THE INNOVATIVE PEDAGOGICAL APPROACHES & CHALLENGES IN THE EARLY CHILDHOOD EDUCATION: INSIGHTS FROM SAUDI ARABIA

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KEYWORDS	ABSTRACT
	Early childhood education is vital for children's foundational development. This study explores innovative pedagogical approaches in ECE settings in the Saudi Arabia, focusing on practices, challenges & strategies for improvement. Using thematic analysis of 60 semi-structured interviews with ECE teachers in Jeddah, key themes were identified like, play-based learning, technology integration, culturally responsive pedagogy, and collaborative learning. Play-based activities foster creativity & social skills; technology aids personalized learning & digital literacy; culturally reactive pedagogy supports inclusivity and identity formation; and collaborative learning enhances teamwork and communication skills. However, educators face challenges such as the limited resources, inadequate professional development, traditional cultural norms, & administrative constraints. Recommendations include increased resource investment, enhanced the professional development, community & parental engagement, flexible policies & the ongoing research. Therefore, addressing these challenges can foster environment conducive to educational innovation in Saudi Arabian ECE, contributing towards global discussions on effective educational practices.
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INTRODUCTION

Early childhood education has seen a paradigm shift in recent years, emphasizing innovative pedagogical approaches\ that cater to holistic development of young learners. This shift aligns with global recognition of critical importance of early childhood in shaping lifelong learning and development. As outlined by UNESCO (2021), early childhood is a key period that lays the foundation for cognitive, social, emotional development and thus, it necessitates innovative

and effective educational practices. One of the significant trends in ECE globally is integration of digital technologies to enhance learning experiences. Digital storytelling, for instance, has emerged as powerful tool that combines traditional storytelling with digital media, stimulating creativity and engagement among young children. This approach not only supports expansion of literacy skills but also enhances cognitive and social-emotional learning (Hinostroza, 2018). Additionally, use of gamification and e-learning in early childhood settings has been shown to improve engagement and motivation, providing playful yet educational diverse environment (Aldhilan, Rafiq & Afzal, 2024). For instance, the botSTEM framework integrates robotics into early childhood education, making abstract concepts tangible and understandable for young learners.

This approach is thus supported by research indicating that hands-on, inquiry-based learning activities significantly enhance young children's understanding and interest in STEM fields. Early Childhood Education (ECE) has been increasingly recognized globally as a critical phase in human development. Researchers and educators worldwide underscore its importance in laying foundation for lifelong learning & holistic development (UNESCO, 2022). The formative years of the child are key for cognitive, social, and emotional development, and quality early education can significantly influence future academic achievements, social outcomes (Gordon, Olsson & Brante, 2021). The innovations in pedagogical approaches within ECE are key as they respond to the evolving needs of societies and the dynamic nature of learning environments. Pedagogical innovation in ECE is a response to growing body of research highlighting the need for child-centered, play-based and inclusive education practices (Whitebread & Basilio, 2022). These approaches advocate for active learning environments as children can explore, create & interact in structured framework that promotes critical thinking (Hirsh, Zosh, Golinkoff, Gray & Kaufman, 2021). Globally, there is shift from traditional moral teaching method to interactive, technology-integrated, and culturally responsive pedagogies (Nuttall, Thomas & Henderson, 2021).

In both the global and Saudi contexts, several innovative pedagogical approaches have been identified as effective in early childhood education. Integrating digital media into storytelling activities enhances children's literacy skills and creativity. By using digital tools, educators can create interactive and engaging stories that capture children interest and imagination (Bavelier et al., 2010). Applying game-based elements in educational activities increases motivation and engagement. E-learning platforms offer personalized learning experiences, allowing children to learn at their own pace and according to their interests (Hamari et al., 2016; Rafiq, Kamran & Afzal, 2023). Early exposure to STEM concepts through hands-on activities and inquiry-based learning stimulates critical thinking and problem-solving skills. The programs like botSTEM, which integrate robotics into early education, provide young learners with the practical and engaging STEM experiences, enhances social skills, creativity, problem-solving abilities, and cognitive development and tThis approach fosters curiosity and critical thinking. (Greca et al., 2020). Creating inclusive classroom environments support all learners, including those with special needs, is key for equitable education. High-quality teacher-child relations and tailored

support systems are vital components of inclusive education (Hamre, 2014; Alzahrani & Ward, 2021).

