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**The Enhancement of Student's Organizational Citizenship Behavior to Improve Organizational Embeddedness: An Action Research on Beijing Polytechnic in Beijing, China**

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**Abstract**

This action research aims to enhance students' organizational citizenship behavior (OCB) to improve organizational embeddedness in a vocational college. The sample size of this research was 59 sophomore students, 30 in the experimental group and 29 in the control group. They came from Beijing Polytechnic (BP), majoring in mechanical and electrical engineering (MEE). This study's questionnaire instrument has 24 items. After the 16-weeks-intervention program, the author collected pre-intervention and post-intervention data and used the quantitative method. The author used the Shapiro-Wilk (S-W) test that data is non-parametric. The study findings are: (H1a) The Spearman's test was applied, and there is a statistically significant relationship between OCB and organizational embeddedness. (H2a) The Wilcoxon signed-rank sum test was applied, and there is a statistically significant difference in OCB and organizational embeddedness before and after ODI. (H3a) The Mann-Whitney U test was applied, and the effect of OCB on organizational embeddedness was statistical significance. The qualitative analysis's findings supported the alternative hypotheses. The study concluded that after ODI, participants' OCB level and organizational embeddedness increased.

**Keywords:** higher vocational college graduates, organizational citizenship behavior, organizational embeddedness

## Introduction

Vocational college graduates turnover has become a vital employment relationship for employees and employers in China. According to the "Chinese 3-year Vocational College Graduates' Employment Annual Report (2020), between 2015 and 2019, the turnover rate of Chinese higher vocational college graduates on the first job within six months of their employment was in the range between 42% and 43% (Boqing & Yan, 2020). Nevertheless, according to the "Government Work Report," in March 2021, 11.86 million new jobs were created in 2020, and the unemployment rate was only 5.6%. Why do vocational graduates have such a high turnover rate? Zhang analyzed it in 2019 (Yongjie, 2019). He found Chinese economy and improving employment policies have enabled employees to have better employment opportunities, and the employment character traits of higher vocational students make them willing to leave for a better position with better benefits and better development.

The author conducted a questionnaire survey of the human resources departments of over 20 companies in the Beijing Economic-Technological Development Area, revealing that about 30% of vocational graduates chose to leave their positions within six months of their employment in the past three years. The adverse effects of the turnover of vocational graduates on the organization are as follows. First, they must recruit similar personnel to fill the position in time, which causes high replacement costs, and the employers may need help finding a suitable person quickly. Second, the high turnover of new employees will lead to low morale among the remaining employees, significantly affecting the organization's cohesion. Third, most vocational graduates possess specific specialized skills. Therefore, the high employee turnover rate will bring productivity losses.

Based on social responsibility, vocational colleges are responsible for ensuring students' employment rate and training them to stay employed longer, thus reducing turnover behavior while being hired. However, in the past, the government and higher vocational colleges paid more attention to the employment situation of students when they were looking for jobs, and the author thought that the school should pay more attention to students' job attitudes and job stability. As a result, the employment rate of Chinese vocational college graduates is very high, almost always above 90%, but with insufficient job stability and a high turnover rate within six months of hire. Naturally, this will cause losses to employees and employers. So, figuring out how to cut down on

the number of employees who leave their first jobs within six months of graduating from a higher vocational college is a big challenge. In order to solve this problem, among many research results, the author found that organizational citizenship behavior (OCB) can provide powerful help.

Organization Citizen Behavior (OCB) has attracted much attention; most research still focuses on teachers' OCB. The research on OCB of higher vocational college students is still in its infancy and needs to be more systematic. Moreover, higher vocational college teachers need to gain experience in organizational operations and practices. For the reasons above, higher vocational colleges should integrate cultivating OCB into teaching and conduct interventions to improve students' OCB levels before they graduate, such as combining social reality and simulating workplace context to accommodate different dimensions of OCB learning and training.

