

Research Paper

Storytelling using Hand Puppets to Improve Understanding of Emotions in Children with Intellectual Disabilities

Desi Sukma Puspita Sari¹, Rr. Siti Suminarti Fasikhah², Iswinarti^{3*}

ABSTRACT

Good emotional understanding is one of the factors to effectively control children's behavior at school. Whereas inhibited understanding of emotions can cause serious behavioral problems in preschool children, especially children with intellectual disabilities. Storytelling using hand puppets is an effort to improve the ability to understand emotions for children with disabilities. The purpose of this study was to see the effect of storytelling using hand puppets on increasing the understanding of emotions of children with disabilities. The design used was quasi-experimental with pretest-posttest control group design. Subjects consisted of 10 mildly retarded children with an age range of 10-11 years who were measured using a special emotional understanding measuring instrument. Data were analyzed using non-parametric tests which showed that storytelling using hand puppets can increase the understanding of emotions of children with disabilities.

Keywords: *Emotions understanding, storytelling*

The most important change in emotional development in preschool children is an increased understanding of emotions. Understanding emotions is a key element for children's successful social adjustment. Preschoolers' social competence is strongly related to the ability to recognize and understand the emotions of others (Trentacosta & Fine, 2010). The preschool period is also very important for the development of emotional understanding. It is important for preschool children to understand emotions that occur to themselves or others because it makes it easier for them to interact socially with people around them. Preschoolers' knowledge of emotions has a positive effect on their social adaptability (Alwaely et al., 2021).

In particular, starting from the second year of life, throughout the preschool years, children become better able to use and understand labels referring to basic emotions, as well as thoroughly discuss their own and others' emotions (Camodeca & Coppola, 2016). Research consistently shows that emotion understanding promotes positive socioemotional development, such as effective emotion regulation, social competence, moral sensitivity, and

¹Sekolah Luar Biasa Negeri (School for Students with Special Needs) Blitar, Indonesia

²Masters of Psychology, University of Muhammadiyah Malang, Indonesia

³Masters of Psychology, University of Muhammadiyah Malang, Indonesia

*Corresponding Author

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consideration of others' needs, and prevents the internalization and externalization of behavioral problems (Lane et al., 2010).

Emotional understanding for preschool children is a key competency in school readiness and academic achievement (Denham et al., 2012). Children who have emotional understanding maturity will be better prepared to enter the early school period so that their academic achievement also develops well. School is a place to socialize and learning is a social process for children to understand and apply these behaviors in their lives (Elias & Mocer, 2012). Understanding, regulating, and expressing social and emotional aspects are a set of abilities that must be possessed by individuals, especially children with intellectual disabilities. Good emotional understanding is one of the factors to effectively control children's behavior at school while inhibited emotional understanding can cause serious behavioral problems in preschool children, especially children with intellectual disabilities.

The actual disability diagnostic criteria determined by the American Association Intellectual and Developmental Disabilities (AAIDD) (2018) states that children with intellectual disability have limited intellectual and adaptive functioning. While Baurain and Nader-Grosbois (2012) added that children with intellectual disability show slower development of socio-emotional regulation skills compared to normal children and they also lack socializing behavior.

The intellectual limitations of children with intellectual disability have an impact on their emotional understanding, making it quite difficult to receive abstract information and limited in the skills to adapt to their environment. Intellectual ability has long been considered to have an effect on aspects of emotional understanding. Children with mental retardation show deficits in the ability to identify the emotional states of others and themselves (Joseph & Ittyerah, 2015).

Children with intellectual disabilities experience cognitive limitations and challenges in adaptive behavior that affect their emotional and social development (Astramovich et al., 2015). Cognitive development enables children to identify their own and others' emotions and the circumstances that lead to their expression. Intellectual disability is one of the factors that can affect an individual's emotional knowledge, so emotional understanding is also affected because it is organized based on images, verbal or abstract codes and requires the involvement of cognitive systems such as perception, expression, and understanding that are misinterpreted in these children (Jasielska & Buchnat, 2017).

Emotional understanding allows children to monitor and modify their emotions to deal with difficult situations, but this is not found in children with intellectual disabilities (Lewis, 2011). Emotion recognition and understanding in intellectually disabled children can be aided by contextual stimuli and by dynamic content in the stimuli although these children understand happiness and sadness better than anger or fear (Joseph & Ittyerah, 2015). Examples of interventions that have been done to improve children's emotion understanding are with words and emojis (Gallo et al., 2017).

