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Digital Kinetic Storytelling as an Innovative Strategy for Enhancing Language Learning in Early Childhood Classrooms

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Abstract. Despite digital kinetic storytelling being regarded as one of the most innovative learning approaches in childhood education, it has not been investigated enough within Arab learning settings. This research aimed at exploring the relation between the use of kinetic stories via digital technology and its effectiveness in enhancing language acquisition among children. A qualitative phenomenological approach was adopted, and semi-structured interviews were conducted with 99 preschool teachers from Irbid City in the north of Jordan. Data were analyzed using the grounded theory approach to construct descriptive narratives outlining the major themes. Data analysis showed that digital kinetic storytelling enhanced children's motivation and active involvement by providing opportunities for intrinsic sensory and motor engagement and promoted the construction of vocabulary and linguistic concepts by animating the language through visuals and movement, thus promoting retention in appropriate contexts. It also enhanced listening comprehension through the use of language, pictures, and movements that aid understanding on deeper levels. Moreover, digital kinetic storytelling improved children's oral expression, increased their confidence, and encouraged spontaneous communication since they were exposed to repeated phrases. In addition, it promoted teamwork and social interaction because it taught students to support each other in an inclusive environment that considers children's differences. The research findings enrich knowledge regarding the impact of digital kinetic storytelling on language education and provide teachers with an interactive teaching method that promotes early language learning through developing child interaction, motivation, and comprehension.

Keywords: digital technology; digital kinetic storytelling; language; classroom environment

1. Introduction

Global digital transformation has caused significant changes to pedagogical activities, which has especially affected early childhood education. Educators now deeply investigate their teaching aids and approaches because of this development (Al-Halalat et al., 2024; Lim et al., 2022; Pavlou & Garmpis, 2025; Tamimi, 2024). The traditional method of memorization no longer limits students to rote learning (Kumar & Arora, 2024; Ondog & Kilag, 2024). The learning process now demands creative methods that help children develop their mental abilities, emotional skills, and motor functions (Wu & Chen, 2020).

The "digital kinetic story" concept represents an innovative teaching approach that unites technology with movement and narration to enhance young learners' language acquisition (Ayana et al., 2024; Barua, 2023). For many years, storytelling has been a popular and effective method for message delivery and language skill development because it uses imaginative storytelling to support listening and speaking skills (Tabieh et al., 2020; Tamimi, 2024; Wu & Chen, 2020).

Storytelling, accompanied by physical action and digital devices, transforms passive children into active learners, as it provides them with a rich and holistic learning environment (Erfan & Abdel Hakeem, 2014). By spinning stories with the

aid of interactive smart screens, augmented reality applications, and digital music, children actively participate in the story, which aids their language skills acquisition through authentic and meaningful interactions (Ginting et al., 2024; Kumar & Arora, 2024; Ondog & Kilag, 2024). Digital kinetic stories encourage the use of auditory, visual, and motor memories through rhythmic repetition and physical interaction (Khasawneh et al., 2022). This promotes group participation and discussions that lead to collaborative learning, which strengthens social relations through sharing and taking turns and joint decision-making (Tabieh et al., 2020; Wu & Chen, 2020). According to AlAli et al. (2024), this positive vibrant classroom climate supports children's holistic growth and development.

The digital kinetic storytelling approach relies on strong theories. Piaget's constructivist approach states that children learn through environmental activities and that sensory-motor experiences form the basis for cognitive development (Ayana et al., 2024; Barua, 2023; Erfan & Abdel Hakeem, 2014). As such, the digital kinetic story provides an extensive environment filled with sensory and physical elements, which makes it a perfect representation of the theory. According to Vygotsky's sociocultural theory, learning occurs within the "zone of proximal development" through assistance from teachers or peers. Here, the teacher takes an active guiding role by helping learners become involved with the story, transforming it into a rich, multi-layered, flexible, and interactive dialogue (AlAli et al., 2025; Khasawneh et al., 2023; Palioura & Dimoulas, 2022; Pavlou & Garmpis, 2025).