## **Literature Review**

### **Research on OCB**

In organizational behavior theory, a higher level of OCB can help build a better work attitude for the employees, making them more involved, loyal, and conscientious (Stephen & Timothy, 2018). OCB means that an individual's behavior is relatively discretionary and contributes to the effective functioning of organizations (Organ et al., 2006). Anthony et al. developed a profile model which includes five types of OCB (conscientiousness, sportsmanship, civic virtue, courtesy, and altruism) to research the nature, causes, and consequences of profiles of OCB (Anthony et al., 2018). They tested whether employees engaged in discernible and predictable patterns of citizenship behavior and the shapes yielded significant value in understanding multidimensional behavioral constructs.

The author found that different scholars have different research directions in studying OCB through the literature above and the description of OCB research in China. For example, Farh gave ten dimensions of OCB (Farh & Organ, 2004), and Anthony et al. (2018) developed five types of OCB models. These research directions are separate based on different cultural backgrounds but will contain some common standard dimensions, such as responsibility, civic virtue, etc. In this study, the intervention subjects are vocational college students. The author conducted interventions to simulate a work scenario in an organization, so the author combined the above commonalities in

the research directions of OCB and selected four dimensions to study the OCB behavior of the intervention subjects, including civic Virtue, conscientiousness, organizational Identification, and sportsmanship.

Furthermore, in this study, Organizational Identification is defined as the perceived unity and emotional affiliation to an organization. Conscientiousness means wishing to do one's work or duty thoroughly, such as working hard. Sportsmanship means fair and generous behavior or treatment of others, especially in a sports contest, such as being positive at work even when times are tough (Bolino et al., 2006). Civic Virtue: Individuals have a duty to their communities and societies to place above their desires, such as engaging in the organization's life (Joireman et al., 2006).

### **Research on Organizational Embeddedness**

For organizations, integrating key employees is very important, partly because the costs associated with hiring, selecting, and training new employees may exceed 100% of the annual salary for the position (Casio, 2006). While traditional theories tend to focus on negative work as the main reason for turnover behaviors, embedded theory focuses the research on how to keep employees in the organization (Mitchell et al., 2001). The job embeddedness construct is based on the ideas of embedded figures and field theory. Embedded figures used in a psychological test are images immersed in their surroundings and complex to visually separate from these backgrounds (Lee et al., 2014). The empirical study findings are consistent with the theoretical research, indicating that employees with higher job embeddedness are less likely to leave the organization. In recent years, based on the embedded theory, scholars have shifted the research from why people leave the organization to how it can retain their talents (Zhang, 2019). The embedded theory describes the factors that prevent employees from leaving the organization, including a person–job and person–organization fit, links with colleagues and work activities, and potential sacrifices associated with changes in employment. More and more empirical studies have also proved that employees with a high degree of job embedding have a lower turnover intention and lower turnover behavior (Holtom et al., 2008). Then, Peltokorpi et al. (2015) extended the job embedding theory. They proposed that employees could respond to the embedded perception in different ways. Individual demographics and traits (Zimmerman, 2008) have essential roles in turnover because they affect the value placed on connections in a specific environment and evaluate the risks associated with

severing ties. Moreover, these studies all support the idea that organizational embeddedness can predict turnover intention and voluntary turnover behavior.

The research on job embeddedness in China started later than in the West, around 2005. Chinese scholars have validated the content based on Western research for the Chinese context and proposed the connotation, dimensions, and content of job embeddedness in the Chinese context. Chinese scholars define organizational embeddedness as internal embeddedness, part of job embeddedness. Organizational embeddedness has three dimensions: fit, link, and sacrifice, consistent with the West. Chunjiang et al. believe that job embeddedness breaks through the traditional theoretical separation framework and can more effectively predict and explain employee separation behavior (Chunjiang et al., 2010). Hao and Wendong (2009) confirmed that organizational embeddedness significantly negatively affects turnover intention. Lin & Sha (2017) further indicated that the more profound the organizational embeddedness of employees, the lower turnover intention. Several empirical studies by other Chinese scholars with a sample of Chinese employees have also validated the effect of organizational embeddedness on turnover intentions (Hao & Weidong, 2009) (Xiaowei et al., 2005). In China, several empirical studies demonstrated that organizational embeddedness is significantly and negatively related to turnover intentions. When organizational embeddedness increases, turnover intentions decrease substantially (Chunjiang, 2013). Since the author surveyed organizational embeddedness in the colleges' simulated workplace context, the research only estimates the fit and link dimensions changes. According to Ng and Feldman (2010), "job embeddedness" and "organizational embeddedness" is synonymous in this study.

