

# The Mediating Effect of Student Involvement between Social Practice Activity and Sense of Social Responsibility

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## Abstract

The study aims to understand the intricate association between Social Practice Activity (SPA), Students' Involvement (SI), and Sense of Social Responsibility (SSR), and focuses on the following two questions: (1) What is the relationship between SPA, SI and SSR? (2) Does SI have a mediating role in SPA and SSR?

The questionnaire was employed in this study, 502 valid questionnaires were received from college students at a vocational university in Shanxi, China. Data were analyzed using the software including SPSS and AMOS, and the specific methods include correlational analysis, confirmatory factor analysis and structural equation modeling. The Bootstrap method mediating effect test was used to test the mediating role of SI between SPA and SSR.

The results revealed that there was a significant correlation between SPA, SI and SSR and their dimensions. SI (including rule-based involvement, procedural involvement, and autonomous involvement) has a positive mediating effect between SPA (including activity organization, teacher guidance, and service support) and SSR (including global social responsibility and responsibility of people). This result supports that focus on students' involvement in social practice activities, and combine the creation of an external environment with the promotion of individual involvement.

**Keywords:** Student involvement, Social practice activity, Sense of social responsibility, Mediating effect

## 1. Introduction

It is recognized strategy to enhance college students' sense of social responsibility and citizenship through practical activities such as community service, volunteer service, public welfare activities, and social surveys. UNESCO asserts that it is the responsibility of every member of society to fulfill their obligations towards others through their professional, cultural, association and consumption activities on a daily basis (Bexell & Jönsson, 2017). Therefore, colleges should be equipped to enable students not only to understand their rights and responsibilities but also enhance their social skills and encourage engagement in collective endeavors (Alfrejić, Kalajdžić & Lep, 2023; Awirut, 2021). In any case, cultivating citizens with social responsibility is an important goal pursued by every university, even if there are some differences, there is basically a consensus around the world (Hinchliffe, 2022; Joseph & Carolissen, 2019).

Many countries promote college students' sense of social responsibility through various forms of activities, such as voluntary service, community service, public welfare activities, and volunteer work (Coelho & Menezes, 2021), and attach great importance to the cultivation of social responsibility among college students, China is no exception (Liu & Zhu, 2017). The "National Medium and Long-Term Education Reform and Development Plan (2010-2020)" issued by the CPC Central Committee and The State Council highlights the importance of fostering students' sense of social responsibility towards serving their country and people, promoting active participation in voluntary services as well as public welfare undertakings (Li, 2020). The cultivation of students' sense of social responsibility has become a crucial objective in higher education.

Compared to the rich and diverse social practice activities currently organized by universities, there is a lack of research on how social practice activities impact college students' sense of responsibility. There is also limited research on the enthusiasm of college students towards involvement in social practice activities, the effectiveness of such activities, their impact on sense of social responsibility, the influence of student involvement on sense of

social responsibility, and so on.

## 2. Literature Review

Research has shown a positive correlation between volunteerism, social service, and university students' sense of social responsibility. Specifically, voluntary action is associated with altruistic motivation, prosocial attitudes, and an increased sense of social responsibility among students. Jiang (2020) found that participating in volunteer services can contribute to the development of students' moral character, particularly with regards to social responsibility. Based on research into the impact of service-learning courses on university students' social responsibility. Compared to their peers who do not regularly engage in volunteer service activities, students with prior volunteer experience and those who voluntarily enroll in service-learning courses exhibit a heightened sense of social responsibility both before and during class (Liu & Wei, 2016).

It is precisely because of the important role of social practice activities that this is why many countries, policy makers and scholars pay attention to social practice activities (Chen, 2018). Of course, the organization and enrichment of social practice activities are important, but students' involvement in social practice activities has gradually attracted attention (Li & Xue, 2023; Tani et al., 2021; Grazia & Molinari, 2023). However, from the existing literature, scholars pay more attention to the relationship between students' involvement in the classroom and academic performance (Pounds & Cuevas, 2019; Loveys & Riggs, 2019; Pike, Smart & Ethington, 2012; Schnitzler, Holzberger & Seidel, 2021). There are only a few literature on the impact of students' involvement in social practice activities on sense of social responsibility. Wang (2022) found that there was a significant positive correlation between college students' involvement in social volunteering, value expression and social communication and social responsibility.

