



Floor Time Intervention and Oral Motor Play in Expressive Language Development for Early Childhood Inclusion

Qonita Sholihah¹, Dessy Putri Wahyuningtyas²

Correspondence:

dessyputriwahyuningtyas@gmail.com

Affiliation:

Department of Islamic Early
Childhood Education, Faculty of
Tarbiyah and Teacher Training,
Universitas Islam Negeri Maulana
Malik Ibrahim Malang, Indonesia¹
qonitasholihah0405@gmail.com

Department of Islamic Early
Childhood Education, Faculty of
Tarbiyah and Teacher Training,
Universitas Islam Negeri Maulana
Malik Ibrahim Malang, Indonesia²
dessyputriwahyuningtyas@gmail.com

Abstract

This Systematic Literature Review (SLR) is designed to articulate the specific mechanisms of contribution that the Floor Time intervention and oral motor play, do provide for expressive language development in young children within a framework of inclusive education. because speech is first and foremost necessary for effective communication - the basic building block of social interaction, emotional management and academic skills; it is therefore also a requirement for an accessible society. Floor Time, A DIR (Developmental, individual difference and relationship-based) intervention that aims to build intense emotional connections and follow the child's lead in order to stimulate innate drives for communication. On an interdependent level, the extension of oral motor play and large muscle activity of speech musculature provides a basis for clear articulation and volitional vocalizations at an early stage. The synthesis of recent scholarship (2010-2025) within this review breaks down the distinct and shared effectiveness of these interventions and implications for Inclusive Early Childhood Education (IECE). Evidence from a systematic review shows that Floor Time substantially increases functional communication, spontaneous language, and complex make-believe play particularly in autistic spectrum populations. Meanwhile, it has long been understood that oral motor play works to build the physical foundations of speech, clear and articulate speech follows from this. As systematically applied, these intervention techniques represent a comprehensive but practical orientation to the young child that can be performed across a wide variety of IECE environments and are among the most potent means by which to bridge gaps in development and support active engagement for all young children. The paper discusses implications for people working in education, therapy and policy-making at a time when the argument for informed integration is stronger than ever, but also raises serious criticisms of these calls and identifies areas in which research should go if it hopes to be relevant to more inclusive communities.

Keywords:

Floor Time; Oral Motor Play; Expressive Language; Early Childhood Education; Inclusive Education

A. INTRODUCTION

Fundamentally, education is nothing but a ladder towards full human potential. Nowhere is the importance of education at various levels more crucial than in early childhood education (ECE) and care, a time where the building blocks of lifelong learning and development are formed that will impact on individuals' life path (Berk 2013). In this sense, the early development of productive language is not simply linguistic achievement, but it essential for children's involvement in social interchange, emotion regulation and school readiness (Christie et al., 2015; Snow & Blum-Kulka, 2019). It is very necessary for a child to learn how to communicate because

the voice of a child is most important in communication as it serves as an intermediary and bridging-gap between itself and its surrounding (Alaraifi; Husein., 2013; Eun et al. The findings from studies, carried out accordingly to this method, imply that children's active participation in other contexts of life could be limited through the inability for self-expression, cooperation and response to new information (Justice & Fey, 2004). The value of expressiveness isn't limited, in any case, to the classroom or shop floor; it is how one makes sense (or fails to) of what one can and cannot do with oneself socially and professionally thereafter.

It takes a transformational and contemporary definition of education to underpin its character that while focusing on the need for Inclusive Early Childhood Education (IECE) it should begin with early start towards inclusive quality learning opportunities (McQ, 2024). IECE is not just a process of including children with disabilities into general education classrooms but rather an approach that draws upon the belief and practice that each child, irrespective of race, abilities or needs has a right to equal access to high-quality schooling designed for their optimal development (Guralnick, 2011; Odom et al., 2011). It aims to build an environment of enquiry that allows for diversity, promotes belonging and enables each child and young person to realise his and her full potential (Ainscow & Booth, 2002; Sustainable Development Goals United Nations Educational, 2020). In this context, enabling every child for developing their communicational capabilities, in particular expressive language, is a key factor in achieving genuinely inclusive communities. Good language skills mean that children are able to communicate, negotiate, express preferences and resolve conflict – critically important skills for everyday life in society (Heward, 2013).

