

The Role of Parents in Development Creative Thinking of Children

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DOI: 10.15294/ijeces.v13i1.64229

Submitted: 30/12/2023 Revised: 04/04/2024 Accepted: 14/04/2024

ABSTRACT

Creativity has a very important role in the individual growth of a child, creativity is a skill that is needed in the 21st century to adapt to the world today and the future. Creative experiences help children express and deal with their feelings. Creativity also fosters mental growth in children by providing opportunities to try new ideas and new ways of thinking and problem solving. Research recommends pre-school education as one of the tools that really helps children's creative development. Although this period of pre-school and early childhood education is very important for the development of children's creativity, many children do not or do not attend regular pre-school education, especially in countries where pre-school education is not compulsory. Therefore, attitudes and behavior as well as the role of parents in the development of children's creativity, especially in the pre-school period is very important and necessary. The methodology used is an approach through literature studies. The author collects references from previous related research results, and sees that when parents understand creative concepts and find ways to support children, children experience very rapid growth in creative thinking.

Keywords: Creative, skills, parents

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1. INTRODUCTION

As a life skill that is very necessary in the 21st century, creativity plays an important role in the individual growth of a child (Arnott & Yelland, 2020). Some skills that were considered important in the past are diminishing; Creative thinking is one of the skills needed to adapt to today's world which is in an era of disruption (Choi et al., 2011), the era of volatility, uncertainty, complexity, and ambiguity (VUCA) means the world we live in now, where change is very fast, unpredictable, influenced by many factors that are difficult to control (Noor-Ul-Amin, 2013), and truth and reality become highly subjective (Ferguson, 2014). Now society needs individuals who have problem solving abilities, multi-faceted thinking, have good communication skills, and skills in creative thinking (İncikabı et al., 2020; Ricoy & Sánchez-Martínez, 2022).

It should be remembered that all creative activities are how to reflect on yourself, to express and also overcome children's feelings, creative experience is needed (Deulen, 2013; Mutohir et al., 2019). Growing ways of thinking and also innovation in trying new ideas (Lindner et al., 2016), solve problems (Lo & Feng, 2020), and also helps the mental growth of children (Kleef et al., 2015), creativity is also needed (Kazeem & Hashim, 2014). A creative activity can help accept the fact that children are unique and diverse (Darling-Hammond et al., 2020), as well as offering excellent opportunities to individualize parenting and focus on each child (Olinda, 2021).

Children begin the learning process even before they are born, so it's no wonder parents make such a strong difference in what children learn and how they think (Piatykov et al., 2022). So develop children's creativity by encouraging their curiosity by using common everyday experiences to inspire new ideas, building their confidence (Shively et al., 2018).

High curiosity is the nature of children, where children instinctively want to ask, even questions that children ask are sometimes better than adults (Baharun et al., 2016). Parents must listen and build their curiosity (Sung, 2010). Inspire their imagination with a simple question, while encouraging them to think of an answer or solution (Woolley & Rhoads, 2019).

An important factor that can support the success of an educational stage is the family (Ricoy & Sánchez-Martínez, 2022). As the smallest group in a society, the shape and style of the family also characterizes society as a whole (Ozturk & Ohi, 2018). Family rules, routines and resources shape children's creativity (Staniewski & Awruk, 2018). However, little is known about how parents' creative self-concept and creative activities are related to the lifestyles that adults create in their families (Leggett, 2017).

Ethnicity and culture are differences that are certain to be owned by every family which is a uniqueness and also race which will later have an impact on beliefs, practices (Fransiska, 2016), dan nilai-nilai keluarga (Kumpulainen et al., 2020). The cultural context of society, especially between countries, has the potential to help predict the dominant differences in parenting styles or understand why these differences occur (Jae Jeong, 2016).

There are so many factors that influence the creative thinking of early childhood, one of the most closely related is the family factor or the parents of the child himself (Lemberger-Truelove et al., 2018). There have been many previous studies which revealed that the development of children's creative thinking is influenced by the family, such as family demographic characteristics (Davies et al., 2013), and the values upheld by parents, attitudes

and behavior of parents, as well as the climate that is built in the relationship between parents and children (Chen & Cooper, 2012).

Even recent research has divided it into certain factors in the family that influence the development of children's creativity, such as the socio-economic status of the family (Yu & Singh, 2018) family structure and size (Almomen et al., 2016) educational level and parental occupation (Dev et al., 2017), patterns of parent-child relationships (Shehu, 2019) culture and family (Sung, 2010) as well as analysis of family factors (Gromada et al., 2020; Sung, 2010). These studies discuss all the factors that influence the growth and development of children's creative thinking, but what is interesting is that the role of parents in general has not yet reached a conclusion, because these studies are in the form of introductory references for further research.