The technology integration in ECE has been a significant focus of innovation. Digital tools and educational technologies are being increasingly incorporated into early learning environments to enhance engagement and personalize learning experiences (Neumann & Neumann, 2021; Rafiq, Iqbal & Afzal, 2024). Innovative pedagogical approaches in early childhood education (ECE) focus on enhancing children's learning experiences by incorporating modern techniques and understanding the unique needs of young learners. The COVID-19 pandemic has further accelerated this trend, highlighting the necessity of digital literacy and potential of technology to bridge educational gaps (Dong et al., 2022). However, the effective use of technology in ECE requires thoughtful implementation to ensure it complements rather than replaces traditional, hands-on learning experiences (Petersen et al., 2021). Innovative pedagogical approaches also emphasize the importance of socio-cultural relevance and inclusivity. Culturally responsive teaching recognizes the diverse backgrounds of the learners and integrates cultural knowledge into the curriculum (Gay, 2022). The inclusive education ensures that children with the varying abilities and backgrounds have identical access to learning opportunities (Florian, 2021). These approaches promote equity and stimulate environments where all the children feel valued and supported.

Saudi Arabian Context

In Saudi Arabia, the education sector is undergoing significant reforms as part of Vision 2030, which aims to transform various aspects of Saudi society, including education. The Ministry of Education has been actively working to modernize the curriculum and incorporate innovative pedagogical approaches in early childhood education. This transformation is driven by the recognition that early childhood education is essential for national development and the future workforce. One of the prime focuses in Saudi Arabia has been the integration of technology in classrooms. The adoption of digital tools in early childhood settings is seen as a way to bridge the gap between traditional and modern education systems. The research conducted in Saudi classrooms indicates that the use of interactive whiteboards, tablets, and educational apps has positively impacted the children's learning experiences, making lessons more engaging and interactive (Almalki, 2021). Additionally, there is a growing emphasis on inclusive education in Saudi Arabia, aligning with global trends. The inclusive education ensures that all children, regardless of their abilities or backgrounds, have access to quality education. Studies highlight the importance of the teacher-child interactions in stimulating an inclusive diverse classroom environment.

High-quality interactions characterized by sensitivity and responsiveness are key for the social and academic development of all children, particularly those with special needs (Hamre, 2014). In Saudi Arabia, initiatives to train teachers in inclusive education practices are underway, aiming to create more supportive and inclusive early childhood settings (Alzahrani & Ward, 2021). Now, ECE in Saudi Arabia is undergoing a transformation driven by both governmental initiatives and private sector involvement. The Ministry of Education has implemented several

programs to enhance the quality of early education, including the growth, development of new curricula, teacher training programs, and the establishment of state-of-the-art early learning centers (Ministry of Education, 2022). Thus, implementing innovative pedagogical approaches in the early childhood education can significantly enhance the children's learning experiences. However, addressing the associated challenges requires a collaborative effort from educators, parents, policymakers, and the community. These efforts aim to provide the stimulating and supportive environment for young learners, stimulating creativity, critical thinking, and social skills.

Research Questions
1. What are key innovative pedagogical approaches being implemented in early childhood education in Saudi Arabia?
2. What challenges do educators face in adopting and integrating these approaches in their teaching practices?
3. How can these challenges be mitigated to enhance efficacy of early childhood education in Saudi Arabia?

LITERATURE REVIEW
Early childhood education is a critical stage in children's development, laying the foundation for lifelong learning and growth. Innovative pedagogical approaches have increasingly been recognized for their potential to enhance ECE quality by stimulating the holistic development, creativity, and critical thinking (Edwards, 2021). Globally, the educators are exploring methods like play-based learning, technology addition, culturally responsive pedagogy & collaborative learning to improve educational outcomes. These approaches aim to create engaging and effective learning environments that cater to the diverse needs of young learners (Miller, 2022). Play-based learning is regarded as fundamental approach in ECE, supporting cognitive, social, and emotional development. Research shows that play allows children to explore, experiment, and understand the world around them in a natural and engaging way. Play-based activities promote creativity, problem-solving skills, and social interactions are vital for holistic growth (Fleer, 2021). The studies in many countries have shown that children engaged in play-based learning exhibit better academic and social outcomes compared to those in more traditional, moral settings (Pyle & Danniels, 2021). Technology integration in ECE has gained significant attention as a means to modernize teaching practices and meet the needs of the 21st-century learners.