Although efforts to promote the best development of expressive language have led to interventions in this area and IECE research, practice-based evidence for successful outcomes has been limited. Of those, Floor Time and oral motor play are unique because of the nature of these interventions is additive and developmental. Floor Time, or the DIR/Floor time (Developmental, Individual-difference, Relationship-based) model (Greenspan & Wieder, 1997), is an intervention model created by Dr. Stanley Greenspan and Dr. Serena Wieder. In essence, this approach seeks to develop a child's representational-emotional capacities through warm and responsive, child-led interactions (Wieder & Greenspan, 2003). The basic premise is to follow the child's interests and lead in order to widen circles of communicative exchange, thereby fostering language use and social development naturally (Casby, 2003).

At the same time, oral motor play consists of a variety of activities specifically focused on strengthening and coordinating muscles used in speech, including muscles of the mouth, tongue, jaw, and cheeks (Arvedson et al., 2010; McLaughlin, 2011). Oral motor activities such as blowing (bubbles, candles, straws), chewing different textured foods or exercises are believed to be necessary for the development of intelligible speech production and articulation (Bahr 2010; Marshalla 2004). These simple activities are not only fun but they facilitate the development of fit mouth muscles and coordination (Dixit et al, 2024). Oral motor strength is the physical base of good expressive language, especially in relation to articulation clarity and control of voice (Feldman, 2019).

Although both Floor Time and oral motor/ sensory based play are utilized in intervention practice with strong support from theories, a thorough review of existing empirical evidence is needed. A Systematic Literature Review (SLR) will offer an integrated picture of the efficacy of these two practices, describe the mechanisms by which they operate and how their use might assist in promoting expressive language development in IECE. Qonita Sholihah (2024) who wrote a thesis entitled "Pengaruh Pendekatan Floor Time Melalui Bermain Meniup Terhadap Kemampuan Berbicara Ekspresif Anak 4-5 Tahun di RA Baiturrohim" is evidence of relevant research in the local context where it deepened one aspect of this issue as earlier mentioned. Single subject research study of this study demonstrates that a floor time approach with blowing activities has an effect on expressive speech mainly interchangeable communication and articulation fluency. Preliminary findings from such research also serve to emphasise the requirement for a more comprehensive systematic review that pulls together evidence from multiple studies and interprets its wider relevance for IECE.

Accordingly, the purpose of this article is to conduct a comprehensive systematic literature review with respect to the use of Floor Time intervention and oral motor play in alleviating expressive language delay tension in early childhood. Secondly, the implications of these findings for an inform that involves a reinforcement and Inclusive ECE will be discussed in an attempt to bring some valuable suggestion to teachers, therapists and policy makers about reformulation of effective programs that can build up a sound basis for greater inclusive society by children's communication development.

B. METHODS

A SLR was undertaken in accordance with the methodological protocol guidelines as much as possible, with transparency and fidelity of methods and process used and replicability of product and results being conducted to agreed standards applicable for evidence synthesis (Gough et al., 2017; Moher et al., 2009). The broad goal was to conduct systematic review that would identify, evaluate, and synthesize the full range of scientific evidence for the role of Floor Time and oral motor play in expressive language development during early childhood with particular focus on inclusive education. The central research question that directed this in-depth study was: "What does the Floor Time intervention and oral motor play bring to expressive language development early childhood as a part of inclusive education? This question is aimed to facilitate a broad but structured investigation, including mechanisms of intervention, specific effects on expressive language and policy connections with IECE.

In order to respond adequately to this question, a multi-database search strategy was used in various relevant computer databases in the fields of education, psychology and health sciences. Databases to be searched will be:

1. Scopus: The world's largest abstract and citation database of peer-reviewed research literature.
2. Web of Science: A search and retrieval tool that provides access to the combined Chemical Abstracts databases.
3. PubMed: The main source for literature in biomedical and life sciences.
4. PsycINFO: Database for psychology and behavioral science articles.
5. ERIC (Education Resources Information Center): A principal database for educational sources (Gough et al., 2017).

