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THE INFLUENCE OF MULTICULTURAL COMPETENCE ON THE COLLABORATION SKILL OF PROSPECTIVE ELEMENTARY SCHOOL TEACHERS

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ARTICLE INFO	ABSTRACT
Article History Receive : 10 - 01 - 2026 Revision : 30 - 01 - 2026 Accept : 21 - 02 - 2026	The purpose of this study is to examine how collaborative student abilities are impacted by intercultural competency. The research design used in this study is cross-sectional, and data is gathered using online surveys. Using second-order structural equation modeling, the acquired data was examined. The study's findings demonstrate that intercultural competency improves students' ability to work together. In order to enhance students' ability to collaborate, this study offers insight on how to include intercultural abilities into higher education instruction.
Keywords	multicultural competencies, collaboration skills, higher education

1. INTRODUCTION

Technological advances and globalization have created an increasingly multicultural environment, including in the world of higher education. Students today are faced with the challenge of working in heterogeneous groups, both in terms of culture, language, and perspective. In this context, collaboration skills are one of the essential competencies in the 21st century that must be possessed by students to succeed in an increasingly complex work environment (OECD, 2020).

Collaboration skills involve the ability to communicate effectively, share responsibilities, and solve problems collectively within a team. However, cultural diversity can be a barrier if not managed properly. In this case, multicultural competence, i.e. the ability to understand, appreciate, and interact effectively with individuals from different cultural backgrounds, becomes a key factor in improving students' collaboration skills (Banks, 2020).

The theory of social constructivism explains that learning occurs through social interaction and cooperation with other individuals, especially in different cultural contexts (Vygotsky, 1978). Multicultural competence enables students to understand various cultural perspectives, manage conflicts, and create synergies within multicultural teams. Research shows that students who have high multicultural competence are more able to work in heterogeneous teams, complete tasks together, and achieve group goals (Lee et al., 2021).

However, many studies show that student collaboration skills in higher education are still relatively low. One of the factors that plays a role in low collaboration skills is the lack of students' ability to adapt and work together in a multicultural environment (Pettigrew & Tropp, 2021). With the increasing number of students from various cultural backgrounds, multicultural competence is becoming increasingly important in increasing the effectiveness of collaboration within the team. This research aims to explore the relationship between multicultural competence and student collaboration skills. This study also aims to analyze the influence of multicultural competence on student collaboration skills.

This research contributes to improving the quality of learning in higher education. Multicultural competence not only affects social

dynamics within the team, but also improves students' communication skills, empathy, conflict resolution, creativity, and academic performance. Therefore, multicultural education should be an integral component in the development of collaborative skills in higher education, to prepare students for an increasingly global and diverse world of work.

2. RESEARCH METHOD

This study uses a cross-sectional study as the research design. This study consists of two variables where multicultural competence is an independent variable, and collaboration skills are a dependent variable. Cross-sectional studies are often used to assess the influence between two or more variables at the same time. In the context of the influence of multicultural competence on students' collaboration skills, cross-sectional research can identify whether there is an influence between the two variables among students with various cultural backgrounds, without the need for a complicated analysis of changes or developments of variables over time. This allows researchers to effectively test hypotheses regarding the relationship between multicultural competence and collaboration skills.

Participant

The respondents of this study consisted of 487 students consisting of 458 (94%) women and 29 (6%) men. Regarding the age of the respondents, 70.6% of respondents were 18-20 years old, 26.1% of respondents were 21-25 years old, 1.2% of respondents were 26-30 years old, 1% of respondents were 31-35 years old and over 36 years old, respectively. Furthermore, the majority of respondents in this study were in semester 5 at 61.2%, followed by semester 3 (27.3%), semester 4 (3.3%), semester 8 (3.1%), semester 7 (2.7%), semester 1 (2.1%), and semesters 2 and 6 respectively (0.2%).

Data Collection

Building items adopted from previous studies confirm the material validity of the measurement scale. There are two parts of the research questionnaire: basic demographic data collected through questionnaire pieces (gender, age, ethnicity) and questionnaire items that measure collaboration skills developed by Hinyard et al. (2018) which consist of three dimensions totaling 10 items, namely sharing information consisting of 2 items, team support consisting of 3 items, and learning consisting of 5 items. The multicultural competency scale used was developed by Erdem (2020) which consists of three dimensions containing 14 items, namely awareness, skills, and knowledge. Awareness consists of 6 items, skills consists of 5 items, and knowledge consists of 3 items.

Data Analysis

The data obtained was analyzed using structural equation modelling where this study was assisted by smartPLS 4. This analysis consists of two stages where in the first stage, the researcher analyzes the dimensions of each variable and in the second stage the researcher analyzes the influence of the variable. Structural Measurements and Models. This research is assisted by PLS-SEM recommended by (Hair et al., 2022).

3. RESULT AND DISCUSION

Stage 1: First Order

Table 1 shows the convergent validity of the items measured using factor loading where the factor loading value must be above 0.7. Based on the results of the analysis, it shows that all loading factor values are above 0.7. During this process, several items have been deleted because they have values below 0.7, including awareness deleting five items, sharing information deleting one item, and skills deleting one item. Thus, the study has removed seven items.

