Vol. 3 No. 8 (2025)

Journal of Social Signs Review

Online ISSN 3006-4651

Print ISSN 3006-466X

Collaborative Learning: Developing Social Interaction Among Students and Improve Learning at Higher Level

[1]Fariha Sohil-Email- drfariha.6493@wum.edu.pk
[2]Iqra Younas
[3]Fatima Riffat
[1]Assistant Professor, Department of Education, The Women University Multan, Multan Pakistan
[2]Department of Education, The Woman University Multan
[3]Assistant Professor, Department of History, Government College University, Lahore, Lahore Pakistan

Article Details:

Received on 19 July 2025
Accepted on 18 Aug 2025
Published on 20 Aug 2025

Corresponding Authors*:

Abstract

This study investigates collaborative learning can improve social interaction in higher level students. Collaborative methods enhancing academic results and developing critical interpersonal skills as educational institutions place a greater emphasis on student-centered learning. The study used a survey methods strategy, instrument quantitative surveys and statistical analysis. Peer connection, communication skills, and participation in additional activities were among the variables that were examined in addition to demographic factors including age, housing status, and current program. According to the results, there is a statistically significant change between how urban and rural students view the social welfares of peer contacts. There were no differences between age groups or theoretical levels in the apparent impact of social skills on academic accomplishment. Strong positive relations between co-curricular activities, communication skills, and peer interaction were discovered, suggesting that these elements are connected to and funding one another. The study found that by helping active engagement, teamwork, and communication, collaborative learning is a successful strategy for assisting students in developing their social skills. These findings have important suggestions for educators seeking to create wide-ranging, socially dynamic knowledge environments in higher education. CL is more fruitful as compared of individual learning method.

Key Words: Collaborative Learning, Social Skill, Peer Interaction, Communication Skill, Co-Curriculum Activities.

Vol. 3 No. 8 (2025)

Journal of Social Signs Review

Online ISSN 3006-4651

Print ISSN 3006-466X

Introduction

Educational approach known as collaborative learning, students work together to solve problems, task completion, create product. Students in the collaborative learning environment encounter emotional and social hurdles as they are required to explain and defend their beliefs while listening to a variety of points of view. By doing this, the students begin to create their own unique conceptual frames and cease relying on professional or textual frameworks. Students can actively discuss concepts, challenge other conceptual frameworks, share opposing points of view, and enhance their academic performance in a collaborative learning environment (Srinivas, H., 2011).

Most people agree that teacher collaboration creates a positive learning environment that increases student achievement and encourages social engagement. However, basic teacher coordination and exchanges are more common than deeper types of collaboration. Participating in cooperative activities across many classrooms and offering feedback based on observations made in the classroom (OECD, 2020).

1.1 Individual vs Group Work

Individual individuals' social skills were not as important as the group's overall social capabilities. The multi-level path analysis revealed that social skills were negatively correlated with intragroup conflict and positively correlated with collaboration. Teamwork, collective social skills, and individual member social skills were found to be less important in managing intragroup conflict and collaboration. In other words, if a group had a member with weak social skills, the group would not be affected by the member as long as the other members had high social abilities (Reigeluth, 2015).

1.2 Project-Base Collaboration

The impact of the Project-based Collaborative Learning (PBCL) approach on students with varying social abilities in terms of conceptual understanding and implementation. Cluster random sampling is the method used for sampling. The tools included a social skills questionnaire and a multiple-choice and essay test to assess conceptual understanding and application (Tapia-Gutierrez & Delgado (2015).

1.3 Collaboration Increase Productivity

Examine how social skills are adopted and how they affect pupils throughout group projects. The findings show that pupils who collaborated were more likely to improve social skills. Recent research has focused on the joining between social skill growth and effective collaborative learning (Sultan et al. (2020).