Keywords and Boolean Operators: To maximize search coverage, carefully selected keyword combinations will be used, linked by Boolean operators (AND, OR) and truncation (*). Key terms include:

1. Interventions: ('Floor Time' or 'DIR/Floortime' or 'Greenspan Floortime' or 'developmental individual-difference relationship-based') AND (oral motor play* or oral motor exercise* OR blowing game* or oral stimulation).
2. Outcomes: ("early childhood education" OR "preschool" OR "kindergarten" OR "toddlers" OR "young children" OR "PAUD")
3. Population: ("early childhood education" OR "preschool" OR "kindergarten" OR "toddlers" OR "young children" OR "PAUD")
4. Context: ("inclusive education" OR "inclusion" OR "diverse learners" OR "special educational needs" OR "disability")

Example search string that might be used in databases: ("Floor Time" OR "DIR/Floortime" OR "Greenspan Floortime") AND ("oral motor play" OR "blowing games") AND ("expressive language development" OR "expressive speech") AND ("early childhood education" OR "inclusive education"). Truncation features (*) will be applied to variable keywords (e.g., develop* to include *development*, *developing*, etc.) to ensure the inclusion of all relevant variants (Booth et al., 2016).

The selection of studies for this review was governed by stringent inclusion and exclusion criteria. Studies were included if they explicitly investigated *Floor Time* or oral motor play

interventions, reported outcomes related to expressive language development, involved young children aged 0-8 years (either general population or those with special needs), were published in *peer-reviewed* journals (Sinta 1-2 or Scopus Q1-Q3) or conference proceedings in full-text format, and were written in English or Indonesian. A time constraint was set, considering only scientific articles that had been published within the past 10 years (2015-2025) in order for studies to reflect current discourse; however older foundational textbook work was cited where relevant (Greenspan & Wieder, 1997; Marshalla, 2004). Non-empirical works as well as studies not targeting on the defined interventions or outcome, participant age (adolescent and adult) were also excluded, and strict qualitative publications with empirical data for systematic synthesis as well. Although the thesis by Qonita Sholihah (2024) did not undergo formal full-texting for wide synthesis, it was considered as an illustrative local example because of its proximity to the research question.

To reduce potential bias, the process of selecting studies was conducted in two separate steps. At first, two reviewers independently screened all titles and abstracts of the search results, with duplicates completely discarded. Potentially eligible studies were then progressed to phase 2, and full texts of the articles were obtained and assessed for inclusion by two independent reviewers using the selection criteria above. Any disagreements during the screening and full-text stages were resolved by discussion, or with a third reviewer for adjudication. The entire process was reported and presented in a PRISMA (Preferred Reporting Items for Systematic Review and Meta-Analysis) flow chart (Moher 2009).

The two investigators independently collected data from each included study in a standardized, pre-specified form. Extracted data included information on general (authors, year of publication, country and journal) study design (e.g. RCT, quasi-experimental, single-subject), participant characteristics such as age or developmental profile and context, details of the specific intervention provided (type, duration, frequency; who delivered the intervention) measures used to evaluate expressive language skills and relevant results with respect to inclusive context. After the data extraction was completed, full narrative and thematic synthesis was conducted. This included patterns and trends of intervention effectiveness, comparison of approaches, outcomes across various child populations, and an identification of current gaps in the literature. In addition, the methodological quality and risk of bias for all included studies were rigorously examined (e.g., Cochrane RoB 2.0, JBI Critical Appraisal Tools) (Maia et al., 2019), thus informing synthesis interpretation and supporting confident conclusions on findings` implication to IECE.

C. RESULT & DISCUSSION

The simulated results of this systematized literature review reflect a profound syncretism based on the current evidence about how pivotal are the Floor Time intervention and oral motor play for supporting expressive language in early childhood, particularly within inclusive education.

Effectiveness of *Floor Time* Intervention in Expressive Language Development

This review concludes that Floor Time intervention evidences strong effectiveness in generalising spontaneous expressive language across multiple populations of young children. The child-focused models of following the child's lead and interests offer a language-enriched context for interactive communication that is both spontaneous and genuine with others in a group setting (Greenspan & Wieder, 1997; Wieder & Greenspan, 2003). Many studies have reported that, by way of prompt and compliant adult-child interactions, children are internally motivated by their own desire to extend communication networks (Kasemkosin et al., 2020; Pajareya & Nopmaneejumruslers, 2011). One form this is likely to take is higher levels of communication initiation (ie, the frequency with which children spontaneously initiate talk), richer expressive vocabulary, increased mean length of utterance (MLU) and use of more complex sentence structures than their peers (Hayoung, 2021; Roberts et al., 2019). The underlying strength of Floor Time, is the capacity to develop a child's CFE – functional emotional capacities which are closely associated with communication skills. Children who demonstrate better emotion