2. METHOD

In this study, a literature review approach was used (Szabo et al., 2020). To collect data and information related to the role of parents in the development of children's creative thinking with sources from national and international research journals, even references from books that are supporting and also as supporting data (Arnott & Yelland, 2020).

Krishna Kishore and Sequeira (2016) explains that a literature review presents information and data to readers of research results, relates research that has been conducted at that time with existing literature or records, and writes opinions and also own understandings into the gaps that exist (Craig & Guzmán, 2018), or write down ideas of thought from several sources of literature or thoughts from experts on the topics discussed (Ralston & Bays, 2015).

3. RESULTS AND DISCUSSION

Meaning of Creative Thinking

According to Badjeber and Purwaningrum (2018) creativity is a person's ability to create new things, it can resemble an authentic work, or it can be a new idea as well, and can take the form of aptitude or non-aptitude. These traits and characteristics can be in a work that is relatively new, or is a mixture with something that already existed before (Senen et al., 2020). From birth, each of us has the instinct to demonstrate a unique ability, although in a definite different measure, and this is a special ability possessed by every human being and is called creativity (Liu & Su, 2018). Creative ability is an innate potential, and this can be honed and stimulated. So no one is without creativity (Asari et al., 2019).

Another view defines creativity as a deliberate process in every human being to some extent creativity. Creativity is rewarded when the product created is useful, original and unique (Mutohir et al., 2019). Creativity is a means of thinking, acting, or making something that is unique to humans (Marantika, 2021). The general view of this definition is that creative thinking refers to the process of thinking about ideas, or situations in imaginative and unusual ways in order to better understand these ideas or situations and to respond to them in new and constructive ways. (Heong et al., 2012a). Creativity is an intentional process, and every human being has a certain level of creativity (White, 2016).

Creative thinking is not an inherent characteristic, but can be taught, developed by providing an appropriate learning environment to bring out children's creativity (Vidergor,

2018). Creative thinking requires people to see things from new perspectives and to put information, ideas, and principles together in new and innovative ways (Kazeem & Hashim, 2014). Creative thinking can be supported by developing a unique set of thinking skills such as problem solving, analyzing, criticizing and questioning skills (Fernández-Santín & Feliu-Torruella, 2020).

According to (Bai et al., 2018) that there are three main factors that can affect the cognitive development of early childhood, namely:

1. Descendants

This factor also determines the intellectual development of a child. In other words, a child tends to have the ability to think similar to his parents, whether it's normal, above normal, or below normal. However, this potential will not develop if it is not supported by an environment that can give it the opportunity to develop.

2. Environment

Various studies and research that support environmental factors affect a person's cognitive or intelligence level. Environmental factors that play the most role in supporting children's cognitive development are family and school.

3. Family

A warm and healthy relationship between parents and children (full of attention and affection from parents) facilitates children's cognitive development. Conversely, a relationship that is not warm and healthy can make children experience difficulties or delays in their cognitive development.

When Did Creative Thinking Develop?

Many researchers suggest that education increases children's creativity, especially pre-school and early childhood education which really helps develop children's creative play. (Bowles et al., 2017). To recognize children's creativity, adults must focus on cognitive processes, not just on the value of children's achievements (Andersson & Wiberg, 2017). Therefore, adults should remember that creativity is different from the types of intelligence usually measured in education (Vidergor, 2018).

Although this period of pre-school and early childhood education is very important for the development of children's creativity, many children do not or do not attend regular pre-school education, especially in countries where pre-school education is not compulsory. (Early et al., 2007; Taylor & Leung, 2020). Therefore, attitudes and behavior as well as the role of parents in the development of children's creativity, especially in the pre-school period is very important and necessary (Badjeber & Purwaningrum, 2018).

Developing Creativity Through Art

Art is the use of imagination to express ideas or feelings, especially through paintings, drawings or sculptures (Santín & Torruella, 2017). Art has a relationship between feeling, creating, and learning (Lestariningsih et al., 2021). According to the great American educator John Dewey, art is to feel the meaning of what one does, to unite in one fact, simultaneously revealing the inner life and the orderly development of the material condition, namely art (Dewi, 2017). Kuschner (2012) makes more explicit connections between music, thoughts, and feelings: he argues that recent research on brain function indicates that emotions are at the root of feeling, learning, and changing bodily states, since emotions play a major role in activating the brain and consciousness. Development in the

arts offers many intrinsic and intrinsic benefits for children in primary school to develop creativity and imagination, and to experience joy, beauty, and wonder (Karthi & Devi, 2021). Art also presents an opportunity to make the ordinary special, to enrich the quality of life, and to develop effective ways of expressing thoughts, knowledge, and feelings (Lieberman et al., 2009). Andrich (2016) write an interesting and well-argued thesis on the importance of art. He claims that art has a fundamental value due to the full involvement from time to time when receiving, creating or displaying a work of art.