1.4 Achievement of C.L

Directed similar studies, investigating the social skill development is crucial for children's academic achievement. Both research set out to explore the relationship between group learning and the development of social skills. Our knowledge of the meaning of social skill development for successful group information can be supported by prior research. Researchers would be better able to comprehend the problem if they knew the setting of social skill curriculum use. The suggested study allowed for a strong thoughtful of the relationship between the request of social skills and collaborative learning and behavior insufficiencies. Original teaching techniques that inspire the growth of social skills in the classroom may be made likely by new research (Polat et al. (2022), Yang (2023).

1.5 Clearly Communicate Ideas

They are able to work together on group projects, express themselves clearly, and build strong bonds with teachers and fellow students. In conclusion, developing social skills

Vol. 3 No. 8 (2025)

Journal of Social Signs Review

Online ISSN 3006-4651

Print ISSN 3006-466X

affects a person's personal, intellectual, and professional life in a variety of ways. Relationships are strengthened, communication is improved, empathy is developed, conflict resolution is encouraged, professional success is helped, emotional well-being is improved, personal growth is supported, and academic progress is aided (Lanterman et al., 2021).

1.6 Reduce Anxiety

As kids felt more at ease and supported in the customized activities, this specialized approach not only encouraged social interaction but also assisted in lowering anxiety and behavioral disruptions. This method helps close the gap between philosophy and practice as students actively facility skills like understanding and turn-taking, which are important for fruitful social incorporation (McGuire and Meadan, 2022).

Teachers found that simply altering social skills activities, kids were more equipped to internalize skills like active listening and conflict resolution, which are critical for success in group settings (Salavera et al., 2019).

By practicing these behaviors in safe, regulated environments, students can improve their social skills and become more involved both within and outside of the classroom (Lambert et al., 2021).

Rationale of Study

Research on the social networks of higher-level pupils is still absent. Higher education students are likely to develop the cognitive and interpersonal skills required for success in the job, and they usually come from a diversity of families. Social communication is not only essential for emotional and individual growth, but it also raises the growth of skills like sympathy, management, communication, and compromise all of which are dangerous in team-based work situations. However, students at this level could find it stimulating to build deep social draws because of the high academic values, large class sizes, or the convenience of digital knowledge systems that boundary in-person commitment.

Cooperative learning fosters a learning environment that supports social and intellectual development by encouraging students to listen intently, exchange ideas, settle disagreements, and support one another. Furthermore, by concentrating particularly on the ways in which collaborative learning impacts interpersonal relationships and communication dynamics at the higher education level, this study aims to close a gap in the literature.

Teachers may create more inclusive and successful learning experiences that educate students for community participation and real-world collaboration in addition to academic success by taking into account how collaborative learning affects students' social interactions.

Purpose of the Study

The effect of collaborative learning on students' social interaction was investigated by the study. In particular, the study found the

1. Impact of peer interaction on pupil's academic performance.
2. Effect of cooperative learning on students' social skills at higher education.

Research Objectives

The objective of the study is that:

1. To predict peer interaction, enhance student's social skill.
2. To evaluate how CL effect student's social skill, improve students' performance at higher level.

Vol. 3 No. 8 (2025)

Journal of Social Signs Review

Online ISSN 3006-4651

Print ISSN 3006-466X

Research Questions

The research questions of the study will be as under

1. How peer interaction, enhance student's social skill at higher level?
2. What examine does cooperative learning have on students' acquisition of social skills?
3. Do group projects encourage students to interact with one another?

This study set out to find out how students' academic performance is impacted by collaborative learning. We hypothesized that C.L. improves students' social skills in educational settings.

Research Methodology

1. Research Design

A quantitative methods research design will be used for this study, including quantitative techniques. While the quantitative component will use standardized surveys to monitor changes in students' social interactions. This method enables a more thorough comprehension of how collaborative learning affects students' social interactions in higher education.

2. Population and Sample

Higher-level students enrolling in colleges or universities make up the study's population. Participants in projects or courses that use collaborative learning methodologies will be chosen using a cluster sampling technique.

- Sample size: Approximately 225 students for the survey.

3. Data Collection Methods

Quantitative Data Collection:

• Before and after engaging in cooperative learning activities, students' opinions of social interaction will be evaluated using a structured questionnaire.