### **Conceptual Framework of the Study**

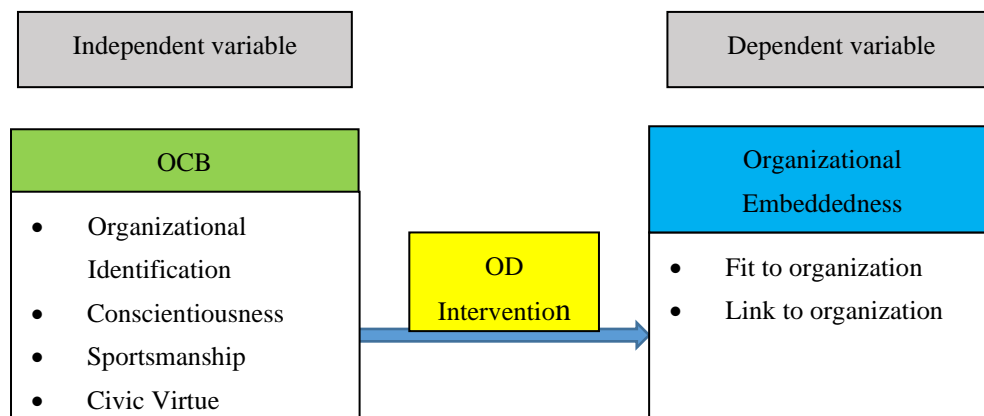
The author designed the conceptual framework as shown in Figure 1. The independent variable is OCB, and the dependent variable is organizational embeddedness. The author studies the impact of college OD intervention on graduates' organizational embeddedness based on the changes in the OCB of the research samples in BP simulated workplace context before and after the intervention and then obtains the difference in turnover intention. Hayton et al. (2012) and Anthony et al. (2018) concluded that intervening with OCB can reduce turnover intention, and Allen & Shanock (2013) interfered with OCB and increased organizational embeddedness.

In this action research, the independent variable is OCB, composed of four sub-variables: organizational Identification, conscientiousness, sportsmanship, and civic

Virtue. Since the subjects of this action research are students in BP, the author could not observe some variables as intervention outcomes, such as job performance. Therefore, the author selected the above four variables as independent variables. In these independent variables, organizational Identification means the degree to which a person and an organization share values, goals, and aspirations. Conscientiousness denotes a tendency to be self-disciplined, responsible, and achievement-oriented. Sportsmanship refers to being positive at work, even when times are tough. Finally, civic virtue signifies engaging in the life of the organization.

**Figure 1**

*Conceptual Framework*



The dependent variable of this study is organizational embeddedness, including two sub-variables, fit to the organization and link to the organization. Based on Mitchell et al., organizational embeddedness includes three core parts: link, fit, and sacrifice (Mitchell et al., 2001). "Link" is the formal or informal connection between an individual and other activities. "Link" to an organization focused on the participant's working groups, relationships with colleagues, and social responsibility in the organization's name. "Fit" means the similarity between the organization where the individual is located and lives. "Fit" to an organization is focused on whether the participant shares the organization's values. Finally, sacrifice means the sacrifices or losses individuals face when they leave the organization or community, including material and psychological losses. In this action research, the author only focuses on fit

and link because the research objects are students in BP, and it is impossible to simulate the sacrifice scene.