Develop Creativity Through Play Activities

Cibralic et al. (2021); Denny et al. (2012); Howes et al. (2008) states that naturally observing is a child's pleasure, and also understanding the environment is a characteristic form of a child. According to Solari (2014) using their own way of exploring the surrounding environment is what motivates children. Characteristics of early childhood like this of course must be realized and optimized to stimulate the growth of children's creative mindset through meaningful play activities (Jeti & Manan, 2022).

To develop children's creativity, it is necessary to present an environment that is rich in learning resources and encourage children to play naturally about things that stimulate children to think creatively (Kasmaienezhadfad, 2015). Playing activities are very prominent in many ways to become material for discussion about creativity in young children. indeed children who have a greater desire than adults, and adults are more directed to facilitators to generate children's creative thinking, and also encourage children to play (Vidergor, 2018).

Play helps children integrate all the elements of life as they experience them. This allows them to digest life and make it their own (Yafie et al., 2020). It is an outlet for the fullness of their creativity, and it is part of their childhood. With creative play, children develop and also they experience serious changes (Arnott & Yelland, 2020).

The Role of Parents in the Development of Creative Thinking

Parents are the first and foremost educators. Parents play a role when children are at home and become very influential when stimulating aspects of development so that competence and character can develop as expected (Lartey et al., 2016). Unfortunately not all parents are prepared as first and foremost educators. To be able to ensure the role of parents to support the growth of creative thinking in children, parental competence is an issue that also needs to be discussed at a later time (Sonedi et al., 2017).

In Early Childhood Education, children are expected to get stimulation at all times, not just when they are at school, because the time is short, when compared to the togetherness they spend with their parents / guardians at home so that children can develop optimally (Cibralic et al., 2021). That is why parents have an important role to be able to present ecosystems and a pleasant home environment and support the growth and development of creative thinking in children who are in their golden age (Leggett, 2017). Some people argue about creativity as an innate talent possessed by their children, just like the realization that all children are not equally intelligent, and all children are not equally creative (Kristanti et al., 2018). But actually creativity is more of a skill than an innate talent (Davies et al., 2013).

According to (Hitchcock, 2017), if parents' wrong assumptions about creativity, creative people and creative thinking skills are eliminated, their attitudes will change, they

will not try to find ways to promote children's creative thinking skills. In developing children's creativity parents play the most important role (Heong et al., 2012b). In addition, the period of time that parents can spend playing together, communicating with them and even the way they talk to their children also has an impact on their children's creative thinking skills (Lo & Feng, 2020).

Although parents have an unavoidable role in encouraging children's creativity, there are several obstacles that prevent parents from contributing to the growth of children's creativity. (Rochmad et al., 2018). For example, parents have little or no knowledge about games, rhymes, toys, songs, home environment, stories, household items, and parental attitudes in developing children's creativity (Fauzan & Mat Zaini, 2015).

Parents need to be aware of the fact that education no longer only takes place in the classroom, children can also learn at home, on the street, at shopping malls, and so on (Manas, 2020). For this reason, parents must learn to see every environment and situation as a learning opportunity for their children. If parents actively participate in their child's education, they will perform better (Sung, 2010).

Most parents have wrong assumptions about creativity, creative thinking skills, and salient characteristics of creative individuals (Kwangmuang et al., 2021). Prior to the seminar held by Tareri 2012, parents believed that creative thinking skills were unique to individuals who were genius, intelligent, successful. In addition, parents think that creativity requires a factor to achieve difficult things that no one managed before (Deulen, 2013; Rasol et al., 2020). Some parents even see it from a religious perspective, and they mix and match creativity as a gift from God to be able to have creative thinking skills. When viewed from various factors, one of which is the background of parents, of course they have different understandings about creativity, and even recognize the actions they have to do that they cannot describe or know stimulate creative thinking in children (Kazeem & Hashim, 2014; Mutohir et al., 2019).