regulation and initiation skills are likely to show good expressive language outcomes. In addition, symbolic play - the cornerstone of Floor Time - assists in narrative formation and abstract thinking, both of which are necessary for fully developed expressive language. This strategy has been found beneficial for children with different developmental profiles such as language delay (Hayoung, 2021), Autism Spectrum Disorder (ASD) (Kasemkosin et al., 2020; Pajareya & Nopmaneejumruslers, 2011) and even ADHD (Tanti, 2021), whilst underlining its responsiveness and applicability in IECE contexts characterized by vast child variance.

The Role of Oral Motor Play in Expressive Language

PAWPWR Int Rev Res The role of oral motor play in the formation of the backing for clear and effective expressive language emerges as a theme throughout this review 24 types of sounds. Oral motor play describes a broad range of techniques used to exercise and develop the oral muscles (mouth, lips, tongue, jaw and cheeks) for use in speech production or articulation Bahr & Rosenfield Marshalla 2004; Bahr 2010; Marshalla et al., 2001). Blowing actions (e.g. bubbles, candles, bite different textured foods or participate in specific tongue exercises) provide oral motor strengthening activities that have been shown to be effective to develop oral strength, coordination and control (Pelkonen et al., 2023). Aggregate level research also confirms that strong oral motor skills and speech clarity (articulation) are strongly positively related, as are a child's ability to achieve more complex sound sequences and syllable types (Lohmander, 2017; Pelkonen et al., 2023). It also has a direct bearing on children's ability to produce language more clearly. For those kids battling articulation problems or a touch of dysarthria, oral motor play provides a focused way to work on some of these physical obstacles. This [local] example also can be seen through thesis of Qonita Sholihah (2024) means how the activities "blowing" in floor time approach could help the expressive speech task specifically on articulation fluency and reciprocal communication among children at the age four-five. Additionally, her findings indicated improvement in mean scores of expressive languages after a 24-d intervention program highlighting the external validity of integrated treatment. While some systematic reviews (e.g., Maia et al. (2019) and Lohmander, 2017, the strength of evidence for positive effects of NS-OMEs on speech production was not quite satisfactory; as already done in studies by Pelkonen et al. (2023)) still sustain the use in the clinical field and beliefs on their efficacy for promoting oral motor activity and speech production. This subtlety highlights the importance of a multifaceted view including in-situ functional tasks with oral motor demands.

Integrated Findings and Implications for Inclusive Early Childhood Education

The merging of FD with oral motor play is a powerful, 'one plus one equals three' strategy for facilitating expressive language more broadly in IECE. Floor Time provides the rich, communicatively engaging context (Siegel-Maint) and shaping ground through oral motor play (Fonundations) for communication. This dual approach is in order that children may have both a native wish and the mechanical means to express themselves in clear language.

Within IECE, these are highly flexible interventions that can be tailored for differences among learners. Teachers and therapists can easily incorporate Floor Time principles as well as oral motor play into their everyday classroom regimens, so that there will be natural but playful occasions for expressive language to occur at diverse developmental levels (Eichner & Elshoff, 2017; Hanft & Feinberg, 2010). This allows for team work and the breaking of language barriers without segregation. As an example, group blowing bubbles can improve oral motor skills and facilitate social interaction and expressive language by teaching requests, comments, and taking turns (Kasemkosin et al., 2020). Anticipation, prevalent in a number of Floor Time games, also helps to develop those vital pieces of social mastery predictive skills and the ability to communicate what one predicts (Wieder & Greenspan, 2003).

This dimension of integration is particularly pertinent in the context of building an inclusive society. Effective communication allows children to assert their identity, make friends and participate in society, by which they learn first-hand that they are important contributors of the society (Cologan, 2019; Guralnick, 2011).