Howard Gardner's theory on multiple intelligences also embraces the digital kinetic story as a versatile tool that serves different types of learners. Children with linguistic intelligence gain understanding from the vocabulary and grammar of the story, those with bodily-kinetic intelligence move as they express understanding (Chen & Chuang, 2021; Göksün & Gürsoy, 2022), and those with visual-spatial intelligence interact with images and other digitized elements. This method enhances motivation and appreciation for diverse learner differences (Aguilar Cubillo & Alcántara Manzanares, 2017; Aljuhani, 2023).

The digital kinetic storytelling approach has been shown to be effective for developing language skills. Barua (2023) articulated that its interactiveness enhances oral language skills through rhythmic motion and emotional engagement. Many researchers (Al-Barakat & AlAli, 2024; Al-Hassan et al., 2025; Ginting et al., 2024) have stressed the point that adding motion to digital stories improves attention, recall, and functional language use during active learning. Ayana et al. (2024) reported that children who tell and retell stories develop their vocabulary knowledge and comprehension of syntax. Tabieh et al. (2020) and Tamimi (2024) reported that the digital kinetic story enables teachers to create active classrooms that enable students to move freely between being learners and teachers for better expressive skills development in terms of description, narration, and creativity.

Educational research has demonstrated how digital kinetic storytelling helps children develop their linguistic and emotional skills as well as cognitive and

social capabilities through aligning physical activities with sensory engagement along with digital media content to create an interactive learning experience. Several studies (Al-Barakat & Al-Hassan, 2009; Al-Barakat & Al-Karasneh, 2005; Hawamdeh et al., 2025; Tabieh et al., 2020) have emphasized that incorporating movement with digital storytelling content improves language skills, rouses the imagination, and motivates critical thinking, encouraging young children to express themselves productively.

Additional studies (AlAli & Al-Barakat, 2023; Aljuhani, 2023; Bataineh et al., 2007; Chen & Chuang, 2021; Fraihat et al., 2022; Irshid et al., 2023) have demonstrated that digital kinetic stories function as full-scale educational methodologies. They promote narrative development, auditory understanding, and verbal abilities, while supporting social-emotional learning, by implementing group activities, including problem-solving, sequencing, and role-playing. This is in line with Vygotsky's sociocultural theory because it demonstrates that social interaction and language function as essential tools for cognitive development (Bataineh et al., 2025; Gürsoy, 2021; Shabani, 2016). In addition, Vygotsky emphasized that young children develop knowledge through hands-on experience and participation in digital kinetic storytelling under guided collaborative learning environments (Rahiem, 2021; Seçkin Kapucu & Yurtseven Avci, 2020; Tse et al., 2021).

Furthermore, the multiple intelligences theory developed by Gardner supports the digital kinetic stories technique because it activates three key intelligences: linguistic (dialogue and narration), bodily-kinetic (movement and gestures), and visual-spatial (imagery and visual effects) (AlAli & Al-Barakat, 2024; Massey, 2021; Shabani, 2016). Accordingly, cognitive stimulation adapts to the different learning approaches children possess, especially during their early developmental phase, which demonstrates a wide range of developmental capabilities. The implementation of digital kinetic storytelling faces some practical barriers, mainly in early childhood educational settings, including insufficient technology infrastructure, limited teacher training, and the lack of extensive research on its educational impact (Al-Barakat et al., 2022; Al-Barakat & Bataineh, 2011; Chen & Chuang, 2021; Fraihat et al., 2022; Irshid et al., 2023). These barriers are more severe in low-resource learning environments because digital tools and training access are limited.

The implementation of in-depth field research is essential to explore the educational, technical, and practical aspects of digital kinetic storytelling in early learning environments. Teachers' participation in research is essential because they play a vital role in creating interactive storytelling content and embedding them into educational spaces. The expertise and practical knowledge of teachers will help create an authentic system for widespread implementation of this method and prepare educators with the necessary skills for successful adoption.

2. Research Statement

Early childhood education prioritizes language acquisition as a fundamental developmental area because it shapes all cognitive, social, and emotional growth

(Al-Barakat et al., 2023). The current physical activity-based teaching approach fails to generate interest. Hence, kinetic storytelling thus emerges as a solution within the expanding digital world since it combines physical activities with narrative elements to create an interactive digital learning environment. Through this approach, children learn language by starting with vocabulary, phrases, and articulation and then moving toward more meaningful activities.

