

# Improving the Adolescent Self-Adjustment by Using Information Services and Cooperative Learning: Experimental

**Murisal<sup>1</sup>, Fadil Maisseptian<sup>2</sup>, Erna Dewita<sup>3</sup>, Annisa Nabihah Salwi<sup>4</sup>**

<sup>1</sup>Departement of Islamic Psychology, Faculty of Ushuluddin and Religious Studies, Universitas Islam Negeri Imam Bonjol, Padang - Indonesia

<sup>23</sup>Departement of Islamic Guidance Counseling, Faculty of Islamic Religion, Universitas Muhammadiyah Sumatera Barat, Padang - Indonesia

<sup>4</sup>Departement of Islamic Psychology, Faculty of Ushuluddin and Religious Studies, Universitas Islam Negeri Imam Bonjol, Padang - Indonesia

Email: [murisal@uinib.ac.id](mailto:murisal@uinib.ac.id)

## KEYWORDS

Self-Adjustment;  
Information Services;  
Cooperative Learning

## ABSTRACT

Adolescent's ability to adapt to their environment will make it easier for them to adapt to members of the society in which they live. Adolescents who cannot adjust well will not be able to use their thoughts and attitudes positively. To improve adolescent adjustment, a collaborative approach is needed that can strengthen social interaction, communication, and cooperative skills in adjustment. This research aims to improve adolescents' ability to adapt using information services and cooperative learning. The method used is quantitative with a quasi-experimental approach. The research subjects were teenagers from orphanages throughout Sumatra. The data collection technique used a self-adjustment questionnaire and was analyzed using the wilcoxon signed rank test and colmogorof-smirnof 2 independent samples. The results of the research show a significant increase in adolescent self-adjustment after being given modifications to information services and cooperative learning. So this modification of services and methods is useful for the adjustment of teenagers in orphanages in Sumatra.

## Introduction

In adolescence, every individual tries to find his or her identity through the various behaviors and thought patterns shown. (Branje et al., 2021; Gruber & Fandakova, 2021) say that in principle they have high curiosity about various developing situations and phenomena, but do not yet have good self-control. Teenagers often make decisions without careful consideration, resulting in harm to themselves.

Teenagers' ability to adapt to their environment will make it easier for them to adapt to members of the society in which they live. Adolescents who cannot adjust well will not be able to use their thoughts and attitudes positively (Perez-Gramaje et al., 2019), so they will not have good stress management (Campione-Barr et al., 2021). For this reason, assistance and coaching for teenagers are needed so that they can manage their potential, both internal and external.

Likewise, teenagers who live in orphanages are far from parental supervision and only receive guidance from orphanage caregivers. The guidance and direction they receive is very minimal because the number of foster children is sometimes not comparable to the number of caregivers available, so the attention and guidance they can receive is not in line with the demands of their developmental tasks (Moreno & Uhls, 2019; Schweizer et al., 2020). Self-adjustment is difficult to do correctly without guidance and direction on how to adapt well, especially in an orphanage environment which has many differences, starting from age level, education level, culture, and language in daily life (Lubis et al.,

2022). This aims to ensure that orphanage teenagers feel comfortable living in the orphanage and can interact well in the surrounding environment. Adolescents' participation in environmental activities will help their psychological development, especially concerning their ability to adapt to social interactions outside the orphanage (Mikrut et al., 2020).

Orphanage teenagers who have high self-adjustment will have the ability to adapt well, try to protect themselves physically, control emotional impulses, have good behavioral control, have strong motivation, and have a realistic mindset (Noviandari & Mursidi, 2019). Therefore, teenagers in orphanages need to have the ability to adapt to their environment (Sari & Arsyad, 2021). The inability to adapt will result in acculturation stress, namely the process of responding to a life event that originates from acculturation experiences, and psychological difficulties in adapting to a new culture or social norms, both in the institution and outside the institution (Koo et al., 2021; Miller & Csizmadia, 2022).

Information services are a type of Guidance and Counseling service, which allows teenagers to gain understanding and accept good self-adjustment. Information services try to maximize all information provided by teenagers to fulfill their duties and responsibilities in social interactions (Prayitno & Amti, 2004; Szymkowiak et al., 2021). So that every teenager in an orphanage is truly able to develop their self-adjustment well, providing information services should also use methods that arouse their curiosity in obtaining information (Reardon et al., 2021).

One method of information service is to use the cooperative learning method which emphasizes collaborative activities between fellow participants in small groups (Ehsan et al., 2019a; Silalahi & Hutaeruk, 2020).

Information services and cooperative learning are two concepts that are closely related in the context of education and personal development. These two concepts share a common collaborative approach, but they have different focuses. The relationship between group guidance and cooperative learning is illustrated by: (1) Good. In group coaching, this can mean discussions between participants about the problems or challenges they are facing. In cooperative learning, it means students work together in groups to achieve certain learning goals (Ehsan et al., 2019b).

The main goal of group guidance is to provide social and psychological support to group members. It is often used in the context of counseling or emotional support, where group members share experiences, challenges, and support with each other (Baroroh & Daulay, 2023; Ristianti et al., 2019). Meanwhile, cooperative learning aims to improve students' understanding and skills through cooperation in the learning process (Tran, 2019).

Information services focus more on the personal development and emotional well-being of adolescents. This includes listening, sharing experiences, providing support, and providing relevant advice. Meanwhile, cooperative learning focuses on the learning and teaching process, with group members helping each other to understand lesson material and completing academic tasks (Namaziandost et al., 2019; Shomirzayev, 2021; Van Ryzin et al., 2020a). (4) group tutoring is often smaller and focuses on specific issues related to individual development or psychological well-being, while cooperative learning focuses

more on achieving academic learning goals.

Cooperative learning is generally used as a learning method in the classroom to improve students' understanding of the subject matter. Meanwhile, group guidance is often used outside the classroom to provide emotional, social, or psychological support to individuals or groups who are facing personal or social problems (Kaufman et al., 1997; Sharan, 2002).