Thus, digital tools and educational software can create interactive and personalized learning experiences that cater to individual learning styles and paces. Research shows that technology in ECE enhances children digital literacy and prepares them for future technological progresses (Neumann, 2022). However, it is essential to balance screen time with traditional play to ensure a holistic developmental experience (Donohue & Schomburg, 2021). The culturally responsive pedagogy emphasizes the inclusion of the cultural references in all aspects of learning to make education more relevant and effective for the students. This approach is key in diverse societies where acknowledging and valuing cultural diversity can enhance student engagement and

learning outcomes (Gay, 2021). The educators who implement culturally responsive teaching practices help the students develop a positive cultural identity and respect for other cultures, which is vital in today's globalized world (Paris & Alim, 2022). Collaborative learning involves students working together to solve problems, complete tasks, or create projects, stimulating the sense of community & cooperation. This approach aligns with Vygotsky sociocultural theory, posits that social interaction plays a fundamental role in the cognitive development (Vygotsky, 1978).

The collaborative learning has been shown to improve communication skills, enhance critical thinking, and promote the deeper understanding of subject matter (Johnson & Johnson, 2021). Despite the benefits, the educators face several challenges in implementing these innovative approaches globally. One of primary challenges is lack of suitable resources and infrastructure. Many schools face shortages in educational materials, modern technology & suitable physical spaces, which are essential for implementing new teaching methods (Moss, 2022; Rafiq et al., 2024). This limitation hinders the ability of educators to create engaging and effective learning settings. Addressing this challenge needs significant investment in educational infrastructure and materials. Providing schools with modern classrooms, digital technologies, and adequate teaching resources can create an environment conducive to innovative pedagogical approaches (UNESCO, 2022). Continuous professional development is key for educators to stay updated with new pedagogical theories and practices. There is a significant need for comprehensive training programs that equip teachers with the necessary skills and knowledge to implement innovative approaches. Developing and implementing continuous professional development programs is essential for equipping teachers with necessary skills and knowledge (Rafiq et al., 2024).

These programs should include the training workshops, certification courses and collaborative learning opportunities to ensure that educators are well-prepared to adopt and integrate new teaching methods (Darling et al., 2020). Traditional cultural and societal expectations can pose significant barriers to adoption of innovative pedagogical practices. There is often a disconnect between modern, child-centered teaching methods and conventional educational expectations from parents and the community. Educators must navigate these cultural dynamics carefully to ensure the successful implementation of new approaches (Gupta, 2021). Engaging parents through workshops and informational sessions can help align educational practices with the cultural values and gain community support (López et al., 2022). Systemic barriers within the educational system, such as rigid administrative policies and standardized curricula, can limit the flexibility and autonomy of teachers in adopting innovative practices. These constraints stifle creativity and hinder the ability of educators to tailor their teaching methods to meet the diverse needs of their students. In this connection, advocating for policy changes that provide teachers with more autonomy and flexibility is key for overcoming systemic barriers (Sahlberg, 2021).

Supportive policies and administrative backing can empower educators to experiment with new methods and tailor their teaching practices to meet diverse needs of their students (Fullan, 2022). Overall, innovative pedagogical approaches in ECE have the potential to significantly

enhance the quality of education and support the holistic development of children. Globally, adopting these approaches requires addressing challenges related to resources, professional development, cultural expectations, & administrative constraints. The innovative pedagogical approaches in the   early childhood education aim to foster the holistic development of young children by integrating various methods and strategies that cater to their cognitive, emotional, social, and physical needs. By increasing investment in the education infrastructure, providing comprehensive inclusive professional development, engaging the community, and advocating for supportive policies, educators can create a more dynamic and effective ECE environment. This review underscores the importance of the context-sensitive educational strategies and the need for ongoing research to evaluate the impact of innovative practices on children's learning outcomes.

RESEARCH METHODOLOGY

This study adopts a qualitative research paradigm, which is particularly suited for exploring complex phenomena within their natural settings (Creswell, 2013). Qualitative research allows for an in-depth understanding of participants' experiences, perceptions, and contexts, which is essential for examining the innovative pedagogical approaches in early childhood education (ECE) in Saudi Arabia. This paradigm is chosen because it facilitates the exploration of the subjective and socially constructed nature of educational practices and the cultural nuances that influence them (Denzin & Lincoln, 2018).