Storytelling is a form of social interaction used by people in education as a fun learning method that allows children to interact and turn their experiences into learning experiences (Li & Hew, 2017). Storytelling for children with disabilities can help improve communication skills. Mashalpourfard (2019) explains that with the storytelling method,

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communication skills in children with intellectual disabilities have increased. Based on the results of observations of researchers in the class of children with intellectual disabilities, during the teacher's teaching children tend to get bored quickly and are not conducive when listening to the teacher read the storybook at the beginning of the learning process. This problem is a challenge for researchers to package storytelling activities in the classroom to be interesting and entertaining, namely by making it a learning medium.

Learning media is the most effective media to stimulate children's thoughts, emotions, attention and skills and strengthen the learning process. Using media in the learning process helps teachers convey learning content, so that it easily achieves the learning objectives that have been prepared. The use of media in storytelling learning can make students actively involved in the topic being told (Dudacek, 2015). In accordance with the results of Staley and Freeman's (2017) research, storytelling activities using media can provide opportunities for students to tell stories and become new nuances for them. The use of media during the process of storytelling activities can make learning more varied. The media referred to in this study are hand puppets. The use of hand puppets as media in storytelling activities can be a communicative interaction and creative idea, so that students can focus on storytelling well (Hakim et al., 2019). In addition, children's attribution of emotions is not triggered only by the recognition of animated, expressive displays, because they easily attribute various emotions to puppets, stuffed animals, and made-up characters (Harris, P. L., Rosnay, D. M., & Pons, 2016).

The results of the study mentioned that storytelling from story books can effectively increase children's understanding and attention span during preschool education (Bartan, 2020). Stories can develop children's creativity and imagination, expand children's mentality and provide children with different life experiences (Cohrsen et al., 2016).

Emotion-related storytelling can be used as an effort to improve the ability to understand emotions for children with intellectual disabilities. Interventions based on reading storybooks with conversations about emotions have positive effects on emotional understanding and prosocial orientation in preschool (Ornaghi et al., 2014). Research results from Gavazzi and Ornaghi (2011) stated that storytelling can improve children's understanding of emotions. The experimental group outperformed the results of the control group in language comprehension and in understanding emotions.

Based on the journal review, it was found that the results of the study still used normal children's subjects so the author wanted to apply storytelling to children with disabilities. The purpose of this study is to determine the effect of storytelling using hand puppets on increasing the understanding of emotions of children with intellectual disabilities.

METHODOLOGY

Sample

The subjects consisted of 10 mildly impaired children at SLBN (School for Students with Special Needs) Pembina National Level Part C Malang with an age range of 10-11 years. The subjects were chosen because children with intellectual disability who have an IQ level between 55-70 with the same age of intelligence as normal children aged 5,5 to 7 years are equivalent to the age of 10 years in children with intellectual disability (Desiningrum, 2016).

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Instruments

To measure the understanding of emotions of children with disabilities using the measuring instrument “Memosi Khusus (Understanding Emotions for Children with Special Needs)”, which is a picture story that describes understanding the emotions of oneself and others consisting of the types of emotions of happy, sad, angry and afraid.

Procedure

There are three stages in this research, namely:

1. Preparatory stage

- a. Prepare attendance list, special emotion understanding scale and storytelling treatment module using hand puppets.
- b. Briefing the subjects in carrying out the experiment.
- c. Conducting licenses to related parties.

2. Trial

- a. Conduct a tryout on the scale of understanding special emotions.
- b. Conducting simulations on children with hand puppet storytelling.
- c. Evaluating the results of the scale tryout and experimental treatment.

3. Implementation

- a. Subjects were divided into two groups: control and experimental groups. The groups were randomly divided with the same proportion of subjects in each group. The control group was given no intervention, while the experimental group was given storytelling intervention using hand puppets.
- b. Giving the scale of understanding emotions for pretest to each group.
- c. The experimental group was given 7 sessions for treatment.
- d. After the treatment was completed, research participants in both groups were given an emotion understanding scale.