Sense of social responsibility can significantly and positively predict civic involvement, and sense of social responsibility plays a mediating role in the positive effect of sense of community on civic participation, indicating that college students' sense of community can also indirectly affect their civic participation through the mediating variable of sense of social responsibility (Zhang, 2022; Silke et al., 2020). Procentese & Gatti (2021) found that sense of community as a mediator in the relationship between sense of responsible togetherness and civic engagement behavior. The results of these studies provide a new perspective on the interplay and relationship between student involvement and sense of social responsibility, and show that the interaction between student involvement and the sense of social responsibility.

The above literature provided very useful exploration for us to better understand the relationship between students' involvement in community, social service and practical activities, and their sense of social responsibility (Yusuf & Kurniasih, 2023; Silke et al., 2020; Procentese & Gatti, 2021). However, it should be noted that there are still few relevant research results, especially the relationship between social practice activity, students' involvement, and sense of social responsibility.

## 3. Conceptual Framework and Research Questions

According to Patton (1990), the process of creating a research design should be approached with great care and attention, beginning with the establishment of a solid conceptual framework. This foundation must be firmly rooted in specific inquiries that are seeking resolution, ensuring that the resulting research is both meaningful and impact.

This study aims to explore the relationship between Social Practice Activities (SPA), Student Involvement (SI) and Sense of Social Responsibility (SSR). The research conceptual model as shown in Figure 1 and constructed a structural model of the influence relationship between three variables: SPA, SI and SSR. Among them, SPA includes three latent variables: Activity Organization (AO), Teacher Guidance (TG), and Service Support (SS); SI includes three latent variables: Rule-based Involvement (RI), Procedural Involvement (PI), and Autonomous Involvement (AI); and SSR mainly includes two latent variables of Global Social Responsibility (GSR) and Responsibility of People (RoP).

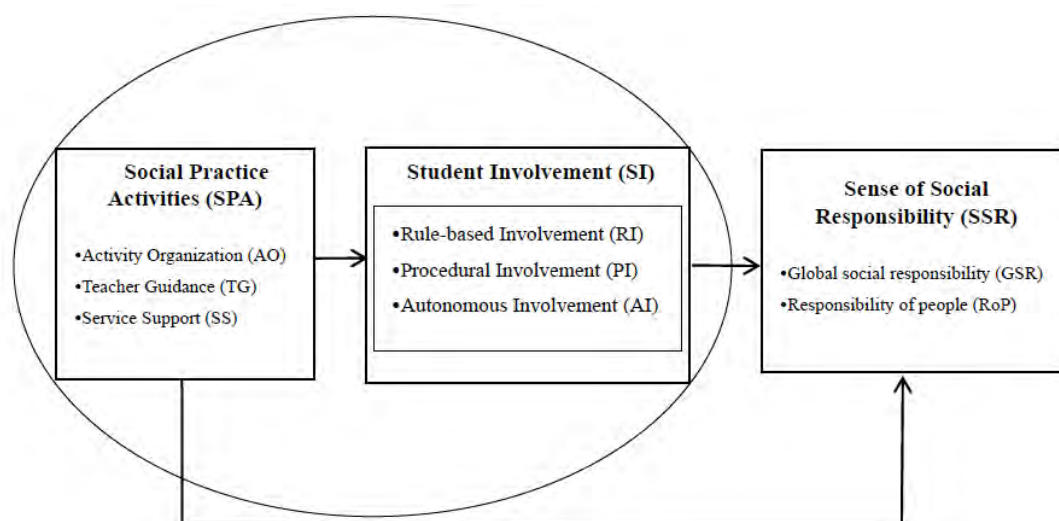


Figure 1. The Conceptual framework for this study

This study focuses on the following two questions: (1) What is the relationship between SPA, SI and SSR? (2) Does SI have a mediating role in SPA and SSR?

#### 4. Methodology

##### 4.1 Research Instrument

The questionnaire for this study included three main variables, which were measured by three scales. The Social Practice Activity Scale (SPAS) used in this study adopted from the College Students' Social Practice Activities Questionnaire (CSSPAQ), which developed by Hu (2018). This scale is designed to effectively measure the college' social practice activities. The Student Involvement Scale (SIS) is based on the Scale of Service Learning Involvement (SSLI) which is developed by Olney and Grande (1995). Some items have been revised based on the actual situation of Chinese university students. The Sense of Social Responsibility Scale (SSRS) is mainly adopted from the global social responsibility scale and responsibility of people scale which designed by Starrett (1996). Based on China's specific country conditions, some items were been revised, which is designed to effectively measure the college students' sense of social responsibility.