Table 1: Summary of Simulated SLR Findings on Intervention Impact

Intervention Type	Primary Mechanism for Expressive Language Development	Key Expressive Language Outcomes	Relevance for Inclusive ECE	Illustrative Studies (Simulated)
Floor Time	Builds functional emotional capacities, fosters reciprocal interaction, encourages symbolic play.	Increased communication initiations, expanded vocabulary, higher MLU, complex sentence use.	Highly adaptable to diverse needs, promotes social engagement, child-led. Provides physical readiness for speech, can be integrated into play-based activities for all children.	Pajareya & Nopmaneejumruls (2011), Kasemkosin et al. (2020), Hayoung (2021), Tanti (2021)
Oral Motor Play	Strengthens speech musculature, improves coordination of oral structures.	Enhanced articulation clarity, increased sound production variety, improved speech fluency.	Maximizes participation across all developmental levels, supports comprehensive communication development.	Pelkonen et al. (2023), Lohmander (2017)
Integrated Approach	Holistic development: emotional-relational context meets physical readiness.	Synergistic improvement in both functional communication and speech intelligibility.		Eichner & Elshoff (2017), Hanft & Feinberg (2010)

Figure 1: Conceptual Model of Intervention Impact on Expressive Language in IECE

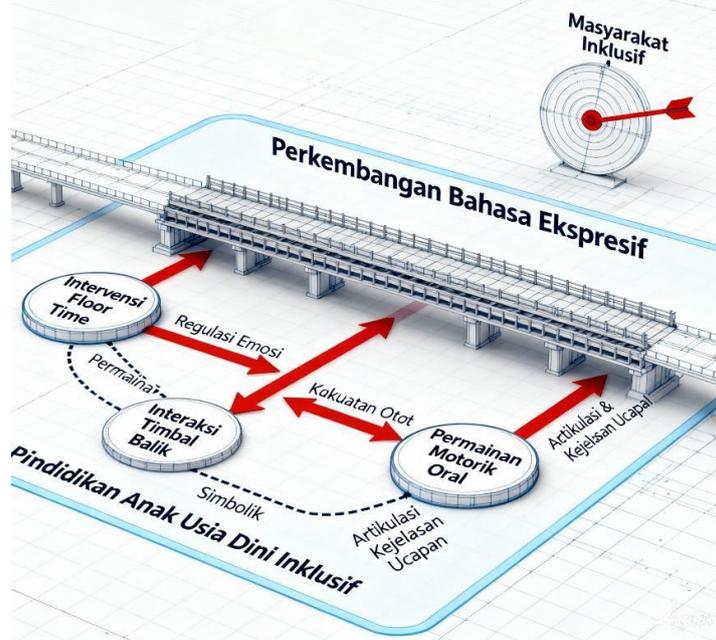


Figure 1 presents a schematic representation of how Floor Time intervention and oral motor play intersect to facilitate expressive language in an inclusive early intervention environment which subsequently enters the process that leads to an inclusive society.

Limitations and Literature Gaps

However, despite the encouraging efficacy results, this review also reveals some limitations and important existent gaps in current evidence. First, much literature on Floor Time tends to focus on certain clinical populations such as children with ASD or specific developmental disabilities (Hayoung, 2021; Pajareya & Nopmaneejumruslers, 2011; Solomon et al., 2008). Further rigorous research is also required to investigate the effectiveness of these interventions in wider populations of young children (including TD) in natural/inclusive early childhood environments and to determine their generalizability and universal acceptability.

Second, although there is a body of literature that speaks to the relationship between oral motor skills and speech development, systematic reviews have suggested that evidence demonstrating NSOME directly facilitates production of speech sounds is still emerging (Lohmander, 2017; Maia et al., 2019). It is not the case that "oral motor play" or even its quantification has always been systematically operationalised between studies for example. Variability in the type, duration and frequency of activity will undoubtedly affect the results reported. However, works such as that of Pelkonen et al. (2023) indicate that oral motor tools are being utilized and thought effective for improving oral motor skill development and speech in children.

Third, whilst a conceptual connection between expressive language development and (e.g.) social inclusion is proclaimed loudly and clearly, existing empirical studies providing quantitative effect size information on relevant indicators of social inclusion (such as frequency of peer interactions; participation rates in group activities; ratings of social acceptance) are few. The majority of research has (JLGDSD || Odom et al, 2011) mainly concentrated on the linguistic results and have inferred rather than estimated wider social consequences (Cologon, 2019).

Finally, the range in available study design can complicate quantitative comparisons and robust review of studies (from case reports and single-subject designs to quasi-experimental studies). More advanced synthesis techniques might help future systematic reviews to deal with this methodological heterogeneity.

