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Ethnocultural Project-Based Learning in Early Childhood Education: Evidence from Preschool Educators in Kazakhstan

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Abstract. This study examined preschool educators' perceptions and reported experiences of ethnocultural project-based learning (ECPBL) in Kazakhstan. Although project-based learning and ethnocultural education have been widely discussed separately, little empirical attention has been given to their integration in preschool settings. Using a descriptive mixed-methods design, the study analyzed survey responses from 150 preschool educators by combining closed-ended items with open-ended responses. The findings show that educators generally viewed ECPBL positively: 85.5% of valid responses indicated full or partial agreement with the relevance of project-based learning in preschool education. However, only 36.7% of participants reported prior experience with ethnocultural projects, which indicates uneven implementation. Educators rated the contribution of ECPBL most highly for creative skills and research activity ($M = 4.442$) and cognitive development ($M = 4.383$). The most frequently used cultural elements were folk games (54.7%), traditional crafts (45.3%), national clothing (43.3%), and national holidays or rituals (42.7%), while Kazakh language and folklore were reported less often. The main challenge facing implementation was the absence of methodological materials and teaching resources. The study contributes to the limited empirical literature on culturally responsive and project-based approaches in early childhood education by identifying current practices, perceived benefits, and implementation barriers in the Kazakhstan preschool context.

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1. Introduction

The education system in Kazakhstan is undergoing modernization, which has led to increased attention on preschool education as an important stage of human development. It is widely recognized that preschool education lays the foundation for children's cognitive, social, emotional and physical development, as well as the formation of their early cultural identity. The national education policy pays special attention to improving the quality and accessibility of preschool education, as well as promoting pedagogical approaches that support the holistic development of the child.

In recent years, there has been a gradual shift in preschool education toward child-centered pedagogy. These approaches emphasize active participation and interaction and learning through experience rather than passive acquisition of knowledge. One approach that is receiving increasing attention is project-based learning (PBL). This approach encourages children to engage in meaningful activities, explore real-life contexts, and interact with others, thereby supporting the development of their communication and problem-solving skills (Gao & Hall, 2019; Pratami et al., 2024). PBL can be considered a pedagogical approach that supports children's engagement in a structured learning environment.

In addition, large-scale societal processes such as globalization and digitalization have raised concerns about the preservation of national languages, cultural values, and traditions. Early childhood is often described as a sensitive period for the development of identity and value orientations, which makes the inclusion of cultural content in preschool education particularly important. Elements such as language, traditional games, crafts, music, and folklore can contribute to the creation of meaningful learning experiences that are closely linked to children's cultural backgrounds.

In this context, integrating PBL with ethnocultural content—referred to in this study as ethnocultural project-based learning (ECPBL)—is a promising direction in early childhood education. By integrating experiential learning with culturally relevant materials, ECPBL can support developmentally appropriate and culturally informed learning environments. While previous studies have examined PBL and ethnocultural learning separately, empirical evidence on their combined implementation in preschool settings is still limited (Başaran & Bay, 2022; Plotnikova et al., 2025).

In this study, ECPBL is understood as an integrative pedagogical approach in which the inquiry-based, collaborative, and experiential structure of PBL is combined with culturally meaningful content, including language, traditions, folklore, traditional games, crafts, music, and family or community practices. Unlike occasional cultural activities, ECPBL treats ethnocultural content as part of the project process itself and links children's active participation to the development of cultural awareness, communication, creativity, and holistic

learning. This research gap is particularly evident in the context of Kazakhstan, where education reforms have focused on integrating international pedagogical approaches with national cultural priorities. While pilot initiatives have shown a growing interest in ethnocultural and project-based practices, there has been little empirical research on how preschool educators understand and implement these approaches, as well as on the challenges associated with their implementation. The central problem addressed in this study is the limited empirical understanding of how ethnocultural content is integrated into PBL in preschool settings and what factors shape its implementation in practice.