### **Research Hypotheses**

The following research hypotheses are used to define the research questions and objectives.

H1<sub>0</sub>: There is no statistically significant relationship between OCB and organizational embeddedness.

H1<sub>a</sub>: There is a statistically significant relationship between OCB and organizational embeddedness.

H2<sub>0</sub>: There is no statistically significant difference between OCB and organizational embeddedness before and after ODI.

H2<sub>a</sub>: There is a statistically significant difference between OCB and organizational embeddedness before and after ODI.

H3<sub>0</sub>: The OCB has no statistically significant impact on organizational embeddedness.

H3<sub>a</sub>: The OCB has a statistically significant impact on organizational embeddedness.

## **Research Methodology**

### **Research Design**

In this study, the philosophical approach is epistemology. The methodology is based on pragmatism, and the research design is mixed methods. The author applied a cohort-based quasi-experimental design with action research. The quantitative survey instrument uses 5-point Likert scale questionnaires and a semi-structured interview for the qualitative method's data collecting. In the process of analysis, quantitative analysis is the primary method, and qualitative analysis is the auxiliary method to verify the results of quantitative analysis. The subject of this study is 59 sophomores in BP, majoring in MEE.

### **Subjects**

Participants in this study are students from BP. BP is a higher vocational college of three-year education. The subject of the study is a selected two classes of roughly sixty sophomores majoring in MEE. Because the Focal School's turnover rate of MEE graduates is close to the average turnover rate in the past five years publicized in the blue book of 2020, the author chooses MEE. In addition, compared to first-year students and juniors, the author has enough time to conduct OD Intervention for sophomores.



Therefore, with the consent of BP, the author decides on sophomores as the subject of this study.

After entering BP, the artificially intelligent system divided students into classes according to their majors and size. Classes are various, with 26 and 32 students in different classes. The author received two sophomore classes for research studies. The author selected one of the two classes as the experimental group and the other as the control group. The experimental group had 30 students, and the control group had 29 students. The author explained the purposes of the study to all students before the OD intervention. In order to ensure accurate measurement of the effect of the OD intervention, the author also collected questionnaires before starting the OD intervention to verify that the experimental and control groups had the same initial conditions.

### **Data Collection**

This research adopts the quantitative analysis method and collects data through a questionnaire. Since this research is to reform the curriculum in the college, it is imperative to get the college's support and the organization's help for data collection. Therefore, before the action research starts, the guiding coalition is formed by stakeholders, including HR managers, teachers, etc., and the guiding coalition allocates resources for research and investigation through communication between the coalition members. Then, using a structured questionnaire with a Likert five-scale for measurement, including 24 questions associated with two variables, including six sub-variables, are measured before and after the intervention, including organizational Identification, sportsmanship, civic virtue, conscientiousness, fit to the organization, and link to the organization, as shown in Table 1.

The author introduces the research's purpose and significance to the class participants and asks them to complete all the questionnaires because it is the source of diagnosis for developing OD interventions. The author implemented the anonymity and confidentiality of the data collection process before ODI and applied SPSS analyses to the collected data about the students' Organizational Identification, sportsmanship, civic virtue, and conscientiousness status.

**Table 1**

*The Structure of the Questionnaire*

Variables		Number of Questions
OCB	Organizational Identification	4
	Conscientiousness	4
	Sportsmanship	4
	Civic Virtue	4
Organizational Embeddedness	Fit to Organization	4
	Link to Organization	4
Total		24

Before the intervention begins, all instruments are checked for their reliability and validity. Finally, the author makes an item of objective congruence (IOC) for validity. The author invites five experts to participate in the IOC test, including two from the United States with a professorship in the field of OD and the remaining three from China, who are engaged in research on the employment of higher vocational students and students in psychology.