##### 4.2 Data Collection

The collection of data took place at a vocational university in Shanxi. According to data provided by the student affairs administration of this vocational university, there are 28,000 enrolled students in this university. The recommended sample size for statistical analysis of a population with similar characteristics is 379 respondents (Krejcie and Morgan, 1970). To account for potential non-response and incomplete questionnaires while enhancing questionnaire quality and obtaining sufficient quantitative data, the sample size was augmented to encompass 520 students. Students were divided into four levels according to different majors, including: construction and traffic engineering, economic & management, humanities and social sciences, sports and art. The samples (students) were randomly selected in proportion to the total number of students in each category. A total of 512 questionnaires were collected. After eliminating incomplete questionnaires and questionnaire options with consistent answers, 502 valid questionnaires were retained, with an effective rate of 98.04%.

##### 4.3 Data Analysis

In this study, correlation analysis and Structural Equation Modeling (SEM) were used to analyze the data. Correlation analysis was used to analysis the relationship between SPA, SI and SSR in this study. Pearson correlation coefficient ( $r$ ) is the most common way of measuring a linear correlation. It is a number between -1 and 1 that measures the strength and direction of the relationship between two variables. A correlation coefficient of 1 indicates that the two variables are perfectly related in a positive manner, a correlation coefficient of -1 indicates that two variables are perfectly related in a negative manner, while a correlation coefficient of zero indicates that there is no linear relationship between the two variables being studied (Gogtay & Thatte, 2017). Structural equation modeling for analyzing complex relationships among constructs and indicators (Hair, et al., 2021). It is a statistical method that analyzes the relationship between variables based on the covariance matrix

of variables, also known as covariance structure analysis. Bootstrap mediating effect was used to test whether SI has a mediating role in SPA and SSR.

## 5. Results

### 5.1 Reliability and Validity Analysis

The researcher used SPSS software to statistically calculate the Cronbach's  $\alpha$  coefficients for each variable and dimension to determine whether the empirical data recovered for each variable and dimension met the requirements for internal consistency and reliability. From the results of Table 1, it can be seen that the Cronbach's  $\alpha$  of the SPAS, SIS, and SSRS are 0.922, 0.935 and 0.941 respectively, which could be referred to have a high reliability.

Table 1. Reliability Analysis for Instruments of Variables

Variables	Latent variables	N of Items	Cronbach's Alpha	
SPA	AO	6	0.897	0.922
	TG	5	0.883	
	SS	7	0.915	
SI	RI	8	0.926	0.935
	PI	8	0.912	
	AI	8	0.924	
SSR	GSR	9	0.913	0.941
	RoP	10	0.931	

For the validity of the instrument, confirmatory factor analysis was performed on the data using AMOS software. The results show that the standardized estimate of all observed variables are greater than 0.7. The average variance extracted of the 8 latent variables was between 0.540~0.613, all greater than 0.5 and the composite reliability values are all greater than 0.7, indicating that the instruments has good convergent validity and convergence validity. Therefore, the overall scales have good reliability and validity, and the measured data are reliable.

### 5.2 Correlation Analysis

The results of Table 2 correlation analysis showed that the Pearson correlation coefficient values between the eight latent variables used in this study, the values of  $r$  were all above 0.1, and the corresponding significance  $p$  values were all less than the significance statistical standard of 0.01, indicating that the correlation coefficient had significant statistical significance, so it could fully explain that the eight latent variables used in this study had significant correlation.

Table 2. Correlation Analysis for all Variables

	1	2	3	4	5	6	7	8
1. AO	1							
2. TG	.484**	1						
3. SS	.423**	.524**	1					
4. RI	.417**	.561**	.437**	1				
5. PI	.329**	.347**	.362**	.328**	1			
6. AI	.434**	.537**	.466**	.596**	.365**	1		
7. GSR	.480**	.575**	.481**	.592**	.456**	.705**	1	
8. RoP	.411**	.413**	.430**	.497**	.456**	.530**	.602**	1

\* $P < 0.05$ , \*\* $P < 0.01$

### 5.3 Structural Model Fit

In this study, structural equation modeling was used, and Figure 2 shows the SEM model for this study. This study hypothesized that the SPA (including AO, TG and SS) had a direct impact on SSR (including GSR and RoP), and that the SPA (including AO, TG and SS) also had an indirect impact on SSR (including GSR and RoP) through SI (including RI, PI and AI).