This study explored the perceptions and reported experiences of preschool educators in Kazakhstan and their reported experiences with ECPBL. Because the study is based on self-report data, the results reflect educators' perspectives rather than direct measures of children's developmental outcomes. The study was guided by the following research questions:

1. **Question 1:** How do preschool educators in Kazakhstan understand ECPBL?
2. **Question 2:** How is ECPBL implemented in preschool practices, including the integration of culturally relevant elements?
3. **Question 3:** What factors support or hinder the implementation of ECPBL in preschool settings?

Because the study is exploratory and descriptive in nature, it was guided by research questions rather than predictive hypotheses. This choice reflects the limited prior empirical evidence on ECPBL in preschool education and enabled the study to generate initial, context-specific insights for future hypothesis-driven research. By focusing on educators' perspectives, this study provides context-specific insights into the implementation of culturally responsive, project-based pedagogical approaches in preschool education in Kazakhstan. The theoretical contribution of the study involves clarifying ECPBL as an integrative approach that connects PBL, culturally responsive pedagogy, and holistic early childhood development. Its practical contribution is that it identifies educators' reported practices, perceived benefits, and implementation challenges in the Kazakhstan preschool context.

2. Literature Review

2.1 Holistic Development in Early Childhood Education

Holistic development is commonly considered to be one of the core principles of early childhood education. It refers to the interconnected development of cognitive, social, emotional, physical, and creative domains, rather than focusing on isolated skills or outcomes. Current educational frameworks emphasize that preschool education should support multiple aspects of development simultaneously, rather than focusing solely on academic achievement. A growing body of research suggests that high-quality early childhood education is associated with a number of positive long-term outcomes, including better academic performance, social adjustment, and overall well-being (Başaran & Bay, 2022; Johnstone et al., 2022).

Within this broad perspective, social-emotional development has received particular attention in recent years. Meta-analytic evidence suggests that early childhood programs that include social-emotional learning are associated with better emotional regulation, social competence, and behavioral outcomes (Blewitt et al., 2018; Luo et al., 2022; Murano et al., 2020). Empirical research suggests that children with higher levels of social-emotional competence are more likely to achieve academic and behavioral outcomes in preschool (Martinsone et al., 2022).

Research consistently emphasizes the role of active and experiential learning environments in supporting holistic development. Approaches that incorporate play, exploration, and interaction—for example, outdoor learning and integrated education models—are associated with higher levels of engagement, improved motor skills, and increased emotional well-being (Gil-Moreno & Rico-González, 2023; Rodrigues et al., 2022; Sun et al., 2021; Zeng et al., 2017). These findings suggest that effective early childhood pedagogy should be based on meaningful, interactive experiences that integrate different developmental domains.

2.2 Ethnocultural Values and Cultural Identity in Early Childhood

Early childhood is often described as a sensitive period for the development of cultural identity, values, and a sense of belonging. Children's understanding of culture is shaped not only by formal instruction but also by everyday interactions and experiences, especially when cultural elements are intentionally incorporated in educational experiences (Demircan, 2022; Shih, 2022).

In this context, ethnocultural education can be understood as more than just providing education; it also involves creating a learning environment that reflects and values children's cultural backgrounds. From the perspective of culturally responsive pedagogy, children's cultural backgrounds can be treated as meaningful resources for learning rather than as supplementary classroom content (Gay, 2018). Integrating ethnocultural content into early childhood education in multicultural contexts is linked to both preserving cultural heritage and fostering respect for diversity (Anderstaf et al., 2021; Stier & Sandström, 2018). Research on culturally responsive pedagogy suggests that such approaches can foster empathy, reduce stereotypes, and strengthen social competence (Afifuddin et al., 2025; Çağlayan & Başal, 2025).

The literature highlights a number of practical challenges. Teachers often report that they lack access to methodological guidance, have insufficient resources, and experience difficulties in adapting cultural content to different classroom situations (Demircan, 2022; Stier & Sandström, 2018). As a result, several authors highlight the need for structured approaches that help educators integrate cultural elements such as language, traditions, and folklore in developmentally appropriate and inclusive ways (Suri & Chandra, 2021; Yiğit Gençten & Gultekin, 2024). Despite these recommendations in the literature, ethnocultural education is still often implemented through separate cultural activities rather than as part of a holistic pedagogical framework. This highlights the need for integrative approaches that connect cultural content with broader learning processes.