In addition, the teacher moves beyond being a vehicle of information transmission to become a storyteller and rhythm creator who uses visual elements and movement to create educational experiences. The teacher motivates children to be physically and mentally active, thus enhancing their language development. This approach is consistent with modern pedagogical aims that target purposeful learning, imagination, and the fostering of communication skills appropriate for early schooling. Even so, there is limited literature investigating how educators essentially view and evaluate the effectiveness of digital kinetic storytelling in their instructional practice.

In an attempt to bridge this gap, the current research aimed to investigate the extent to which early childhood teachers evaluated the effectiveness of digital kinetic storytelling in language learning in an interactive classroom setting. This investigation is important because it will determine teachers' perceptions and experiences of how this new technique may be implemented comprehensively for children's language development in early education. Thus, the primary guiding research question of the research is: *How do early childhood teachers evaluate the effectiveness of digital kinetic storytelling in fostering an interactive classroom that supports children's language learning?*

3. Method

3.1 Research Design

A qualitative phenomenological approach was used, with semi-structured interviews as the main data collection instrument. The purpose was to understand digital kinetic storytelling as an innovative pedagogical strategy that addresses the problem of creating an active language learning environment for young children from the teachers' perspectives, the challenges they encounter, and the opportunities this strategy offers in early education. The qualitative approach provides significant flexibility to deeply and accurately explore educational phenomena within their natural settings.

3.2 Research Sample

The research included 99 participants who were purposefully selected from the Irbid region in northern Jordan, where schools share similar environmental, technological, and educational characteristics. The sample consisted of teachers working in kindergartens and early childhood education settings in schools that offer suitable digital environments for applying the digital kinetic storytelling strategy. Participants were selected based on their experience in early education and their willingness to participate in the research. Efforts were made to ensure diversity in the levels of experience and technological training among teachers to ensure a comprehensive representation of views and educational practices related to the use of digital kinetic storytelling.

3.3 The Digital Kinetic Story-Based Learning Environment

A digital kinetic story-based learning environment aimed at improving the oral language skills and motor skill interaction of young learners was created by incorporating digital storytelling and digital movement activities that were contextual to their local environments. The program was carried out over a two-month period with three sessions each week. Three educational units that reflect the Jordanian context were developed: "A Day on our farm", "A trip to the local market", and "Rain in our neighborhood".

Each unit introduced new words pertaining to a rounded theme, including arms such as weather conditions, daily activities like farming and market transactions, and incorporated action to enhance understanding and involvement. The stories were designed using the digital tools Canva and Powtoon. The characters were very attractive – "Flafilou" the rooster, "Uncle Awad" the friendly vendor, and "Rasha" the rain cloud. The stories incorporated repetition and dramatic action as well as sound, vision, and motivated sensory attention and motivation.

In addition to storytelling, there were lesson plans that included activities such as drawing, group discussions, and dramatization, aligned with active learning principles. Early childhood education specialists reviewed all content and plans for cultural and linguistic accuracy. Teachers received training in the digital stories prepared and the activities designed for the children. Although the diverse skills levels and time management were challenging, the overall environment was successful in fostering language use and interaction during class because the content was adaptable and interesting.

3.4 Semi-Structured Interviews

Semi-structured interviews were adopted as the main method to collect qualitative data since they allow individuals to dive deep into their own stories while still keeping a loose framework. The interview guide emerged through a complete analysis of research literature on early childhood education, along with digital media and kinetic storytelling methods. The guide design contained four key questions to assess how teachers understand digital kinetic storytelling alongside its effectiveness in practice and the implementation obstacles and suggestions for future development. The interviews took place individually in comfortable school spaces where participants could feel free to share their thoughts without disrupting their teaching responsibilities.

3.5 Data Collection

Multiple organized data collection stages followed strict ethical and procedural rules that protected both data quality and research interactions. First, written authorization from Jordanian education authorities and the educational institutions involved was secured. School principals received requests to establish communication with targeted teachers through privacy-protecting terms that respected their rights. The research purpose and rationale were explained to the participants, together with the interview questions and recording and documentation methods. All participants were provided with clear details regarding their voluntary involvement in the research, which included the option to cease participating at any stage without facing any repercussions. For the

interview sessions, participants were provided with verbal and written instructions, and the audio was recorded using high-resolution portable devices after receiving spoken and written consent.