**Table 2**

*The results of the IOC Test*

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
1	1	1	0.8	0.8	0.8	1	1	0.6	0.8	0.6	0.8
Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Q21	Q22	Q23	Q24
0.8	0.8	0.6	0.6	0.8	1	1	0.6	0.8	1	0.6	0.8

The results show in table 2 that the content validity of each item is either equal to or greater than 0.6. For reliability text, the author uses the Cochran equation to calculate. For finite population,  $Sample\ size = \frac{n_0}{1 + \frac{(n_0 - 1)}{N}}$ , and  $n_0 = \frac{Z^2 p(1-p)}{e^2}$ . In the equation, N is

the population size. The author selects students from the Mechanical and Electrical Engineering School of BP as the population. The size number is 1415; Z is the Z score, and the 95% confidence level score is 1.96; e is the margin of error. The author chooses a margin error of 4%; p is the Standard deviation, and the author decides to be 0.2. According to this formula, the sample size is 200. A total of 210 questionnaires were requested, among which 205 were valid responses. The Cronbach's  $\alpha$  for the questionnaire is  $0.887 > 0.8$ . The results show that the questionnaire is reliable.

**OD Intervention Model**

The author develops an OD intervention model with the guiding coalition. Then, the author intervenes in courses to improve participants' OCB levels. Finally, the author measures students' organizational embeddedness in a simulated work context questionnaire.

The author developed an intervention plan that lasted for 16 weeks, once a week for 2 hours, with different intervention methods in the same strand for various subject awakening interventions, as shown in Table 3. Based on the theories of reinforcement, expectations, and social learning, the author developed intervention methods like interactive lectures, group discussions, training in soft skills, and role-playing.

**Table 3**

*Intervention plan*

No.	Variable	Method	Content
Week 1		Questionnaires Role Playing	Project introduction, Simulation company operation project
Week 2	Organizational Identification	Group Discussing	Discuss the phenomenon in the role-playing
Week 3	Sportsmanship	Interactive lecturing	Sportsmanship related content
Week 4	Sportsmanship	Group Discussing	Discuss the phenomenon in the role-playing
Week 5	Civic Virtue	Interactive lecturing	Civic virtue-related content
Week 6	Civic Virtue	Soft Skills Training	Training about civic virtue
Week 7	Conscientiousness	Interactive lecturing	Conscientiousness related content

Week 8	Conscientiousness	Soft Skills Training	Training about conscientiousness
Week 9		Role Playing	Simulation company operation project II
Week 10	Organizational Identification	Group Discussing	Discuss the phenomenon in the role-playing
Week 11	Sportsmanship	Interactive lecturing	Sportsmanship related content
Week 12	Sportsmanship	Group Discussing	Discuss the phenomenon in the role-playing
Week 13	Civic Virtue	Interactive lecturing	Civic virtue-related content
Week 14	Civic Virtue	Soft Skills Training	Training about civic virtue
Week 15	Conscientiousness	Interactive lecturing, Soft Skills Training	Conscientiousness related content
Week 16		Questionnaires Summarize	Summarize the performance of students this semester

In the course, the author simulated the future work context of the students once they entered the organization. The first step was to achieve an identity shift. The intervention subjects changed from a classmate role to a colleague role, the class context also switched to an organization setting, and the author randomly created work groups. The author worked with the course instructor to distribute the learning content as a project and guided the students to complete it in a workgroup. For example, a project task was to complete a circuit design to implement a specific function. Intervention subjects were randomly assigned to work groups to experience the same work and interpersonal patterns as in the future organization. After completing the project, the issues have a presentation about the project and complete a questionnaire as an employee to evaluate themselves, their "colleagues," and their "organization" from the employee's perspective. Interventions can improve students' Organizational Identification, sportsmanship, civic virtue, and conscientiousness. On the other hand, such an intervention model is conducive to enhancing students' future interpersonal skills with employers and colleagues.

### **Analysis, Interpretation, and Findings of the Data**

#### **Demographic Profile of Participants**

Demographic data consists of age, gender, and work experience; the results showed in Table 4.