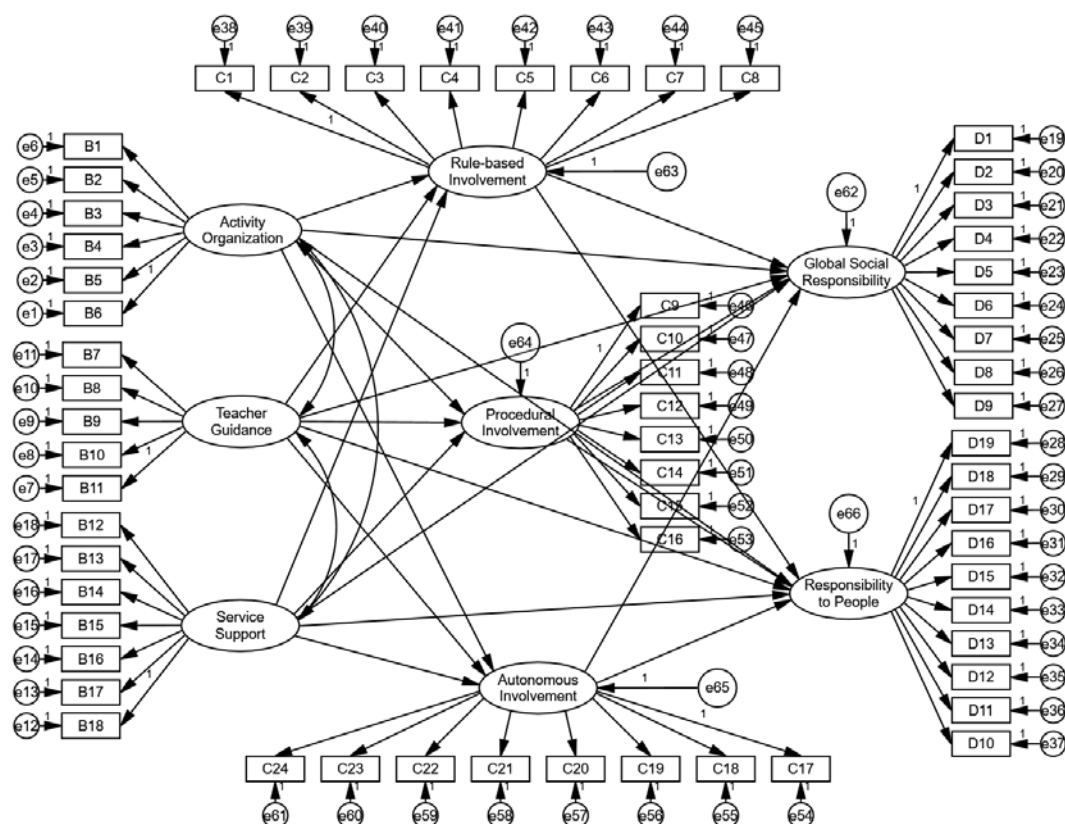


Figure 2. SEM Model

$\chi^2$ ,  $\chi^2/\text{df}$ , RMR, RMSEA, NFI, RFI, IFI, TLI, CFI, AGFI and GFI are used to evaluate the fit of the structural equation model (Breckler, 1990). From the results of SEM model fit as shown in Table 3, the  $\chi^2/\text{df}$  value is 2.006, indicating that the model has very good fitting effect. The test result of RMSEA is 0.045, which meets the general standard of less than 0.05. Meanwhile, the CFI, AGFI and NFI are all above standard values 0.8, the TLI, CFI and IFI are all above standard values 0.9. These indicators of the structural equation models established in this study are reached and higher than the general standard value, indicating that the constructed hypothesis model is in high.

Table 3. The Fit of the SEM Model

Model fit	Standard values	Measurement model
$\chi^2/\text{df}$	<3	2.006
GFI	>0.8	0.821
AGFI	>0.8	0.806
NFI	>0.8	0.844
IFI	>0.9	0.915
CFI	>0.9	0.915
TLI	>0.9	0.911
RMSEA	<0.05	0.045

#### 5.4 Path Coefficient Results

According to the structural equation modeling, there are a total of 21 paths around 8 dimensions of three variables, as shown in the following Table 4.