Thus, providing information services using cooperative learning is expected to improve the self-adjustment of institutionalized youth. Although group tutoring and cooperative learning have different focuses, both can contribute to an individual's personal and academic development. They represent a collaborative approach that can strengthen social interaction, communication, and cooperation skills in educational and self-development contexts. With information services, individuals can access or obtain information about how to adapt well to their social environment..

## Methodology

The research subjects came from the Aisiyiah Orphanage in West Sumatra and the Aisiyiah Orphanage in North Sumatra. The subject sampling technique used in this research used a non-probability sampling approach (Flynn, 2021), using a purposive sampling technique (Stommel & Wills, 2004). This technique is used in selecting research subjects with certain considerations. Considerations for selecting research subjects were 1) teenagers from the Aisiyiah Orphanage in West Sumatra and North Sumatra, 2) Having varying categories of self-adjustment based on filling out the questionnaire (Santoso & Madiistriyatno, 2021). The results of this test are used as a basis for selecting research subjects to determine their self-adjustment conditions. So that subjects receive treatment according to their condition. The data collection technique used in this research was administering a questionnaire about self-adjustment and data collection. Data collection was carried out by distributing pretest questionnaires to teenagers in orphanages, both experimental and control groups. Then it continued with giving action to the experimental group using information services using the cooperative learning method and ended with carrying out a posttest. Meanwhile, the control group was given information services without using the cooperative learning method. Furthermore, the collected data is then tabulated, analyzed and conclusions are drawn to obtain results (Sugiyono, 2015).

The data analysis technique used is non-parametric, with the Wilcoxon Signed Ranks Test with the help of SPSS 20 using the formula:

$$Z = \frac{T - \left[ \frac{1}{4N(N-1)} \right]}{\sqrt{\frac{1}{24N(N-1)(2N-1)}}$$

Information:

T = Smallest number of marked ranks

N = Number of unequal pairs of mark

The Wilcoxon Signed Ranks Test was used to test the comparison of pretest and posttest from the same group (Sugiyono, 2015). Next, to compare the posttest scores from two different groups, the Kolmogorov Smirnov 2 independent samples test was used using

SPSS 20 with the formula:

$$KD : 1,36 \frac{\sqrt{n_1 + n_2}}{n_1 n_2}$$

Information:

KD = Number of Kolmogorov-Smirnov searched

n1 = Number of samples obtained n2 =

Expected number of samples

## Results

The following will explain the description of the data from the experimental group and control group. Then the results of data analysis from the data that have been obtained are also explained.

### 1. Pretest and Posttest Self-Adjustment Results of the Experimental Group

Code	Pretest	Category	Posstest	Category
IK	73	Moderate	90	High
NH	81	High	93	High
DQ	79	Moderate	91	High
SF	83	High	91	High
NAS	76	Moderate	95	High
MI	75	Moderate	101	Very High
El	68	Moderate	100	Very High
Au	74	Moderate	89	High
Ai	73	Moderate	99	High
RA	86	High	86	High
Nu	75	Moderate	100	Very High
SU	68	Moderate	90	High
Average	76	Moderate	94	High

The data obtained from the pretest and posttest results of the experimental group, it shows that there is an increase in adolescents' self-adjustment after being given information services using the cooperative learning method. The pretest results of teenagers from the experimental group averaged 78.6 in the medium category with details of 5 people in the high category and 7 people in the medium category. Meanwhile, the posttest results from the experimental group averaged 97.4 in the high category, with details of 6 people in the very high category and 6 more people in the high category.

### 2. Pretest and Posttest Self-Adjustment Results of the Control Group

Code	Pretest	Category	Posstest	Category
RA	87	High	102	Very High
YN	74	Moderate	105	Very High
AS	83	High	112	Very High
R	73	Moderate	91	High
LOY	86	High	86	High
LNR	67	Moderate	94	High
RA	89	High	104	Very High
SM	75	Moderate	82	High
SA	80	Moderate	94	High
W	82	High	87	High
YN	78	Moderate	106	Very High

RSP	69	Moderate	106	Very High
Average	76	Moderate	94	High

Obtaining data from the control group's pretest and posttest results also showed an increase in adolescents' self-adjustment after being provided with information services without using the cooperative learning method. The average pretest result for the control group was 75.9 in the medium category with details of 3 people in the high category and 9 people in the medium category. Meanwhile, the posttest results averaged 93.75 in the high category with details of 3 people in the very high category and 9 people in the high category.

### 3. Results of the First Hypothesis Test

	Post – Pre
Z	-2.944 <sub>b</sub>
Asymp. Sig. (2-tailed)	.003

Based on the data above, the level of adolescent self-adjustment is in the Asymp column. Sig (2-tailed) is 0.003 ( $0.05 \geq 0.003$ ), then H1 is accepted and H0 is rejected. Thus, this hypothesis can be accepted because there are differences in scores in the pretest-posttest results of adolescent self-adjustment in the experimental group before and after being given information services using the cooperative learning method.

### 4. Results of the Second Hypothesis Test

	Post – Pre
Z	-2.937 <sub>b</sub>
Asymp. Sig. (2-tailed)	.003

Based on the data above, the level of adolescent self-adjustment is in the Asymp column. Sig (2-tailed) is 0.003 ( $0.05 \geq 0.003$ ), then H1 is accepted and H0 is rejected. Thus, this hypothesis can be accepted because there are differences in scores in the pretest-posttest results of adolescent self-adjustment in the control group after being given information services without the cooperative learning method.

### 5. Results of the Third Hypothesis Test

		Eksperimen
Most Extreme Differences	Absolute	.500
	Positive	.167
	Negative	-.500
Kolmogorov-Smirnov Z		1.225
Asymp. Sig. (2-tailed)		.100

Based on the data above, it can be seen that the level of adolescent self-adjustment in the Asymp sig (2-tailed) column for the 2-sided test is 0.100 ( $0.05 \geq 0.100$ ). So H1 is accepted and H0 is rejected, thus the third hypothesis in this study can be accepted, because there are differences in the results of the posttest adjustment of teenagers in the experimental group after being treated with information services using the cooperative learning method, and the control group after being given information services without using cooperative learning.