All information was secured from unauthorized access, as audio files were stored in encrypted digital storage and personal data were de-identified using codes during transcription and subsequent analysis. As for the data collection, we employed effective interview communication techniques such as listening, paraphrasing, and open-ended questioning to deepen discussions and enrich the data. Each interview lasted 40 to 45 minutes, while the participants received gratitude for their time along with a prompt to share additional information.

3.6 Data Analysis

The semi-structured interview data underwent interpretative qualitative content analysis, which is considered an optimal method for this type of research. Through extensive textual examination, the researcher can discover hidden meanings and recurring patterns. We made verbatim transcripts of audio-recorded interviews before conducting a thorough verification process to verify accuracy.

Open coding was used to extract initial codes from meaningful sentences or paragraphs. In all, 120 preliminary codes were extracted, which demonstrated the extensive variety in the data collected. Axial coding was performed to group initial codes into thematic categories that represented key subject domains. The categories focused on six essential domains: 1) student motivation development, 2) language and concept expansion, 3) comprehension and listening skill enhancement, 4) oral expression development with confidence and clarity, 5) group classroom interaction promotion, and 6) inclusive learning environment development for individual differences.

To ensure accuracy, the constant comparative method was applied to review codes across different interviews and confirm theoretical saturation, where recurring themes and patterns emerged consistently without any new information. To support reliability, an external audit was conducted by a specialist in qualitative educational research, who reviewed a representative sample of the transcripts to validate the categorization process. Analytical and interpretative notes were documented throughout the repeated readings of the transcripts, contributing to the formulation of accurate and insightful conclusions.

4. Findings of the Research

Data analysis yielded six key themes, presented below.

4.1 Theme 1: Motivation and Engagement

A total of 98% of the participants considered digital kinetic storytelling an effective strategy for motivating children. This is due to its ability to provide an engaging educational setting rich in sensory and motor experiences, since it

moves children beyond traditional rote learning toward active and self-driven participation. One teacher said:

> *"When I use kinetic storytelling, I notice children fully focused and immersed. They laugh, move, and eagerly repeat sentences as if they are living the story, not just hearing it."*

This shows that digital kinetic storytelling serves more than information transfer because it actively motivates children by sparking their imagination and satisfying their natural curiosity. The interactive nature of this method creates intrinsic motivation because children learn through their internal drive instead of external rewards. Another teacher remarked:

> *"Whenever I start the lesson with kinetic storytelling, children eagerly await it and ask to hear the story multiple times. Some memorize parts and participate in retelling as if part of the story. This enthusiasm is unseen in traditional methods."*

This underscores the cumulative effect of kinetic storytelling in building positive emotional connections to learning, making it enjoyable and intrinsically rewarding, which encourages repetition and ongoing engagement. Repetition requests reflect high cognitive and emotional involvement, indicating that children participate physically, mentally, and emotionally, enhancing deep understanding and long-term retention. Another teacher, emphasizing that kinetic storytelling uniquely triggers spontaneous engagement without constant teacher prompting, said:

> *"Children don't need direct encouragement to participate; the kinetic story itself entices them to move and engage naturally, making learning smoother and much [more] lively without continuous intervention."*

This response implicitly critiques traditional methods that may lack such engaging elements and confirms that digital kinetic storytelling acts as an interactive motivator that fosters learner autonomy and active participation.

4.2 Theme 2: Vocabulary and Linguistic Concept Development

Altogether, 94.9% of the participants affirmed the effective role of digital kinetic storytelling in expanding children's vocabulary and linguistic concepts by linking language with realistic motor and visual contexts that reinforce meaning retention. One teacher explained:

> *"The vocabulary children hear within the story stays in their memory because they see and live it, not just hear it. Children who watch animated scenes with sound effects develop integrated sensory experiences that transform verbal symbols into concrete experiences that improve their memory recall.''*

The narrative demonstrates how multisensory learning creates deep vocabulary retention by moving students past basic memorization to develop a complete sensory experience that combines hearing, seeing, and touching to enhance

natural language abilities and creative expression. Another teacher demonstrated this aspect:

> *"There is a direct language application; children unexpectedly use new words they had seen in kinetic stories from previous days. The words become part of their everyday speech, even though they are not commonly used in their native language."*

This statement indicates that repeated exposure to engaging kinetic storytelling leads to natural language acquisition because it enables children to transfer their comprehension skills into active use. Sixty-seven participants emphasized that proper planning remains essential for using kinetic storytelling to reach linguistic objectives. One teacher stated:

> *"The use of stories without proper planning results in entertainment value but fails to produce actual language development. Children tend to focus on movement and colors instead of paying attention to linguistic content. Teachers need to establish specific learning targets while creating systematic links between vocabulary and motor activities to help students understand new words."*

The above statement emphasizes that the successful implementation of digital kinetic storytelling depends on teachers' planning abilities and instructional competencies, which need intentional application to achieve maximum linguistic benefits. Digital kinetic storytelling proves to be an effective educational resource for vocabulary and concept development when teachers implement it properly according to educational targets and student requirements.

4.3 Theme 3: Enhancing Comprehension and Listening Skills

Ninety-one participants (91.9%) indicated that digital kinetic storytelling is highly effective for young children who occasionally struggle to comprehend meaning when listening to spoken words. The key is that the format does not just talk at them; it overlays sound, color, and very smooth movement so the eyes and ears are simultaneously drawn in the same direction. One teacher expressed this interaction, saying:

> *"When a child watches the kinetic story, his eyes and ears coordinate to capture details, allowing him to build a clear mental image of the heard text. This audiovisual integration enhances his ability to analyze information rather than merely absorbing it superficially or mechanically."*

This statement highlights that auditory experience alone is insufficient for ensuring deep understanding; rather, the child needs simultaneous visual support that reinforces meaning and stimulates the brain to engage positively with the linguistic content.

In a related context, another teacher praised the impact of the digital kinetic stories in encouraging children toward deeper interactive understanding, rather than passive listening:

> *"I noticed that children no longer receive the story passively; they begin to ask questions about word meanings and want to understand the course*

> *of events more precisely. This reflects the stimulation of critical thinking from an early stage, where the child engages in interpreting and analyzing what they hear instead of just listening."*

This indicates that digital kinetic stories develop higher-order thinking skills such as analysis and interpretation, enhancing the child's ability to build linguistic knowledge naturally and gradually beyond traditional rote memorization and repetition. However, 59 participants warned against the risk of unbalanced use of audio-visual effects, with one stating:

> *"Sometimes, attractive sound effects may excessively capture the child's attention, reducing his focus on words and meanings, which may weaken true understanding of the content."*

The warning demonstrates the requirement for exact controls of multimedia elements in digital kinetic stories to maintain their supportive role instead of causing distractions. The warning demonstrates the requirement for specialized teacher training in this technique to achieve educational objectives.

4.4 Theme 4: Developing Oral Expression Skills

A total of 90% of the participants confirmed that digital kinetic stories effectively improve their oral communication abilities. They deliver linguistic content through an engaging interactive platform that enables children to express themselves freely while building their language abilities naturally and in a motivating way. One teacher demonstrated this by stating:

> *"Children start by repeating the story's movements and characters at first but eventually develop their own independent language skills to express feelings and ideas."*

This statement demonstrates that digital kinetic stories go beyond their traditional purpose because they serve as a powerful stimulus that enriches expression skills. The findings demonstrate that digital kinetic stories enable authentic speaking opportunities and verbal communication that led to sentence development. Another teacher confirmed this pattern, saying:

> *"During each digital kinetic story session, children shift from repeating heard content to creating their own original sentences. Sometimes, they add events to the story from their imagination or express their feelings about the characters, which is a clear development in their oral expression ability."*

This excerpt highlights how digital kinetic stories become a free linguistic training space, enabling the child to move from passive reception to linguistic creativity, which is an important indicator of the development of expressive language skills at early stages.

