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Nature's Classroom: Outdoor Learning in Early Childhood

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Capstone Project: A School Improvement Plan

Northwestern College, Orange City, Iowa

Abstract

This paper presents a school improvement plan for the Elk River School District focusing on enhancing family and community engagement through nature play in early childhood education. The needs assessment identified a gap in family involvement and outreach and a lack of outdoor play opportunities for early childhood students and their families. Extensive research underscores the benefits of integrating nature play into early childhood education, revealing its profound impact on cognitive, emotional, social, and physical development. A comprehensive plan to bridge the gap between research evidence and practical implementation of nature play in early childhood education is proposed. The plan includes professional development for educators, educational and interactive bulletin boards in community meeting areas, and outdoor parent-child classes. The plan aims to increase family engagement and support child development outcomes by offering nature-based play opportunities and education. Ultimately, the goal is to foster a more inclusive and supportive environment within the district, promoting a deeper connection to nature among students and families.

Keywords: family engagement, nature play, early childhood education, outdoor education

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Nature's Classroom: Outdoor Learning in Early Childhood

A growing body of research underscores the developmental benefits of outdoor experiences for young children. Studies have consistently shown that exposure to nature fosters cognitive, emotional, and physical well-being in early learners (Brussoni et al., 2015; Carr et al., 2017; Chawla et al., 2014; Ernst & Burcak, 2019; Kiviranta et al., 2023; Wood & Smyth, 2019). This insight challenges traditional notions of learning confined within four walls and highlights the importance of integrating natural environments into educational settings. Recently, there has been a strong interest in nature preschools and outdoor learning in early childhood (Dankiw et al., 2023). Yet, despite the overwhelming benefits of outdoor learning experiences, the amount of time children spend learning and playing outdoors is decreasing (Ernst & Burcak, 2019). Teachers lack adequate resources and training to provide outdoor education and feel pressured to provide more direct academic instruction which results in reduced time for outdoor play and exploration (Miller et al., 2022). Families have encountered a societal shift in modern childhood, marked by increased screen time and limited exposure to nature, which reinforces the urgency of incorporating outdoor learning in early childhood. The problem is a gap in the recognized benefits of nature play and its practical application in early childhood programs for our youngest students and their families.

This school improvement plan aims to provide a comprehensive strategy to promote the importance of nature play in early childhood within the context of the Elk River School District's early childhood program. This plan aims to increase the usage of outdoor play and the exploration of nature by creating easy-to-use nature-based activities for young students and their families along with nature play education for parents and staff. Currently, the Early Childhood Family Education (ECFE) program at Elk River School District lacks any formal outdoor parent

and child classes. This school improvement plan will present engaging outdoor learning experiences for families and will provide extensive education on the benefits of nature play for staff and families.

Research for this literature review used Google Scholar and the DeWitt Library at Northwestern College to collect peer-reviewed scholarly articles all published within the last ten years. The author focused on finding articles addressing the benefits of nature education and the barriers that teachers and families face when trying to increase outdoor learning time. The author included studies on young children in the early childhood age of development, as Elk River ECFE provides education for families with children between the ages of birth and 5 years of age.

The exploration of outdoor play and learning in early childhood education suggests that three main areas of research contribute significantly to the overall enrichment of children's experiences. These focal areas encompass cognitive, social-emotional, and physical benefits associated with nature-based education (Ernst & Burcak, 2019; Lundy & Trawick-Smith, 2020). The premise is that when educators strategically incorporate outdoor learning experiences and actively involve families, young learners will benefit. By immersing children in nature-rich activities, educators can tap into research-based best practices that align with the holistic development of cognitive abilities, social-emotional well-being, and physical health. The belief underlying this comprehensive approach is that a concerted effort to integrate outdoor play and learning will not only enhance the educational journey of early learners but also establish a foundation for lifelong learning and well-being.

There are four key themes in this literature review. The first section will explore the positive impact on cognitive development and physical health. Readers will understand the holistic advantages of nature-based experiences for early childhood students. The second section

will focus on the psychological benefits of outdoor experiences by examining the contributions to mental health and self-emotional well-being in children. The next section will explore the benefits of outdoor experiences on parent and child relationships. The final section will delve into the barriers to effective outdoor education implementation.

Review of the Literature

Positive Impact on Cognitive and Physical Development

Research conducted by Brussoni et al. (2015) examined the relationship between risky outdoor play and the health of children. This study explored the benefits and risks associated with adventurous outdoor play. The research question that drove this systematic review focused on understanding the impact of outdoor play on children's health. The research critically evaluated 18 studies involving a diverse participant pool of 50,000 children aged three to 13 across eight countries, utilizing a mixed-methods approach. The findings of the systematic review indicated overwhelmingly favorable results for adventurous outdoor play. Outdoor risky play positively influenced various aspects of children's well-being, including increased physical activity, social health, positive behaviors, and a decrease in sedentary behavior (Brussoni et al., 2015). Notably, engaging in adventurous outdoor play that involves the risk of getting lost showed positive outcomes in seven out of eight studies, highlighting its potential to enhance physical activity and social health. The nature of this research challenged preconceived notions about the potential risks associated with adventurous outdoor play and added depth to the conversation on promoting healthy outdoor activities for children.

Similar results were found in a research study conducted by Ernst and Burcak (2019) that revealed compelling evidence supporting the positive impact of extended periods of unstructured play in outdoor natural settings. In this quantitative study, 78 children from four nature preschools and 14 children from non-nature preschools participated. It emphasized the understanding of the broader implications of nature play on development. The research utilized a mixed-methods approach, with nature preschools emphasizing child-directed outdoor play and non-nature preschools focusing on indoor play supplemented by limited outdoor time. Nature play is associated with the development of important dispositions and skills related to

sustainability, including initiative, persistence, curiosity, and creative thinking (Ernst & Burcak, 2019). Moreover, children engaging in nature play demonstrated executive function skills at rates exceeding national norms, comparable to high-quality non-nature preschools (Ernst & Burcak, 2019). The study underscores the critical factors nurtured by nature play, emphasizing the importance of integrating this approach into early childhood education for healthy brain development and overall health.

In addition, the studies conducted by Lundy and Trawick-Smith (2020) and Carr et al. (2017) also contribute valuable insights into the positive impact of outdoor play on children's cognitive and physical development, emphasizing aspects related to on-task behavior and executive function, respectively. Lundy and Trawick-Smith's (2020) quantitative study, focused on the effects of active outdoor play on preschool children's on-task classroom behavior. The study, conducted in two preschool classrooms, revealed that engaging in active play on the playground before a learning experience resulted in greater on-task behavior, particularly for boys and children from low socioeconomic backgrounds (Lundy & Trawick-Smith, 2020). This finding aligns with the notion that even brief periods of outdoor play can enhance learning-related abilities.

Carr et al.'s (2017) qualitative study investigated the development of executive function in preschoolers through engagement in well-designed nature playscapes. The study, involving 65 preschool-aged children from urban areas, focused on playscapes intentionally designed to provide opportunities for goal-directed problem-solving and executive function behaviors (Carr et al., 2017). The results indicated that preschoolers engaging in free play in well-designed natural environments demonstrated the use of specific components of executive function, including inhibitory control, initiation, flexibility, working memory, planning and organization,

and monitoring (Carr et al., 2017). This study highlights the positive impact of outdoor play in fostering executive function skills, complementing the findings of Lundy and Trawick-Smith.