## Discussion

Based on the results of the pretest scores conducted on teenagers from the control group and the experimental group regarding self-adjustment, there were no fundamental differences before being given information services using the cooperative learning method. This can be seen from the 12 teenagers from each experimental group and control group who took the pretest. The results obtained from the control group were 9 people in the medium category and 3 people in the high category. Meanwhile, from the experimental group, there were 5 people in the high category and 7 people in the medium category. After being given treatment through information services using the cooperative learning method, it was seen that there was a change in the adolescent adjustment level score between the experimental group and the control group. This difference can be seen from the posttest results between the experimental group and the control group. In the experimental group, there were 6 people in the very high category and 6 people in the high category, while in the control group, there were 3 people in the very high category and 9 people in the high category.

Based on the data above, it can be concluded that modification of information services using the cooperative learning method can improve the self-adjustment of teenagers in the experimental group better than the control group who were only given information services. Several learning methods can be modified to get better results (Du et al., 2020; Qureshi et al., 2023a). Likewise, modifying information services using the cooperative learning method is a combination of information services with one of the learning methods, namely cooperative learning.

Cooperative learning is a learning method that utilizes the dynamics of group collaboration (Elisabet et al., 2020; Erbil, 2020). Collaboration means fellow group members are interdependent in completing every responsibility they carry out (Casey & Quennerstedt, 2020; Shimizu et al., 2021; Yatimah et al., 2019). Cooperative learning can help each develop their potential through activities carried out in groups because there is a lot of motivation, support, attention, and responsibility to move forward together (Onyema et al., 2019). This learning model requires each group member to restructure together to explore and develop their potential (Klang et al., 2021; Tran et al., 2019), through the following:

First, the cooperative learning method requires group cooperation or teamwork (Chatterjee & Correia, 2020; Supena et al., 2021). This means that each group member must learn to (a) understand each other, because by understanding other people each individual will be able to know every other individual's hopes and desires (Allo, 2020). (b) Mutual respect aims to ensure that each group member can express their feelings and desires freely without feeling embarrassed or afraid (Liang et al., 2020). (c) Increasing awareness, because a caring attitude will foster empathy between fellow group members (Sutarman, n.d.; Wei et al., 2020). By practicing this attitude, good team cooperation will be created, so that each group member will equally benefit from the group and be able to overcome any difficulties in developing their potential.

Second, cooperative learning requires that each group consists of people who have different abilities (Erdogan, 2019). This aims to ensure that fellow group members can carry out their roles with each other. Those who have greater abilities can guide their weaker friends, or vice versa, for teenagers who have not yet maximized their potential, they can learn from those who have achievements (Sarkar et al., 2023; Yu et al., 2019). Each individual in the group plays an active role in making changes or improving their abilities and developing their potential.

Third, the cooperative learning method also requires that each group member comes from a different background, including differences in ethnicity, race, skin color, language, and culture (de Hei et al., 2020; Van Ryzin et al., 2020). This aims to ensure that each group member can see each issue or problem from a different perspective. In this way, opportunities will open up to find various solutions in solving every problem that occurs from various points of view (Simamora & Saragih, 2019).

Fourth, cooperative learning also leads to giving rewards to each group member (Jacobs & Ivone, 2020). A reward is a prize or appreciation given to someone for the services or achievements they have obtained. Appreciating every effort or achievement made by an individual in exploring or developing his or her potential is true appreciation. Because each person has different abilities and every effort to change needs to be properly appreciated (Purwanto et al., 2021; Yusuf et al., (2019).

Likewise with the provision of information services, where any information provided can be utilized by each group member to improve his or her quality (O'Brien & Marakas, 2006). This is following the ultimate goal of providing information services, namely equipping each individual with various knowledge and understanding that they can actualize in their lives, especially those related to preventing and alleviating their problems both individually and in groups (Tenri Sompia, n.d.; Wajdi & Ramadhani, 2022).

Information services require that every teenager can prevent and experience independently all problems (Faltýnková et al., 2020; Lopez-Fernandez & Kuss, 2020; Rahimovna, 2022). So that through the knowledge and understanding they gain, teenagers can recognize themselves, develop their abilities, and make plans about the future they want, both as individuals and social creatures (Hellfeldt et al., 2020; Keles et al., 2020; Sampasa-Kanyinga et al., 2020; Szymkowiak et al., 2021).

From the description above, it can be understood that providing information without using cooperative learning focuses more on increasing teenagers' knowledge and understanding of various problems that occur (Houghton et al., 2022; Nahar, 2022). However, it needs to be understood that knowing and understanding alone is not enough to help teenagers manage their lives, teenagers need direct application of the knowledge they have to plan their future. For this reason, modifying information services using cooperative learning methods is the right thing to improve teenagers' practical skills in living their lives (Karimovich et al., 2021; Kholmuratovich et al., 2020; Makhmutovna & Ibragimovna, 2020).

Through information services using the cooperative learning method, teenagers are directed to have practical skills in managing themselves well (Jdaitawi, 2019; Mitsea et al., 2021; Stehle & Peters-Burton, 2019). Among these skills is first, directing teenagers to

have the ability to accept themselves. Self-acceptance is the ability to accept all of one's potential, both strengths and weaknesses (Fadhlan et al., 2023; Mursidi & Noviadari, 2020; Nurhidayah & Zuhara, 2021; Puspitaningrum et al., 2023). This attitude will guide each individual to be themselves without feeling inferior. Accepting one's weaknesses is not to be resigned to the existing situation, but knowing one's weaknesses is the best way to make improvements.

Second, accept other people's strengths as learning to improve yourself (Denny & Iskandar, 2022; Hu et al., 2019; Ramadhani et al., 2019). Accepting other people's superiority is very difficult to do because it is everyone's nature to always want to be the best. But when someone can see other people's strengths as a means to improve themselves, then they will be able to take many benefits to develop their potential.