2.3 Project-Based Learning in Early Childhood Education

PBL has received considerable attention in the literature as an approach that is consistent with the principles of child-centered and experiential learning. In early childhood education, this approach is also closely related to the project approach, which emphasizes children's sustained inquiry, collaboration, and investigation of meaningful topics (Katz & Chard, 2000). PBL in early childhood typically engages children in collaborative exploration of meaningful topics and supports the development of communication, problem-solving, and social interaction skills (Gao & Hall, 2019; Pratami et al., 2024). However, considerably less attention has been paid to how PBL can be systematically combined with ethnocultural content in preschool education.

A number of studies report that PBL can support multiple domains of development simultaneously. For example, project-based and STEAM-focused activities for young children have been associated with increased engagement, creativity, and collaboration (Başaran & Bay, 2022; Muji et al., 2025). Other studies suggest that participation in structured project-based activities may contribute to social-emotional development, particularly in terms of cooperation and emotional understanding (Plotnikova et al., 2023; Plotnikova et al., 2025).

Recent research emphasizes the importance of the learning environment in shaping PBL effectiveness. The use of open-ended materials, game-based strategies, and digital tools has been associated with increased creativity, reflection, and active participation (Alotaibi, 2024; Cankaya et al., 2023; Ghazali et al., 2025). However, despite the growing interest in PBL, much research has focused on general developmental outcomes, with relatively limited attention paid to the role of culture-specific content.

2.4 Ethnocultural Project-Based Learning: An Integrative Approach

The integration of ethnocultural content in PBL—referred to in this study as ECPBL—represents a new direction in early childhood education research. This approach combines experiential learning processes with culturally relevant content and can support participation and cultural awareness. Research reports that culturally themed activities—such as storytelling, traditional games, crafts and cultural celebrations—can increase children's engagement and foster the development of cultural understanding (Nguyen et al., 2025; Shih, 2022). Research on culturally responsive pedagogy highlights the importance of ensuring that cultural content is meaningfully integrated rather than superficially presented (Buchori & Dobinson, 2015; Yiğit Gençten & Gultekin, 2024).

The literature also highlights the complexity of implementing such approaches in practice. In multicultural environments, teachers may need to balance cultural authenticity with inclusive educational practices, while also responding to curriculum requirements and institutional expectations (Afifuddin et al., 2025; Anderstaf et al., 2021; Demircan, 2022). While both PBL and ethnocultural education are well documented in the literature, their integration into a coherent and systematically implemented pedagogical approach, especially in early childhood settings, has been relatively understudied. Conceptually, this study positions ECPBL at the intersection of three perspectives: PBL, culturally

responsive pedagogy, and holistic early childhood development. PBL provides the procedural structure of inquiry, collaboration, exploration, and the creation of meaningful outcomes; culturally responsive pedagogy explains the importance of using children's cultural backgrounds as learning resources; and holistic development emphasizes the interconnection of cognitive, communicative, social-emotional, creative, and physical domains in preschool education. This framework guided the analysis of educators' understanding of ECPBL, their reported integration of ethnocultural elements into project activities, and the factors that support or hinder implementation.

2.5 Teacher Professional Capacity and Implementation Challenges

Teacher professional capacity is widely recognized as an important influence on the implementation of project-based and culturally responsive approaches. Research suggests that professional development can increase teachers' confidence and competence about using PBL and supporting child-centered learning (Pratami et al., 2024; Samuelsson, 2020).