Both studies suggest that outdoor play, whether on the playground or in well-designed natural environments, contributes positively to children's cognitive and physical development. Lundy and Trawick-Smith's (2020) emphasis on on-task behavior aligns with Carr et al.'s (2017) focus on executive function, collectively underscoring the multifaceted benefits of outdoor play for preschool-aged children. These findings provide a comprehensive understanding of the positive influence of outdoor play on various aspects of children's development, supporting the integration of outdoor play as a valuable component in early childhood education.

Nature play has emerged as a pivotal factor in promoting children's cognitive and physical development, addressing concerns raised by Dankiw et al. (2023) regarding the impact of technology and screen time on young children. Their study underscores the proactive role nature plays in counterbalancing sedentary screen time, which is associated with a higher risk of obesity and other health issues (Dankiw et al., 2023). The increase in screen time may replace valuable activities that contribute to children's health and development, such as physical activity and outdoor play (Dankiw et al., 2023). In other words, investing in strategies that promote physical activity and outdoor play, including incorporating nature play, can reduce screen time among young children (Dankiw et al., 2023). This aligns with the widely recognized importance of investing in strategies that prioritize physical activity and outdoor play for young children's well-being.

There is a robust body of evidence supporting the positive impact of outdoor play on children's cognitive and physical development. Incorporating nature play in early childhood education can be a proactive strategy to mitigate the negative effects of screen time, enhance on-

task behavior, foster executive function skills, and provide opportunities for physical development.

Social-Emotional Impact

Similarly, social and emotional development is significantly influenced by nature play, mirroring the positive impacts observed in cognitive and physical developmental areas among early childhood students. The research study conducted by Chawla et al. (2014) explored the impact of natural outdoor school environments on the stress and health of students, specifically focused on the social-emotional benefits of outdoor education for early childhood students. The research involved 106 students in suburban Baltimore, Maryland, a rural town in Colorado, and Denver, Colorado. It utilized a mixed-methods approach, spanning the entire school year. The participants included first through fourth-grade elementary school students playing in wooded areas during recess, fourth through sixth-grade students using a natural green space for science and writing lessons, and high school students involved in gardening.

According to the findings, access to natural play areas and green views positively influenced students' moods, reducing stress, anger, inattention, and problem behavior (Chawla et al., 2014). Furthermore, the study suggested that nature benefits extend beyond symptom relief, potentially decreasing ADHD symptoms and rates of depression while enhancing the ability to cope with stress (Chawla et al., 2014). The nature-based activities included sensory experiences and engagement in creative and cooperative activities which fostered important protective factors for resilience, including the development of feelings of competence and supportive social relationships. Similar findings were recently uncovered by Johnstone et al. (2022), who explored the impact of nature-based early childhood education (ECE), also known as forest schools or outdoor preschool, on children's development. This systematic review included 36 studies with

3383 children aged two to seven years old who had not started kindergarten. Much of the research was conducted in the United States, Australia, and Canada, with additional studies in Norway, Sweden, the United Kingdom, Italy, Finland, Germany, Poland, South Korea, and Turkey. The review focused on nature-based preschool programs where a significant portion of the school day was spent outdoors.

The primary objective of the research was to investigate the effects of nature-based ECE on children's overall health and development. The findings of the systematic review revealed positive associations between nature-based ECE and various aspects of children's well-being. Specifically, the study highlighted positive associations with children's self-regulation, social skills, social-emotional development, connection to nature, and play interaction.

Molyneux et al. (2022) also explored the benefits of outdoor learning for students' social and emotional development. The study aimed to understand how Canadian primary school educators perceived the advantages of outdoor learning in promoting social and emotional development among students, specifically focusing on the integration of social and emotional learning (SEL) strategies. The research involved 36 primary school educators, all female, with an average age of 43, representing diverse racial backgrounds. Participants held full-time classroom teaching positions, and their teaching experience ranged from five to 16 years.

Conducted through qualitative methods, Molyneux et al. (2022) utilized focus group interviews with educators from 16 different Canadian school districts. The study revealed that educators perceived significant benefits of outdoor learning across all major domains of children's development: social, emotional, physical, and cognitive. In agreement with the previous studies, it emphasized the substantial positive impact of outdoor learning on the social and emotional development of early childhood students, as perceived by Canadian primary

school educators. The teachers identified the themes including the promotion of holistic benefits, diverse learning opportunities, and the crucial role of educators in facilitating meaningful outdoor experiences for children.

Another study was conducted by Wood and Smyth (2019), and it investigated the relationships between childhood nature exposure, green exercise (GE), adult nature exposure, and connectedness to nature. Additionally, the study aimed to explore the impact of childhood and adulthood nature exposure, GE, and connectedness to nature on adult heart rate variability, well-being, and stress. The study indicated that childhood nature exposure and GE uniquely predicted both adult nature exposure and GE and connectedness to nature. Greater exposure and participation during childhood were associated with continued habits into adulthood. Connectedness to nature was significantly related to stress reactions and heart rate variability during sleep, highlighting its essential role in predicting physiological health outcomes in adulthood. The study emphasized the concerning trend of reduced contact with nature among young people and emphasized the need to engage children with natural environments for lifelong health preservation. The findings have implications for promoting nature engagement in early childhood education for the continued social-emotional well-being of individuals as they age.

Positive Effects on Parent and Child Relationships Outdoors.

Nature play benefits extend beyond cognitive, physical, and social-emotional development. It has also been shown to foster positive interactions and relationships between parents and children. The research study by Cameron-Faulkner et al., (2018) investigated the impact of natural environments on parent-child communication. The study, conducted at Bute Park and Arboretum in Cardiff, Wales, explored the effects of physical environments, specifically a city park and an indoor education center, on communication dynamics during

active exploration. The participants, consisting of 18 parent-child pairs, engaged in a 15-minute "treasure hunt" activity in both settings, while wearing head-mounted video cameras to capture natural interactions.

The results highlighted significant differences between natural and indoor environments. Children displayed increased talkativeness in natural settings, and parent-child pairs engaged in longer and more connected communication episodes. Moreover, both parents and children exhibited higher responsiveness in natural environments. The study contributed valuable insights into the positive relations between natural environments and parent and child communication processes. It emphasized the significance of nature settings in fostering enhanced parent-child communication. Utilizing outdoor spaces for activities and exploration can contribute to fostering more connected and responsive interactions between parents and children.

In another study, McFarland and Laird (2017) investigated the attitudes and practices of early childhood educators and parents regarding outdoor risky play for children. The research explored the beliefs and experiences of 26 educators and 121 parents from both rural and metropolitan areas of Australia and the United States. The findings of the study revealed that both educators and parents recognized the significance of risky play for children's development. Most educators and parents demonstrated a strong connection to nature and considered risky play to be important. Three common themes emerged from both groups regarding the provision of risky play opportunities: supporting large motor skills, encouraging free exploration of the environment, and assessing and managing risks. However, parents expressed emotional concerns and nervousness about providing risky play opportunities, which seemed to indicate a strong protective instinct. Understanding these perspectives can inform educators' approaches to

working with parents and designing an educational program that incorporates outdoor risky play in a balanced and developmentally appropriate manner.

Furthermore, Ward et al. (2019) examined the impact of a supported nature play program on parent-child relationships, connection to nature, and overall well-being, as perceived by parents. The findings revealed three major themes. Firstly, the program enhanced interpersonal relationships, with parents and children learning new play skills together, strengthening relationships across various social systems, and fostering increased peer connections among parents. Secondly, the program facilitated connections to nature, making participants aware of the value of spending time in nature with their children and incorporating a therapy dog with positive social and emotional benefits. Lastly, the program fostered emotional wellness, promoting a mindful connection with nature, providing non-judgmental support from facilitators, and having a calming effect on both parents and children. These outcomes emphasized the positive influence of nature play programs on parent-child dynamics, nature connection, and emotional well-being. These insights can inform strategies for implementing outdoor education initiatives that positively impact both children and their parents.