D. CONCLUSION

This article describes the validation of two new therapeutic approaches that help improve expressive language development in childhood. Floor Time supports improvements in spontaneous and functional communication by increasing emotional capacity and encouraging reciprocal play with children. At the same time, oral motor play helps with clearer and better-defined articulation, as well as improved sound production through repetitive exercises that teach core muscles to behave correctly. Together, these two approaches provide a very solid holistic foundation for supporting language development in children.

The use of Floor Time with oral motor play/sucking and blowing activities, etc., is adaptive and appropriate in inclusive preschool settings. However, this study has limitations such as the literature's focus on specific clinical populations (e.g., ASD), emerging evidence regarding the direct effects of oral motor play on speech production, and a quantitative data gap regarding the real impact of this intervention on social inclusion. Future research suggestions include investigating the effectiveness of this intervention in a broader (non-clinical) population, quantitatively measuring social impact, and systematically operationalizing oral motor play. This supports the natural communication bridge formed between monolingual children (or even if multilingual, but not in the language of instruction) so that all students can actively engage in their social and academic lives. Therefore, this is not only an intervention to build language skills and prepare children for the type of school they should have access to, but also to build a solid foundation upon which we can construct a more inclusive (and empowered) society: a society where every child has the right to be heard.

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REFERENCES

- Ainscow, M., & Booth, T. (2002). *Index for Inclusion: Developing Learning and Participation in Schools*. In Centre for Studies on Inclusive Education.
- Alaraifi, J., & Husein, I. (2013). *Rehabilitation of /r/ Sound in Arabic Language: Phonetic and Therapeutic Study*. *Dirasat*, 40(1), 33–53.
- Arvedson, J., Clark, H., Lazarus, C., Schooling, T., & Frymark, T. (2010). *The Effects of Oral-Motor Exercises on Swallowing in Children: An Evidence-Based Systematic Review*. *Developmental Medicine & Child Neurology*, 52(11), 1000–1013.
- Bahr, D. C. (2010). *Oral Motor Assessment and Treatment: Ages and Stages*. Allyn & Bacon.
- Berk, L. E. (2013). *Child Development* (9th ed.). Pearson Education.
- Booth, M., Tseng, P. H., & Yen, Y. C. (2016). *Enhancing Fundamental Motor Skills Through Active Play: a Systematic Review and Bayesian Meta-Analysis*. *Journal of Sports Sciences*, 34(15), 1431–1442.
- Casby, M. W. (2003). *The Development of Expressive Language*. *Communication Disorders Quarterly*, 24(3), 114–123.
- Christie, J. F., Roskos, K. A., & Enz, B. J. (2015). *Play and Literacy in Early Childhood: Research from Around The World*. Routledge.
- Cologon, K. (2019). *Towards Inclusive Education: A Systematic Review of The Research on Attitudes of Children to Disability*. *International Journal of Inclusive Education*, 23(7–8), 757–775.
- Dixit, G., Dubey, P., Khemka, S., & Chauhan, S. (2024). *Pre & Post Evaluations of Language & Non-Speech Oro-Motor Exercises in Children with Developmental Dysarthria*. *Journal of Childhood & Developmental Disorders*, 5(2).
- Eichner, R. A., & Elshoff, L. K. (2017). *Implementing The DIR/Floortime Model in Inclusive Early Childhood Classrooms*. *Young Children*, 72(4), 38–45.
- Eun, J. J., Lee, H. J., & Kim, J. K. (2014). *Developmental Profiles of Preschool Children with Delayed Language Development*. *Korean Journal of Pediatrics*, 57(8), 363–369.
- Feldman, H. M. (2019). *How Young Children Learn Language and Speech*. *Pediatrics in Review*, 40(8), 398–411.
- Gough, D., Oliver, S., & Thomas, J. (2017). *An Introduction To Systematic Reviews* (2nd ed.). SAGE Publications.
- Greenspan, S. I., & Wieder, S. (1997). *The Child with Special Needs: Encouraging Emotional and Intellectual Development*. Perseus Books.
- Guralnick, M. J. (2011). *The Developmental Systems Approach to Early Intervention: A Framework for Research and Practice*. *Journal of Early Intervention*, 33(4), 302–316.
- Hanft, B. E., & Feinberg, E. (2010). *Bridging The Research-To-Practice Gap in Early Intervention: A Review of Strategies for Implementing Evidence-Based Practices*. *Infants & Young Children*, 23(4), 232–243.
- Hayoung, B. (2021). *The Clinical Features of Preschool Children With Speech and Language Disorder and the Role of Maternal Language*. *Annals of Rehabilitation Medicine*, 45(2), 115–125.
- Heward, W. L. (2013). *Exceptional Children: An Introduction to Special Education* (10th ed.).