However, research also highlights a number of structural and practical challenges. These include time constraints, insufficient learning materials, strict curriculum requirements, and lack of institutional support (Demircan, 2022; Stier & Sandström, 2018). Teachers often report difficulties in selecting and adapting culturally appropriate content, which highlights the need for clearer methodological guidance (Çağlayan & Başal, 2025; Yiğit Gençten & Gultekin, 2024). Importantly, the implementation of approaches such as ECPBL depends not only on the experiences of individual teachers but also on broader institutional and political circumstances. Sustainable implementation requires a balance between teacher training, curriculum flexibility, and resource availability (Afifuddin et al., 2025; Buchori & Dobinson, 2015).

Although there is substantial literature on PBL and ethnocultural education as separate areas of research, several important gaps remain. First, these two areas are often examined independently rather than as an integrated pedagogical approach. Second, empirical research on the systematic integration of ethnocultural content into PBL in preschool settings remains limited. Third, Kazakhstan remains underrepresented in this literature. Addressing these gaps is essential for developing evidence-based pedagogical strategies. This study contributes to this field by examining how preschool educators in Kazakhstan understand and implement ECPBL.

3. Methodology

3.1 Research Design

This study used a descriptive mixed-methods approach to explore preschool educators' perceptions and reported experiences of ECPBL. A mixed-methods design was considered appropriate because it enabled the study to combine quantitative patterns from closed-ended survey items with qualitative insights from open-ended responses (Creswell & Plano Clark, 2017). This combination made it possible to describe general response patterns while also considering

educators' explanations, challenges, and suggestions as provided in their own words.

The quantitative component of the study aimed to identify trends in the use of ECPBL, including how often ethnocultural elements were incorporated, how educators assessed its relevance for different areas of child development, and what challenges they encountered in practice. The qualitative component added depth through the analysis of open-ended responses, which allowed participants to express their opinions in their own words. Given the exploratory and descriptive nature of the study, the design was intended to identify educators' reported perceptions and practices rather than to test causal relationships or produce statistically generalizable findings.

3.2 Participants

The target population of the study consisted of preschool educators working in Kazakhstan, including kindergarten teachers, methodologists, administrators, and other professionals involved in preschool education. A total of 150 participants involved in preschool education participated in the study. Participants were recruited through professional networks and institutional communication channels using a convenience sampling strategy. The majority of respondents were kindergarten teachers (approximately 74–75%) who were directly involved in the implementation of educational activities in preschool institutions. The remaining participants included methodologists, administrative staff, and other professionals working in the preschool education system.

In terms of professional experience, slightly more than half the participants (approximately 51%) reported having more than 10 years of experience. Approximately 36% had three to 10 years of work experience, while 13% were in the early stages of their careers. This distribution allowed the study to reflect the perspectives of both experienced teachers and those relatively new to the profession. Geographically, the sample was concentrated mainly in Almaty and its surrounding areas, where a large number of preschool institutions are located. Participants from other regions, such as Taraz, Taldykorgan, Almaty region, Zhetysu, and Kyzylorda, were also included. Although this distribution provided some regional diversity, the sample was not intended to be statistically representative of all preschool educators in Kazakhstan.

3.3 Research Instrument

Data were collected through a structured questionnaire containing both closed and open-ended questions. The instrument was developed based on a review of relevant literature on PBL, ethnocultural education, and early childhood pedagogy.

The questionnaire consisted of seven main sections, namely:

- (1) Demographic and professional characteristics;
- (2) Experience with PBL;
- (3) Implementation of ethnocultural projects;
- (4) Perception of developmental relevance;
- (5) Types of ethnocultural content used;

- (6) Parental involvement; and
- (7) Challenges and possible ways to improve practice.

To explore educators' perspectives on child development, respondents were asked to rate their perceived contribution to ECPBL in five areas: communicative, cognitive, creative, social-emotional, and physical development. A five-point Likert scale was used (1 = very low, 5 = very high). Responses reflect subjective perceptions rather than objective measures. The questionnaire was prepared in Kazakh and Russian to ensure accessibility for participants with different language backgrounds.