Some useful ways that parents can apply to help their children develop creativity such as providing the tools children need for expression as well as creativity (Kazeem & Hashim, 2014). The most important facilities are clock and space. Parents who need to provide a lot of time and provide a special place where they can do art. Make the home has a creative atmosphere for creativity (Widiawati et al., 2018). Don't decide for yourself what seems impossible to do, don't even decide what ideas are the best to do. Support children so they don't have to be afraid when they do the wrong thing and fail. Focus on unique activities and also teach the stages as a process in creating a new idea (Widiawati et al., 2018). Share experiences of mistakes you made recently so they understand that it's okay to fail. Give children the freedom to explore their ideas and do what they like (Liu & Su, 2018).

As a parent, you must also provide opportunities for children so that they can voice their varied opinions. When children have differences of opinion with you, let it happen, support them to get various alternative ways or solutions, or also solutions (Kwangmuang et al., 2021). The thing to note is to stop caring about what the child achieves, but to put more emphasis on the process. The way we can do it is for example asking questions about the process.

4. CONCLUSION

This study shows that what plays an important role and contributes to the development of children's thinking skills is the physical home environment and also emotional

relationships. Parents' awareness of the factor of play and also some home equipment that can be used as a mediator to stimulate the development of children's thinking skills, parents can set their home to be a pleasant environment and as a means for children to develop properly. In addition, they can understand the impact of asking questions on children's creativity and can learn to see from a different perspective the children's silly questions that don't make sense.

REFERENCES

- Almomen, R. K., Kaufman, D., Alotaibi, H., & Al-rowais, N. A. (2016). *Applying the ADDIE — Analysis , Design , Development , Implementation and Evaluation — Instructional Design Model to Continuing Professional Development for Primary Care Physicians in Saudi Arabia*. August, 538–546.
- Andersson, B., & Wiberg, M. (2017). Item Response Theory Observed-Score Kernel Equating. *Psychometrika*, 82(1), 48–66. <https://doi.org/10.1007/s11336-016-9528-7>
- Andrich, D. (2016). Georg Rasch and Benjamin Wright's Struggle With the Unidimensional Polytomous Model With Sufficient Statistics. *Educational and Psychological Measurement*, 76(5), 713–723. <https://doi.org/10.1177/0013164416634790>
- Arnott, L., & Yelland, N. (2020). Multimodal lifeworlds : pedagogies for play inquiries and explorations. *Journal of Early Childhood Education Research*, 9(1), 124–146.
- Asari, S., Husniah, R., Ma'rifah, U., & Anwar, K. (2019). Fostering Students' High Order Thinking Skills through the Use of Interpretation Cards. *International Journal of Education and Literacy Studies*, 7(4), 17. <https://doi.org/10.7575/aiac.ijels.v.7n.4p.17>
- Badjeber, R., & Purwaningrum, J. P. (2018). Pengembangan Higher Order Thinking Skills Dalam Pembelajaran Matematika Di Smp. *Guru Tua : Jurnal Pendidikan dan Pembelajaran*, 1(1), 36–43. <https://doi.org/10.31970/gurutua.v1i1.9>
- Baharun, H., Mundiri, A., & Muail, C. (2016). Play and Cognitive Development: Formal Operational Perspective of Piaget's Theory. *Journal of Education and Practice*, 7(28), 72–79. <https://files.eric.ed.gov/fulltext/EJ1118552.pdf>
- Bai, Y., Shang, G., Wang, L., Sun, Y., Osborn, A., & Rozelle, S. (2018). The relationship between birth season and early childhood development: Evidence from northwest rural China. *PLoS ONE*, 13(10), 1–14. <https://doi.org/10.1371/journal.pone.0205281>
- Bowles, T., Jimerson, S., Haddock, A., Nolan, J., Jablonski, S., Czub, M., & Coelho, V. (2017). A Review of the Provision of Social and Emotional Learning in Australia, the United States, Poland, and Portugal. *Journal of Relationships Research*, 8, 1–13. <https://doi.org/10.1017/jrr.2017.16>
- Chen, J. L., & Cooper, B. (2012). The Efficacy of the Web ABC Program on Improving Coping, Self-Competence, and Quality of Life in Chinese American Adolescents. *Infant, Child, and Adolescent Nutrition*, 4(3), 143–151. <https://doi.org/10.1177/1941406412446700>
- Choi, K., Lee, H., Shin, N., Kim, S., & Krajcik, J. (2011). *Re-Conceptualization of Scientific Literacy in South Korea for the 21st Century*. 48(6), 670–697. <https://doi.org/10.1002/tea.20424>
- Cibralic, S., Kohlhoff, J., Wallace, N., McMahon, C., & Eapen, V. (2021). Treating Externalizing Behaviors in Toddlers with ASD Traits Using Parent-Child Interaction