Research Design & Method

The research employs a case study design, which is the qualitative approach that involves an in-depth, contextual analysis of a specific phenomenon within its real-life context (Yin, 2018). This design is appropriate for investigating the innovative pedagogical approaches used by ECE teachers in Jeddah, Saudi Arabia, as it allows for a detailed examination of practices and experiences within the unique cultural and educational context of the region. The case study method enables the researcher to collect rich, contextual data through multiple sources of evidence, providing a comprehensive understanding of the phenomenon (Merriam & Tisdell, 2015).

Population & Sampling

The population for this study comprises all early childhood education teachers working in schools in Jeddah, Saudi Arabia. A purposive sampling technique was employed to select participants who have relevant experience and knowledge about the innovative pedagogical approaches being studied (Patton, 2015). This non-probability sampling ensures that selected participants can provide in-depth information that is key for understanding research problem. The researcher conducted 60 interviews with ECE teachers, achieving data saturation after 55 interviews but current to 60 to ensure diligence & confirm findings (Guest, Bunce, & Johnson, 2006).

Data Collection & Analysis

Data collection was conducted through semi-structured interviews, which allow for flexibility in exploring the participants' experiences while maintaining a focus on the research questions

(Kvale & Brinkmann, 2015). The interviews were designed to elicit detailed information about the teachers' pedagogical practices, challenges they face, and cultural factors influencing their approaches. Each interview lasted approximately 45 to 60 minutes and was recorded with the participant consent. Interviews were transcribed verbatim to ensure accuracy in data analysis. Thematic analysis was used to analyze interview data, following plans proposed by Braun and Clarke (2006). This method involves finding, analyzing, and reporting patterns (themes) within data.

The analysis process included several steps: familiarization with data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the final report. This systematic approach ensures that the findings are grounded in the data and that the themes accurately reflect participants' perspectives and experiences. Ethical considerations are paramount in qualitative research to protect the rights and well-being of participants (Orb, Eisenhauer, & Wynaden, 2001). The study adhered to ethical guidelines by obtaining informed consent from all participants, ensuring their participation was voluntary, and allowing them to withdraw at any time without any consequences. Participants were assured of confidentiality, with aliases used to protect their identities. research protocol was reviewed and approved by an ethics committee to ensure that it met all ethical standards and that the rights and welfare of the participants were safeguarded throughout the research process (Hammersley & Traianou, 2012).

THEMATIC ANALYSIS

Themes from RQ: Key innovative pedagogical approaches in early childhood education in Saudi Arabia

Play-Based Learning
This theme highlights the importance of play as a natural and effective way for young children to learn. Through play-based learning, children can develop critical cognitive and social skills in the stress-free environment. This approach is widely implemented in Saudi Arabian ECE settings, where teachers create rich play practices that promote active learning & engagement. Play-based learning is a initial innovative pedagogical approach in early childhood education, emphasizing role of play in children's cognitive, social, and emotional development. In Saudi Arabia, this approach is adopted to create engaging, interactive learning environments where children explore, experiment and learn through play. Teachers design activities that encourage creativity, and problem-solving, among children. Classrooms might be equipped with various play stations like role-playing corners, building blocks & art supplies that inspire imagination and allow children to learn through discovery & hands-on experiences. Through play, children not only enjoy their time in the classroom but also develop essential skills such as teamwork, critical thinking, and creativity. It makes learning a fun and effective process." – ECE Teacher, Jeddah

Integration of Technology
Technology integration in ECE represents a shift towards modernizing educational practices to meet the needs of 21st-century learner. In Saudi Arabia, use of digital tools in early childhood

classrooms helps to create th interactive and personalized learning experiences. This approach supports differentiated instruction and helps children develop essential digital skills from an early age. The integration of technology in the early childhood education is another significant innovative approach. This includes use of digital tools and educational apps to boost learning experiences and support interactive teaching methods. In Saudi Arabian ECE settings, teachers use tablets, interactive whiteboards, and educational software to introduce concepts in a dynamic and engaging manner. Technology enables personalized learning, where educational content can be tailored to meet the individual needs of each child. It provides opportunities for children to develop digital literacy skills from an early age, which is key in today digital world. Technology has transformed our classrooms. Interactive apps and digital tools make lessons more engaging and help us cater to the individual learning pace of each child." – ECE Teacher, Jeddah.