Third, have an optimistic attitude (Anggraini & Sulistiawati, 2023; Sasmita, 2022) and a strong motivation to make changes (Kartel et al., 2022, 2022). An optimistic attitude and strong motivation will help teenagers see various opportunities to change themselves for the better, even though many obstacles hinder them (Doyle, 2020; Moser & Korstjens, 2018). When faced with various problems, they will motivate themselves to get up and solve the problem well. Fourth, carry out a self-evaluation of each situation and condition that occurs. Evaluation can not only be done on every weakness or shortcoming of oneself but can also be done on every plan, change, or improvement that has been made (Aykut, 2020; Dong et al., 2020; Tomczyk, 2020). This aims to ensure that every thought pattern, attitude, and behavior can be improved and improved in an even better direction.

Thus, it can be understood that information services using the cooperative learning method are very appropriate to be implemented to improve adjustment for teenagers living in orphanages (Shuang-ling & Nai-liang, 2023). In general foster children come from different backgrounds which causes them to experience various difficulties in adapting to the environment where they live and the school environment where they study (Kim, 2020; Pradana et al., 2020).

Therefore, through providing this service, orphanage youth gain knowledge, understanding, and skills on how to improve their adjustment to the environment. Adjustment is important because there are significant differences between the new environment and the one they previously lived in (Okezie et al., 2020), especially the family and social environment that has colored their lives. Adolescents' self-adjustment can increase because information services using cooperative learning methods require several important changes in adolescents (Rivera-Pérez et al., 2021; Van Ryzin et al., 2020b; Van Ryzin & Roseth, 2021). First, this service requires teamwork in groups (Widayati et al., 2021). Teamwork will run well if fellow members support, understand, and motivate each other (Bouman et al., 2020; Wei et al., 2020). Understanding and support are needed in adjusting to a new environment.

Second, this service also requires the gathering of individuals from different backgrounds. Appreciating existing differences is the key to successful team collaboration. Respecting other people will foster an attitude of tolerance and acceptance of existing



differences so that differences will not be a problem in group life (Karamatilloevich et al., 2020; Ravshanovna & Ahmadjanovna, 2021; Tyas & Naibaho, 2020). This condition will help make it easier for each foster child to adapt to different cultures.

From the description above, it can be understood that group guidance and cooperative learning can contribute to increasing adolescent adjustment. Adolescents' adjustment involves their ability to function positively in various life contexts, such as family, school, peers, and society. Here are ways group tutoring and cooperative learning can help improve teens' adjustment:

First, through social support, group guidance allows teenagers to interact with peers who may be facing similar problems (Szlyk et al., 2020). This creates a supportive environment where they can feel heard, understood, and accepted. Cooperative learning also allows students to work together in teams, build healthy social relationships, and learn how to collaborate (Kimmelman & Lang, 2019; Qureshi et al., 2023b; Strauß & Rummel, 2020).

Second, Social Skills, because in group guidance, teenagers can develop social skills such as speaking, listening, and resolving conflicts. This helps them interact better with others and build positive relationships (Beelmann & Lösel, 2021; Loukatari et al., 2019). Likewise, with cooperative learning, students also learn cooperation, communication, and leadership skills that can help them in various social contexts.

Third, self-understanding is obtained through group guidance because BKP invites teenagers to reflect on and understand themselves, including their values, strengths, and weaknesses. This can help them develop a strong identity and be more confident in facing challenges. The same thing is also desired by the cooperative learning method because students can understand how they contribute to the group and learn from the experience of interacting with other people (Fransson et al., 2019; Lu et al., 2023).

Fourth, through group guidance, teenagers can learn how to overcome problems and deal with stress. They can share problem-solving strategies with peers and get support in dealing with the problems they face (Tambunan, 2019). In cooperative learning classes, students are also taught to work together to find solutions to academic tasks, which can also help them develop problem-solving skills. Fifth, In cooperative learning, students often have more control over their learning process. This can increase your sense of responsibility and motivation to learn. Over time, they may feel more empowered and able to take control over their educational development, which is an important aspect of positive adjustment (Bdair, 2021; Jansen et al., 2020).

Thus it can be concluded that the combination of group guidance and cooperative learning can create an environment that supports the personal and academic development of adolescents. This can help them overcome challenges, build social skills, and develop a better understanding of themselves, all factors that are important in positive adjustment.

## **Conclusion**

The cooperative learning method is a learning method that focuses on teenagers' ability to have practical skills through group collaboration. This aims to ensure that each group member gets the same opportunity to develop their potential. Because cooperative learning requires fellow group members to be able to receive, give, or direct each other to

make improvements even though they come from different backgrounds. Information services want every teenager to have good knowledge and understanding of various information that is useful for their lives. It is hoped that the knowledge and understanding they have will be able to help every teenager in preventing or overcoming any problems they experience. Information services require the elimination of each individual's problems so that the potential for improving one's quality can be realized well.

Modifying information services using the cooperative learning method can help teenagers apply the knowledge and understanding they have gained through practical skills in managing their lives. Through this service, it is hoped that teenagers will be able to recognize and explore their potential, and then manage and develop these abilities to improve their lives in the future, especially concerning the adjustment of children in foster care. Through this service, teenagers are provided with various knowledge, understanding, and skills to improve their adjustment.

