the results show that it has a positive role in developing civic responsibilities among students. Service learning can be a wise choice to develop civic responsibility

and its sub-factors (Saleem et al., 2021). Another study supports the view that service learning plays a significant role in developing civic responsibility, as it fosters empathy, initiative towards the community, an understanding of society and its problems, and the ability to address them openly (Denby, 2008). “Service-learning is a reflective, relational pedagogy that combines community or public service with structured opportunities for learning” (Heffernan, 2011).

Service-learning helps students to find their role in society and focuses on thinking for society. It is a way that connects newcomer individuals to the existing society or community. It also provides students with opportunities to learn from existing experiences and systems and to provide society with new solutions from new minds (Salam et al., 2019). Service learning accelerates the learning process just like a catalyst who speed up any chemical reaction.

Choi et al. (2023) argued that the seven learning growth points occur through service learning. Specifically, he studied in an exam-bound curriculum system in Korea. According to his study, students specifically in an exam-oriented environment need a service-learning curriculum where students interact with the community in addition to literature or theory-based learning. The experiences he defines include reciprocity, sense of ownership, problem-solving, collaboration, working in a specific role, controlling uncomfortable feelings, and reflecting on one's own. No one has enough knowledge or skills to work in every situation, and in their studies, students also claim that they specifically go for courses to support their service-learning experience. So, for the community activities, students also need to learn what they already don't know and continuously refine their skills (Choi et al., 2023).

According to the literature review on service learning identified that it is fact that the method is most relevant when it comes to implement theoretical knowledge to real world but it also comes with the challenges, they state that many researchers or practitioners find difficulty in managing time to complete the process, they feel challenged when they do not able to develop a link between learning objectives and the service they are working on. (Salam et al., 2019)

The word civic comes with a holistic approach; according to the literature, it is based on civic knowledge, civic skills (cognitive, participation), and civic attitudes. Moreover, the researcher found that there should be a proper definition that defines civic responsibility in a clear statement. Chi et al. (2006) describe that elementary student knowledge alone is not enough to develop civic responsibilities in students, but there should be practical activities that convert students' knowledge into a habit and responsibility. The researcher also provides the solution: shift to experiential learning/service learning. These methods are useful to incorporate curriculum content in civic learning. Measuring learning outcomes is also a task; we cannot measure students' progress just like we did in our routine, it is a qualitative skill and the will of an individual. It cannot be measured by exams; it is measured by continuously observing behaviors and attitudes. So, we cannot say that these are the parameters we use to measure the student's civic sense; instead, we can evolve and shape their personality. (Chi et al., 2006)

Civic responsibilities mean active participation in civic tasks, also feel empathy for society (Lin & Liu, 2025). Civil responsibilities include not only cleaning a specific area or removing trash, but also defining a way to live an appropriate life and support society. It is about to fulfil duties that are not listed anywhere but still exist. This type of sense is developed when an individual is in the learning stage, i.e., a student. This study also aims to develop civic sense among students.

Throughout the world, higher or secondary educational institutes have a significant character for molding society. They not only provide education to the students but also shape their character and personality to serve in society. Austin (1998) argues that our educational institutions continuously shift students' interests to competition, marks, positions, and race, where everyone thinks for themselves. He also states that there should be a system by which teachers or educationalists can measure the progress, regardless of exams or curriculum, they introduce the students to terms like social responsibilities,

community services, but they fail to track the progress. These systems are not able to develop basic civic skills like leadership, collaboration, etc. (Austin, 1998)

Cleanup activities are supposed to develop responsibility among individuals. Cleanup activities are not just sorting trash, but it is a vast experience. Individuals think about their environment and become more responsible for their surroundings.

Stewart (2012) argues in his research that service learning plays an important role in developing civic responsibility in children. He also said that there is no need to announce civic activities to participate; instead, it should be a part of the educational system formally. He focused on reflection, which is the most important point of civic learning and can be considered a tool to measure civic responsibility. After the cleanup activity, a reflection session would be helpful where students use their experience reflect on society and the role of people, then identify reasons, propose solutions, and try to maintain the community. Using the service-learning method converts factual knowledge into field learning, and due to practical implementation, this knowledge is considered experience for the students. (Stewart, 2012).