Culturally Responsive Pedagogy

Recognizing and valuing cultural diversity in education is key for stimulating an inclusive and respectful learning environment. In the Saudi context, culturally responsive pedagogy ensures that curriculum reflects the students' cultural backgrounds, which enhances their connection to the content and promotes cultural pride. This approach also helps children develop a strong sense of identity and belonging. Culturally responsive pedagogy is key in Saudi Arabian early childhood education, given the importance of preserving and promoting cultural values and traditions. This tactic involves integrating elements of Saudi culture, language, and traditions into curriculum and teaching practices. Teachers use stories, songs, and activities that reflect the local culture to create a sense of belonging and identity among children. This method not only stimulates the cultural awareness and pride but also makes learning more relevant and meaningful for children. Incorporating our culture into the lessons helps children connect with their heritage and makes learning more meaningful and enjoyable for them." – ECE Teacher, Jeddah.

Collaborative Learning

Emphasizing collaboration and teamwork, this theme underscores the importance of the social interactions in early childhood education. The collaborative learning activities in Saudi ECE settings help children develop interpersonal skills and the sense of community. This approach aligns with Vygotsky theories and supports development of cognitive and social competencies through peer interactions and cooperative learning experiences. Collaborative learning is an innovative pedagogical approach that emphasizes the importance of social interactions and teamwork in learning process. In Saudi Arabian ECE classrooms, teachers encourage children to work together on projects, engage in group discussions, and participate in the cooperative games. This approach helps develop the social skills, communication abilities, and a sense of community among children. It aligns with Vygotsky's Sociocultural Theory, which highlights the role of social interactions in cognitive development. Collaborative learning activities are designed to stimulate a supportive and inclusive classroom environment where children learn from each other. Group activities and projects teach children how to communicate, cooperate,

and solve problems together that are vital skills for their overall development." – ECE Teacher, Jeddah.

Table 1

Themes Extracted from Interviews Relation to Research Question 1

Coding Subthemes	Sub-Codes	Themes
Imagination	Role-playing, Storytelling	Play-Based Learning
Creativity	Art activities, Music Exploration	
Social Skills	Sharing, Turn-taking	
Engagement	Active participation, Exploration	
Problem-Solving	Puzzle-solving, Critical thinking	
Digital Tools	Tablets, Interactive whiteboards	Integration of Technology
Educational Apps	Learning games, Language apps	
Personalized Learning	Adaptive learning, Individual pace	
Digital Literacy	Coding basics, Internet safety	
Interactive Teaching Met	Virtual simulations, Online quizzes	
Cultural Identity	Language use, Traditional stories	Culturally Responsive Pedagogy
Cultural Awareness	Festivals, Cultural celebrations	
Inclusivity	Respect for diversity, Equity	
Language Integration	Bilingual education, Language skills	
Heritage Preservation	Folklore, Historical narratives	
Teamwork	Group projects, Cooperative games	Collaborative Learning
Peer Interaction	Discussion groups, Peer teaching	
Social Competencies	Conflict resolution, Leadership	
Vygotsky's Theory	Zone of proximal dev, Scaffolding	

Themes from RQ: Challenges educators faced in adopting & integrating innovative pedagogical approaches

Limited Resources & Infrastructure

This theme highlights critical issue of resource scarcity in many Saudi Arabian ECE settings. Without adequate materials, technology, and suitable physical spaces, teachers are unable to effectively implement innovative pedagogical approaches. Addressing this challenge requires significant investment in educational infrastructure and resources to provide teachers with the necessary tools to enhance their teaching practices. One of primary challenges educators face in adopting innovative pedagogical approaches in the early childhood education (ECE) in Saudi Arabia is the limited resources and infrastructure. Many schools lack the necessary materials, technology and physical spaces conducive to implementing the approaches such as play-based learning and technology integration. This limitation hinders teachers' ability to create engaging and interactive learning settings. Schools may struggle with outdated facilities, insufficient educational tools, and limited access to digital technologies, which are essential for modern pedagogical methods. Our biggest challenge is lack of resources. We have no enough materials or the latest technology to implement these innovative approaches effectively." – ECE Teacher, Jeddah.