## References

- Allo, M. D. G. (2020). Is the online learning good in the midst of Covid-19 Pandemic? The case of EFL learners. *Jurnal Sinestesia*, 10(1), 1–10.
- Anggraini, N., & Sulistiawati, S. (2023). The Relationship between Self-Concept and Acceptance of Young Women's Physical Changes during Puberty at SMP 103 Jakarta in 2022. *Asian Journal of Community Services*, 2(1), 35–44.
- Aykut, Ç. (2020). Increasing Self-Evaluation Use through Video Feedback to Improve Academic Engagement among Students with Intellectual Disabilities. *International Journal of Progressive Education*, 16(1), 111–124.
- Baroroh, N., & Daulay, N. (2023). The Ability of Group Counseling Guidance Services to Prevent Customary Behavior Using a Self-Counseling Approach. *Journal for Lesson and Learning Studies*, 6(1).  
<https://ejournal.undiksha.ac.id/index.php/JLLS/article/view/58650>
- Bdair, I. A. (2021). Nursing students' and faculty members' perspectives about online learning during COVID-19 pandemic: A qualitative study. *Teaching and Learning in Nursing*, 16(3), 220–226.
- Beelmann, A., & Lösel, F. (2021). A Comprehensive Meta-Analysis of Randomized Evaluations of the Effect of Child Social Skills Training on Antisocial Development. *Journal of Developmental and Life-Course Criminology*, 7(1), 41–65.  
<https://doi.org/10.1007/s40865-020-00142-8>
- Bouman, T., Steg, L., & Zawadzki, S. J. (2020). The value of what others value: When perceived biospheric group values influence individuals' pro-environmental engagement. *Journal of Environmental Psychology*, 71, 101470.
- Branje, S., De Moor, E. L., Spitzer, J., & Becht, A. I. (2021). Dynamics of identity development in adolescence: A decade in review. *Journal of Research on Adolescence*, 31(4), 908–927.
- Campione-Barr, N., Rote, W., Killoren, S. E., & Rose, A. J. (2021). Adolescent adjustment during COVID-19: The role of close relationships and COVID-19-related stress. *Journal of Research on Adolescence*, 31(3), 608–622.
- Casey, A., & Quennerstedt, M. (2020). Cooperative learning in physical education encountering Dewey's educational theory. *European Physical Education Review*, 26(4), 1023–1037.

- Chatterjee, R., & Correia, A.-P. (2020). Online students' attitudes toward collaborative learning and sense of community. *American Journal of Distance Education*, 34(1), 53–68.
- de Hei, M., Tabacaru, C., Sjoer, E., Rippe, R., & Walenkamp, J. (2020). Developing intercultural competence through collaborative learning in international higher education. *Journal of Studies in International Education*, 24(2), 190–211.
- Denny, D., & Iskandar, I. (2022). The mastery of teacher emotional intelligence facing 21st Century learning. *International Journal of Education and Teaching Zone*, 1(1), 50–59.
- Dong, X., Zhao, C., Yin, H., & Chen, G. (2020). Work–family conflict affects job insecurity: The mediating role of core self-evaluation. *Social Behavior and Personality: An International Journal*, 48(5), 1–10.
- Doyle, J. (2020). Creative communication approaches to youth climate engagement: Using speculative fiction and participatory play to facilitate young people's multidimensional engagement with climate change. *International Journal of Communication*, 14, 24.
- Du, Z., Wu, C., Yoshinaga, T., Yau, K.-L. A., Ji, Y., & Li, J. (2020). Federated learning for vehicular internet of things: Recent advances and open issues. *IEEE Open Journal of the Computer Society*, 1, 45–61.
- Ehsan, N., Vida, S., & Mehdi, N. (2019a). The impact of cooperative learning on developing speaking ability and motivation toward learning English. *Journal of Language and Education*, 5(3 (19)), 83–101.
- Ehsan, N., Vida, S., & Mehdi, N. (2019b). The impact of cooperative learning on developing speaking ability and motivation toward learning English. *Journal of Language and Education*, 5(3 (19)), 83–101.
- Elisabet, D., Hartoyo, A., & Jamiah, Y. (2020). Two Stay Two Stray Cooperative Learning on Student Learning Outcomes on Materials of Geometry Surface Area. *Journal of Education*, 5(2), 383–387.
- Erbil, D. G. (2020). A review of flipped classroom and cooperative learning method within the context of Vygotsky theory. *Frontiers in Psychology*, 11, 1157.
- Erdogan, F. (2019). Effect of cooperative learning supported by reflective thinking activities on students' critical thinking skills. *Eurasian Journal of Educational Research*, 19(80), 89–112.
- Fadhlán, F., Rafles, H., Raharto, T. B., & Bautista, L. C. (2023). The Role of Interpersonal Communication Intelligence in Supporting Organizational Success in Higher Education. *International Journal of Multidisciplinary Research of Higher Education*, 6(1), 1–9.
- Faltýnková, A., Blinka, L., Ševčíková, A., & Husarova, D. (2020). The associations between family-related factors and excessive internet use in adolescents. *International Journal of Environmental Research and Public Health*, 17(5), 1754.
- Flynn, S. (2021). *Research Design for the Behavioral Sciences: An Applied Approach*. Springer Publishing Company.
- Fransson, G., Holmberg, J., Lindberg, O. J., & Olofsson, A. D. (2019). Digitalise and capitalise? Teachers' self-understanding in 21st-century teaching contexts. *Oxford Review of Education*, 45(1), 102–118. <https://doi.org/10.1080/03054985.2018.1500357>
- Gruber, M. J., & Fandakova, Y. (2021). Curiosity in childhood and adolescence—What can we learn from the brain. *Current Opinion in Behavioral Sciences*, 39, 178–184.