In addition, Vandermaas-Peeler et al. (2018) investigated parents' beliefs about young children's play and nature experiences in both Danish and US contexts. The study aimed to understand parental views on the importance of play environments, the role of adults in early childhood play and development, and the value of nature experiences in early childhood education (ECE). The research utilized a semi-structured interview methodology to explore parental beliefs without testing any specific intervention. Key themes included the ratings of play environments, emphasizing the significantly higher value assigned to nature play in both contexts. Environmental conditions were explored, with US parents valuing indoor play as

imperative in adverse weather, while Danish parents emphasized the importance of being outdoors in all conditions. The developmental benefits of play were examined, with cognitive, physical, and social aspects considered. Both US and Danish parents acknowledged the importance of early experiences in nature for fostering a lifelong relationship with the natural world, with Danish parents emphasizing societal contributions to environmental stewardship.

These findings highlight the cross-cultural variations in parental perspectives on play and nature experiences. US parents associated indoor play with safety and control, while Danish parents emphasized outdoor play regardless of weather, drawing from their own childhood experiences. The study underscores the significance of cultural context in shaping parental beliefs about the play environment and outdoor experiences. This research provides valuable insights into understanding and respecting diverse parental perspectives, aiding in the development of effective outdoor education programs that align with varying cultural attitudes.

Barriers to Effective Outdoor Education

The research highlights various barriers to effective outdoor education, exemplified by Dankiw et al. (2020) which examined the effects of unstructured, free-play outdoors in natural environments on the health and development of children aged two to 12 years old. The study includes 711 children from various countries, such as Norway, Slovenia, Australia, the United Kingdom, Scotland, Germany, Canada, and the United States. This research study examined the barriers and enablers influencing engagement in nature play for young children. The study recognized adults, particularly parents and early childhood educators, as key gatekeepers to play, holding the power to either restrict or facilitate children's access to nature play spaces. Various factors played a role in these decisions, including time constraints, available resources, weather conditions, proximity to nature spaces, consideration of children's interests, and safety concerns.

Personal experiences with nature play, knowledge, and positive affirmations about its benefits also shaped these choices. The research highlights that parents and educators may be more willing to encourage nature play if provided with resources and guidance on their utilization. Additionally, the study suggests that educators may require support and leadership from the administration to ensure consistent training and knowledge about nature play to ensure that it is effectively delivered.

Similar findings resulted from a study by Bai et al. (2019) which investigated the efficacy of professional development programs in nature play and fundamental movement skills (FMS) on early childhood educators' behaviors related to the barriers to preschool children's physical activity in Early Childhood Education and Care Centers (ECEC). The study involved 148 ECEC educators, with 84 participating in the nature play program and 64 in the FMS program. The participants expressed concern over the barriers they faced in providing outdoor play and physical movement activities in preschool. The study examined the impact of professional development programs on early childhood educators' behavior in movement and nature play.

Bai et al. found that both the Nature play and Fundamental Movement Skills (FMS) programs contributed to enhanced confidence among educators in motivating children to be active, ensuring activities were enjoyable, and providing individualized attention during nature-based play or FMS activities (2019). Results indicated a positive impact of professional development programs on educators' physical activity-related behaviors. Both groups showed a significant increase in educators' self-efficacy to engage children in physical activities. Nature play educators experienced decreased perceived barriers, while perceived behavioral control over child physical activity support increased for both general and nature-based play activities.

The study suggests that professional development positively influences educators' physical activity-related behaviors, although the impact varies based on individual characteristics. These findings highlight the nuanced nature of the effects of professional development programs on educators' practices and the need for tailored approaches based on individual characteristics.

Correspondingly, a research study conducted by Haakenstad et al. (2023) investigated the significance of outdoor time for children's physical and mental health, with a particular focus on disparities in access to outdoor spaces in communities of color. The study aimed to identify challenges and solutions to outdoor time, assess its importance for children, and evaluate the results, emphasizing variations by race and ethnicity. The participants included families with children enrolled in an outdoor preschool, educators or leaders in early childhood education, and parents in the community. A total of 49 participants, with 12 self-identifying as people of color, engaged in both qualitative focus groups and quantitative questionnaires.

The findings revealed challenges for children's outdoor time, solutions, perceived importance, cultural values, and the influence of the built environment. Challenges included safety concerns, weather, parental work schedules, and limited access to outdoor spaces. Notably, people of color faced safety concerns more significantly, and financial barriers related to gear were identified, emphasizing privilege in overcoming obstacles. Despite diverse cultural backgrounds, all participants unanimously agreed on the high importance of daily outdoor time for children. The study contributes valuable insights into the unique challenges faced by communities of color and emphasizes the universal importance of outdoor time for children's well-being.

Additionally, a research study conducted by Miller et al. (2022) examined the perspectives and experiences of primary school educators regarding nature-based play and learning, focusing on the associated benefits, barriers, and enablers. The study included participants who were predominantly female, experienced, and from both rural and metropolitan elementary schools in South Australia. There was a positive shift in the perception of risky play, with activities like tree climbing being recognized as valuable components of nature-based play and learning. Participants emphasized the unique learning environment nature provides, offering a less structured and pressured setting compared to traditional classrooms. However, despite the perceived benefits, educators expressed reservations about the suitability of nature-based activities for upper-primary school students, citing competing academic priorities and a crowded curriculum as contributing factors. Barriers identified in the study echoed those reported in prior research, including challenges related to educator openness, knowledge, and confidence, alongside familiar issues such as a crowded curriculum, insufficient funding, and weather-related challenges. Notably, the study identified a novel enabler: the presence of a nature-based play and learning champion. Supportive leadership again emerged as a critical enabler, aligning with earlier research emphasizing the instrumental role of leadership support.

Site Profile

Community Characteristics

The Elk River School District includes the cities of Albertville, Dayton, Elk River, Otsego, Ramsey, Rogers, St. Michael, Zimmerman, and Nowthen. It serves a population of 79,405 individuals (*Demographics - Elk River Area ISD 728, 2023*). Providing context to the community characteristics, the median income stands at \$105,736, reflecting a solid economic backdrop. Notably, 77% of families in the district include a married couple, highlighting the

presence of stable family units. Additionally, 90% of families own their homes, underscoring a sense of community ownership and investment (National Center for Education Statistics, 2023).

School District Characteristics

The Elk River School District, positioned 35 miles northwest of Minneapolis, is the eighth-largest school district in Minnesota. Catering to a diverse student body of 14,152 across preschool and 12th grade, the district encompasses 11 elementary schools, seven middle schools, five high schools, and one Community Education Center (*Demographics - Elk River Area ISD 728, 2023*). Diversity is evident in the student population, with 88% being white, 5% two or more races, 2.5% Black or African American, 3.4% Hispanic or Latino, 1.7% Asian, and 0.3% American Indian (*Demographics - Elk River Area ISD 728, 2023*). Socioeconomic factors include 17.6% of students who qualify for free or reduced lunch, 15.3% who have an Individualized Education Plan (IEP), and 3% who are English Language Learners (*Demographics - Elk River Area ISD 728, 2023*).