• A Likert scale will be used in the survey to gauge traits including conflict resolution, cooperation, communication, and peer support.

4. Data Analysis

Quantitative Data

• To look for any notable changes in social contact, the questionnaire data will be evaluated using both descriptive (mean, standard deviation) and inferential (e.g., paired t-tests or ANOVA) statistics.

5. Validity and Reliability

• To guarantee clarity and dependability, a small group will pilot test the questionnaire.

• To increase the validity of the results, triangulation will be employed by contrasting survey and interview data.

6. Ethical Considerations

• Every participant will be asked for their informed consent.

• Privacy and confidentiality will be carefully sustained.

• At any point during the study, participants will be made aware of their ability to withdraw.

Results.

Table 1.

Demographic variables	Mean	Stander Deviation	Range
Age	2.55	.795	3
Area	1.42	.495	1

Vol. 3 No. 8 (2025)

Journal of Social Signs Review

Online ISSN 3006-4651

Print ISSN 3006-466X

Programme	1.87	.668	2

Table 1 indicates the three factors are included in the demographic data: program, area, and age. With a standard deviation of 0.795 and a mean age of 2.55, the participants' ages show a moderate range around the mean. Three is the range of age values, indicating that the respondents' age groups are somewhat widely distributed. The majority of participants came from a similar or closely clustered area type (probably urban or rural), as indicated by the area variable's mean of 1.42 and standard deviation of 0.495, with a range of 1. The program variable's mean of 1.87, standard deviation of 0.668, and range of 2 indicate that participants were enrolled in a minimum of two distinct academic or training programs, with minor distributional variability. The general characteristics and diversity of the study sample across age, region, and educational program are better understood thanks to these statistics.

Question 1: How peer interaction, enhance student's social skill at higher level?

Table 2: To predict peer interaction, enhance student's social skill.

t-test about peer enhance social skill

Obj1	**Living Status**	**N**	**Mean**	**SD**	**df**	**T**	**P-Value (sign2-tail)**
Peer enhance social skill	Urban	130	16.253	3.579	223	2.100	.037
	Rural	95	15.210	3.814	195.0	2.080	.039

Table 2 shows how the analysis looked at how students' judgments of how peer engagement improves social skills were influenced by their living status (rural vs. urban). According to the results, urban pupils reported a marginally higher mean score (16.25, SD = 3.58) than their rural counterparts (15.21, SD = 3.81). A statistically significant difference between the two groups was found using an independent samples t-test (t(223) = 2.100, p =.037).

This implies that urban students might view peer interaction as somewhat more advantageous to the development of their social skills than their rural counterparts. The statistical significance suggests that living status may have an impact on how students perceive the social benefits of collaborative learning, even though the difference is not very great.

Question 3: What examine does cooperative learning have on students' acquisition of social skills?

Table 3: To evaluate how C.L effect student's social skill improve students' performance at higher level

ANCOVA Test about age wise social skill improve student's performance

Obj2	**Age**	**N**	**Mean**	**Std. Deviation**	**df**	**f**	**Sig 2-tailed**
Social skill improve students' performance	Below 20	16	30.875	6.0649	3	1.201	.310
	21-25	96	31.593	6.5943			
	26-30	86	32.930	6.7104			
	Above 31	27	30.592	7.5715			
	Total	225	31.933	6.7361			

Vol. 3 No. 8 (2025)

Journal of Social Signs Review

Online ISSN 3006-4651

Print ISSN 3006-466X

According to Table 3, the study looked at how students' judgments of how social skills enhance academic success varied by age. Four age groups were formed from the participants: Under 20, 21–25, 26–30, and Over 31. Each group's mean score was 30.88 for those under 20, 31.59 for those between 21 and 25, 32.93 for those between 26 and 30, and 30.59 for those over 31. Overall, there was no difference between the groups, with students aged 26 to 30 reporting the greatest perceived benefit of social skills on performance and those over 31 the lowest.