- Therapy for Toddlers: A Case Study. *Clinical Case Studies*, 20(2), 165–184. <https://doi.org/10.1177/1534650120969854>
- Craig, J., & Guzmán, L. (2018). Six Propositions of a Social Theory of Numeracy: Interpreting an Influential Theory of Literacy. *Numeracy*, 11(2). <https://doi.org/10.5038/1936-4660.11.2.2>
- Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2020). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, 24(2), 97–140. <https://doi.org/10.1080/10888691.2018.153779>
- Davies, D., Jindal-Snape, D., Collier, C., Digby, R., Hay, P., & Howe, A. (2013). Creative Learning Environments in Education-A systematic Literature Review. *Thinking Skills and Creativity*, 8(1), 80–91. <https://doi.org/10.1016/j.tsc.2012.07.004>
- Denny, J. H., Hallam, R., & Homer, K. (2012). A Multi-Instrument Examination of Preschool Classroom Quality and the Relationship Between Program, Classroom, and Teacher Characteristics. *Early Education and Development*, 23(5), 678–696. <https://doi.org/10.1080/10409289.2011.588041>
- Deulen, A. A. (2013). Social Constructivism and Online Learning Environments: Toward a Theological Model for Christian Educators. *Christian Education Journal: Research on Educational Ministry*, 10(1), 90–98. <https://doi.org/10.1177/073989131301000107>
- Dev, D. A., Byrd-Williams, C., Ramsay, S., McBride, B., Srivastava, D., Murriel, A., Arcan, C., & Adachi-Mejia, A. M. (2017). Engaging parents to promote children's nutrition and health: Providers' barriers and strategies in head start and child care centers. *American Journal of Health Promotion*, 31(2), 153–162. <https://doi.org/10.1177/0890117116685426>
- Dewi, M. S. (2017). Proses pembiasaan dan peran orang terdekat anak sebagai upaya penanaman nilai agama dan moral pada anak usia dini. *SELING : Jurnal Program Studi PGRA*, 3(1), 84–98. <http://www.jurnal.stitnualhikmah.ac.id/index.php/seling/article/view/201/183>
- Early, D. M., Maxwell, K. L., Burchinal, M., Alva, S., Bender, R. H., Bryant, D., Cai, K., Clifford, R. M., Ebanks, C., Griffin, J. A., Henry, G. T., Howes, C., Iriondo-Perez, J., Jeon, H. J., Mashburn, A. J., Peisner-Feinberg, E., Pianta, R. C., Vandergrift, N., & Zill, N. (2007). Teachers' education, classroom quality, and young children's academic skills: Results from seven studies of preschool programs. *Child Development*, 78(2), 558–580. <https://doi.org/10.1111/j.1467-8624.2007.01014.x>
- Fauzan, N., & Mat Zaini, N. (2015). Creative Thinking Among Preschool Children. *International Journal of Technical Research and Applications* www.ijtra.com Special Issue, 22(22), 2320–2363.
- Ferguson, R. F. (2014). The 2013 Charles H. Thompson Lecture-Colloquium Presentation Elements of a 21st Century Movement for Excellence with Equity. *The Journal of Negro Education*, 83(2), 103–120. <http://www.agi.harvard.edu/FergusonExcellencewithEquitySpring2014.pdf>
- Fernández-Santín, M., & Feliu-Torruella, M. (2020). Developing critical thinking in early childhood through the philosophy of Reggio Emilia. *Thinking Skills and Creativity*, 37. <https://doi.org/10.1016/j.tsc.2020.100686>
- Fransiska, F. (2016). Pendidikan multikultural di TK Mutiara Persada Soragan Yogyakarta. *Jurnal Pendidikan dan Pemberdayaan Masyarakat*, 3(2), 152. <https://doi.org/10.21831/jppm.v3i2.9892>