**Table 4**

*Demographic Profile of Participants*

Age		<19	19	20	>20	Total
	Experimental group	5	13	10	2	30
	Control group	4	12	11	2	29
Gender		Male		Female		Total
	Experimental group	28		2		30
	Control group	26		3		29
Work Experience		Yes		No		Total
	Experimental group	13		17		30
	Control group	14		15		29

**Tests of Normality**

In the pre-ODI stage, the author received 30 questionnaires from the experimental group and received 29 questionnaires from the control group. In the post-ODI stage, the author received 26 questionnaires from the experimental group and received 29 questionnaires from the control group. First, the author tested whether the data conformed to a normal distribution. Then, the two sets of data were analyzed using SPSS software. In this research, the sample size is 24, so the author used the S-W test. In the experimental group, the significance level was  $p=0.003$  in the pre-ODI stage and  $p=0.001$  in the post-ODI stage. In the control group,  $p=0$  both in the pre-ODI and post-ODI stages. Therefore, under the test level of  $\alpha=0.05$ ,  $p<0.05$ , the data does not conform to the normal distribution and requires the use of the non-parametric test for data analysis.

**Interpretation of The Data - Hypothesis Testing**

*Hypothesis 1*

The author applied Spearman's test to calculate the strength of the relationship between variables. The author used this method to examine the relationship between OCB and organizational embeddedness, and the results showed in Table 5.

**Table 5**

*Spearman's Test for OCB and Organizational Embeddedness*

Significant (P)	Organizational Embeddedness	OCB	Correlation Coefficient	Organizational Embeddedness	OCB
OCB	0.036		OCB	0.741	
Organizational Embeddedness		0.036	Organizational Embeddedness		0.741

The table shows that the p-value is 0.036, less than 0.05, and the correlation coefficient *r* value is 0.741, less than 0.5, so OCB and organizational embeddedness were positively correlated. In contrast, OCB and turnover intention correlated negatively. Therefore, the author rejected the null hypothesis, H10, and accepted the alternative hypothesis, H1a. Therefore, there is a statistically significant relationship between OCB and organizational embeddedness.

*Hypothesis 2*

The author applied the Wilcoxon sign rank test to test the significant difference in the paired samples of the experimental group and control group. The results showed in Table 6 and Table 7.

**Table 6**

*Wilcoxon Signed Rank Test Results of Experimental Group*

		Ranks		
		N	Mean Rank	Sum of Ranks
Post-ODI - Pre-ODI	Negative Ranks	2 <sup>a</sup>	6.00	12.00
	Positive Ranks	12 <sup>b</sup>	6.00	93.00
	Ties	10 <sup>c</sup>		
	Total	24		

a. Post-ODI < Pre-ODI

b. Post-ODI > Pre-ODI

c. Post-ODI = Pre-ODI

Test Statistics

Post-ODI – Pre-ODI	
Z	-2.592 <sup>b</sup>
Asymp. Sig. (2-tailed)	.001

- a. Wilcoxon Signed Ranks Test
- b. Based on negative ranks.

It can be seen from the results that there are 12 items whose scores after intervention are higher than those before the intervention, and the sum of positive ranks is 93. In comparison, two items that score after intervention are lower than before, and the sum of negative ranks is 12. The other ten items scored the same before and after the intervention. Check the critical value table of the Wilcoxon signed rank-sum test,  $T_{min}(T+, T-)$  is 12, and  $T$  is equal to 81. It also can be seen from the results that  $z=-2.592$ , based on a negative rank, is an asymptotic significance of  $p=0.01$ , and it is less than 0.05. Therefore, the participants' scores after the intervention differed significantly from those before. Furthermore, comparing the mean before and after the intervention showed that after the intervention, the participants' scores improved, which means that their OCB and organizational embeddedness level improved.