Confirming the impact of digital kinetic stories on children with weak linguistic abilities, one teacher said:

> *"We had a child who did not speak much in class, but after involving him in digital kinetic stories, he began repeating phrases from the story, then*

> *used them in new situations. This shows that digital kinetic stories provided him with an indirect gateway to communicate."*

This comment emphasizes that digital kinetic stories are not limited to direct linguistic training but open the way for children to develop expression skills naturally and contextually, especially for those who find it difficult to express themselves in traditional situations. In this context, the findings show a shift in children's language learning development, reflecting real cognitive and linguistic growth, where they can use language more flexibly, allowing them to express themselves innovatively and meaningfully. This indicates that learning in this context is not passive consumption but active interaction that comprehensively develops the child's abilities.

The psychological and social effects of digital stories on children who are shy or hesitant to speak in front of others were noted by another teacher.

> *"The child who usually stayed quiet and shy started to raise his hand for participation and opinion-sharing during digital kinetic stories. The safe environment of these stories enables children to break through their fear barriers and express themselves with confidence."*

The above statements show that digital kinetic stories demonstrate a profound psychological impact on oral expression development because they establish an educational environment where children feel secure and accepted. This helps them defeat their social fears and become more confident.

4.5 Theme 5: Enhancing Group Interaction

Altogether, 93.9% of the participants reported that digital kinetic storytelling gives group discussions among children noticeable vigor. It involves assigning specific roles in which young storytellers must cooperate, sparking a clear sense of belonging. One teacher stated:

> *"When we assign roles within the story, I feel that every child finds his place in the activity, which makes the children more harmonious and connected with each other. No one feels neglected, and children move like one team."*

This remark highlights a shift in classroom dynamics, where children's relationships evolve from merely being present in the same space to actively interacting and functionally integrating within the activity. In a deeper reflection, another teacher said:

> *"At first, I was assigning roles, but over time, the children started proposing roles themselves and even began negotiating who performs what. Some even consider others' abilities and suggest roles that suit them. This was a development I did not expect."*

This statement deeply demonstrates the growth of children's social communication skills and their transition from passive reception to active initiative, reflecting an increase in social awareness, empathy, and consideration for others. Negotiating roles and making suggestions indicate real practice of leadership skills, problem-solving, and building relationships based on

understanding and respect. These values are highly important in the educational context. However, 55 participants emphasized practical challenges related to using digital kinetic storytelling. One teacher pointed out the importance of managing dialogue within the classroom:

> *"Some children become overly engaged in the story and start talking and acting freely beyond the required framework, sometimes leading to a loss of control and turning the activity from cooperative to chaotic."*

The above findings indicate the necessity for precise guiding skills by the teacher, who must achieve a delicate balance between allowing children freedom of expression and maintaining focused discussion and classroom control. The absence of this balance may prevent maximizing the potential of digital kinetic storytelling and affect learning quality. The above quote also underscores the need to train teachers on interactive classroom management strategies and how to constructively channel the enthusiasm and engagement generated by digital stories.

4.6 Theme 6: An Inclusive Learning Environment that Accounts for Individual Differences

In all, 95.9% of the participants affirmed that digital kinetic storytelling constitutes an inclusive learning environment that respects individual differences among children in terms of cognitive styles and physical and perceptual abilities. One teacher said:

> *"Children who learn visually enjoy watching images and character movements, but those who learn through movement find pleasure in acting out physical parts. The system enables students to identify their most effective learning method while preventing them from feeling inferior to their classmates."*

The statement demonstrates that the digital kinetic story learning environment succeeds because it accepts different learning needs without imposing a single teaching method, which supports inclusive education principles that ensure equal learning opportunities. One teacher shared an example that demonstrates the human aspect of inclusive education:

> *"I had a child with special needs who never participated in traditional lessons but began to participate regularly after we used digital kinetic storytelling. I believe the images and movements conveyed a meaning to him those words never did before."*

The example demonstrates how digital kinetic stories help overcome communication and cognitive barriers for children who require additional support. Children who interact with stories through visual or kinetic channels learn vocabulary and sentences while feeling part of the process, which leads to inclusive education. Nonetheless, 37 participants demonstrated that children with special needs require special attention. One teacher stated:

> *"The story content needs modification to benefit children with hearing or motor impairments because they will not gain much from standard presentation. The story requires additional supportive measures which must be appropriate for students to benefit from it."*

This emphasizes that the technological medium presents an educational challenge because its capabilities remain insufficient unless designers create flexible content with special needs in mind. Teachers need specialized training to modify content through visual translation and written texts while working with specialists for designing adaptable activities.