- Gromada, A., Richardson, D., & Rees, G. (2020). Childcare in a global crisis: the impact of COVID-19 on work and family life. *Innocenti Research Brief, Covid-19 & Children*, 1–11.
- Heong, Y. M., Yunos, J. M., Othman, W., Hassan, R., Kiong, T. T., & Mohamad, M. M. (2012a). The Needs Analysis of Learning Higher Order Thinking Skills for Generating Ideas. *Procedia - Social and Behavioral Sciences*, 59(October), 197–203. <https://doi.org/10.1016/j.sbspro.2012.09.265>
- Heong, Y. M., Yunos, J. M., Othman, W., Hassan, R., Kiong, T. T., & Mohamad, M. M. (2012b). The Needs Analysis of Learning Higher Order Thinking Skills for Generating Ideas. *Procedia - Social and Behavioral Sciences*, 59(May 2014), 197–203. <https://doi.org/10.1016/j.sbspro.2012.09.265>
- Hitchcock, D. (2017). Critical Thinking as an Educational Ideal. *Argumentation Library*, 30(April), 477–497. https://doi.org/10.1007/978-3-319-53562-3_30
- Howes, C., Burchinal, M., Pianta, R., Bryant, D., Early, D., Clifford, R., & Barbarin, O. (2008). Ready to learn? Children's pre-academic achievement in pre-Kindergarten programs. *Early Childhood Research Quarterly*, 23(1), 27–50. <https://doi.org/10.1016/j.ecresq.2007.05.002>
- İncikabı, L., Ayanoğlu, P., & Uysal, R. (2020). Sixth-grade students' procedural and conceptual understandings of division operation in a real-life context. *International Electronic Journal of Elementary Education*, 13(1), 35–45. <https://doi.org/10.26822/iejee.2020.171>
- Jae Jeong, H. (2016). Item Response Theory-Based Evaluation of Psychometric Properties of the Safety Attitudes Questionnaire—Korean Version (SAQ-K). *Biometrics & Biostatistics International Journal*, 3(5). <https://doi.org/10.15406/bbij.2016.03.00079>
- Jeti, L. J., & Manan, M. (2022). Coastal parents Perceptions of the Implementation of Early Childhood Education in Buton Islands. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, 6(4), 2656–2664. <https://doi.org/10.31004/obsesi.v6i4.2240>
- Karthi, R., & Devi, P. J. (2021). *Effectiveness of Online Teaching and Learning Process in Semi Urban Areas-an Empirical Statistical Study*. July, 1–4. <http://tojdel.net/journals/tojdel/articles/v09i02/v09i02-06.pdf>
- Kasmaienezhadfad, S. (2015). Students' Learning Through Teaching Creativity: Teachers' Perception. *Journal of Educational, Health and Community Psychology*, 4(1), 1–13. <https://doi.org/10.12928/jehcp.v4i1.3699>
- Kazeem, B., & Hashim, C. N. (2014). Quality Assurance in Contemporary Islamic Universities: Issues and Challenges. *IIUM Journal of Educational Studies*, 2(2), 40–58. <https://doi.org/10.31436/ijes.v2i2.47>
- Kleef, R. S. Van, Donkersgoed, R. J. M. Van, & Jong, S. De. (2015). Metacognition in Relation to Cognitive and Social Functioning in Schizophrenia. *Journal of European Psychology Students*, 6(3), 24–33. <https://doi.org/10.5334/jeps.df>
- Krishna Kishore, S. V., & Sequeira, A. H. (2016). An empirical investigation on mobile banking service adoption in rural Karnataka. *SAGE Open*, 6(1), 1–21. <https://doi.org/10.1177/2158244016633731>
- Kristanti, F., Ainy, C., & Shoffa, S. (2018). The effect of creative problem-solving learning model using geometry transformation book based on Al-Qur'an on students' van Hiele thinking level and learning outcome. *Journal of Physics: Conference Series*, 1088. <https://doi.org/10.1088/1742-6596/1088/1/012053>