- Hellfeldt, K., López-Romero, L., & Andershed, H. (2020). Cyberbullying and psychological well-being in young adolescence: The potential protective mediation effects of social support from family, friends, and teachers. *International Journal of Environmental Research and Public Health*, 17(1), 45.
- Houghton, D., Soles, G., Vogelsang, A., Irvine, V., Prince, F., Prince, L., Martin, C., Restoule, J.-P., & Paskevicius, M. (2022). Truth and Reconciliation Through Inquiry-based Collaborative Learning. *The Open/Technology in Education, Society, and Scholarship Association Conference*, 2(1), 1–8.
- Hu, X., Chen, X., & Davison, R. M. (2019). Social support, source credibility, social influence, and impulsive purchase behavior in social commerce. *International Journal of Electronic Commerce*, 23(3), 297–327.
- Jacobs, G. M., & Ivone, F. M. (2020). Infusing Cooperative Learning in Distance Education. *TESL-EJ*, 24(1), n1.
- Jansen, R. S., van Leeuwen, A., Janssen, J., Conijn, R., & Kester, L. (2020). Supporting learners' self-regulated learning in Massive Open Online Courses. *Computers & Education*, 146, 103771.
- Jdaitawi, M. (2019). The effect of flipped classroom strategy on students learning outcomes. *International Journal of Instruction*, 12(3), 665–680.
- Karamatilloevich, A. L., Abduvaliyevich, M. T., & Kudratullayevich, X. R. (2020). The spiritual connection of Sufism and Tolerance in the works of Jami. *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, 2(11), 1–4.
- Karimovich, U. R., Mamasodikovna, N. M., & Abdullaevich, E. A. (2021). The Role and Importance of Music Clubs in The Leisure of Young People. *Journal of Pedagogical Inventions and Practices*, 2(2), 47–49.
- Kartel, A., Charles, M., Xiao, H., & Sundi, D. (2022). Strategies for Parent Involvement During Distance Learning in Arabic Lessons in Elementary Schools. *JILTECH: Journal International of Lingua & Technology*, 1(2).
- Kaufman, D., Sutow, E., & Dunn, K. (1997). Three approaches to cooperative learning in higher education. *Canadian Journal of Higher Education*, 27(2/3), 37–66.
- Keles, B., McCrae, N., & Grealish, A. (2020). A systematic review: The influence of social media on depression, anxiety and psychological distress in adolescents. *International Journal of Adolescence and Youth*, 25(1), 79–93.
- Kholmuratovich, M. K., Mardanqulovich, A. S., Ravshanovich, J. R., Sharifovna, K. U., & Shodiyevna, B. O. (2020). Methodology of improving independent learning skills of future fine art teachers (on the example of still life in colorful paintings). *International Journal of Psychosocial Rehabilitation*, 24(05), 285–288.
- Kim, J. (2020). Learning and teaching online during Covid-19: Experiences of student teachers in an early childhood education practicum. *International Journal of Early Childhood*, 52(2), 145–158.
- Kimmelman, N., & Lang, J. (2019). Linkage within teacher education: Cooperative learning of teachers and student teachers. *European Journal of Teacher Education*, 42(1), 52–64. <https://doi.org/10.1080/02619768.2018.1547376>
- Klang, N., Karlsson, N., Kilborn, W., Eriksson, P., & Karlberg, M. (2021). Mathematical problem-solving through cooperative learning—The importance of peer acceptance and friendships. *Frontiers in Education*, 6, 710296.
- Koo, K., Baker, I., & Yoon, J. (2021). The first year of acculturation: A longitudinal study on



- acculturative stress and adjustment among first-year international college students. *Journal of International Students*, 11(2), 278–298.
- Liang, C. T., Rocchino, G. H., Gutekunst, M. H., Paulvin, C., Melo Li, K., & Elam-Snowden, T. (2020). Perspectives of respect, teacher–student relationships, and school climate among boys of color: A multifocus group study. *Psychology of Men & Masculinities*, 21(3), 345.
- Lopez-Fernandez, O., & Kuss, D. J. (2020). Preventing harmful internet use-related addiction problems in Europe: A literature review and policy options. *International Journal of Environmental Research and Public Health*, 17(11), 3797.
- Loukatari, P., Matsouka, O., Papadimitriou, K., Nani, S., & Grammatikopoulos, V. (2019). The Effect of a Structured Playfulness Program on Social Skills in Kindergarten Children. *International Journal of Instruction*, 12(3), 237–252.
- Lu, Y.-Y., Smith, T. J., Hong, Z.-R., Lin, H., & Hsu, W.-Y. (2023). Exploring the relationships of citizens' scientific interest and self-understanding to their learning enjoyment and self-efficacy in science. *Current Psychology*, 42(18), 15475–15487.  
<https://doi.org/10.1007/s12144-022-02785-w>
- Lubis, S. A., Aswin, S., & Rusman, A. A. (2022). Implementation of Individual Counseling Service Management with Directive Counseling Methods in Improving Self-Adjustment. *Nidhomul Haq: Jurnal Manajemen Pendidikan Islam*, 7(1), 64–72.
- Makhmutovna, T. K., & Ibragimovna, T. I. (2020). Specific features of the pedagogical process focused on increasing the social activity of youth. *Asian Journal of Multidimensional Research (AJMR)*, 9(6), 165–171.
- Mikrut, E. E., Panjwani, A. A., Cipollina, R., & Revenson, T. A. (2020). Emotional adjustment among parents of adolescents and young adults with cancer: The influence of social constraints on cognitive processing and fear of recurrence. *Journal of Behavioral Medicine*, 43, 237–245.
- Miller, M., & Csizmadia, A. (2022). Applying the family stress model to parental acculturative stress and Latinx youth adjustment: A review of the literature. *Journal of Family Theory & Review*, 14(2), 275–293.
- Mitsea, E., Drigas, A., & Mantas, P. (2021). Soft Skills & Metacognition as Inclusion Amplifiers in the 21 st Century. *International Journal of Online & Biomedical Engineering*, 17(4).
- Moreno, M. A., & Uhls, Y. T. (2019). Applying an affordances approach and a developmental lens to approach adolescent social media use. *Digital Health*, 5, 2055207619826678.
- Moser, A., & Korstjens, I. (2018). Series: Practical guidance to qualitative research. Part 3: Sampling, data collection and analysis. *European Journal of General Practice*, 24(1), 9–18.
- Mursidi, A., & Noviandari, H. (2020). Improving Student Learning Awareness Using Rational Emotive Behavior Therapy Techniques at Vocational School Of Darul Anwar, Banyuwangi Regency City East Java Indonesia. *International Jurnal of Education Scholars*, 1(2), 64–73.
- Nahar, S. (2022). Improving Students' Collaboration Thinking Skill under the Implementation of the Quantum Teaching Model. *International Journal of Instruction*, 15(3), 451–464.
- Namaziandost, E., Neisi, L., Kheryadi, & Nasri, M. (2019). Enhancing oral proficiency through cooperative learning among intermediate EFL learners: English learning