. According to an ANOVA test, there was no statistically significant difference between the age groups F (3, 221) = 1.201, p =.310), suggesting that students' perceptions of the relationship between social skills and academic achievement are not significantly influenced by age. As a result, students of all ages typically recognize the value of social skills in promoting academic achievement.

Table 4

ANCOVA Test about progrmme wise social skill improve student's performance

Obj2	Programme	N	Mean	Std. Deviation	df	F	Sig 2-tailed
Social skill improve students' performance	B.S	67	32.4030	6.035	2	.316	.730
	M.PHIL	121	31.6116	7.109			
	P.H.D	37	32.1351	6.803			
	Total	225	31.9333	6.736			

Table 4 analysis sought to ascertain if students' judgments of how social skills enhance academic success were influenced by their academic program level (B.S., M.Phil., or Ph.D.). With mean scores of 32.40 for B.S. students, 31.61 for M.Phil. students, and 32.14 for Ph.D. students, the three groups were quite similar. There were not many variations between the groups, despite the fact that B.S. students generally felt that social skills improved performance.

There was no statistically significant difference between the three academic programs, according to the findings of an ANOVA test F (2, 222) = 0.316, p =.730). This suggests that regardless of their degree level, students at all academic levels typically view social skills as being equally vital in improving academic achievement.

Table 5

Reliability of Research Instrument

Variables	N of Items	Cronbach Alpha's Value	Overall Reliability Analysis of Scale
C.L* include peer interaction	5	.535	.718
C.L* affect social skill	10	.620	

Note: *Collaborative Learning

The scale examining the impacts of cooperative learning (C.L*) has varying degrees of internal consistency across all of its dimensions, according to the reliability analysis conducted overall. The first Cronbach's alpha for the first variable, "CL* influences pupils' performance," which has five items, is.535, which is below the permissible cutoff of.70. This implies that the same underlying notion may not be reliably measured by the elements

Vol. 3 No. 8 (2025)

Journal of Social Signs Review

Online ISSN 3006-4651

Print ISSN 3006-466X

under this construct. Nevertheless, a later value of.718 seems to indicate a higher reliability score, perhaps as a result of the problematic items being revised or eliminated, bringing the construct inside the acceptable internal consistency range. After analyzing ten items, the Cronbach's alpha for the second variable, "CL* influences social skills," is.620. The scale's consistency may be enhanced by further item refining, even if this score shows moderate dependability and still falls short of the usually advised criterion. Overall, the scale exhibits promise, especially given the higher alpha for student performance; nonetheless, additional item analysis and revision should be helpful to improve the scale's overall dependability.

Table 6

Factor Wise Analysis

	Peer interaction	**Communication Skill**	**Co-Curriculum Activities**
Peer Interaction	1		
Communication Skill	.340**	1	
Co-Curriculum Activities	.354**	.451**	1

Table 6 displays the association between co-curricular activities, communication skills, and peer interaction. The numbers show that all three variables have positive, statistically significant correlations with one another. Communication competence and peer interaction have a positive correlation ($r = .340$, $p < 0.01$), indicating that students who interact with their peers more frequently typically have stronger communication abilities. Peer interaction also has a significant correlation with co-curricular activity involvement ($r = .354$, $p < 0.01$), suggesting that kids who get along well with their peers are more likely to participate in extracurricular activities. Communication skills and co-curricular activities have the largest association ($r = .451$, $p < 0.01$), suggesting that participation in these activities may have a major impact on the development of communication skills. These findings demonstrate how social interaction, skill improvement, and involvement in school activities are all interrelated.