Table 4. Path Coefficient (direct effect) Results

Path			Standardized Estimate	S.E.	t	P
RI	<---	AO	0.137	0.046	2.793	0.005**
RI	<---	TG	0.487	0.065	8.191	***
RI	<---	SS	0.133	0.059	2.621	0.009**
PI	<---	AO	0.170	0.043	3.029	0.002**
PI	<---	TG	0.187	0.056	2.958	0.003**
PI	<---	SS	0.215	0.056	3.678	***
AI	<---	AO	0.157	0.048	3.203	0.001**
AI	<---	TG	0.422	0.065	7.349	***
AI	<---	SS	0.186	0.062	3.654	***
GSR	<---	RI	0.163	0.032	3.705	***
GSR	<---	PI	0.171	0.033	4.578	***
GSR	<---	AI	0.482	0.034	9.741	***
RoP	<---	RI	0.211	0.045	3.966	***
RoP	<---	PI	0.259	0.046	5.701	***
RoP	<---	AI	0.284	0.042	5.388	***
GSR	<---	AO	0.092	0.027	2.255	0.024*
GSR	<---	TG	0.130	0.043	2.322	0.020*
GSR	<---	SS	0.030	0.036	0.702	0.483
RoP	<---	AO	0.110	0.038	2.213	0.027*
RoP	<---	TG	-0.060	0.061	-0.893	0.372
RoP	<---	SS	0.116	0.050	2.250	0.024*

\*\*\* $P < 0.001$ , \*\* $P < 0.01$ , \* $P < 0.05$

The path coefficient (direct effect) results indicated that SPA (including AO, TG, and SS) have a significant impact on SI (including RI, PI, and AI). Among them, TG have a greater impact on RI, PI, and AI, and the path coefficients reached 0.487 ( $P < 0.001$ ), 0.187 ( $P < 0.01$ ), and 0.422 ( $P < 0.001$ ) separately, which can be seen that teacher guidance play an important role in students' involvement in social practice activities.

For the SI (including RI, PI, and AI) on SSR (including GSR and RoP), the results indicated that AI has a significant impact on the GSR ( $\beta = 0.428$ ,  $P < 0.001$ ) and RoP ( $\beta = 0.284$ ,  $P < 0.001$ ). Meanwhile, RI and PI also have a positive and statistically significant effect on GSR and RoP. By comparing the effects of the RI, PI, and AI on SSR (including GSR and RoP), they can be ranked as  $AI > PI > RI$ .

From the results we also found that SS had no significant impact on GSR ( $\beta = 0.030$ ,  $ns$ ), and TG had no significant effect on the RoP ( $\beta = -0.060$ ,  $ns$ ). But, AO has a direct impact on SSR (including GSR and RoP), TG has a direct impact on GSR ( $\beta = 0.130$ ,  $P < 0.05$ ), and SS has a direct impact on RoP ( $\beta = 0.116$ ,  $P < 0.05$ ).

#### 5.5 Mediation Effect Test of SI between SPA and SSR

In order to further explain the mediating effect of SI (including RI, PI, and AI) between SPA (including AO, TG, and SS) and SSR (including GSR and RoP), the mediating effect of SI (including RI, PI, and AI) mediating variables was tested and analyzed. In this study, Amos 21.0 was utilized, and the bootstrap method recommended by Hayes (2013) was applied to ascertain the significance of the mediating. The 95% confidence interval was calculated based on a 5,000 bootstrap resampling, by observing the upper and lower bounds of the 95% confidence interval and the significance P value, it was judged whether there was a significant mediating effect.

Table 5. The Mediation Effect of SI (including RI, PI and AI)

Path	Standardized	SE	95% CI		P
	Estimate		Lower	Upper	
Mediation Effect of RI					
AO-RI-GSR	0.022	0.014	0.003	0.061	0.013
TG-RI-GSR	0.080	0.034	0.022	0.154	0.006
SS-RI-GSR	0.022	0.013	0.003	0.058	0.016
AO-RI-RoP	0.029	0.017	0.005	0.075	0.011
TG-RI-RoP	0.103	0.040	0.036	0.199	0.002
SS-RI-RoP	0.028	0.016	0.005	0.072	0.016
Mediation Effect of PI					
AO-PI-GSR	0.029	0.013	0.010	0.062	0.002
TG-PI-GSR	0.032	0.015	0.009	0.068	0.002
SS-PI-GSR	0.037	0.015	0.014	0.075	0.001
AO-PI-RoP	0.044	0.018	0.015	0.088	0.003
TG-PI-RoP	0.049	0.021	0.015	0.100	0.002
SS-PI-RoP	0.056	0.021	0.023	0.108	0.001
Mediation Effect of AI					
AO-AI-GSR	0.076	0.032	0.021	0.149	0.007
TG-AI-GSR	0.204	0.039	0.136	0.291	0.000
SS-AI-GSR	0.090	0.031	0.034	0.159	0.001
AO-AI-RoP	0.044	0.021	0.013	0.098	0.005
TG-AI-RoP	0.120	0.033	0.066	0.195	0.000
SS-AI-RoP	0.053	0.021	0.020	0.104	0.001