- motivation in focus. *Cogent Education*, 6(1), 1683933.  
<https://doi.org/10.1080/2331186X.2019.1683933>
- Noviandari, H., & Mursidi, A. (2019). Relationship of Self Concept, Problem Solving and Self Adjustment in Youth. *International Journal for Educational and Vocational Studies*, 1(6), 651–657.
- Nurhidayah, R., & Zuhara, N. (2021). The Effect of Mindfulness-Based Stress Reduction Therapy on Psychological Well-Being in Moms of Mental Retarded Children at SLB C Dharma Wanita Pare Kediri. *Journal for Quality in Public Health*, 4(2), 295–300.
- O'brien, J. A., & Marakas, G. M. (2006). *Management information systems* (Vol. 6). McGraw-Hill Irwin New York, NY, USA.
- OKEZIE, C. R., KANU, I. M., & NWOSU, R. O. (2020). Effect of social capital on private adaptation measures to climate change among farmers in Ezinihitte Mbaise, Imo State, Nigeria. *International Journal of Agriculture Forestry and Life Sciences*, 4(2), 303–310.
- Onyema, E. M., Ogechukwu, U., Anthonia, E. C. D., & Deborah, E. (2019). Potentials of mobile technologies in enhancing the effectiveness of inquiry-based learning approach. *International Journal of Education (IJE)*, 2(01), 1–22.
- Perez-Gramaje, A. F., Garcia, O. F., Reyes, M., Serra, E., & Garcia, F. (2019). Parenting styles and aggressive adolescents: Relationships with self-esteem and personal maladjustment. *European Journal of Psychology Applied to Legal Context*, 12(1), 1–10.
- Pradana, D. A., Mahfud, M., Hermawan, C., & Susanti, H. D. (2020). Nasionalism: Character education orientation in learning development. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal) Volume*, 3, 4026–4034.
- Prayitno, P., & Amti, E. (2004). *Pengantar Pelaksanaan Program Bimbingan danKonseling di Sekolah*. Rineka Cipta.
- Purwanto, A., Asbari, M., Hartuti, H., Setiana, Y. N., & Fahmi, K. (2021). Effect of psychological capital and authentic leadership on innovation work behavior. *International Journal of Social and Management Studies*, 2(1), 1–13.
- Puspitaningrum, S., Megawati, R., & Akobiarek, M. (2023). The Relationship Between Emotional Quotient (Eq) and Academic Achievement of Biology Education Students During The Pandemic Time of Covid-19. *Asian Journal of Natural Sciences*, 2(2), 81–96.
- Qureshi, M. A., Khaskheli, A., Qureshi, J. A., Raza, S. A., & Yousufi, S. Q. (2023a). Factors affecting students' learning performance through collaborative learning and engagement. *Interactive Learning Environments*, 31(4), 2371–2391.
- Qureshi, M. A., Khaskheli, A., Qureshi, J. A., Raza, S. A., & Yousufi, S. Q. (2023b). Factors affecting students' learning performance through collaborative learning and engagement. *Interactive Learning Environments*, 31(4), 2371–2391.  
<https://doi.org/10.1080/10494820.2021.1884886>
- Rahimovna, A. N. (2022). The Phenomenon Of Independence In Children And Its Conformity To Be Explained Through. *International Journal Of Social Science & Interdisciplinary Research Issn: 2277-3630 Impact Factor: 7.429*, 11(11), 452–454.
- Ramadhani, R., Rofiqul, U., Abdurrahman, A., & Syazali, M. (2019). The effect of flipped-problem based learning model integrated with LMS-google classroom for senior high school students. *Journal for the Education of Gifted Young Scientists*, 7(2), 137–158.
- Ravshanovna, G. N., & Ahmadjanovna, E. T. (2021). Methodological characteristics of formation of tolerance skill pupils in primary school. *ACADEMICIA: AN*

*INTERNATIONAL MULTIDISCIPLINARY RESEARCH JOURNAL*, 11(1), 1623–1628.

- Reardon, C. L., Bindra, A., Blauwet, C., Budgett, R., Campriani, N., Currie, A., Gouttebauge, V., McDuff, D., Mountjoy, M., & Purcell, R. (2021). Mental health management of elite athletes during COVID-19: A narrative review and recommendations. *British Journal of Sports Medicine*, 55(11), 608–615.
- Ristianti, D. H., Danim, S., Winarto, H., & Dharmayana, I. W. (2019). The development of group counselling assessment instruments. *International Journal of Scientific & Technology Research*, 8(10). <http://repository.iaincurup.ac.id/101/>
- Rivera-Pérez, S., Fernandez-Rio, J., & Iglesias Gallego, D. (2021). Effects of an 8-week cooperative learning intervention on physical education students' task and self-approach goals, and emotional intelligence. *International Journal of Environmental Research and Public Health*, 18(1), 61.
- Sampasa-Kanyinga, H., Colman, I., Goldfield, G. S., Janssen, I., Wang, J., Podinic, I., Tremblay, M. S., Saunders, T. J., Sampson, M., & Chaput, J.-P. (2020). Combinations of physical activity, sedentary time, and sleep duration and their associations with depressive symptoms and other mental health problems in children and adolescents: A systematic review. *International Journal of Behavioral Nutrition and Physical Activity*, 17(1), 1–16.
- Santoso, I., & Madiistriyatno, H. (2021). *Metodologi penelitian kuantitatif*. Indigo Media.
- Sari, N. P., & Arsyad, M. (2021). Environment and Differences of Self Adjustment Ability Between Students of Natural Sciences Programs and Students of Social Sciences Programs. *2nd International Conference on Social Sciences Education (ICSSE 2020)*, 316–322.
- Sarkar, S. M., Dhar, B. K., Crowley, S. S., Ayittey, F. K., & Gazi, M. A. I. (2023). Psychological adjustment and guidance for ageing urban women. *Ageing International*, 48(1), 222–230.
- Sasmita, R. (2022). Implementation of Mujahadah and Syaja'ah Personal Morals in the Perspective of Islamic Education. *Journal of Islamic Civilization*, 4(2), 136–145.
- Schweizer, S., Gotlib, I. H., & Blakemore, S.-J. (2020). The role of affective control in emotion regulation during adolescence. *Emotion*, 20(1), 80.
- Sharan, S. (2002). Differentiating Methods of Cooperative Learning in Research and Practice. *Asia Pacific Journal of Education*, 22(1), 106–116.  
<https://doi.org/10.1080/0218879020220111>
- Shimizu, I., Matsuyama, Y., Duvivier, R., & van der Vleuten, C. (2021). Contextual attributes to promote positive social interdependence in problem-based learning: A focus group study. *BMC Medical Education*, 21(1), 1–9.
- Shomirzayev, S. (2021). National followers in the students use of educational technologies instruction of interests. *International Journal of Linguistics, Literature and Culture*, 7(3), 152–157.
- Shuang-ling, G., & Nai-liang, C. (2023). The Influence of Innovative Teaching Effectiveness and Self-Regulated Learning Strategies on Music Learning Outcomes. *Journal of Multidisciplinary in Humanities and Social Sciences*, 6(3), 1096–1111.
- Silalahi, T. F., & Hutaaruk, A. F. (2020). The application of cooperative learning model during online learning in the pandemic period. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, 3(3), 1683–1691.
- Simamora, R. E., & Saragih, S. (2019). Improving Students' Mathematical Problem Solving