5. Discussion

This research shows that digital kinetic stories function as a contemporary educational resource that effectively boosts children's learning motivation and their participation in interactive classroom activities. They achieve this outcome through their complete learning approach, which combines sensory and motor stimulation to activate intrinsic motivation by allowing children to dynamically interact with the content. The research findings support constructivist learning theory because students develop knowledge best through active construction instead of receiving information passively (Kasami, 2021; Lim et al., 2022).

The findings support the argument that digital kinetic stories transform learning spaces qualitatively because they activate emotional and behavioral responses in children, leading to both spontaneous and sustained engagement and increased learning motivation. Digital kinetic storytelling as an educational approach follows modern educational trends that promote active student participation over traditional memorization methods. The findings support previous research by Al-Barakat et al. (2025) that demonstrates how motor interaction increases motivation, while other studies (Aljuhani, 2023; Chen & Chuang, 2021; Girmen et al., 2019) have confirmed that interactive activities boost children's learning motivation.

This research on learning motivation through storytelling serves as a foundation for exploring its effects on vocabulary development and linguistic concept acquisition in early childhood education. The research demonstrates that digital kinetic stories boost linguistic comprehension because they present words and concepts through kinetic and visual elements, making language concrete and connected to children's sensory perceptions. The learning process becomes more effective through multisensory learning because students who use multiple senses during education demonstrate better memory retention and understanding.

The findings demonstrate that vocabulary learning becomes more effective when words are placed in meaningful contexts through engaging interconnected media, which helps children use language as a communication tool, instead of abstract symbols. The research supports contemporary language teaching methods that focus on real-life language use and validates the findings of Al-Barakat et al. (2025) regarding how visual-motor learning benefits vocabulary development. The research confirms contextual learning theory principles stating that children learn language better when vocabulary is presented in meaningful situations that relate to their context.

The research demonstrates how digital kinetic stories serve as an essential tool for developing children's listening abilities and comprehension skills. The digital

kinetic story learning environment combines visual and auditory components that help children link their auditory experiences to their visual perceptions, thus enhancing their understanding of the content. The active learning principles activate higher-order cognitive processes, including analysis, comparison, and interpretation, instead of passive reception. The findings explain that combining auditory and visual stimuli in a balanced way enhances understanding while supporting different learning approaches.

Nonetheless, a point of warning is that excessive use of effects might cause students to become distracted. The research findings match educational recommendations about multimedia teaching methods and support findings from Al-Hassan et al. (2025) that demonstrate the ability of multimedia to boost auditory and visual comprehension. The findings match the predictions of cognitive information processing theory because presenting information through multiple channels enhances its encoding, storage, and retrieval processes.

The research outlines the impact and advantages of using digital kinetic storytelling as a multifunctional educational technique that aids in the enhancement of oral expression skills in young learners. The findings suggest that children who have participated in storytelling sessions feel more confident in their language skills and are better able to articulate their thoughts and feelings. This is due to the holistic nature of the method, which incorporates language, movement, digital media, and multimedia teaching tools that are play-based, non-threatening, and support the gradual acquisition of language skills.

Digital kinetic storytelling helps foster a nurturing educational environment in which children feel safe to express themselves while cultivating linguistic self-confidence. This supports observational confidence and encourages personal expression. The results confirm modern educational concepts that support individual variation in language expression and active, student-driven instruction. Moreover, the findings support the conclusions reached by Al-Barakat et al. (2025) that interactive approaches facilitate children's language development in stimulating curricular contexts.

Vygotsky's socio-cognitive theory serves as a foundation for this research, especially in focusing on social interaction as communication in language learning and cognitive processes. Based on this view, digital kinetic storytelling is a mediating educational digital tool that aids a child's journey from actual to potential performance with guiding interactions from peers and teachers within rich narrated contexts, thus functioning within the zone of proximal development (Fraihat et al., 2022; Irshid et al., 2023).