Table 7

Presents the Comparison of Collaborative Learning Models

Learning models	**Effectiveness**	**Ease implementation**	**Adaptability for primary education**	**Reference**
Active Learning	Promotes experiential learning and real problem-solving	Needs a lot of planning, funding, and student group supervision.	From moderate to high. For younger pupils, plans can be made simpler, but organization and direction are essential.	(Zhang et al., 2023)

Vol. 3 No. 8 (2025)

Journal of Social Signs Review

Online ISSN 3006-4651

Print ISSN 3006-466X

Peer Instruction	Strengthens teacher and student understanding and improves learning through peer clarifications	Need direction to guarantee precise peer instruction; significant planning is required	Good with organized teaching; younger pupils could need more help.	(Rosmiati, E., Munandar 2024)
Think-pair share	Promotes peer conversation and independent thought, enhancing understanding and recall	Easy to implement with little planning; flexible to a variety of topics.	It is suitable for younger pupils since it involves simple, manageable interactions.	(Fauzi & Roza Linda, 2021)
Jigsaw Group	Increases student meeting and inspires in-depth learning through teaching.	Can work well providing the material is age-appropriate; younger pupils might require more disciplined teaching	Can work well provided the material is suitable for the children' age; newer ones might require more planned teaching.	(Irfan, L. M. 2025)
Collaborative Inquiry	Encourages active knowledge and supportive problem-solving	From moderate to difficult. calls for preparation and skillful group guidance.	Adjustable to easier assignments younger pupils require detailed directions and training.	(Mohzana, M., & Kamaruddin, I. (2023)

Table 7 show the compares collaborative learning models for other methods/techniques, Think-Pair-Share is very successful and the simplest to use because of its adaptability and simplicity; it promotes peer conversation and individual thought, which makes it ideal for younger students. Although it takes some work to guarantee appropriate instruction and can be difficult to oversee with younger children, peer teaching is also quite successful at using peer explanations to reinforce comprehension. Jigsaw Classroom is good at encouraging in-depth learning through peer teaching, but it's not very flexible or easy to execute because it needs careful planning and could need to be modified for younger pupils. Both project-based learning and group investigation are excellent at encouraging problem-solving and active learning, but they are more difficult to execute and control group dynamics, particularly when working with younger children who require more supervision. Role-based learning is moderately successful and simple to use, but it can be difficult to administer since roles must be clearly defined. Its adaptability is also limited because younger students might need more structured assistance. Overall, Think-Pair-Share and Project-Based Learning are notable for their high degree of adaptability to

Vol. 3 No. 8 (2025)

Journal of Social Signs Review

Online ISSN 3006-4651

Print ISSN 3006-466X

elementary school, with Think-Pair-Share being the most straightforward to use and Project-Based Learning maybe requiring more planning and organization.

Discussion

Age, region, and program are the three main components of the demographic statistics. Participants are divided into fairly different age groups, according to the age variable, which has a mean of 2.55 and a standard deviation of 0.795. Additionally, the range of 3 shows a rather large dispersion across age groups, indicating that the sample included people from various life phases or educational backgrounds. The area adjustable indicates that the popular of members are clustered in one type of area, most possible urban or rural, with a mean of 1.42, a standard abnormality of 0.495, and a range of 1. The sample appears to be geologically same in terms of residency, based on the minimal unpredictability. The program variable, which has a mean of 1.87, a standard deviation of 0.668, and a range of 2, shows that the participants are isolated among at least two different theoretical or training programs, with comparatively little difference in the sharing of enrolled students. Together, these numbers paint a clearer picture of the demographic arrangement of the study group, demonstrating reasonable age and program participation variation as well as little local variance.

The study's findings offer valuable new visions into how several demographic and academic traits impact students' perceptions of group plans and their role in development social skills. The statistically significant change between urban and rural students advises that living environments may affect students' chances and attitudes toward peer appointment, with urban students experiencing somewhat greater social benefits.

However, there was no significant modification in age or academic level, representative that social skills are critical for academic presentation in all age groups and plans (B.S., M.Phil., Ph.D.). This consistency highlights the universal priority placed on social capabilities in higher education settings, irrespective of origin or educational period.