School Building Characteristics

In the 2022-2023 school year, 272 children and 260 adults participated in the Early Childhood Family Education (ECFE) program which serves families with children between the ages of birth and kindergarten, and 618 children were enrolled in the district's preschool program, Discovery Learning Preschool (*World's Best Workforce - Elk River Area ISD 728, 2023*). This program, tailored for families with children aged from birth to kindergarten, plays a crucial role in fostering early development. However, considering the total number of children between birth and five years old residing in the district is 5,725, it becomes evident that there is room for growth in serving this vital age group (*Demographics - Elk River Area ISD 728, 2023*). This data not only informs strategic planning but also emphasizes the importance of expanding

outreach and programming to ensure comprehensive support for the youngest members of the community.

Parent Involvement

In the ECFE program, parent involvement is a central focus, aimed at fostering strong relationships between parents, children, and educators. Group activities involving both parents and children are common, offering a space for families to bond and get acquainted with one another. Parents may also step back and observe their children's learning in action, providing valuable insights into their development.

Participating in these activities may initially feel silly for some parents, but the atmosphere is typically welcoming and supportive. Most parents find it enjoyable to engage in kid-friendly activities, and children thrive on the interaction. The program emphasizes that parents can participate at their comfort level, ensuring a relaxed and inclusive environment.

During parent discussion time, while children engage in activities with the Early Childhood Educator, parents meet with the ECFE Parent Educator to share experiences, joys, and concerns of parenthood. These discussions take place in a comfortable setting, allowing parents to explore various ideas and gain valuable insights. Research underscores the importance of receiving information and support as parents, highlighting this as a crucial aspect of the program.

In the children's time, children participate in age-appropriate activities led by the Early Childhood Educator, while parents engage in discussions. These activities are carefully planned to support children's development and may include both teacher-led and child-initiated activities. Parents also can work alongside the teacher, observing their child's responses and gaining insights into their development and behavior.

Parent involvement also extends beyond classroom activities to provide a range of communication methods and personalized support. Weekly posts on the Seesaw platform facilitate ongoing communication between home and classroom environments. Through these posts, parents receive updates on classroom activities, gain access to parenting resources and information, and can view photos capturing their child's learning experiences. This digital connection bridges the classroom and home, enabling parents to stay informed and engaged in their child's education journey. It fosters a sense of partnership between parents and educators, promoting collaborative involvement in children's learning and development.

Moreover, ECFE places a strong emphasis on individualized support for families. Parent educators are available to provide consultations and visits tailored to the specific needs and requests of each family. These consultations can take place either in the comfort of the family's home or during meetings in the classroom, offering flexibility and convenience. During these consultations, parents can discuss concerns, seek guidance on parenting strategies, and receive personalized recommendations from experienced professionals. This one-on-one support enhances the parent-educator relationship, empowering parents to navigate challenges and celebrate successes confidently.

Overall, the ECFE program provides a holistic approach to early childhood education, fostering strong connections between parents, children, and educators while supporting the growth and development of each family member involved. Providing enriching outdoor educational opportunities for families would complement and extend what is already being offered in ECFE.

Student Performance

The fall of 2022 brought insights through the Teaching Strategies GOLD assessment which was used in the Discovery Learning Preschool classrooms that served three- to six-year-olds. Results indicated that 44.2% of preschoolers met or exceeded expectations in social-emotional development, 60% in physical development, 51.4% in language development, and 49.3% in cognitive development (*World's Best Workforce - Elk River Area ISD 728, 2023*). These figures underscore the potential focus areas for enhancing engagement and experience in social-emotional, cognitive, language, and physical development for incoming preschoolers. This data provides a foundation for strategic planning and interventions tailored to the unique needs of the Elk River School District.

Curriculum, Instruction, and Assessment

In the ongoing improvement of the ECFE program, teachers meet annually to strategize the scope and sequence of the curriculum, ensuring alignment with evolving educational standards and best practices. Unlike rigidly structured curricula, ECFE classes benefit from a dynamic approach where educators draw from diverse resources to create engaging and responsive learning experiences. These resources encompass established frameworks such as the Minnesota Early Childhood Indicators of Progress and the Parent Education Core Curriculum Framework, as well as innovative models like the Pyramid Model and Connecting to Learn. Furthermore, teachers have the autonomy to integrate personalized resources that resonate with their teaching style and the unique needs of their students.

The classes maintain a consistent format while accommodating varying session durations and parental involvement levels. Whether it is a one-and-a-half-hour separating class, where parents engage in a separate discussion while children participate in activities, or a one-hour-and-fifteen-minute non-separating class, where parent-child interaction and discussion occur within

the same space, the structure remains flexible to meet diverse preferences and scheduling constraints.

All ECFE teachers hold relevant licensure, ensuring expertise and proficiency in their respective domains. Children's teachers possess birth to third-grade teaching licenses, while parent educators are specifically licensed in parent and family education. Additionally, each classroom benefits from the support of trained teaching assistants provided by the district, further enhancing the quality and effectiveness of instruction.

In the current ECFE program, formal assessment tools are not used within the once-a-week parent and child classes from birth to five years old. Instead, the program relies on a comprehensive approach incorporating informal observations and assessments. Additionally, mid-session and end-of-session surveys are administered to families, allowing them to provide valuable feedback. This feedback process ensures continuous improvement and responsiveness to participants' evolving needs. In addition, the ECFE teaching staff meets weekly to discuss student behavior and concerns, fostering a collaborative environment where issues are addressed collectively through a team approach. Importantly, the program remains committed to holistic support, facilitating referrals to specialized services such as Early Childhood Screening (ECS) or Early Childhood Special Education (ECSE) when necessary, ensuring that every child's unique needs are met. This multifaceted approach underscores the program's dedication to comprehensive student support and development.

Professional Development Practices

In professional development, ECFE teachers benefit from a robust and continuous learning environment designed to enhance their expertise and effectiveness. At the beginning of each school year, educators engage in a comprehensive week-long staff development program

facilitated by the district, supplemented by an additional week of specialized training tailored specifically for early childhood staff. These immersive sessions equip teachers with the latest instructional methodologies, pedagogical insights, and strategies to effectively engage with diverse learners and foster optimal developmental outcomes.

A highlight of the professional development calendar is the annual participation in the Minnesota Association of Family and Early Childhood Education (MNAFEE) conference, a pivotal event spanning two and a half days every April. This conference serves as a forum for networking, collaboration, and professional growth, allowing educators to glean insights from leading experts in the field and exchange best practices with peers from across the state.

Furthermore, ECFE teachers benefit from additional full-day staff development sessions held biannually in November and April, providing dedicated time for deepening subject matter expertise, refining instructional techniques, and staying abreast of emerging trends in early childhood education. The weekly Professional Learning Communities (PLC) meetings for the ECFE teaching team are integral to the professional development framework. During these meetings, staff collaboratively select a goal and work as a team towards its attainment, fostering a culture of continuous improvement and shared accountability.

Needs Assessment

Upon assessing the needs of the Elk River School District, it is clear that Family and Community Engagement is an area requiring a school improvement plan. Despite the district's robust economic backdrop and stable family units, there are indications that further efforts are needed to enhance the involvement of families and the broader community in the educational process. With 90% of families owning their homes and a significant portion of households being comprised of married couples, there exists a strong foundation for fostering partnerships between the school and families (National Center for Education Statistics, 2023). However, considering

the demographic diversity within the student population and the varying socioeconomic backgrounds represented, it becomes critical to ensure that all families feel included and empowered to participate actively in their children's education starting from birth.