To develop civic sense in youngsters, multiple activities can be held among them. Algeria (2021) proposed multiple sessions of activities to determine the development of civic engagement in youngsters. The program they introduced was named 'LEAP' (leadership, engagement, youth activism program). In this program, there are 12 sessions with multidimensional activities. These activities include taking pictures of what they felt was wrong with the environment, then discussing the problems, reasons, or solutions, and reflecting. These types of activities enhance multiple skills: communication, participation, decision-making, and teamwork. To formulate result they use quantitative as well as qualitative methods (surveys, questionnaires, reflection journals, etc.). Youngsters actively participate and show affectionate behavior towards civic responsibility (Algeria et al., 2021). This type of learning needs regular monitoring and time to develop; otherwise, the results may vary from expectations.

METHODOLOGY

This study was quantitative in nature. The method used for this study was action research. Quantitative methods encompass data in numbers. This numerical data shows that the exact change from start to end was quantitative. That's why this method was most appropriate, as it was used to measure change (Alford & Teater, 2025). This research used single-group pre-test-post-test experimental research design (Gamage, 2025). The instrument used in this study was an observation sheet. It was a 5-point Likert scale applied to measure different dimensions of developing civic responsibility. The observation tool included the dimensions of participation, task completion, cooperation, resolution of conflicts, volunteering, understanding needs, expressing and responding, enthusiasm and positivity, and reflection.

This research implies on positivism research paradigm as it was quantitative research and used observation instrument. The scale measured the level of observation from never to always. The lowest ranking in the instrument was never, and the highest ranking in the instrument was always. The content validity of this study was ensured by the experts. The validity of the study includes the review of the research study instrument (Sürücü & Maslakçı, 2020). The reliability of the instrument was checked by Cronbach's alpha. The reliability of the instrument used in this study was 0.76.

Participants

The purposive sampling technique was used for this study. The participants of the study were prospective teachers from a teacher training institute; particularly, this group showed a deficiency in civic responsibility. We purposively selected the group of 48 participants who showed a deficiency in civic responsibility.

Population of the Study

All the prospective teachers of the last semester of the teacher education program of the chosen public sector university were the population of this study.

Intervention and Data Collection

Before treatment, observations were taken through an instrument (observation sheet) to measure the sense of civic responsibility among prospective teachers. The data were quantitative in the form of percentages and frequency. The quantitative data were analyzed by the researchers using descriptive percentage analysis. Firstly, data were collected at the beginning of the research, and then after treatment. To analyze the progress, data were collected twice (before and after treatment), and the results were statistically significant.

During the four weeks of service-learning, in the first week, we observed a deficiency of civic responsibility among prospective teachers and started collecting data(pre-test) by using our instrument.

Clean-up activities were used as interventions: sector-based operational clean-up, data-driven clean-up audit, clean-up simulation, waste sorting hub, rotational civic coordinator model, problem-based intervention scenario, campus environmental mapping exercise, policy recommendation, peer dialogues, poster making, debate: plastic ban vs plastic convenience, reflection journal. Implement these activities among them. In the rest of the weeks, we engaged prospective teachers in awareness sessions along with clean-up activities. These clean-up activities developed a sense of civic responsibility, and the observation sheet/instrument helps to record progress with every activity.

Prospective teachers participated, led, and took part in every clean-up activity, every time they got closer to civic sense in them. After the activity, filling in the reflection journal at the end of every activity, we observed the gradual development of civic responsibility. At last, we took the post-test, which clearly showed us the results of the intervention and the progress made by the clean-up activities.

Table 1 Stages of interventions.

Week	Stages	Details
Week 1	pre-test	<ul style="list-style-type: none"> • A pre-test was conducted. • Their civic responsibility was measured by an observation sheet (instrument). • Day 4-5, activities(interventions) were planned.
Week 2-4	Interventions	<ul style="list-style-type: none"> • Clean-up activities were used as interventions: sector-based operational clean-up, data-driven clean-up audit, clean-up simulation, waste sorting hub, rotational civic coordinator model, problem-based intervention scenario, campus environmental mapping exercise, policy recommendation, peer dialogues, poster making, debate: plastic ban vs plastic convenience, reflection journal.
Week 4	Post-test	<ul style="list-style-type: none"> • On the last day of interventions, a post-test was conducted through an observation sheet to measure improvements.