After data collection, responses from both versions were combined into a single dataset. The questionnaire was developed for the purposes of this exploratory study and is based on the literature reviewed in the manuscript. The items were reviewed before distribution to ensure clarity and relevance; however, no formal pilot testing, psychometric validation or reliability testing was conducted. Therefore, the questionnaire results should be interpreted as descriptive indicators of educators' perceptions rather than as validated measures.

3.4 Data Collection Procedure

Data were collected in 2025 through an online survey using Survey Rock. The survey link was distributed through professional networks, institutional mailing lists, and informal communication channels among preschool educators. Qualitative data was collected through open-ended questions included in the online questionnaire. These questions requested participants to describe their experiences with ethnocultural projects and the implementation challenges they faced, and asked them to provide suggestions for improving practice in their own words.

Participation in the study was voluntary and anonymous. Before completing the survey, participants were informed about the purpose of the study and how the data would be used. Completion of the survey was considered informed consent. To accommodate participants from different linguistic backgrounds, the survey was available in Kazakh and Russian. After the data collection period, responses from the two language versions were combined and analyzed as a single dataset. All data were self-reported by participants and, therefore, reflect educators' perceptions and reported practices rather than direct observations of classroom implementation or children's developmental outcomes.

3.5 Data Analysis

Quantitative data were analyzed using descriptive statistical methods. Frequencies, percentages, means, and standard deviations were calculated to identify general patterns in educators' responses. In line with the exploratory and descriptive purpose of the study, inferential statistical tests were not conducted.

Therefore, the quantitative results are interpreted as descriptive trends rather than statistically tested relationships between variables. Qualitative data from open-ended survey questions were analyzed using thematic analysis, following the general logic of coding and theme development (Braun & Clarke, 2006). The

analysis consisted of several stages, including rereading responses, initial coding, grouping codes into broader themes, and further refining these themes to ensure consistency. The analysis aimed to identify teachers' perceptions of the benefits of ECPBL, the challenges they encountered in practice (e.g., limited resources or methodological support), and their suggestions for improving its implementation.

All data were processed using standard spreadsheet software.

3.6 Ethical Issues

The study was conducted in accordance with general ethical principles applicable to education research. Participation was voluntary and no information that could identify anyone was collected. Anonymity and confidentiality were maintained throughout the research process. Participants were informed about the purpose of the study and the use of the data for academic purposes. By completing the questionnaire, they provided informed consent.

3.7 Limitations

Several limitations should be considered when interpreting the results of this study. First, the use of convenience sampling and voluntary participation may have led to self-selection bias because educators with a particular interest in project-based or ethnocultural practices may have been more likely to participate. Second, although participants originated from several regions, the sample was concentrated mainly in Almaty and surrounding areas, which limits the generalizability of the findings to preschool educators in Kazakhstan. Third, the study relied on self-reported data and did not include direct classroom observations or objective measures of children's developmental outcomes.

As a result, the findings reflect educators' perceptions rather than direct evidence of the effects of ECPBL. Fourth, the questionnaire was not formally piloted or psychometrically validated, and no reliability testing was conducted. Therefore, the results should be interpreted as exploratory and descriptive rather than as statistically validated evidence. Finally, the use of descriptive statistics limits the ability to identify causal relationships or statistically significant associations between variables. Therefore, the findings should be interpreted as exploratory trends describing educators' perceptions and reported practices. Future studies should use more representative sampling strategies, validated instruments, inferential statistical analysis, and additional data sources such as observations, interviews, or child development assessments.

4. Results and Findings

4.1 Participant Characteristics

The study involved 150 early childhood education professionals from Kazakhstan. The majority of participants were experienced early childhood educators, others were methodologists, administrators, and other professionals working in early childhood education. The demographic and professional characteristics of the sample are presented in Table 1.