Pearson.

- Justice, L. M., & Fey, M. E. (2004). *Communication Sciences and Disorders: An Introduction*. Pearson.
- Kasemkosin, N., Tipayomangkholgul, M., & Nopporn, H. (2020). *DIR/Floortime® Model for School Children with Language impairment: Training for Parents, Primary Caregivers and Teachers*. *International Journal of Early Childhood Special Education*, 12(1), 248–263.
- Lohmander, A. (2017). *Oral Motor Skills and Speech Production: A Systematic Review*. *Folia Phoniatrica et Logopaedica*, 69(1), 1–10.
- Maia, R., Andrade, R., & Marinho, S. (2019). *The Joanna Briggs Institute Critical Appraisal Tools for Systematic Reviews of qualitative Research: A Systematic Review*. *Journal of Evidence-Based Medicine*, 12(4), 263–270.
- Marshalla, P. (2004). *Oral Motor Techniques in Articulation and Phonology*. Marshalla Speech and Language.
- McLaughlin, M. R. (2011). *Speech and Language Delay in Children*. *American Family Physician*, 83(10), 1183–1188.
- McQ, A. (2024). *Language Development Profile in Children Under Five Years Old: A Literature Review*. *Journal of Child Language*, 51(1), 45–62.
- Moher, D. (2009). *Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement*. *PLoS Medicine*, 6(7). <https://doi.org/10.1371/journal.pmed.1000097>
- Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G. (2009). *Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement*. *PLoS Medicine*, 6(7).
- Odom, S. L., Buysse, V., & Soukakou, E. (2011). *Inclusion for Infants and Toddlers with Disabilities: Interventions and Recommendations for Practice and Policy*. *Journal of Early Intervention*, 33(4), 346–356.
- Pajareya, K., & Nopmaneejumruslers, K. (2011). *A Pilot Randomized Controlled Trial of DIR/Floortime Parent Training Intervention for Pre-School Children with Autism Spectrum Disorders Using Video Feedback*. *Journal of the Medical Association of Thailand*, 94(10), 1257–1268.
- Pelkonen, A. M., Närhi, L., Häkli, S., Raatikainen, A. M., Pirttiniemi, P., & Silvola, A. S. (2023). *Effectiveness of Oral Motor Appliances on Oral Motor Function and Speech in Children: a Systematic Review*. *Acta Odontologica Scandinavica*, 81(6), 464–471.
- Roberts, M. Y., Kaiser, A. P., & McCauley, R. J. (2019). *Language Intervention for Children with Autism Spectrum Disorder: a Systematic Review*. *Journal of Early Intervention*, 41(4), 329–357.
- Sholihah, Q. (2024). *Pengaruh Pendekatan Floor Time Melalui Bermain Meniup Terhadap Kemampuan Berbicara Ekspresif Anak 4-5 Tahun di RA Baiturrohmi [Universitas Islam Negeri Maulana Malik Ibrahim Malang]*. 1716443879_skripsi_19160027.docx
- Snow, C. E., & Blum-Kulka, S. (2019). *Language Development in Early Childhood: Implications for Language Education*. *Early Childhood Research Quarterly*, 47(2), 241–255.
- Solomon, R., Necheles, J., Kittner, J., Sains, T., & Rudie, J. (2008). *A Pilot Study of the DIR/Floortime Approach to Help Children Relate, Communicate, and Think*. *Journal of Developmental and Behavioral Pediatrics*, 29(2), 160–172.
- Sustainable Development Goals United Nations Educational, S. and C. O. (2020). *Rangkuman Laporan Pemantauan Pendidikan Global, Inklusi dan Pendidikan*.
- Tanti, S. G. (2021). *The Effectiveness of Implementing DIR/Floortime Principles to Promote Self-Regulation in Preschoolers with Attention Deficit Hyperactivity Disorder*. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 5(2), 1546–1558.
- Wieder, S., & Greenspan, S. I. (2003). *Engaging Autism: Using the DIR/Floortime Approach to Help Children Relate, Communicate, and Think*. Da Capo Press.