The scale evaluating the effects of cooperative learning (C.L*) has different levels of internal consistency across its dimensions, according to the reliability analysis. The first Cronbach's alpha for the first construct, "CL* impacts students' performance," which consists of five items, was.535, which is below the universally recognized cutoff of.70. This implies that there might not be a single underlying concept being accurately measured by the items. The internal consistency of this construct, however, increased to an acceptable level following the possible adjustment or removal of problematic components, as indicated by the revised alpha value of.718. The second construct, "CL* impacts social skills," on the other hand, had a Cronbach's alpha of.620 and is composed of ten components. Even while this indicates a moderate level of reliability, it is still somewhat below the suggested threshold, suggesting that the scale's consistency could be improved with additional development. The scale exhibits promise overall, especially given the increased reliability in the student performance dimension. Careful modification and ongoing item analysis are advised to improve the measurement tool's overall validity and reliability.

The correlation analysis also exposed strong, positive relationships between peer contact, co-curricular doings, and communication abilities. It's stimulating to note that children who interrelate with their classmates more often also typically participate in additional activities and have better communication skills. The strongest suggestion was

Vol. 3 No. 8 (2025)

Journal of Social Signs Review

Online ISSN 3006-4651

Print ISSN 3006-466X

found between communication abilities and optional activities, suggesting that contribution outside of the classroom might significantly enhance relational skills.

These answers provide credence to the idea that cooperative learning settings, particularly when combined with active peer contribution and extracurricular activity involvement, foster not only academic achievement but also the inclusive development of public and communication skills. All things considered, the study highlights the connections between social interaction, group projects, and student development and offers cooperative advice for educators who wish to establish hospitable and engaging classrooms.

Conclusion

The study's conclusion highpoints the significance of demographic and academic appearances in influencing students' insights of group projects and how they aid in the growth of their social skills. Despite the fact that area differences mainly between urban and rural students had an extensive impact on students' social experiences, age and academic level appear to have little bearing. This emphasizes how important social skills are at all school levels. The strong positive correlations shown across communication skills, co-curricular activity, and peer interaction demonstrate how these mechanisms work together to promote students' complete development.

The findings confirm the value of additional activities and cooperative learning surroundings as efficient ways to raise academic presentation and vital relational skills. Ultimately, the study offers useful data for educators and organizations seeking to create inclusive, engaging, and socially inspiring learning settings that support children's full development.

Education Implication

1. Improved Abilities in Communication.
2. Promotes polite disagreement and attentive listening.
3. Students who are exposed to a variety of opinions are better able to understand those of others.
4. Encourages a more accepting and tolerant classroom atmosphere.
5. Leadership skills are established through roles like researcher, and leader.
6. Students get constructive conflict management skills.
7. Improves social maturity and emotional intelligence.

Recommendation

1. Create team-building exercises like debates, group projects, peer evaluations, and case studies.
2. Organize workshops for ability development that emphasize conflict resolution, group facilitation, and collaborative learning techniques.
3. To evaluate both group performance and individual contributions, combine teacher evaluation, peer evaluation, and self-assessment. Provide incentives and academic recognition to encourage cooperation and teamwork.
4. Provide teamwork-enhancing library resources, online discussion boards, and collaboration.
5. During cooperative assignments, teachers should actively track group improvement, resolve disputes, and offer comments.
6. Individual involvement and learning progress can be supervised with reflective journals or group logs.

Vol. 3 No. 8 (2025)

Journal of Social Signs Review

Online ISSN 3006-4651

Print ISSN 3006-466X

References

De Bruyne, B., Pijls, N. H., K johnson, B., Barbato, E., Tonino, P. A., Piroth, Z., ... & Fearon, W. F. (2012). Fractional flow reserve–guided PCI versus medical therapy in stable coronary disease. *New England Journal of Medicine*, *367*(11), 991-1001.

Edwards, I. R., & Aronson, J. K. (2000). Adverse drug reactions: definitions, diagnosis, and management. *The lancet*, *356*(9237), 1255-1259.

Fauzi, F., Erna, M., & Linda, R. (2021). The effectiveness of collaborative learning throughtechniques on group investigation and think pair share students' critical thinking ability on chemical equilibrium material. *Journal of Educational Sciences*, 5(1), 198-208.