- Kumpulainen, K., Sairanen, H., & Nordström, A. (2020). Young children's digital literacy practices in the sociocultural contexts of their homes. *Journal of Early Childhood Literacy*, 20(3), 472–499. <https://doi.org/10.1177/1468798420925116>
- Kuschner, D. (2012). Play is natural to childhood but school is not: The problem of integrating play into the curriculum. *International Journal of Play*, 1(3), 242–249. <https://doi.org/10.1080/21594937.2012.735803>
- Kwangmuang, P., Jarutkamolpong, S., Sangboonraung, W., & Daungtod, S. (2021). The development of learning innovation to enhance higher order thinking skills for students in Thailand junior high schools. *Heliyon*, 7(6), e07309. <https://doi.org/10.1016/j.heliyon.2021.e07309>
- Lartey, S. T., Khanam, R., & Takahashi, S. (2016). The impact of household wealth on child survival in Ghana. *Journal of health, population, and nutrition*, 35(1), 38. <https://doi.org/10.1186/s41043-016-0074-9>
- Leggett, N. (2017). Early Childhood Creativity : Challenging Educators in Their Role to Intentionally Develop Creative Thinking in Children. *Early Childhood Education Journal*, 0(0), 0. <https://doi.org/10.1007/s10643-016-0836-4>
- Lemberger-Truelove, M. E., Carbonneau, K. J., Atencio, D. J., Zieher, A. K., & Palacios, A. F. (2018). Self-Regulatory Growth Effects for Young Children Participating in a Combined Social and Emotional Learning and Mindfulness-Based Intervention. *Journal of Counseling and Development*, 96(3), 289–302. <https://doi.org/10.1002/jcad.12203>
- Lestariningsih, E., Wijayatiningsih, T., & ... (2021). Implementasi Pembelajaran Literasi Melalui Guru Pintar Online pada Guru TK Manyaran Semarang. *DIKEMAS (Jurnal ...)*, 5(2), 133–140. <http://journal.pnm.ac.id/index.php/dikemas/article/view/200%0Ahttp://journal.pnm.ac.id/index.php/dikemas/article/download/200/173>
- Lieberman, D. A., Bates, C. H., & So, J. (2009). Young children's learning with digital media. In *Computers in the Schools*. <https://doi.org/10.1080/07380560903360194>
- Lindner, M. D., Vancea, A., Chen, M., & Chacko, G. (2016). *NIH Peer Review : Scored Review Criteria and Overall Impact*. <https://doi.org/10.1177/1098214015582049>
- Liu, H. H., & Su, Y. S. (2018). Effects of using task-driven classroom teaching on students' learning attitudes and learning effectiveness in an information technology course. *Sustainability (Switzerland)*, 10(11). <https://doi.org/10.3390/su10113957>
- Lo, C. O., & Feng, L. C. (2020). Teaching higher order thinking skills to gifted students: A meta-analysis. *Gifted Education International*, 36(2), 196–217. <https://doi.org/10.1177/0261429420917854>
- Manas, G. M. (2020). A Study on Childhood Development in Early Stage. *Scholarly Research Journal for Interdisciplinary Studies*, 59(7), 13928–13938. https://www.researchgate.net/publication/344789123_A_STUDY_ON_CHILDHOO D_DEVELOPMENT_IN_EARLY_STAGE
- Marantika, J. E. R. (2021). Metacognitive ability and autonomous learning strategy in improving learning outcomes. *Journal of Education and Learning (EduLearn)*, 15(1), 88–96. <https://doi.org/10.11591/edulearn.v15i1.17392>
- Mutohir, T. C., Kusnanik, N. W., Hidayati, S., & Mukminin, A. (2019). *Critical Thinking Skills Based – Physical Activities Learning Model for Early Childhood*. 5(22), 738–755.
- Noor-Ul-Amin, S. (2013). An Effective use of ICT for Education and Learning by Drawing