Meanwhile, the validity of the construct uses the Cronbach alpha value where the Cronbach alpha hrus value is above 0.7 as well as the composite reability value. Meanwhile, the average variance extracted value must be above 0.5. Based on the results of the study, it shows that the value of Construct reliability and validity has met the requirements. This information is summarized in table 2. Furthermore, Table 3 shows the value of the Fornell-Larcker criterion where the Fornell-Larcker criterion refers to a

value that compares the root of AVE with the value of the correlation between latent variables. Table 3 shows that the root value of AVE has been achieved because all diagonal values are greater than non-diagonal values.

Table 1. Factor Loadings, Reliability, and Validity

	AW	KN	L	SI	SK	TS
AW_5	1,000					
KN_1		0,905				
KN_2		0,916				
KN_3		0,869				
L_1			0,724			
L_2			0,863			
L_3			0,882			
L_4			0,891			
L_5			0,856			
SI_1				1,000		
SK_1					0,839	
SK_3					0,892	
SK_4					0,863	
SK_5					0,839	
TS_1						0,907
TS_2						0,935
TS_3						0,934

Table 2. Construct reliability and validity

	Cronbach's alpha	Composite reliability	Average variance extracted (AVE)
KN	0,878	0,883	0,804
L	0,899	0,907	0,715
SK	0,881	0,883	0,737
TS	0,916	0,916	0,856

Note: Knowledge (KN); Learning (L); Skills (SK); Team Support (TS)

Table 3. Fornell-Larcker criterion

	AW	KN	L	SI	SK	TS
AW	**1.000**					
KN	0.731	**0.897**				
L	0.629	0.738	**0.846**			
SI	0.492	0.558	0.612	**1.000**		
SK	0.746	0.824	0.770	0.542	**0.858**	
TS	0.652	0.771	0.810	0.671	0.746	**0.925**

Note: Awareness (AW); Knowledge (KN); Learning (L); Sharing Information (SI); Skills (SK); Team Support (TS)

Stage 2: Second Order

If the first measurement model focuses on dimensional measurements then the second measurement model focuses on variables. Therefore, the latent value of the score variable is used. As with the first measurement model, the second measurement model also checks the convergent validity of the variables. Table 4 shows that the outer loading value is above 0.7 which means that the convergent validity has been fulfilled so that it is declared valid in convergent.

Furthermore, the validity of the construct and the decriminalization have also been examined. The results of the construct validity check found that Cronbach's alpha and composite reability values were above 0.7 and AVE was above 0.5 so that the model was declared constructically valid. This information is summarized in table 5. Further, the analysis of the

Fornell-Larcker criterion was also examined and showed that the root value of AVE had been achieved because all diagonal values were greater than the non-diagonal values. This information is summarized in table 6.

Table 4. Factor Loadings, Reliability, and Validity

	Collaborative skills	Multicultural competence
AW		0,888
KN		0,932
SK		0,937
L	0,918	
SI	0,821	
TS	0,937	

Note: Awareness (AW); Knowledge (KN); Learning (L); Sharing Information (SI); Skills (SK); Team Support (TS)

Table 5. Construct reliability and validity

	Cronbach's alpha	Composite reliability	Average variance extracted (AVE)
CS	0,874	0,899	0,799
MC	0,908	0,915	0,845

Note: Multicultural Competence (MC); Collaborative Skills (CS)

Table 6. Fornell-Larcker criterion

	Collaborative skills	Multicultural competence
CS	**0,894**	
MC	0,810	**0,919**

Note: Multicultural Competence (MC); Collaborative Skills (CS)

Structural model

Structural models identify patterns of relationships between variables. The results were obtained from the bootsraping method. Table 7 shows that multicultural competence has a positive and significant effect because all p-values are lower than 0.05. Thus, the research hypothesis is accepted. This information is visualized in figure 1.

Table 7. Hasil Uji Hipotesis

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
MC -> CS	0,810	0,809	0,030	27,320	0,000

Note: Multicultural Competence (MC); Collaborative Skills (CS)

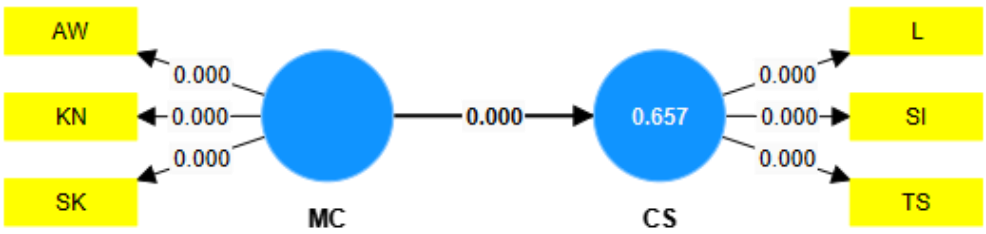

Figure 1. Hypothesis test visualization

4. DISCUSSION

Multicultural competence is the ability to recognize, appreciate, and interact with people from different cultural backgrounds (Banks, 2019). In an increasingly multicultural higher education environment, these skills are becoming important, especially in collaborative work. Students are expected to be able to work together in diverse teams to complete academic tasks and projects in the professional world.