Irfan, L. M. (2025). Improving Student Learning Achievement through Jigsaw Type Cooperative Learning Model in the Subject of Aqidah and Morals at MI Nahdlatul Wathan Karang Baru. *Asian Journal of Education and Teaching*, *1*(1), 28-45.

Lambert, M. C., Katsiyannis, A., Epstein, M. H., Cullinan, D., and Sointu, E. (2021). Profiles of Emotional Disturbance Across the Five Characteristics of the Federal Definition. Behavioral Disorders 19874292110335.

Lanterman, C., Lockwood, A. B., Sealander, K., Winans, S., and Novelli, M. (2021). Expanding the gaze and moving the needle: Inclusion for students with EBD. Preventing School Failure, 65(3), 185-193.

Li, Y., Zhang, Y., Timofte, R., Van Gool, L., Yu, L., Li, Y., ... & Wang, X. (2023). NTIRE 2023 challenge on efficient super-resolution: Methods and results. In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition* (pp. 1922-1960).

Li, Y., Zhang, Y., Timofte, R., Van Gool, L., Yu, L., Li, Y., ... & Wang, X. (2023). NTIRE 2023 challenge on efficient super-resolution: Methods and results. In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition* (pp. 1922-1960).

McGuire, S. N., and Meadan, H. (2022). General Educators' Perceptions of Social Inclusion of Elementary Students with Emotional and Behavioral disorders. Behavioral Disorders, 48(1), 16-28.

Mohzana, M., Merla, M., Boari, Y., Hudain, M. A., & Kamaruddin, I. (2023). The Analysis Of The Effectiveness Of Group Investigation Method Implementation In Increasing Student Learning Outcomes. *Mudir: Jurnal Manajemen Pendidikan*, 5(1), 148-153.

Polat, Ö., Sezer, T., and Atiş Akyol, N. (2022). Collaborative learning with mind mapping in the development of social skills of children. Participatory Educational Research, 9(1), 463- 480.

Reigeluth, C. M., Aslan, S., Chen, Z., Dutta, P., Huh, Y., Lee, D., ... & Watson, W. R. (2015). Personalized integrated educational system: Technology functions for the learner-centered paradigm of education. *Journal of Educational Computing Research*, *53*(3), 459-496.

Rosmiati, E., Munandar, A., & Seprida, R. (2024). Meningkatkan Aktivitas Dan Hasil Belajar Siswa Melalui Penerapan Model Pembelajaran Peer Teaching Pada Siswa Kelas VIII SMP Negeri 17 Makassar. Tahun Ajaran 2024/2025. *Innovative: Journal Of Social Science Research*, *4*(6), 5644-5669.

Salavera, C., Usán, P., and Teruel, P. (2019). The relationship of internalizing problems with emotional intelligence and social skills in secondary education students: Gender differences. Psicologia, reflexão e crítica, 32(1), 4-4.

Journal of Social Signs Review

Online ISSN 3006-4651

Print ISSN 3006-466X

Srinivas, H. (2011 Oct. 21, last updated). What is Collaborative Learning? The Global Development Research Center, Kobe; Japan 33(3), 50-76.

Sultan, S., Hussain, I., and Kanwal, F. (2020). Individual versus Collaborative Learning: A Strategy for Promoting Social Skills and Academic Confidence Among students. Journal of Educational Research, 23(1), 197.

Tapia-Gutierrez, C. P., & Delgado, S. C.-. (2015). Design of an Instrument To Assess Social Skills In Teacher Training Programs. Procedia - Social and Behavioral Sciences,197 (February)1074–1078.

Topping, K. J., & Ehly, S. W. (2001). Peer assisted learning: A framework for consultation. *Journal of Educational and Psychological Consultation*, *12*(2), 113-132.

Vitale, C., Bitetti, R., Wanner, I., Danitz, E., & Moiso, C. (2020). The 2018 edition of the OECD PMR indicators and database: Methodological improvements and policy insights, 13(3), 111-132.

Yang, X. (2023). A historical review of collaborative learning and cooperative learning. Techtrends, 1-11.