Insufficient Professional Development & Training

The continuous professional development is essential for educators to stay updated with new pedagogical theories and practices. Lack of sufficient training opportunities in Saudi Arabia means that many ECE teachers are not equipped with the knowledge needed to implement the innovative approaches. Thus, this theme underscores the need for comprehensive and ongoing professional development programs to support teachers in their professional growth and the adoption of new methods. Another significant challenge is the lack of adequate professional development and training for educators. Implementing innovative pedagogical approaches requires teachers to possess deep understanding of these methods and the skills to apply them effectively in the classroom. In Saudi Arabia, many ECE teachers have limited opportunities for continuous professional development, which affects their ability to stay updated with the latest educational practices and theories. The absence of the comprehensive training programs makes it difficult for teachers to confidently adopt and integrate the new approaches into their teaching. We need more professional development opportunities. Without proper training, it's challenging to understand and apply the original teaching methods effectively. – ECE Teacher, Jeddah.

Cultural & Societal Expectations

The integration of innovative pedagogical approaches can be hindered by traditional cultural & societal views on education. In Saudi Arabia, there can be disconnect between modern child-centered methods and conventional expectations from parents and the community. Educators must navigate these cultural dynamics carefully, advocating for methods that benefit children holistic development while respecting societal norms. The cultural & societal expectations can pose challenges for educators attempting to implement innovative pedagogical approaches. In Saudi Arabia, traditional views on education and societal expectations can sometimes conflict with modern, child-centered teaching methods. Parents and the broader community may have reservations about approaches like play-based learning, viewing them as less rigorous/serious compared to conventional methods. Educators often find themselves balancing these prospects with the need to adopt practices that promote holistic child development. There is often a clash between traditional expectations and modern teaching methods. Many parents still prefer conventional approaches, makes it difficult for us to introduce new pedagogies." ECE Teacher, Jeddah.

Administrative & Policy Constraints

This theme addresses the systemic barriers within the educational system that can limit the adoption of innovative teaching applies. Rigid administrative policies, standardized curricula and emphasis on testing can restrict the teachers' ability to experiment with new methods. To overcome these challenges, there is need for more flexible and supportive educational policies that encourage innovation and provide teachers with the autonomy to implement the effective pedagogical strategies. Administrative and policy constraints are another significant barrier to adoption of innovative pedagogical approaches. Education policies and school administration play key role in shaping teaching practices. In some cases, rigid curricula, standardized testing, and strict administrative guidelines limit teacher flexibility to implement new methods. These

constraints stifle creativity and innovation in classroom, making it challenging for educators to adopt practices that stimulate critical thinking, creativity, and active learning among children. Administrative policies can be very restrictive. We need more flexibility and support from the administration to try out the novel teaching methods and make them work." – ECE Teacher, Jeddah.

Table 2

Themes Extracted from Interviews Relation to Research Question 2

Coding Subthemes	Sub-Codes	Themes
Educational Materials	Lack of materials, Outdated resources	R & I
Technology	Lack of digital tools, Limited access	
Physical Space	Inadequate facilities, Space constraints	
Funding	Budget constraints, Financial limitations	
Equipment	Insufficient equipment, Old technology	
Professional Development	Training opportunities, Workshops	Insufficient PDT
Skills Enhancement	Pedagogical skills, Methodology training	
Knowledge Acquisition	Educational theories, New practices	
Continuous Learning	Lifelong learning, Skill enhancement	
Support Systems	Mentorship, Coaching	
Traditional Views	Conventional methods, Academic rigor	CS Expectation
Parental Expectations	Academic achievement, Examination focus	
Community Perspectives	Cultural norms, Societal values	
Educational Philosophy	Child-centered approach, Holistic education	
Language and Communication	Communication barriers, Language use	
Educational Policies	Standardized curriculum, Testing emphasis	AP Constraints
Administrative Guidelines	Policy restrictions, Bureaucratic hurdles	
Autonomy	Teacher freedom, Decision-making	
Flexibility	Policy adaptation, Curriculum flexibility	
Accountability	Performance metrics, Assessment criteria	

Themes from RQ: Mitigating challenges to enhance use of early childhood education in Saudi Arabia

Increased Investment in Educational Resources & Infrastructure
This theme underscores need for financial investments to improve physical and technological infrastructure of ECE settings in the Saudi Arabia. By providing modern classrooms equipped with necessary resources, teachers can better implement innovative pedagogical approaches. This investment is key for creating an environment that stimulates the active and experiential learning. To address the challenge of limited resources and infrastructure, there needs to be a significant increase in investment in educational resources and facilities. In this linking, this includes providing schools with the modern teaching materials, digital technologies, and well-equipped physical spaces that support innovative pedagogical approaches. Government and private sector funding can be directed towards upgrading classrooms, purchasing educational technology, and creating environments conducive to play-based and experiential learning. Such investments would enable teachers to implement a wider range of the teaching methods

effectively. With better funding, we could convert our classrooms into vibrant learning spaces filled with the resources needed to support innovative teaching approaches." – ECE Teacher, Jeddah.