Moreover, while the district's Discovery Learning Preschool and Early Childhood Family Education (ECFE) programs play pivotal roles in supporting early childhood development, there is a notable gap between the number of children served by these programs and the total population of young children within the district. Although 890 children are served through the district's early childhood programs, there remains a substantial number of children between birth and five years old who are not benefiting from such services (*World's Best Workforce - Elk River Area ISD 728*, 2023). This underscores the need for expanded outreach and programming to reach more families and provide comprehensive support to all children in their formative years.

Furthermore, the assessment of student performance, particularly in social-emotional, cognitive, language, and physical development, reveals areas where targeted interventions can enhance the educational experience. With varying levels of proficiency noted in these domains among preschoolers, there is an opportunity to strengthen family and community engagement to support holistic development from an early age. By fostering collaborative partnerships between educators and families, the Elk River School District can create a more inclusive and supportive environment conducive to the success of all students.

The proposed school improvement plan aligns with the identified need for enhancing family and community engagement within the Elk River School District, while also addressing the crucial developmental benefits of outdoor experiences for young children. Drawing from a wealth of research that highlights the cognitive, emotional, and physical advantages of nature

play for early learners, this plan seeks to bridge the gap between theoretical understanding and practical application within the district's early childhood program.

As studies by Brussoni et al. (2015), Carr et al. (2017), Chawla et al. (2014), Ernst and Burcak (2019), and Wood and Smyth (2019) have consistently demonstrated, exposure to natural environments enhances various facets of child development. However, despite this evidence, there exists a disconnect between the recognized benefits of nature play and its integration into early childhood programs. This plan acknowledges the societal shift towards increased screen time and limited exposure to nature among modern children, emphasizing the urgency of incorporating outdoor learning experiences into educational settings. The plan also recognizes the challenges faced by educators in providing outdoor education due to resource constraints and pressure to prioritize academic instruction. By offering comprehensive nature play education and easy-to-use nature-based activities for young students and their families, the plan aims to equip staff and parents with the knowledge and tools necessary to facilitate outdoor exploration and learning.

A critical component of the plan is the introduction of outdoor parent and child classes within the Early Childhood Family Education (ECFE) program, filling a current gap in offerings. These classes will not only provide opportunities for families to engage in meaningful outdoor experiences together but also serve as a platform for educating parents about the benefits of nature play and strategies for incorporating it into daily routines. In addition, by providing nature-based play classes, the district will have the opportunity to engage with a valuable demographic that is presently underserved.

In summary, this school improvement plan offers a comprehensive strategy for promoting the importance of nature play in early childhood within the Elk River School District. By

addressing the identified gap between research evidence and practical implementation, the plan aims to foster greater engagement among families, enhance child development outcomes, and cultivate a deeper appreciation for the natural world among the youngest members of the school community.

School Data and Analysis

Two pieces of data support the need for increased implementation of an outdoor curriculum in ECFE. The Teaching Strategies GOLD assessment conducted in the fall of 2022 within Discovery Learning Preschool classrooms serving three- to six-year-olds reveals a mixed picture of developmental outcomes among preschoolers in the Elk River School District. While 60% of students meet or exceed expectations in physical development, indicating a relative strength in this domain, the data also highlights areas of weakness in social-emotional, language, and cognitive development, with only 44.2%, 51.4%, and 49.3% of students meeting or exceeding expectations, respectively (*World's Best Workforce - Elk River Area ISD 728, 2023*).

These findings suggest a need for targeted interventions and strategic planning to enhance engagement and support growth in these key developmental areas. Integrating an outdoor curriculum and incorporating nature play activities for families can yield significant benefits for early childhood students' social-emotional, language, cognitive, and physical development. Research has consistently shown that exposure to natural environments fosters holistic development in young children, enhancing their social skills, emotional regulation, language acquisition, cognitive abilities, and physical fitness (Brussoni et al., 2015; Carr et al., 2017; Chawla et al., 2014; Ernst & Burcak, 2019; Wood & Smyth, 2019). Educators can create rich learning environments that stimulate curiosity, creativity, and problem-solving skills by immersing students in outdoor settings and providing opportunities for hands-on exploration and

sensory experiences. Furthermore, engaging in nature-based activities with families strengthens parent-child bonds and encourages cooperative play, communication, and peer collaboration (Cameron-Faulkner et al., 2018). Regular exposure to outdoor play and nature-based learning experiences allows early childhood students to develop essential skills and competencies that lay a solid foundation for lifelong learning and well-being.

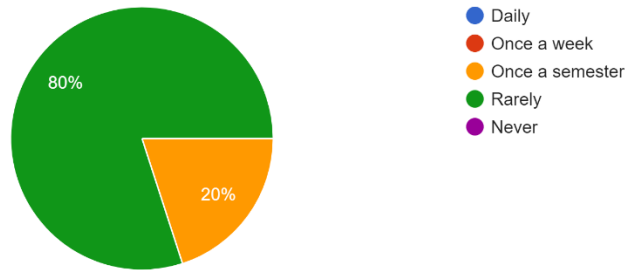
To gain a more comprehensive understanding of student needs and program effectiveness, additional assessments may be necessary, such as direct observations, parent surveys, and longitudinal studies tracking student progress over time. These additional assessments can provide valuable insights into the effectiveness of interventions and inform ongoing efforts to promote holistic development among preschoolers in the Elk River School District.

Another source of data is teacher feedback. In March of 2024, the 10 licensed ECFE teachers anonymously filled out a nature play needs assessment. The data provides valuable insights into the current practices, challenges, and attitudes of ECFE teachers regarding outdoor and nature-based education. Firstly, it reveals that a significant majority of ECFE teachers (80%) rarely use outdoor or nature curricula, with only 20% incorporating it once a semester as shown in Figure 1. This indicates a notable gap in integrating outdoor learning experiences within ECFE classrooms.

Figure 1

Use of nature play

How often do you currently incorporate outdoor activities or nature play into your ECFE curriculum?
10 responses



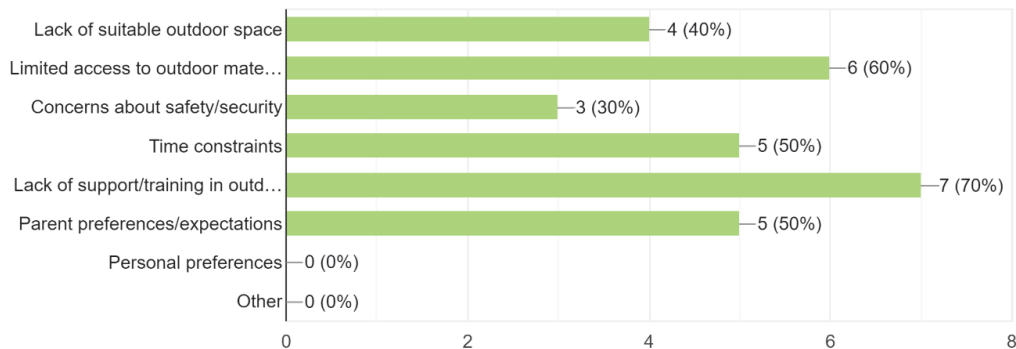
Furthermore, the data in Figure 2 highlights several barriers to outdoor education, including lack of support and training (70%), limited access to outdoor materials (60%), time constraints (50%), and parent preferences (50%). These challenges suggest a need for professional development opportunities and resources to facilitate the implementation of outdoor education initiatives.