**Table 7**

*Wilcoxon Signed Rank Test Results of Control Group*

		Ranks		
		N	Mean Rank	Sum of Ranks
Post-ODI - Pre-ODI	Negative Ranks	2 <sup>a</sup>	6.00	12.00
	Positive Ranks	9 <sup>b</sup>	6.00	54.00
	Ties	13 <sup>c</sup>		
	Total	24		

- a. Post-ODI < Pre-ODI
- b. Post-ODI > Pre-ODI
- c. Post-ODI = Pre-ODI

Test Statistics	
Post-ODI – Pre-ODI	
Z	-2.111 <sup>b</sup>
Asymp. Sig. (2-tailed)	.0035

- a. Wilcoxon Signed Ranks Test
- b. Based on negative ranks.

After the intervention, there are nine items' scores higher than those items' scores before the intervention. With the sum of positive ranks being 54, 2 items whose scores after intervention are lower than those before the intervention, with the sum of negative

ranks being 12, and the other 13 items' scores are the same in comparing the score before and after the intervention. Check the critical value table of the Wilcoxon signed rank-sum test,  $T_{min}$  ( $T_+$ ,  $T_-$ ) equals 12, and it is less than  $T$  since  $T$  equals 81. It also can be seen from the results that  $z=-2.111$ , which is based on a negative rank, asymptotic significance  $p=0.035$ , and the  $p$ -value is less than 0.05. Therefore, there has been a change in participant scores before and after the intervention. Similar to the experimental group, the participants' scores have improved. However, compared to the experimental group, more items remained unchanged in the control group. Even though the scores of both the experimental and control group increased, the experimental group had more positive items, and the intervention effect was more pronounced. Thus, the author concludes that there is a significant difference between OCB and organizational embeddedness before and after the intervention for experimental and control group participants. The level of OCB and organizational embeddedness increased significantly.

In contrast, the level of turnover intention decreased significantly. So, the author rejected the null hypothesis  $H_{20}$  and accepted the alternative  $H_{2a}$ . There is a statistically significant relationship between OCB and organizational embeddedness before and after ODI.

### *Hypothesis 3*

The Mann-Whitney U test significantly differentiates between pre- and Post-ODI in a different group. The author used Spearman's and Mann-Whitney U tests to verify  $H_3$ . Through Spearman's test, the result shows that OCB and organizational embeddedness were positively and strongly correlated. Furthermore, the Mann-Whitney U test's result showed in Table 8 and Table 9.

From Table 8, the OCB's  $p$ -value is 0.163 and greater than 0.05, and the organizational embeddedness's  $p$ -value is 0.916. Again, it is more significant than 0.05, so the OCB and organizational embeddedness levels in the two groups have no significant differences in the pre-ODI stage.

According to Table 9, in the post-ODI stage, the OCB's  $p$ -value is 0.045, less than 0.05, and the organizational embeddedness's  $p$ -value is 0.027 and less than 0.05. so the OCB and organizational embeddedness levels in the two groups have significant differences.

### **Table 8**

*Mann-Whitney U Test for OCB and organizational embeddedness in the pre-ODI stage*



	Experimental Group (N)	Sum of Ranks	Control Group (N)	Sum of Ranks	Asymp. Sig.
OCB	16	227	16	301	0.163
Organizational Embeddedness	8	69	8	67	0.916

**Table 9**

*Mann-Whitney U Test for OCB and organizational embeddedness in the post-ODI stage*

	Experimental Group (N)	Sum of Ranks	Control Group (N)	Sum of Ranks	Asymp. Sig.
OCB	16	211	16	317	0.045
Organizational Embeddedness	8	47	8	89	0.027

So, the author rejected the null hypothesis, H30, and accepted the alternative hypothesis, H3a: The OCB has a statistically significant impact on organizational embeddedness.

**Findings**

First, the participants in this study are all school students, half of whom have no work experience, and the others have only temporary work experience. Therefore, it is challenging to observe turnover intentions. The author focused on this study's relationship between OCB and organizational embeddedness. From the results of Spearman's Test, OCB and organizational embeddedness are positively and strongly correlated. So, the author concludes that OCB and organizational embeddedness are positive and strongly correlated.