RESULTS

Table 1. Description of Research Subjects

| Demographic Characteristics | Group Control (N=5) | Experiment (N=5) |
|------------------------------------|----------------------------|-------------------------|
| Gender | | |
| Female | 2 (40%) | 2 (40%) |
| Male | 3 (60%) | 3 (60%) |
| Age | | |
| 10 years old | 2 (40%) | 2 (40%) |
| 11 years old | 3 (60%) | 3 (60%) |

The subjects in this study were divided into two groups, namely the control group and the experimental group, where each group consisted of five people. The subjects consisted of four female children, and six male children. In addition, 10-year-old subjects consisted of four children, and 11-year-olds consisted of six children.

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Table 2: Intergroup Comparison Results before Intervention

| N | U | Z | P |
|----|-------|------|------|
| 10 | 12,50 | 0,00 | 1,00 |

Based on table 2 above shows that the Mann-Whitney U value is 12,50 with sig > 0,05 (p = 1,00). This means that there is no significant difference in understanding emotions in the control and experimental groups before treatment.

Table 3. Differences in Emotion Understanding between Control and Experiment Groups

| Subject | Emotion Understanding | | | Z | Sig |
|---------------------------|-----------------------|------|-------|--------|------|
| | Range | M | SD | | |
| Control Group | | | | | |
| Pre-test | 1,00 – 1,75 | 1,30 | 0,274 | 0,000 | 1,00 |
| Post-test | 1,00 – 1,75 | 1,30 | 0,325 | | |
| Experimental Group | | | | | |
| Pre-test | 1,00 – 1,75 | 1,30 | 0,274 | -2,041 | 0,04 |
| Post-test | 2,75 – 3,00 | 2,85 | 0,369 | | |

The control group has a significance value > 0,05 (p = 1,00) with Z = 0,00. That is, there is no difference in understanding the emotions of children with disabilities in the pre-test and post-test scores of the control group. While in the experimental group shows significance < 0,05 (p = 0,04) with Z = -2,04. This means that there is a difference in understanding emotions in the experimental group during the pre-test and post-test. The average pre-test score shows lower (M = 1,30) than the average post-test (M = 2,85). This means that there is an effect of using storytelling with hand puppets on the understanding of emotions of children with disabilities given to the experimental group.

Table 4. Comparison of Experimental and Control Groups after the Intervention

| N | U | Z | P |
|----|------|-------|------|
| 10 | 0,00 | -2,67 | 1,00 |

Table 4 above is the result of analysis using Mann-Whitney which shows the value of Z = -2.668 with sig < 0.05 (p = 0.008), so the hypothesis is accepted. This means that there is a significant difference in understanding emotions in the experimental group after being given treatment (giving storytelling). The following is a graph of pre-test and post-test results in each group:

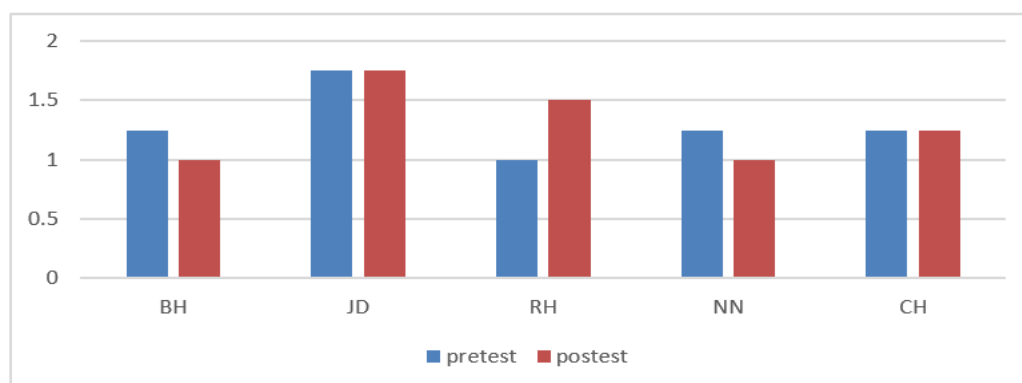


Figure 1: Control Group Emotion Understanding

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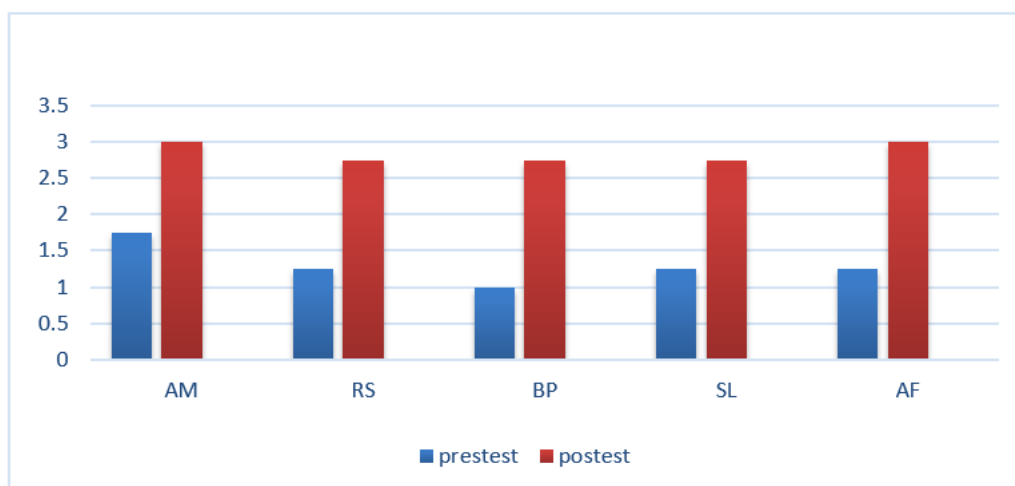


Figure 2: Experiment Group Emotion Understanding

DISCUSSION

The results showed that the pretest and posttest scores of the control group had not experienced a significant increase. When children with intellectual disabilities are not trained on how to understand emotions, there is no treatment they still cannot. It turns out that from the results of the pretest and posttest scores in the experimental group there is a difference after getting treatment. Deaf children in the experimental group have begun to be able to understand the emotions of themselves and others after being given treatment. They can express the emotions they and others feel with good reason. Unlike the control group, who could not understand the feelings of themselves and others because they did not receive treatment. It can be concluded that there is an influence on the provision of storytelling with hand puppets on the understanding of emotions of children with intellectual disabilities.

One of the most important advances in early childhood emotional development is an increased understanding of emotions (Denham et al., 2012). Storytelling using hand puppets makes children with intellectual disabilities finally able to understand the emotions that occur in themselves and others. Storytelling can help emotional development, because children can express themselves and understand the emotions or feelings of others (Erickson, 2018). Through this understanding of emotions, children know how to modify their emotions when they are in difficult situations such as disputes with peers, have reactions to harassment by friends, express emotions that are appropriate to the social environment (Lewis, 2011).

The storytelling intervention process focuses on mildly impaired children to understand the emotions of self and others. During the intervention, the researcher created a fun atmosphere by using hand puppets in telling stories with male and female gender. This made the children more interested and happy in listening to the story demonstrated by the researcher so that the atmosphere became more lively and cheerful. Storytelling activities using media can provide opportunities for children to tell stories and become new nuances for them (Staley & Freeman, 2017). Using hand puppets in storytelling activities allows children to listen to stories more happily and curiosity increases (Lin, 2012). The stories given to children with intellectual disabilities during treatment are related to the basic emotions of happy, sad, scared, and angry.

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A gradual intervention process with seven sessions can provide very meaningful experiences and learning for intellectually disabled children. Children with intellectual disabilities are initially unable to express and understand the emotions that they and others have been feeling, can be guided and trained effectively through storytelling in order to be able to understand the emotional process that occurs to themselves and others. Erickson (2018) explains that children can be effectively guided into the language they need through storytelling in order to be successful in communicating their emotions and understanding the emotions of others.

The subject looks very enthusiastic and excited when participating in activities until the last session and is willing to be actively involved and comply with the rules during the intervention. The child can express himself according to what he feels after listening to the researcher's story about emotions. For example, imitating a smiling facial expression when the researcher reads stories related to happy emotions. Imitating facial expressions and mentioning the basic emotion of anger when the researcher finished reading a story about a child who was teased by his friend. The way researchers tell stories using facial expressions and correct language helps children with intellectual disabilities be able to express themselves independently. Through appropriate language, children are able to independently express their emotions (Erickson, 2018). Children who experience delays in cognitive, physical and emotional abilities will be able to overcome their obstacles with special education (Mashalpourfard, 2019).

The implementation of the last session intervention shows that children with intellectual disabilities are able to understand the basic types of emotions felt. This seventh session is in the form of mentioning the emotions felt by showing the facial expressions of boys or girls according to basic emotions, namely happy, sad, angry, afraid using pictures of boys or girls adjusted to the gender of the child being given the intervention.