- on Worldwide Knowledge , Research , and Experience : ICT as a Change Agent for Education. *Department Of Education University of Kashmir*, 1(1), 1–13. <https://doi.org/6th August 2016>
- Olinda, Y. (2021). Hubungan Antara parenting syle, tingkat pengetahuan orang tua tentang pendidikan seksual (underwear rules) dengan pencegahan child sexual abuse di perum *Jurnal Kesehatan*, 10(1), 38–49. <https://doi.org/10.37048/kesehatan.v10i2.366>
- Ozturk, G., & Ohi, S. (2018). Understanding young children’s attitudes towards reading in relation to their digital literacy activities at home. *Journal of Early Childhood Research*, 16(4), 393–406. <https://doi.org/10.1177/1476718X18792684>
- Piatykop, O. I., Pronina, O. I., Tymofieieva, I. B., & Palii, I. D. (2022). Using augmented reality for early literacy. *CEUR Workshop Proceedings*, 3083, 111–126.
- Ralston, P. A., & Bays, C. L. (2015). Critical Thinking Development In Undergraduate Engineering Students From Freshman Through Senior Year: A 3-Cohort Longitudinal Study. *American Journal of Engineering Education (AJEE)*, 6(2), 85–98. <https://doi.org/10.19030/ajee.v6i2.9504>
- Rasol, R., Syed Mahadi, S. L., Mohd Khalid, F. Z., Azmi, N. S., Syed Aris, S. R., & Abdul Razak, W. R. W. (2020). Performances in English Proficiency Course with Students’ Ability in Answering Higher Order Thinking Skills Questions. *Environment-Behaviour Proceedings Journal*, 5(SI1), 157–162. <https://doi.org/10.21834/ebpj.v5isi1.2314>
- Ricoy, M. C., & Sánchez-Martínez, C. (2022). Raising Ecological Awareness and Digital Literacy in Primary School Children through Gamification. *International Journal of Environmental Research and Public Health*, 19(3). <https://doi.org/10.3390/ijerph19031149>
- Rochmad, Agoestanto, A., & Kharis, M. (2018). Characteristic of critical and creative thinking of students of mathematics education study program. *Journal of Physics: Conference Series*, 983(1). <https://doi.org/10.1088/1742-6596/983/1/012076>
- Santín, M. F., & Torruella, M. F. (2017). Reggio emilia: An essential tool to develop critical thinking in early childhood. *Journal of New Approaches in Educational Research*, 6(1), 50–56. <https://doi.org/10.7821/naer.2017.1.207>
- Senen, A., Ameliandari, D. R., Pujiastuti, P., & Purwanti, T. R. (2020). *Developing a Hand Puppet Book Media to Improve the Higher Order Thinking Skill and Character of Elementary School Students*. 401(Iceri 2019), 200–203. <https://doi.org/10.2991/assehr.k.200204.037>
- Shehu, B. P. (2019). Peer acceptance in early childhood: Links to socio-economic status and social competence. *Journal of Social Studies Education Research*, 10(4), 176–200.
- Shively, K., Stith, K. M., & Rubenstein, L. D. V. (2018). Measuring What Matters: Assessing Creativity, Critical Thinking, and the Design Process. *Gifted Child Today*. <https://doi.org/10.1177/1076217518768361>
- Solari, E. (2014). Longitudinal prediction of 1st and 2nd grade English oral reading fluency in ELL. *Journal of adolescence*, 74(4), 274–283. <https://doi.org/10.1002/pits>
- Sonedi, S., Jamalie, Z., & Majeri, M. (2017). Manajemen Pembiayaan Pendidikan Bersumber dari Masyarakat. *Fenomena*, 9(1), 25. <https://doi.org/10.21093/fj.v9i1.702>
- Staniewski, M. W., & Awruk, K. (2018). Questionnaire of entrepreneurial success — Report on the initial stage of method construction. *Journal of Business Research*, 88(June), 437–442. <https://doi.org/10.1016/j.jbusres.2017.11.041>

- Sung, H. Y. (2010). The influence of culture on parenting practices of east asian families and emotional intelligence of older adolescents: A qualitative study. *School Psychology International*, 31(2), 199–214. <https://doi.org/10.1177/0143034309352268>
- Szabo, Z. K., Körtesi, P., Guncaga, J., Szabo, D., & Neag, R. (2020). Examples of problem-solving strategies in mathematics education supporting the sustainability of 21st-century skills. *Sustainability (Switzerland)*, 12(23), 1–28. <https://doi.org/10.3390/su122310113>
- Taylor, S. V., & Leung, C. B. (2020). Multimodal Literacy and Social Interaction: Young Children's Literacy Learning. *Early Childhood Education Journal*, 48(1). <https://doi.org/10.1007/s10643-019-00974-0>
- Vidergor, H. E. (2018). Effectiveness of the multidimensional curriculum model in developing higher-order thinking skills in elementary and secondary students. *Curriculum Journal*, 29(1), 95–115. <https://doi.org/10.1080/09585176.2017.1318771>
- White, M. A. (2016). Why won't it Stick? Positive Psychology and Positive Education. *Psychology of Well-Being*, 6(1), 1–16. <https://doi.org/10.1186/s13612-016-0039-1>
- Widiawati, L., Joyoatmojo, S., & Sudiyanto. (2018). Higher order thinking skills as effect of problem based learning in the 21st century learning. *International Journal of Multicultural and Multireligious Understanding*, 5(3), 96–105.
- Woolley, J. D., & Rhoads, A. M. (2019). Now I'm 3: Young Children's Concepts of Age, Aging, and Birthdays. *Imagination, Cognition and Personality*, 38(3), 268–289. <https://doi.org/10.1177/0276236617748129>
- Yafie, E., Samah, N. A., Mohamed, H., & Haqqi, Y. A. (2020). Collaborative mobile seamless learning (Cmsl) based on android apps to improving critical thinking in higher education in the post-covid-19 era. *Journal of Advanced Research in Dynamical and Control Systems*. <https://doi.org/10.5373/JARDCS/V12SP7/20202125>
- Yu, R., & Singh, K. (2018). Teacher support, instructional practices, student motivation, and mathematics achievement in high school. *Journal of Educational Research*, 111(1), 81–94. <https://doi.org/10.1080/00220671.2016.1204260>