Comprehensive Professional Development Programs

The ongoing professional development is essential for teachers to stay updated with the latest educational practices and effectively integrate new approaches into their teaching. This theme highlights the importance of continuous learning opportunities for educators, enabling them to develop skills needed to implement innovative pedagogies and enhance quality of education they provide. Developing and implementing inclusive professional development programs is key for equipping the teachers with the skills and knowledge necessary to adopt innovative pedagogical approaches. These programs include the ongoing training workshop, certification courses, and opportunities for teachers to engage in the collaborative learning communities. Professional development should focus on modern educational theories, practical strategies for integrating new approaches, and the use of digital tools in the classroom. By empowering the teachers over continuous learning, the quality of early childhood education can be significantly enhanced. Regular training and professional development sessions are essential. They help us stay updated and confident in applying new teaching methods effectively." – ECE Teacher, Jeddah.

Stimulating Community & Parental Engagement

Building strong relationships with parents and the community is vital for successful adoption of innovative pedagogical approaches. This theme emphasizes need for educators to engage parents and community members in the educational process, providing them with information opportunities to participate in classroom activities. Such engagement helps align educational practices with cultural values and ensures community support for new methods. Engaging the community and parents in educational process help mitigate cultural and societal challenges. Educators can organize workshops, informational sessions, open houses to educate parents about benefits of innovative pedagogical approaches. By demonstrating how these methods support children's development and align with cultural values, teachers can build trust and support among parents. Also, involving parents in classroom activities and decision-making processes can stimulate a joint environment that enhances the effectiveness of early childhood education. When the parents support our teaching methods, it makes a huge difference. Their involvement is the key for success of innovative approaches in our classrooms." – ECE Teacher, Jeddah.

Policy Reforms and Administrative Support

This theme focuses on the need for supportive policies and administrative backing to facilitate the adoption of innovative teaching practices. By advocating for policy changes that provide teachers with more autonomy and flexibility, and by securing administrative support for new approaches, educators can overcome systemic barriers and create more effective and dynamic ECE environments. Advocating for policy reforms and gaining administrative support are vital steps in overcoming systemic barriers to innovation in education. The policymakers and school administrators should be encouraged to adopt the flexible curricula, reduce the emphasis on

standardized testing, create policies that support teacher autonomy and creativity. Providing teachers with the freedom to experiment with new methods and tailoring educational practices to meet the needs of their students can lead to more effective and dynamic early childhood education. Policy reforms should also include increased funding for professional development and resources. "Supportive policies and flexible curricula are key. When administration backs us up, it empowers us to try new approaches & improve our teaching practices." ECE Teacher, Jeddah.

Table 3

Themes Extracted from Interviews Relation to Research Question 3

Coding	Sub-Codes	Themes
Financial Investment	Funding allocation, Budget planning	Increased Investment in Educational Resources and Infrastructure
Physical Infrastructure	Classroom upgrades, Facility improvement	
Technological Resources	Digital tools, Educational technology	
Learning Environment	Play-based facilities, Experiential learning	
Resource Accessibility	Equipment availability, Resource distribution	
Ongoing Training	Workshops, Certification courses	Comprehensive Professional Development Programs
Skill Development	Pedagogical skills, Teaching strategies	
Knowledge Enhancement	Educational theories, Modern practices	
Collaborative Learning	Professional communities, Peer support	
Digital Literacy	Technology integration, Digital skills	
Parental Involvement	Workshops for parents, Parental education	Stimulating Community and Parental Engagement
Community Outreach	Open houses, Community workshops	
Cultural Alignment	Values integration, Cultural Awareness	
Supportive Relationships	Trust-building, Collaboration	
Educational Advocacy	Promoting benefits, Engaging stakeholders	
Advocacy for Change	Policy advocacy, Educational reforms	Policy Reforms and Administrative Support
Administrative Backing	Supportive leadership, Policy endorsement	
Autonomy	Teacher empowerment, Decision-making	