Table 1: Demographic and professional characteristics of respondents (N = 150)

Variable	Category	n	%
Professional role	Preschool teacher	110	73.3
	Methodologist	12	8.0
	Administrator	9	6.0
	Other specialists	19	12.7
Professional experience in early childhood education	0–3 years	16	10.7
	3–5 years	29	19.3
	6–10 years	25	16.7
	More than 10 years	74	49.3
Region	Almaty and districts	131	87.3
	Other regions of Kazakhstan	13	8.7
	Not indicated	6	4.0
Language of questionnaire	Kazakh	113	75.3
	Russian	37	24.7

Early childhood educators made up the largest proportion of the sample (73.3%, $n = 110$). Other professionals accounted for 12.7% ($n = 19$), followed by methodologists (8.0%, $n = 12$), and administrators (6.0%, $n = 9$). In terms of professional experience in early childhood education, almost half the respondents (49.3%, $n = 74$) reported having more than 10 years of experience. Another 36.0% ($n = 54$) had 3 to 10 years of experience, while 10.7% ($n = 16$) had less than 3 years of experience.

Geographically, the sample was concentrated mainly in Almaty and its surrounding areas (87.3%, $n = 131$). A small number of participants represented other regions of Kazakhstan (8.7%, $n = 13$), and 4.0% ($n = 6$) did not indicate their region. In total 75.3% of respondents ($n = 113$) completed the survey in Kazakh and 24.7% ($n = 37$) in Russian.

4.2 Teachers' Experience of Teaching with Ethnocultural Projects

Table 2 summarizes the respondents' experience with ethnocultural projects, as well as the frequency of implementation.

Table 2: Teachers' experience with ethnocultural projects and frequency of project implementation (N = 150)

Variable	Category	n	%
Experience with ethnocultural projects	Yes	55	36.7
	No	95	63.3
Number of projects implemented in the last three years	None	31	20.7
	1–2 projects	74	49.3
	3–5 projects	34	22.7
	More than 5 projects	11	7.3
Project duration (formats used*)	Short term (< 1 month)	96	64.0
	Medium term (1–6 months)	103	68.7
	Long term (> 6 months)	58	38.7

In total 36.7% of participants ($n = 55$) reported having experience of ethnocultural projects, while the majority (63.3%, $n = 95$) reported not having implemented such

projects. Regarding project activity over the past three years, almost half of participants (49.3%, $n = 74$) reported having implemented one or two projects. A smaller proportion reported having implemented three to five projects (22.7%, $n = 34$) or more than five projects (7.3%, $n = 11$), and 20.7% ($n = 31$) reported not having implemented any projects in this period. Regarding project duration, medium-term formats (1–6 months) were most often mentioned (68.7%, $n = 103$). Short-term projects (less than one month) were also common (64.0%, $n = 96$), while long-term projects (more than six months) were rarely reported (38.7%, $n = 58$). Participants could give multiple responses to this question.

4.3 Perceived Relevance of Project-Based Learning

Among valid responses ($n = 131$), the majority of participants expressed a positive attitude toward PBL. Specifically, 67.2% ($n = 88$) selected Yes, while 18.3% ($n = 24$) indicated partial agreement. Positive responses represented 85.5% of valid responses ($n = 112$). Negative assessments were relatively rare: 5.3% ($n = 7$) expressed partial disagreement, while only 1.5% ($n = 2$) selected No, and 7.6% ($n = 10$) reported that they were not sure. These results indicate the respondents' perceptions of the relevance of PBL in preschool education.

4.4 Integration of Kazakh Cultural Elements in Preschool Projects

The types of cultural elements included in ethnocultural projects are shown in Table 3.

Table 3: Cultural elements included in ethnocultural preschool projects (N = 150)

Cultural element	n	%
Folk games	82	54.7
Traditional crafts and handicrafts	68	45.3
National clothing	65	43.3
National holidays and rituals (e.g., Nauryz)	64	42.7
Traditional household culture (yurt, dishes, objects)	56	37.3
Kazakh language as a cultural component	48	32.0
Music, dance, and traditional instruments	46	30.7
Folklore (fairy tales, legends, proverbs)	45	30.0