Supporting factors that also influence the increase in understanding of emotions in the experimental group are a calm and comfortable atmosphere because researchers conduct individualized interventions so that the concentration of children with intellectual disabilities can be formed in a relatively long period of time, which is approximately 30 minutes for each session. The ability to understand the emotions of children with disabilities increased because they began to have emotional knowledge. Emotional knowledge is the ability to understand behavior and emotions in oneself and others that provide important interpersonal information for children (Fasikhah, 2022). This shows that children try to be able to distinguish forms of emotion when starting to feel emotions, can understand other people's emotions and can mention emotions that occur, including happy, sad, angry and afraid.

According to the results of previous research, there are benefits obtained when using storytelling for deaf children in addition to understanding emotions, namely improving communication skills for educable deaf children (Mashalpourfard, 2019) and increasing vocabulary in deaf children (Use et al., 2008). Some of these interventions focus on overcoming the communication problems of children with intellectual disabilities. Communication is very important for children, especially children with intellectual disabilities who experience delays in language skills and social relationships. Communication is an important need for social activities and life so that they can socialize well in their environment (Mashalpourfard, 2019). In addition, storytelling is also effective in overcoming behavioral problems in children (Aminimanesh et al., 2019). The most

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important point in the implementation of interventions for children with intellectual disabilities in order to support communication skills, children with intellectual disabilities need to understand their own and other people's emotions correctly.

CONCLUSION

Storytelling using hand puppets can improve emotional understanding in children with intellectual disabilities. This is indicated by an increase in scores for understanding emotions in the experimental group before and after the intervention. Other results also showed a difference in the results of the Mann-Whitney test conducted between the control group and the experimental group.

Implication

- The implications of this study are expected to be useful in the field of psychology, especially the fields of education and developmental psychology regarding emotional problems in children with special needs. This study will help children with intellectual disabilities deepen their emotional understanding and shape future behavior for better interaction and communication with others.
- This study can also illustrate that the importance of children with intellectual disabilities can be trained like other children. The interventions provided can also be implemented at school or at home and can be done by the general public without having to study psychology first. This study certainly also has limitations, namely special subjects for mildly retarded children and the distribution of research subjects is not randomly divided.

REFERENCES

- Alwaely, S. A., Yousif, N. B. A., & Mikhaylov, A. (2021). Emotional development in preschoolers and socialization. *Early Child Development and Care, 191*(16), 2484–2493. <https://doi.org/10.1080/03004430.2020.1717480>
- American Association Intellectual and Developmental Disabilities (AAIDD). (2018). Intellectual disability: Definition, classification, and systems of supports. <https://www.aidd.org/in>
- Astramovich, R. L., Lyons, C., & Hamilton, N. J. (2015). Play therapy for children with intellectual disabilities. *Journal of Child and Adolescent Counseling, 1*(1), 27–36. <https://doi.org/10.1080/23727810.2015.1015904>
- Bartan, M. (2020). The use of storytelling methods by teachers and their effects on children's understanding and attention Span. *Southeast Asia Early Childhood, 9*(1), 75–84.
- Baurain, C., & Nader-Grosbois, N. (2012). Socio-emotional regulation in children with intellectual disability and typically developing children in interactive contexts. *Alter, 6*(2), 75–93. <https://doi.org/10.1016/j.alter.2012.02.001>
- Camodeca, M., & Coppola, G. (2016). Bullying, empathic concern, and internalization of rules among preschool children: The role of emotion understanding. *International Journal of Behavioral Development, 40*(5), 459–465. <https://doi.org/10.1177/0165025415607086>
- Cohrsen, C., Niklas, F., & Tayler, C. (2016). 'Is that what we do?' Using a conversation-analytic approach to highlight the contribution of dialogic reading strategies to educator-child interactions during storybook reading in two early childhood settings. *Journal of Early Childhood Literacy, 16*(3), 361–382. <https://doi.org/10.1177/1468798415592008>