In addition to developing language skills, the research also demonstrates how digital kinetic storytelling develops collective interaction skills within the classroom. It fosters sociocultural collaboration by placing children within narrated contexts that require cooperative problem-solving. Accordingly, stories serve as a means of social structure that cultivates constructive behavior and respect while nurturing engagement, which builds a positive classroom culture

and supports advanced social-emotional development. Furthermore, digital kinetic storytelling provides structured freedom, which allows educators to channel the designated groups toward specific learning and behavioral outcomes. These aligned purposes reflect contemporary collaborative learning theories focused on developing social-emotional skills while uniting academic and pedagogical priorities in a balanced framework (Al-Hassan et al., 2012; Al-Karasneh et al., 2025; Bataineh & Bataineh, 2024).

The findings are aligned with a number of modern educational theories, including Gardner's multiple intelligences theory, which advocates for diversified skill sets, such as the bodily-kinetic, linguistic, and visual-spatial intelligences. The findings are also in line with Bandura's social learning theory, which focuses on learning by looking, imitating, and engaging socially as active components in this interactive learning framework (AlAli & Al-Barakat, 2022). Moreover, the findings corroborate the study of Al-Karasneh et al. (2025), which explored group storytelling and its impact on social skills development. The study demonstrated that narrative interaction in groups teaches children cooperation, empathy, turn-taking, and perspective-taking.

To sum up, the contribution of this research goes beyond linguistics to construct a holistic educational framework geared toward movement, storytelling, technology, and social interactions in a modern learning context. It urges educators and educational decision-makers to consider this approach as a credible pedagogical strategy to aid in language acquisition, develop social skills, and encourage constructive interactions in the classroom.

6. Conclusions, Recommendations, Limitations, And Future Research Directions

This research sheds light on the integration of digital kinetic storytelling as an effective educational intervention for improving language skills among preschool children, making a noteworthy impact in the field of early childhood education. It was conducted in a particular setting in Irbid City in the north of Jordan and sought to understand kindergarten teachers' attitudes by means of semi-structured interviews, which are useful for accessing pedagogical experiences and providing rich interpretive analyses of fieldwork. This enabled capturing the genuine views of teachers regarding the use of digital kinetic storytelling within preschool settings, where creativity and a multi-sensory approach are indispensable.

The most significant impact of this research is in the revealing of digital kinetic storytelling as a pivotal force that can transform language teaching and learning to a much higher level through its incorporation of movement, talk, and interaction in a vibrant digital classroom. Analysis of interview data showed that this method not only fosters language skills but also helps in the social and emotional development of children by enabling them to express and interact actively. It also helps to build the theoretical framework regarding the sensory foundations of learning and affirm the active, constructivist approaches to education.

In addition, the research outlines specific considerations that may help shape educational policies and teaching frameworks in Jordan. One notable implication is the proposal to apply digital kinetic storytelling in kindergartens not just as play but fundamentally for language and communication skills development. The research goes on to suggest that teacher training programs need to prepare teachers to adapt to this approach, as well as to create culturally relevant digital stories that immerse children in rich, multidimensional learning experiences.

Moreover, the research emphasizes the need to foster collaboration between families and schools to facilitate the use of digital stories at home, thus providing children with a seamless linguistic continuum between school and home environments. The research also supports learning through play and other sensory and motor interactions because of their potential to foster curiosity, vocabulary, and understanding. These suggestions enable practitioners to rethink how learning can be designed by combining digital technologies with physical activity.

To enhance the practical relevance of digital storytelling, the research suggests incorporating structured classroom observations as well as surveys for teachers and parents to collect data concerning actual implementation practices and associated challenges and opportunities. The implementation of digital kinetic storytelling in education should be assessed through controlled research with a quasi-experimental design by comparing an experimental group that applies kinetic storytelling to a control group using traditional methods. This would allow for an empirical assessment of the effectiveness of the approach and contribute to building a broader evidence base for its national-level adoption.

This research serves as an important starting point for advancing language education practices in Jordanian kindergartens. It integrates cognitive, practical, and methodological dimensions and highlights the potential of digital kinetic stories as a comprehensive educational tool. The findings pave the way for the adoption of innovative, interactive, and technology-driven pedagogical practices that place children at the center of the learning process and support their holistic development in the 21st-century educational landscape.

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