DATA ANALYSIS

- In the pre-test, the active participation of prospective teachers was recorded 16%; this percentage shifted to 99% in the post-test. By comparing the percentages in both pre-test and post-test, a difference of 82% was recorded as an improvement in active participation.
- In the pre-test observation item, completes assigned tasks efficiently by prospective teachers were recorded 21%. On the other hand, in the post-test, this percentage was shifted to 95%. From the results of the pre-test and post-test, an improvement of 74% was recorded. Which means after treatment, students were able to complete tasks more efficiently than before.
- In the pre-test, the percentage of prospective teachers who work cooperatively with peers was 18%. However, in the post-test, this percentage rose to 98%. In comparison with the pre-test and post-test, the percentage improved by 80%. These results suggest that the prospective teachers develop cooperation among themselves.
- Prospective teachers sharing resources in the pre-test 21%. However, in the post-test after treatment, 98% of them shared resources. From the data, the improvement in their sharing of resources and tools was 79%. Throughout treatment, they learn to share resources when others need.
- In the pre-test, the deficiency of resolution of minor conflicts among prospective teachers was recorded 18%. On the other hand, the post-test percentage increased to 98%. This means that they learned to resolve conflicts on their own after treatment. The percentage of improvement in the resolution of conflicts was 80%.
- From the pre-test data, the volunteers for leadership roles were 18%. Whereas after the treatment, in the post-test, the percentage shifted to 98%. The improvement in volunteering in leadership roles was recorded 80%.
- Takes initiative without prompting 12% before treatment. While after treatment, in the post-test, it was 95%. The improvement recorded in it was 83%. This means that after treatment, there was a visible improvement, and prospective teachers now felt a sense of responsibility and took the initiative.
- Prospective teachers showed a deficiency in understanding community needs, as recorded in the pre-test, it was 19%. On the contrary, the post-test results showed an increase 96%. The improvement recorded was 77% after treatment. In other words, by getting treatment, students understand their needs for the community and develop a sense of responsibility.
- The pre-test results for showing respect to public property was 10%. In the post-test data, it was 94%. By comparing, we can see 84% improvement among students. They understand responsibility for their surroundings.
- The expression of ideas clearly at pre-test was 21%. On the other hand, during treatment, they learned to express their ideas clearly, 98% was recorded in the post-test. The improvement in percentage was 77%.
- In the pre-test, prospective teachers who listened and responded appropriately were recorded 20%. This was considered a complete deficiency. In the post-test after treatment, percentages rose to 95%. This means there was 75% improvement.

- Maintain enthusiasm recorded in pre-test was 10%. In the post-test, the percentage was 98%. The total improvement recorded was 88%.
- The percentages for remaining positive despite challenges was 10 % in the pre-test and in the post-test; this percentage was 98%; the improvement was 89% when compared to pre-test results. This means students adapt to remain positive while performing tasks despite challenges.
- In the pre-test data, the individuals could not reflect on learning and experiences, which was 8%. It was considered a deficiency of responsibility. In the post-test, it was 99%. Which means they are taking responsibility and reflecting on their actions. The improvement percentage was 91%

Table 2 Comparison of pre-test and post-test

Observation Items	pre-test %	post-test %	Improvement
Actively participates in clean-up activities	16	99	82.84%
Completes assigned tasks efficiently	21	95	73.9%
Works cooperatively with peers	18	98	79.82%
Shares tools and resources	21	100	78.79%
Resolves minor conflicts constructively	18	98	79.82%
Volunteers for leadership roles	18	98	79.82%
Takes initiative without prompting	12	95	82.88%
Demonstrates understanding of community needs	19	96	76.81%
Shows respect for public property	10	94	83.9%
Expresses ideas clearly	21	98	76.79%
Listen and responds appropriately	20	95	74.8%
Maintains enthusiasm throughout activities	10	98	87.9%
Remains positive despite challenges	10	99	88.9%
Able to reflect on learning and experience	8	99	90.92%
Mean	16	90	

Comparatively, 82% of prospective teachers showed a deficiency, and 16% prospective teachers showed civic responsibility; it was considered a deficiency of civic responsibility skills. But after treatment, 90% of the students showed improvement in their civic responsibility skills.

To analyze the improvement in civic responsibility, researchers compared the mean and percentage of the often and always categories between the pre-test and post-test.

Findings of the Study

Comparing the results and calculating the improvement in developing civic responsibility. So, to analyze the improvement in developing civic responsibility, the percentages compared were the sum of often and always in both the pre-test and post-test.

- The findings of the study suggest that the solution (clean-up activities) proposed to develop civic responsibility among prospective teachers was successful and useful in terms of developing civic responsibility.

CONCLUSION

This study concludes that cleanup activities are useful in developing civic responsibility among prospective teachers. As prospective teachers are supposed to build the next generation and prepare them for the well-being of society, they must develop such skills that help them to educate the next generation. Through the interventions of this study, those prospective teachers learned civic responsibility skills. From the comparison of the pre-test and post-test, we can see the difference in civic responsibility between them. They took an active part in activities, volunteered themselves, expressed their thoughts and ideas, and they started reflecting on their actions, which is the point when they become responsible.

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