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- Denham, S. A., Bassett, H. H., & Zinsser, K. (2012). Early childhood teachers as socializers of young children's emotional competence. *Early Childhood Education Journal*, 40(3), 137–143. <https://doi.org/10.1007/s10643-012-0504-2>
- Denham, S. A., Bassett, H. H., Way, E., Mincic, M., Zinsser, K., & Graling, K. (2012). Preschoolers' emotion knowledge: Self-regulatory foundations, and predictions of early school success. *Cognition and Emotion*, 26(4), 667–679.
- Desiningrum, D., R. (2016). *Psikologi anak berkebutuhan khusus*. In Depdiknas.
- Dudacek, O. (2015). Transmedia storytelling in education. *Procedia-Social and Behavioral Sciences*, 197, 694–696. <https://doi.org/10.1016/j.sbspro.2015.07.062>
- Elias, M. J., & Mocerri, D. C. (2012). Developing social and emotional aspects of learning: The American experience. *Research Papers in Education*, 27(4), 423–434. <https://doi.org/10.1080/02671522.2012.690243>
- Erickson, E. (2018). Effects of storytelling on emotional development. *Masters of Arts in Education Action Research*, 1–30. <https://sophia.stkate.edu/maed/256>
- Fasikhah, S. S. (2022). Kompetensi emosi anak usia awal sekolah di Malang- Indonesia by Siti Suminarti Fasikhah.
- Gallo, K. E., Swaney-Stueve, M., & Chambers, D. H. (2017). A focus group approach to understanding food-related emotions with children using words and emojis. *Journal of Sensory Studies*, 32(3), 1–10. <https://doi.org/10.1111/joss.12264>
- Gavazzi, I. G., & Ornaghi, V. (2011). Emotional state talk and emotion understanding: A training study with preschool children. *Journal of Child Language*, 38(5), 1124–1139. <https://doi.org/10.1017/S0305000910000772>
- Hakim, M. N., Zuriyati, & Rohman, S. (2019). Hand puppet: a teaching-learning storytelling media. *Getsempena English Education Journal (GEEJ)*, 6 (2).
- Harris, P. L., Rosnay, D. M., & Pons, F. (2016). *Understanding emotion (In L. F. B)*. Guilford Press.
- Jasielska, A., & Buchnat, M. (2017). Knowledge about the joy in children with mild intellectual disability. *Polish Psychological Bulletin*, 48(2), 154–166. <https://doi.org/10.1515/ppb-2017-0019>
- Joseph, L., & Ittyerah, M. (2015). Recognition and understanding of emotions in persons with mild to moderate mental retardation. *Journal of Psychosocial Rehabilitation and Mental Health*, 2(1), 59–66. <https://doi.org/10.1007/s40737-014-0019-9>
- Lane, J. D., Wellman, H. M., Olson, S. L., LaBounty, J., & Kerr, D. C. R. (2010). Theory of mind and emotion understanding predict moral development in early childhood. *British Journal of Developmental Psychology*, 28(4), 871–889.
- Lewis, M. (2011). Problems in the study of infant emotional development. *Emotion Review*, 3(2), 131–137. <https://doi.org/10.1177/1754073910390565>
- Li, E. H., & Hew, S. H. (2017). Better learning of Chinese idioms through storytelling: Current trend of multimedia storytelling. *Electronic Journal of E-Learning*, 15(5), 455–466.
- Lin, C. H. (2012). Application of a model for the integration of technology in kindergarten: An empirical investigation in Taiwan. *Early Childhood Education Journal*, 40, 5–17.
- Mashalpourfard, M. (2019). Effectiveness of storytelling on the components of communication skills in educable mentally-retarded children. *Avicenna Journal of Neuro Psycho Physiology*, 5(1), 19–28. <https://doi.org/10.32598/ajnpp.5.1.19>
- Ornaghi, V., Brockmeier, J., & Grazzani, I. (2014). Enhancing social cognition by training children in emotion understanding: A primary school study. *Journal of Experimental Child Psychology*, 119, 26–39. <https://doi.org/10.1016/j.jecp.2013.10.005>

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- Staley, B., & Freeman, L. A. (2017). Digital storytelling as student-centred pedagogy: Empowering high school students to frame their futures. *Research and Practice in Technology Enhanced Learning*, 12(1), 1–17. <https://doi.org/10.1186/s41039-017-0061-9>
- Trentacosta, C. J., & Fine, S. E. (2010). Emotion knowledge, social competence, and behavior problems in childhood and adolescence: A meta-analytic review. *Social Development*, 1–29. <https://doi.org/10.1111/j.1467-9507.2009.00543.x>
- Use, T. H. E., Story, O. F., Method, T., Enhance, T. O., For, V., & Children, R. (2008). The use of storytelling method to enhance vocabulary for mentally. *Pendidikan Luar Biasa*, ISSN: 2443-15

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Conflict of Interest

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