Flexibility	Curriculum adaptation, Policy flexibility
Resource Allocation	Funding allocation, Resource management

DISCUSSION

This study explores the key innovative pedagogical approaches being implemented in early childhood education (ECE) in Saudi Arabia, the challenges educators face in adopting these approaches, and potential strategies to mitigate these challenges. The findings highlight the importance of play-based learning, integration of technology, culturally responsive pedagogy, and collaborative learning. Still, educators encounter significant barriers, including limited resources, insufficient professional development, cultural expectations, and administrative constraints. Addressing these challenges through increased investment, professional progress, community engagement, and policy reforms can enhance effectiveness of ECE in Saudi Arabia. The study identifies four primary innovative pedagogical approaches: play-based learning, integration of technology, culturally responsive pedagogy, and collaborative learning. These approaches align with global trends in ECE, which emphasize active, experiential & inclusive learning environments (Edwards, Gandini, & Forman, 2012). The emphasis on play-based learning is consistent with research indicating that play is key for cognitive, social, emotional development (Bodrova & Leong, 2019). The integration of technology reflects the increasing recognition of digital literacy as an essential skill in the 21st century (Plowman & McPake, 2013).

Educators in Saudi Arabia face several challenges in adopting these innovative approaches. Limited resources and infrastructure are significant barriers, echoing findings from previous studies that highlight the impact of resource constraints on the implementation of modern educational practices (OECD, 2015). Lack of adequate professional development opportunities further complicates this issue. Similar challenges have been reported in other contexts, where teachers' effectiveness in adopting new pedagogies is hindered by insufficient training (Fullan, 2007). Cultural and societal expectations pose challenges, particularly in regions with strong traditional educational values. This finding is consistent with research indicating that societal norms and parental expectations can influence adoption of child-centered pedagogies (Reyes, 2019). Administrative and policy constraints further exacerbate these issues, as rigid curricula and an emphasis on standardized testing limit teachers' flexibility to innovate (Darling et al., 2017). To mitigate these challenges, study suggests several strategies. Increased investment in educational resources and infrastructure is critical. This approval aligns with global initiatives that emphasize the need for substantial funding to support educational innovations (UNESCO, 2017).

Comprehensive professional development programs are also essential. Effective professional development is shown to improve the teachers' instructional practices and student outcomes (Desimone & Garet, 2015). Engaging the community and parents can help align educational practices with the cultural values, stimulating greater acceptance and support for innovative approaches. This strategy is supported by research indicating that parental involvement and

community engagement enhance effectiveness of educational reforms (Epstein, 2018). Finally, policy reforms and administrative support are key for creating an enabling environment for innovation. Flexible curricula and supportive policies can empower teachers to adopt and sustain new pedagogical practices (Hargreaves & Fullan, 2012). The findings of this study are consistent with previous research on innovative pedagogical approaches in ECE. Importance of the play-based learning, technology integration, and culturally responsive pedagogy is well-documented in literature (Fleer, 2010; Edwards, 2017). For example, Fleer (2010) emphasizes the role of play in early childhood education, while Edwards (2017) discusses impact of digital technologies on young children's learning experiences. Reyes (2019) and Darling et al. (2017) discuss influence of cultural expectations and policy constraints on adoption of new teaching practices.

CONCLUSION

This study has researched the innovative pedagogical approaches in early childhood education (ECE) in Saudi Arabia, shedding light on current practices, challenges faced by educators, and potential strategies to enhance approaches' effectiveness. By examining key methods such as play-based learning, technology integration, culturally responsive pedagogy, and collaborative learning, research underscores the importance of adopting modern, child-centered educational practices to stimulate holistic development in young learners. The research identified several innovative pedagogical approaches beginning to take root in the Saudi Arabian ECE settings. Play-based learning is key for cognitive and social development, allowing children to learn through interactive and engaging activities. Integration of technology in classrooms supports personalized learning, helps children develop vital 21st-century skills. Culturally responsive pedagogy ensures that educational practices are aligned with local cultural values, stimulating a sense of identity and belonging among children. The policy reforms are key for creating an enabling environment for innovation. Flexible curricula and supportive policies can empower teachers to experiment with new methods & tailor educational practices to meet needs of their students

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