Figure 2

Deciding factors

What factors influence your decision to include or exclude outdoor activities in your ECFE lessons?
(Select all that apply)

10 responses



According to Figure 3, half of the teachers feel knowledgeable about the benefits of nature play for young children's development, and the other half express uncertainty, indicating a potential disparity in understanding among educators. Additionally, Figure 4 shows a significant portion of teachers (80%) have not received formal training related to outdoor education or nature play in the past year, highlighting a lack of professional development opportunities in this area. This underscores the importance of investing in training and support for teachers to enhance their confidence and competence in incorporating nature-based learning into the curriculum.

Figure 3

Teachers' confidence

On a scale of 1 to 5, how knowledgeable do you feel about the benefits of nature play for young children's development?
10 responses

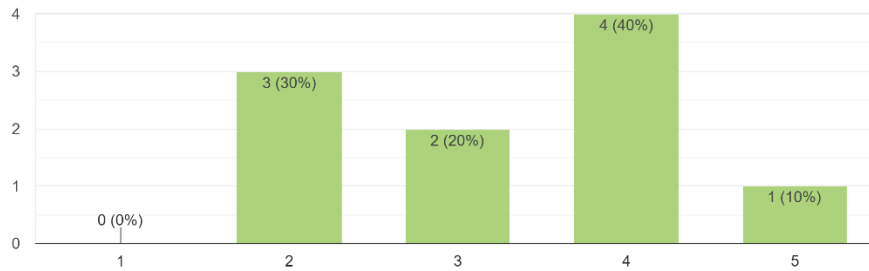
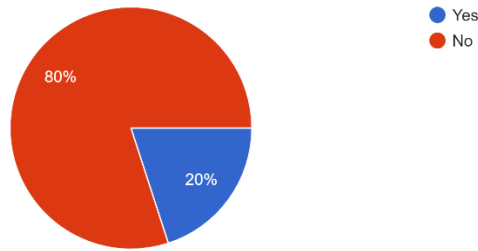


Figure 4

Formal training

Have you received any formal training or professional development related to outdoor education or nature play in the past year?
10 responses

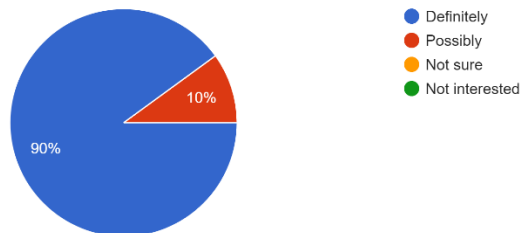


Despite these challenges, Figure 5 also reveals a strong interest among teachers in learning how to easily incorporate nature play into their ECFE curriculum, with 90% expressing definite interest and 10% possibly interested. This indicates a willingness among educators to explore outdoor education strategies and suggests potential for growth and innovation in this area.

Figure 5

Interest

Would you be interested in learning how to easily incorporate nature play into your ECFE curriculum?
10 responses



To gain a more comprehensive understanding of the barriers and challenges ECFE teachers face in implementing outdoor activities or nature play, additional assessments such as direct observations of classroom practices, interviews with teachers and parents, and surveys targeting specific aspects of outdoor education implementation may be necessary. These assessments can provide deeper insights into the specific needs and preferences of teachers and families, informing the development of targeted interventions and support mechanisms to promote the successful integration of outdoor learning experiences within ECFE programs.

Action Plan

To address the identified problem of the gap between the recognized benefits of nature play and its practical application in early childhood programs within the Elk River School District, the following action plan outlines a series of steps aimed at promoting the importance of nature play and enhancing outdoor learning experiences for young students and their families. Drawing from the research base and literature review, several evidence-based strategies will be applied to the plan, including providing nature play education, support, and guidance for staff and families, offering outdoor parent and child classes, and integrating outdoor learning into the early childhood curriculum.

Drawing from the findings of studies by Dankiw et al. (2023), Miller et al. (2022), and Bai et al. (2019), which emphasize the importance of professional development and leadership support in promoting nature play and outdoor learning, the plan will prioritize providing access to professional development webinars for early childhood educators as shown in Table 1. These sessions will focus on the benefits of nature play, strategies for integrating outdoor learning into the curriculum and assessment, creating and improving outdoor learning areas, and identifying

barriers and challenges to creating safe outdoor environments and activities (*Outdoor and Nature-Based Learning*, 2023).

Following Dankiw et al.'s findings that effective resources, training, and guidance increase willingness among parents and teachers to encourage nature play, professional development sessions will be available to equip educators with the knowledge and skills necessary to confidently implement outdoor learning activities (2023). Building on Miller et al.'s research demonstrating the positive impact of administrative support and ongoing training on providing outdoor learning experiences, the plan will emphasize the importance of leadership involvement and continued professional development opportunities for educators (2022).

Additionally, using the information from studies that have highlighted the benefits of professional development in physical activity and nature education, training sessions will ensure that educators receive relevant and practical guidance on promoting quality outdoor experiences for young students (Bai et al., 2019). By providing educators with the necessary support, resources, and training, a culture of outdoor learning within the ECFE program will be cultivated as shown in Table 1. This will enrich the educational experiences of children and foster a deeper connection with the natural world. Through collaborative efforts and ongoing evaluation, an environment where nature play is embraced and valued as an integral component of early childhood education will be promoted.

Table 1

Outdoor and Nature-based Webinars

Webinar Title	Description
<u>Adventure One: Exploring Nature as a Teacher for Social-Emotional Development and Social Systems</u>	<p>Explore the ECIPs as a guide for promoting children’s progress in the domain of approaches to learning, social-emotional development, and social systems in outdoor and nature-based learning environments. Using assessment tools to document child development in these areas will also be discussed.</p>
<u>Adventure Two: Exploring Nature as a Teacher for Language, Literacy, Communication, Creativity and the Arts</u>	<p>Explore the ECIPs as a guide for promoting children’s progress in the domain of language, literacy, communication, and creativity and the arts in outdoor and nature-based learning environments. Using assessment tools to document child development in these areas will also be discussed.</p>
<u>Adventure Three: Exploring Nature as a Teacher for Math and Science</u>	<p>Explore the ECIPs as a guide for promoting children’s progress in the domains of math and science in outdoor and nature-based learning environments. Using assessment tools to document child development in these areas will also be discussed.</p>
<u>Adventure Four: Exploring Nature as a Teacher for Physical Development</u>	<p>Explore the ECIPs as a guide for promoting children’s progress in the domain of physical development in outdoor and nature-based learning environments. Using assessment tools to document child development in these areas will also be discussed.</p>
<u>Be Inspired: Nature-Based Learning in Practice</u>	<p>Educators from three programs share how they have incorporated nature-based learning to fulfill their program’s mission: A family child-care program, a faith-based program, and an intergenerational program.</p>
<u>Changing Landscapes: Planning Your Outdoor Space</u>	<p>Learn how to renew or redo your outdoor space to enhance nature-based learning</p>

Webinar Title	Description
	opportunities. Find out where to start, and get new ideas, through step-by-step planning directions from outdoor learning design experts and teachers.
<u>Curriculum is Falling from Above: Hands-On Activities to Do in the Fall</u>	Learn hands-on activities that you can do with young children in the fall, no matter what your outdoor space looks like.
<u>Curriculum is Falling from the Sky: Hands-on Activities to Do in the Winter</u>	Presenters share hands-on activities that you can do with young children in the winter, no matter what your outdoor space looks like. Featuring Pete Cleary from Dodge Nature Preschool and Sheila Williams Ridge as moderator.
<u>Curriculum is Sprouting Up All Over: Hands-on Activities to Do in the Spring</u>	Learn about hands-on activities that you can do right away with young children in the spring no matter what your outdoor space looks like.
<u>Curriculum Planning and Assessment with Nature in Mind</u>	Explore the Early Childhood Indicators of Progress (ECIP), discuss current assessment tools, and discover ways to support using the ECIPs and assessment tools for lesson planning in outdoor and nature-based learning programs. Participants should review ECIPs on the MDE website before the webinar.
<u>Dream Green: Sustainability Practices in Early Childhood Programs</u>	Be inspired by a zero-waste school in northern Minnesota.
<u>Give Me Proof: Exploring What the Research Says About Nature-Based Learning</u>	Hear directly from researchers in the field about how nature-based learning supports growth in all areas of development to help children thrive.
<u>Safety First! Addressing Outdoor Safety and Outdoor Learning Policies in Early Care and Education Settings</u>	Consider current outdoor policies and examine other appropriate policies, grow confidence in bringing children outdoors in all weather, and reflect on risk reduction plans related to the outdoors.