1. Improve Intercultural Communication

Multicultural competence allows students to understand the differences in values, norms, and ways of communicating between cultures. In a multicultural team, the ability to hear and respond to different perspectives is essential to reach understanding (Chen et al., 2020). Research shows that individuals with high multicultural competence have better communication skills in multicultural contexts (Lee & Park, 2022).

2. Building Attitudes of Tolerance and Empathy

Multicultural competence includes the development of an attitude of tolerance and empathy for cultural differences. This attitude is important for creating an inclusive work environment, where all members feel valued. A study by Kim et al. (2021) showed that enhanced empathy through multicultural learning contributes to team effectiveness in solving problems together.

3. Improving Conflict Resolution Ability

In multicultural teams, differences in perspectives can trigger conflicts. However, multicultural competence provides students with the skills to manage conflict effectively through an understanding-based and negotiation-based approach (González et al., 2021).

4. Facilitates Innovation and Creativity

Collaboration in a multicultural team often results in more creative and innovative solutions. Multicultural competence helps students understand different perspectives and approaches, which enriches group discussions and increases team productivity (Wu et al., 2022).

The theory of social constructivism states that learning and skill development occur through social interaction. Multicultural competencies allow students to understand and appreciate different perspectives, thus creating a rich collaborative environment and supporting group learning (Banks, 2020). Interaction in a multicultural group accelerates the development of interpersonal and collaboration skills. Multicultural competence improves the quality of social interaction in multicultural teams. Students with this competency are better able to listen, appreciate, and take advantage of differences to achieve common goals. This is in line with the constructivist view that social interaction is the basis of effective learning (Wu et al., 2022). Multicultural competence facilitates students to look at problems from various perspectives. In collaboration, this ability encourages students to come up with creative solutions that reflect the cultural diversity within the team (Zhang & Gonzalez, 2023).

5. CONCLUSION

Based on the results of the study, it can be concluded that multicultural competence has a significant influence on student collaboration skills. Multicultural competencies include understanding, appreciation, and skills in working with individuals from diverse cultural backgrounds. These factors play a crucial role in improving the effectiveness of collaboration within diverse teams, both in academic and professional contexts. Overall, the development of multicultural competencies not only enriches students' learning experience, but also provides them with invaluable collaboration skills in facing challenges in an increasingly global and multicultural world of work. Therefore, multicultural education must be an integral part of the higher education curriculum to prepare students to become effective leaders in the future.

LIMITATION AND RECOMMENDATION

Research on the influence of multicultural competence on student collaboration skills provides important insights, however, like research in general, there are a number of limitations that need to be considered. The following are some of the limitations that are often encountered in these studies: (1) This study uses a sample of prospective teachers from universities that are still limited. This reduces the ability to generalize research findings to a

broader student population, especially in different countries or very different cultural contexts; (2) Although this study proves a positive influence, it is difficult to conclude that an increase in multicultural competence directly leads to an increase in collaboration skills, as other immeasurable factors, such as individual factors or socio-economic context, can also influence the outcome. Thus, future research can cover the limitations of this research by using a larger sample and involving other factors that have the potential to affect collaboration skills.

REFERENCES

Banks, J. A. (2020). Multicultural education: Issues and perspectives. Wiley.

Chen, Y., Lee, K., & Kim, J. (2020). Multicultural communication skills and their impact on teamwork. International Journal of Cross-Cultural Studies, 15(1), 87-105.

Erdem, D. (2020). Multicultural competence scale for prospective teachers: Development, validation and measurement invariance. Eurasian Journal of Educational Research, 20(87), 1–28.

González, A., Wu, C., & Zhang, H. (2021). Conflict resolution in multicultural teams: The role of empathy and communication. Group Dynamics Journal, 12(3), 233-248.

Hair, J. J. F., G. Tomas M. Hult, Christian M. Ringle, & Marko Sarstedt. (2022). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) (3rd ed.). SAGE.

Hinyard, L., Toomey, E., Eliot, K., & Breitbach, A. (2018). Student Perceptions of Collaboration Skills in an Interprofessional Context: Development and Initial Validation of the Self-Assessed Collaboration Skills Instrument. Https://Doi.Org/10.1177/0163278717752438, 42(4), 450–472. https://doi.org/10.1177/0163278717752438

Kim, S., Park, J., & Lee, H. (2021). The role of empathy in multicultural teamwork. Asia Pacific Journal of Education, 41(1), 78-95.

Pettigrew, T. F., & Tropp, L. R. (2021). Intergroup contact theory: Recent developments and future directions. Annual Review of Psychology, 72, 381-409.

Wu, C., Zhang, X., & Chen, J. (2022). Creativity in multicultural teams: The influence of cultural awareness. Journal of Creative Behavior, 56(4), 904-918.

Zhang, H., & Gonzalez, A. (2023). Creativity in diverse teams: The role of multicultural competence. Journal of Creativity Research, 58(3), 221-240.