From the mediation effect of SI (including RI, PI and AI) results of Table 5, it can be seen that in the model with SSR (including GSR and RoP) as the dependent variable, SPA (including AO, TG, and SS) as the independent variable, and in 6 paths with RI as the mediating variable, the indirect effect value of AO-RI-GSR is 0.022, TG-RI-GSR is 0.080, SS-RI-GSR is 0.022, AO-RI-RoP is 0.029, TG-RI-RoP is 0.103, and SS-RI-RoP is 0.028, the Lower and Upper ranges of the 95% CI are not contained zero, and the P value are less than the criterion of 0.05, indicating that the mediation effect is significant, and RI play a significant mediating role between SPA (including AO, TG, and SS) and GSR (including GSR and RoP).

In 6 paths with PI as a mediating variable, it can be seen that the indirect effect value of AO-PI-GSR is 0.029, TG-PI-GSR is 0.032, SS-PI-GSR is 0.037, AO-PI-RoP is 0.044, TG-PI-RoP is 0.049, and SS-PI-RoP is 0.056. Zero are not contained in the Lower and Upper ranges of the 95% CI, and the P value are less than the criterion of 0.05, indicating that indirect effects exist in these 6 paths, and PI play a significant mediating role between SPA (including AO, TG, and SS) and GSR (including GSR and RoP).

It also can be seen that in 6 paths with AI as a mediating variable, the indirect effect value of AO-AI-GSR is 0.076, TG-AI-GSR is 0.204, SS-AI-GSR is 0.090, AO-AI-RoP is 0.044, TG-AI-RoP is 0.120, and SS-AI-RoP is 0.053, zero are not contained in the Lower and Upper ranges of the 95% CI, and the P value are less than the criterion of 0.05, indicating that indirect effects exist in these 6 paths, and AI play a significant mediating role between SPA (including AO, TG, and SS) and GSR (including GSR and RoP).

By comparing the mediating effect values of RI, PI, and AI, we also found that these mediating role is different, with AI playing a greater mediating role than PI and RI. Meanwhile, combined with the direct effect results in Table 3, SI (including RI, PI and AI) mediating effect can be judged as partial mediation, that is, the independent variable can directly affect the dependent variable, and also can be indirectly affected through the mediating variable. The direct effect of SS on GSR, TG on RoP is not established, so it can be identified as full mediation.

## 6. Discussion

The purpose of this study is to explore the influencing mechanisms between SPA, SI and SSR. The results showed that SI (including RI, PI, and AI) play a significant mediating role between SPA (including AO, TG, and SS) and GSR (including GSR and RoP). This finding is consistent with Zhang's (2022) research, which showed that students' involvement had a significant mediating effect on emotional intelligence and learning gain. Pike et al. (2012) research found students' discipline and other background characteristic variables have a direct impact

on students' involvement and learning outcomes, and that the mediating effect of student involvement have an indirect impact on students' learning outcomes.

Considered the mediating role of student involvement, it is necessary to track students' involvement in activities under the premise of focusing on activity organization, teacher-student interaction, and service support. Not only because student involvement plays a important role in explaining differences in sense of social responsibility, but also reveals the interplay between the external environment and involvement. Tinto (2006) also believed that the quality of individual student efforts can only be ensured if they interact with the school environment and that the awareness and integration formed by students' involvement in extracurricular activities and peer interaction have a positive impact on their intentions, commitments, and success.

## **7. Conclusion**

According to the study's findings, social practice activities significantly affect college students' sense of social responsibility. As a result, administrators should refocus their attention from the quantity of educational resources to the practicality and efficient use of these resources for students. Furthermore, if student involvement especially autonomous involvement is as crucial to sense of social responsibility as this study indicates, it might be necessary to give it more consideration during practical exercises, work toward developing an educational service environment that encourages student involvement, upgrade school facilities, and fully support student involvement in all facets of social practice activity, and other areas.

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## **Authors contributions**

Fenghua Wang drafted the manuscript, Dr. Zuraimy Mohamed Noordin were responsible for revising. All authors read and approved the final manuscript.

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Obtained.

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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.

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