(Outdoor and Nature-Based Learning, 2023)



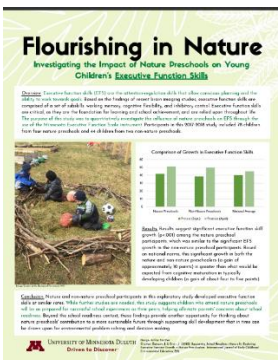
As part of our comprehensive plan to promote nature play and outdoor learning within the ECFE program, informative and interactive bulletin boards will be created in the community meeting room. These bulletin boards will serve as a valuable resource for staff, families, and community members, to provide information on the benefits of nature play and outdoor learning. Through visually engaging displays, cognitive, emotional, and physical advantages of nature play for young children's development, as supported by research will be displayed as shown in Table 2. The bulletin boards will feature informative posters, infographics, and pamphlets that offer practical tips and strategies for incorporating nature-based activities into daily routines. Additionally, the boards will include interactive elements such as QR codes linking to online resources, nature-themed activity ideas, and space for families to share their own outdoor experiences and tips. By creating these informative and interactive bulletin boards, awareness of the benefits of nature play will be increased, nature resources will be provided, and a greater appreciation for the importance of nature play and outdoor learning within the ECFE community and beyond will be raised.

To create educational and interactive bulletin boards, several steps must be followed. Firstly, strategic locations within the community room where parent groups meet, as well as areas frequented by staff and community members for meetings, must be identified. Once the locations are determined, the design and layout of the bulletin boards should be developed to ensure they are visually appealing and engaging. This involves creating displays that feature key information on the benefits of nature play, research-based strategies for integrating nature into early childhood education, and practical tips for outdoor activities with children. Additionally, the boards should include informational resources such as posters, infographics, and pamphlets that highlight the cognitive, emotional, and physical advantages of nature play for young

children's development. These resources should also provide information on local nature parks, trails, and outdoor programs for families to explore. Finally, interactive elements such as QR codes linking to online resources, nature-themed activities, and space for families to share their own outdoor experiences and tips should be incorporated to encourage active engagement and participation. Through these steps, the educational and interactive bulletin boards will serve as valuable tools for promoting outdoor education and fostering a deeper connection to nature within the community.

Table 2

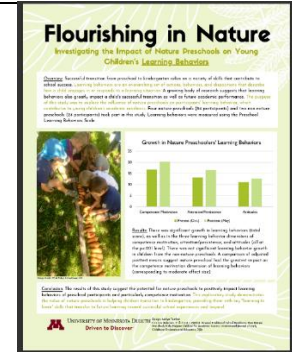
Interactive Bulletin Boards

Example of Bulletin Board Element	Educational or Interactive Item
<p>This QR code links to an educational nature website that offers entertaining and environmentally-themed lessons for home use (Fuluvaka, 2020). The site features a variety of engaging outdoor activities designed for children and parents to enjoy together.</p>	
<p>This QR code links to “A Parent’s Guide to Nature Play; How to Give Your Children More Outdoor Play...and Why You Should!” (Cordavii, 2024).</p>	
<p>This information in this study suggests that children attending nature preschools can be as prepared for successful school experiences as their peers in non-nature preschools, potentially alleviating parents' concerns about school readiness. The findings also highlight how children in nature preschools develop skills related to problem-solving and decision-making (Jeffers Foundation, 2024).</p>	

Example of Bulletin Board Element

Educational or Interactive Item

This study's findings indicate that nature preschools have the potential to positively influence the learning behaviors of preschool participants, especially in terms of competence motivation. This study shows the significance of nature preschools in facilitating children's transition to kindergarten by equipping them with essential skills that not only contribute to successful school experiences but also extend to future learning endeavors, highlighting the long-term benefits of nature-based education (Jeffers Foundation, 2024).



Outdoor Parent and Child Classes

To enhance engagement in nature-based activities among families within the ECFE program, a series of three-session parent and child outdoor nature classes will be designed and implemented. As shown in Table 3, these classes will provide opportunities for families to immerse themselves in nature play and exploration while fostering connections with the natural world. Each session will offer a variety of components, including guided nature walks, outdoor storytelling sessions, nature-based art activities, and sensory exploration experiences, catering to different interests and learning styles. By incorporating diverse activities, dynamic and enriching outdoor experiences that inspire curiosity, creativity, and a sense of wonder among participants will be created. Through these outdoor parent and child classes, families will be empowered to embrace nature as a valuable resource for learning and growth, while fostering meaningful connections and creating lasting nature memories.

Table 3

ECFE Outdoor Class

Class Session	Objective	Activities
<p>Session 1: Introduction to Nature Play</p>	<p>Introduce parents and children to the concept of nature play and its benefits for early childhood development.</p>	<ol style="list-style-type: none"> 1. Welcome and Introduction: Begin the session with a warm welcome and brief introduction to the importance of nature play for children's development. 2. Nature Walk: Lead families on a guided nature walk around the designated outdoor area, encouraging children to explore their surroundings and engage with nature. 3. Nature Art: Provide materials such as leaves, sticks, and rocks for children to create nature-inspired art pieces. Encourage creativity and expression while discussing the sensory experiences of working with natural materials. 4. Circle Time: Gather families for a circle time discussion, where parents and children can share their observations and experiences from the nature walk and art activity. Facilitate a conversation about the benefits of spending time outdoors and connecting with nature.
<p>Session 2: Nature Sensory Play</p>	<p>Engage children in sensory-rich nature activities to stimulate their senses and promote cognitive and physical development.</p>	<ol style="list-style-type: none"> 1. Sensory Stations: Set up various sensory stations outdoors, such as a mud kitchen, sensory bins filled with natural materials (e.g., sand, water, leaves), and a nature scavenger hunt. Encourage children to explore each station at their own pace, engaging their senses and fostering curiosity. 2. Nature Scavenger Hunt: Provide families with scavenger hunt cards listing items to find in the outdoor environment. Guide children as they search for natural treasures such as leaves, pinecones, and rocks, promoting observation skills and environmental awareness. 3. Water Play: Set up a water play area with buckets, cups, and watering cans for children to experiment with pouring, splashing, and exploring water in a natural setting. Facilitate discussions about the properties of water and its importance in nature.