Second, from the quantitative analysis results, the author found that OCB increased in both the experimental and control groups. Therefore, ODI and BP original courses significantly improved students' OCB levels. The OCB level improvement rate of students who have undergone ODI is about 0.7% higher than that of ordinary courses. Therefore, ODI has a better effect on improving students' OCB levels than BP's original courses. To verify the results of the quantitative analysis, the author also conducted group interviews with the participants. During the pre-ODI stage, many participants, both in the control group and experimental group, believed that they possessed OCB values and could contribute to the current organization and the class, such as winning competitions, expanding the influence of the class by participating in activities, etc. However, the participants responded not satisfactory to the survey questionnaire of

conscientiousness, sportsmanship, and civic virtue satisfactory. The author perceived this mainly because the participants needed help to understand relevant concepts accurately, and they paid more attention to personal interests. and paid too much attention to the internal shortcomings of the organization and did not seriously participate in organizational meetings. Participants tend to focus on personal issues such as salaries and office conditions when discussing future jobs rather than the organization's link and integration. In the Post-ODI stage, the author interviewed experimental group participants and recognized that the participants gained more understanding of the concept of OCB. They were more concerned about the organization. They were willing to make more efforts to the excellence of the organization. They were more concerned about others' evaluation of their organization and the positive aspects of the organization's development process. When discussing the future job, the participants' focus is not only on the salary but also on hopes of achieving a good link between the organization and themselves.

In contrast, in the Post-ODI stage, the author found that the participants' concept of OCB was still vague in the interviews of the control group, which was related to the lack of introduction to the concept of OCB in traditional courses. At the same time, due to the introduction of students' employment concepts in traditional courses, the participants' attitudes towards OCB also changed to some extent in the interviews. For example, they no longer only pay attention to salaries and working conditions but also pay attention to the matching between individuals and organizations, contributions to the organization, etc. However, similar to the results of quantitative analysis, the improvement of the OCB level of participants in traditional courses could be better than that of ODIs.

Third, the author used the Mann-Whitney U test to examine the relationship between OCB and organizational embeddedness in pre-and Post-ODI stages. In the Pre-ODI stage, the OCB and organizational embeddedness levels showed no significantly different between groups. Whereas, at the post-ODI stage, the OCB and organizational embeddedness levels were pretty different between the two groups. As mentioned above, organizational embeddedness is significantly and negatively related to turnover intentions. Therefore, the author concludes that the two groups OCB and turnover intention levels are not significantly different in the pre-ODI stage and have significant differences in the post-ODI stage.

### **Discussion and Conclusion**

The results of this study prove that it is feasible to improve OCB among students through organizational development intervention (ODI) to improve students' organizational embeddedness. There are fifty-nine sophomores of BP who participated

in this study. These sophomores formed an experimental group and a control group. The author conducted a 16-week intervention, and The results showed that the intervention program successfully created positive changes. Furthermore, these positive changes shifted participants' mindsets and perspectives. Finally, the author gives his findings quantitatively and verifies the conclusions through group interviews.

Based on the analysis results in this study, the author draws the following conclusions.

First, according to Table 5, there is a statistically significant relationship between OCB and organizational embeddedness. This result further validates the conclusions of previous literature and proves that improving the level of organizational embeddedness by improving the level of OCB is feasible.

Second, according to Table 6 and Table 7, there is a statistically significant difference relationship between OCB and organizational embeddedness before and after ODI. These results prove that this study's intervention methods apply to high vocational students. Interactive lecturing, soft skills training, role-playing, and group discussions as OD tools were practical and suitable for these participants. These interventions improved the score of organizational embeddedness. Such results are also consistent with those of qualitative studies.

Third, according to Tables 8 and 9, the OCB has a statistically significant impact on organizational embeddedness. This result proved that the participants selected in this study had the same initial conditions. In other words, the way the author selected participants was appropriate. At the same time, the ODI result further verified the conclusion that it is feasible to enhance students' OCB to improve organizational embeddedness.

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