- Ability and Self-Efficacy through Guided Discovery Learning in Local Culture Context. *International Electronic Journal of Mathematics Education*, 14(1), 61–72.
- Stehle, S. M., & Peters-Burton, E. E. (2019). Developing student 21st Century skills in selected exemplary inclusive STEM high schools. *International Journal of STEM Education*, 6(1), 1–15.
- Stommel, M., & Wills, C. (2004). *Clinical Research: Concepts and Principles for Advanced Practice Nurses*. Lippincott Williams & Wilkins.
- Strauß, S., & Rummel, N. (2020). Promoting interaction in online distance education: Designing, implementing and supporting collaborative learning. *Information and Learning Sciences*, 121(5/6), 251–260.
- Sugiyono, S. (2015). *Metode Penelitian Kuantitatif, Kualitatif dan RND*. Alfabeta.
- Supena, I., Darmuki, A., & Hariyadi, A. (2021). The Influence of 4C (Constructive, Critical, Creativity, Collaborative) Learning Model on Students' Learning Outcomes. *International Journal of Instruction*, 14(3), 873–892.
- Sutarman, S. (n.d.). D., & Mulyati, Y. (2019). Investigating cooperative learning model based on interpersonal intelligence on language learners skill to write article. *International Journal of Instruction*, 12(4), 201–218.
- Szlyk, H. S., Berk, M., Peralta, A. O., & Miranda, R. (2020). COVID-19 takes adolescent suicide prevention to less charted territory. *Journal of Adolescent Health*, 67(2), 161–163.
- Szymkowiak, A., Melović, B., Dabić, M., Jeganathan, K., & Kundi, G. S. (2021). Information technology and Gen Z: The role of teachers, the internet, and technology in the education of young people. *Technology in Society*, 65, 101565.
- Tambunan, H. (2019). The Effectiveness of the Problem Solving Strategy and the Scientific Approach to Students' Mathematical Capabilities in High Order Thinking Skills. *International Electronic Journal of Mathematics Education*, 14(2), 293–302.
- Tenri Sompā, A. (n.d.). *Management of Public Information Services General Election Supervisory Agency of South Kalimantan Province*.
- Tomczyk, \Lukasz. (2020). Attitude to ICT and self-evaluation of fluency in using new digital devices, websites and software among pre-service teachers. *International Journal of Emerging Technologies in Learning (IJET)*, 15(19), 200–212.
- Tran, V. D. (2019). Does Cooperative Learning Increase Students' Motivation in Learning?. *International Journal of Higher Education*, 8(5), 12–20.
- Tran, V. D., Nguyen, T. M. L., Van De, N., Soryaly, C., & Doan, M. N. (2019). Does Cooperative Learning May Enhance the Use of Students' Learning Strategies?. *International Journal of Higher Education*, 8(4), 79–88.
- Tyas, E. H., & Naibaho, L. (2020). Building a Culture of Tolerance since Early Childhood. *International Journal of Research-GRANTHAALAYAH*, 8(8), 244–249.
- Van Ryzin, M. J., & Roseth, C. J. (2021). The cascading effects of reducing student stress: Cooperative learning as a means to reduce emotional problems and promote academic engagement. *The Journal of Early Adolescence*, 41(5), 700–724.
- Van Ryzin, M. J., Roseth, C. J., & Biglan, A. (2020a). Mediators of Effects of Cooperative Learning on Prosocial Behavior in Middle School. *International Journal of Applied Positive Psychology*, 5(1–2), 37–52. <https://doi.org/10.1007/s41042-020-00026-8>
- Van Ryzin, M. J., Roseth, C. J., & Biglan, A. (2020b). Mediators of effects of cooperative learning on prosocial behavior in middle school. *International Journal of Applied*

*Positive Psychology*, 5, 37–52.

- Wajdi, F., & Ramadhani, R. (2022). Legal Problems of Land Services Online. *International Journal Reglement & Society (IJRS)*, 3(1), 19–29.
- Wei, H., Corbett, R. W., Ray, J., & Wei, T. L. (2020). A culture of caring: The essence of healthcare interprofessional collaboration. *Journal of Interprofessional Care*, 34(3), 324–331.
- Widayati, C. C., Arijanto, A., Widjaja, P. H., & Fintura, A. T. (2021). The Effect Of Emotional InTELLigence, Communication And Teamwork On Employee Performance. *Dinasti International Journal of Digital Business Management*, 2(3), 554–568.
- Yatimah, D., Solihin, S., Adman, A., & Syah, R. (2019). Jigsaw learning model base on cooperative instructional strategies to improve academic discussion in adult education on environment concepts. *Journal of Physics: Conference Series*, 1402(3), 033039.
- Yu, T. X., Mohammad, W., & Ruzanna, M. (2019). Integration of 21st century learning skills (4C elements) in interventions to improve english writing skill among 3K class students. *International Journal of Contemporary Education*, 2(2), 100.
- Yusuf, Q., Jusoh, Z., & Yusuf, Y. Q. (2019). Cooperative Learning Strategies to Enhance Writing Skills among Second Language Learners. *International Journal of Instruction*, 12(1), 1399–1412.