Class Session	Objective	Activities
		<p>4. Closing Circle Time: Gather families for a group reflection session, where they can share their favorite sensory experiences from the day and discuss how nature play enhances children's sensory development and overall well-being.</p>
<p>Session 3: Nature Exploration and Adventure</p>	<p>Encourage families to engage in adventurous outdoor play and exploration, fostering resilience, confidence, and a sense of wonder.</p>	<p>1. Outdoor Adventure: Lead families on a nature hike or exploration adventure, encouraging children to climb, balance, and explore natural features such as trees, rocks, and logs. Provide opportunities for unstructured play and discovery in the outdoor environment.</p> <p>2. Nature Crafts: Set up a nature craft station where children can use natural materials collected during the hike to create art projects or nature-inspired crafts. Encourage creativity and imagination while connecting with the natural world.</p> <p>3. Picnic and Play: End the session with a picnic lunch in a scenic outdoor setting, allowing families to relax and enjoy quality time together in nature. Provide blankets, snacks, and refreshments for a leisurely outdoor picnic experience.</p> <p>4. Closing Circle: Conclude the session with a closing circle where families can reflect on their outdoor adventures and share their favorite moments. Emphasize the importance of regular outdoor play and exploration for children's physical, emotional, and cognitive development.</p>

By implementing this comprehensive action plan, the Elk River School District can take meaningful steps towards bridging the gap between research evidence and practical application in promoting nature play and outdoor learning experiences for young children and their families. Through targeted education, collaboration, and curriculum integration efforts, the district can foster a culture of outdoor exploration and environmental stewardship that enriches the educational experiences of all students and strengthens connections between families, schools,

and nature. Engaging and informative resources will promote the benefits of nature play and outdoor learning for families, staff, and community members. Through hands-on parent-child ECFE classes, interactive nature activities, and informative bulletin boards, a culture of nature exploration and appreciation will be fostered within the Elk River School District, enriching the educational experiences of young children, and strengthening connections with the natural world.

Implementation of the School Improvement Plan

Timeline

The implementation of the plan will follow a structured timeline to ensure timely execution of each component. The timeline will consist of three phases: preparation, execution, and evaluation. The preparation phase will involve compiling the professional development videos in a central location that will be easily accessible to staff, designing the outdoor educational bulletin board, and developing the lesson plans for the three-session outdoor ECFE family class. This phase will take approximately four weeks to complete. The execution phase will include educating the staff on how to access the professional development videos, installing the bulletin board, and conducting the outdoor ECFE family class sessions. This phase will span over six weeks. Finally, the evaluation phase will involve assessing the effectiveness of the interventions and making any necessary adjustments. This phase will be ongoing.

Resources

To successfully implement the plan, various resources will be essential. Firstly, the Minnesota Department of Education (MDE) will provide professional development videos on outdoor education, which will serve as a valuable resource for staff training and development. Secondly, materials and supplies for designing and installing the outdoor educational bulletin board will be sourced from the ECFE program supplies and budget, following approval by the

ECFE management team. These resources will enable the creation of an engaging and informative bulletin board to support outdoor education initiatives. Additionally, the expertise of current early childhood educators and licensed parent educators will be utilized to lead the outdoor ECFE family class sessions, which will be offered as part of the program's class offerings. These educators will leverage their knowledge and experience to create enriching outdoor learning experiences for participating families. Finally, the outdoor ECFE family class sessions will be conducted in the program's dedicated outdoor Nature Explore Center, providing an engaging environment for outdoor exploration and learning. Collectively, these resources will support the successful implementation of the plan and contribute to its overall effectiveness in promoting outdoor education within the ECFE program.

Responsibilities for Implementation

The responsibilities for implementing each component of the plan have been carefully assigned. Firstly, the MDE's professional development videos on outdoor education, available at no cost, will be promoted and facilitated by the ECFE management team. Their responsibility includes encouraging staff to take advantage of this valuable resource and providing dedicated time during Professional Learning Communities (PLCs) for teams to view the videos collaboratively. Additionally, the design and installation of the educational bulletin board will be overseen by the author of this capstone, who will ensure that it aligns with the objectives of the plan. Before installation, the ECFE management team will be responsible for reviewing and approving the design and content of the boards to ensure accuracy and relevance. Finally, the coordination and leadership of the outdoor ECFE family class sessions will be entrusted to experienced early childhood educators, supported by the ECFE program coordinator. Together, these designated individuals and teams will work collaboratively to ensure the successful

implementation of each component of the plan, contributing their expertise and oversight to achieve the desired outcomes.

Plan for Monitoring Success or Failure

To effectively monitor the success or failure of the plan, a comprehensive set of measures will be implemented. Firstly, post-implementation surveys will be conducted to evaluate the current knowledge and attitudes of educators and families towards outdoor education. These surveys will provide valuable insights into any shifts in perceptions and understanding following the implementation of the plan. Additionally, attendance and participation rates in the viewing of the professional development videos, interactions with the outdoor educational bulletin board, and attendance at the family class sessions will be closely tracked. This data will offer quantitative indicators of engagement and participation in the interventions. Furthermore, feedback forms will be distributed to participants to gather qualitative data on their perceived effectiveness and impact. These forms will enable participants to share their experiences, suggestions, and concerns, providing valuable insights for refining and improving the interventions. Lastly, using the Teaching Strategies Gold assessment tool, the social-emotional, cognitive, language, and physical development of students participating in the ECFE program will be analyzed and compared before and after the implementation of the plan. This longitudinal assessment will help evaluate the direct impact of the interventions on student outcomes and overall program effectiveness. By employing a combination of quantitative and qualitative measures, the plan will comprehensively evaluate the success of the interventions and make data-driven decisions for ongoing improvement and refinement.

Barriers and Challenges

One of the primary barriers to the success of the plan is the potential resistance to change among educators and families who may be hesitant to fully embrace outdoor education. Convincing stakeholders of the benefits and value of outdoor learning may require ongoing communication and advocacy efforts. Additionally, limited access to outdoor spaces or inadequate facilities for conducting outdoor activities may pose logistical challenges. Weather-related constraints, such as extreme temperatures or inclement weather, could also impact the feasibility of outdoor programming, necessitating flexibility in scheduling and planning. Furthermore, budgetary constraints may limit the availability of resources for implementing the plan, requiring creative solutions and prioritization of essential components. Lastly, sustaining momentum and engagement over time, particularly after the initial excitement of the interventions wears off, may prove challenging. To address these barriers, proactive measures such as providing ongoing support and training, securing funding for necessary resources, and fostering a culture of outdoor education advocacy will be essential. By continuously monitoring progress and adapting strategies as needed, obstacles can be overcome. This will ensure the successful implementation and effectiveness of the interventions in enhancing outdoor education within the ECFE program.

Conclusion

This capstone paper has explored the critical need for enhancing outdoor education within the Early Childhood Family Education (ECFE) program of the Elk River School District. Despite the overwhelming evidence supporting the developmental benefits of outdoor learning, there is a decrease in the amount of time children spend outdoors due to various factors such as limited resources and training for teachers, societal shifts towards increased screen time, and the pressure to prioritize academic instruction over outdoor play. The research supports the potential of professional development opportunities, informing staff and families of the benefits of

increased time in nature, and outdoor interactive family nature classes to address these challenges and effectively promote outdoor education. The proposed school improvement plan aims to address these findings by providing comprehensive nature play education for parents and staff, creating engaging outdoor learning experiences for families, and promoting the importance of nature play in early childhood. These findings will inform ongoing efforts to implement and evaluate the interventions outlined in this plan. By prioritizing professional development, fostering collaboration among stakeholders, and leveraging available resources, the school improvement plan will create a supportive environment that embraces outdoor learning and enhances the holistic development of young children within the ECFE program.

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