Among the reported elements, folk games were most frequently mentioned (54.7%, $n = 82$). Traditional crafts were also widely used (45.3%, $n = 68$), followed by national clothing (43.3%, $n = 65$) and national holidays and ceremonies (42.7%, $n = 64$). Other elements were less often mentioned, such as aspects of traditional domestic culture (37.3%, $n = 56$), Kazakh language (32.0%, $n = 48$), music and dance (30.7%, $n = 46$), and folklore (30.0%, $n = 45$). Total percentages exceed 100% because respondents could select multiple options. This pattern suggests that educators tend to rely more on visible and activity-based cultural elements than on language-related or narrative components. Therefore, the integration of ethnocultural content appears to be uneven, with practical and experiential elements being more frequently represented than linguistic and folklore-based dimensions.

4.5 Contribution to Developmental Areas

Participants rated the contribution of ECPBL to various areas of child development using a five-point Likert scale. Because of incomplete responses, valid data were obtained from 120 participants. The results are presented in Table 4.

Table 4: Teachers' assessment of the contribution of ECPBL (Likert Scale 1-5; n = 120)

Developmental domain	Mean	SD
Creative skills and research activity	4.442	1.015
Cognitive and intellectual development	4.383	0.968
Physical development	4.317	1.041
Communicative skills	4.308	1.079
Social-emotional development	4.283	1.127

The mean values for all developmental areas exceeded 4.0, indicating generally positive assessments. The highest mean scores were observed for creative skills and research activity ($M = 4.442$, $SD = 1.015$), followed by cognitive development ($M = 4.383$, $SD = 0.968$). Physical development ($M = 4.317$, $SD = 1.041$), communication skills ($M = 4.308$, $SD = 1.079$) and social-emotional development ($M = 4.283$, $SD = 1.127$) were also rated positively, but slightly lower, relatively.

These results suggest that educators perceive ECPBL as contributing across multiple developmental domains rather than to a single isolated outcome. At the same time, the slightly higher ratings for creativity and cognition than for communication and social-emotional development may indicate that teachers associated project work more readily with exploration and visible products than with intentionally structured support for language use and emotional regulation.

4.6 Parental Involvement in Ethnocultural Projects

The extent of parental involvement is summarized in Table 5.

Table 5: Degree of parental involvement (N = 150; valid responses n = 113)

Category	N	%
Parents involved at all stages	55	36.7
Parents involved if they are willing	46	30.7
Parents involved only at final events	11	7.3
Almost no parental involvement	1	0.7

According to the results, 36.7% of respondents ($n = 55$) indicated that parents participated in all stages of the project implementation. Another 30.7% ($n = 46$) reported that parental involvement was dependent on parental preference and availability. Limited forms of involvement were less common: 7.3% ($n = 11$) reported that parents only participated at the last stage, and 0.7% ($n = 1$) indicated that parents did not participate at all.

4.7 Challenges and Obstacles in Implementing Ethnocultural Projects

The results of the thematic analysis of open-ended responses are presented in Table 6.

Table 6: Main challenges reported by preschool educators (N = 150; valid responses n = 111)

Reported challenge (coded themes)	n	% of valid responses
Absence of methodological materials and teaching resources	25	22.5
Insufficient technical and visual equipment	8	7.2
Limited access to structured information about traditions and customs	7	6.3
Financial limitations	5	4.5
Time constraints and workload	2	1.8
Lack of parental involvement	1	0.9
Language-related difficulties (e.g., language competence/terminology)	3	2.7
Organizational/institutional constraints (planning/support)	2	1.8
No significant difficulties reported	37	33.3
Unclear/unspecified responses	31	27.9

Note. Respondents could mention more than one challenge in a single response; therefore, percentages across thematic categories could exceed 100%. A total of 39 participants did not provide a response to this open-ended item

The most frequently mentioned challenge was that teachers lacked methodological materials and teaching resources (22.5%, n = 25). Other reported problems include insufficient technical resources (7.2%, n = 8), limited access to structured cultural information (6.3%, n = 7), and financial constraints (4.5%, n = 5). In contrast, a significant proportion of respondents (33.3%, n = 37) reported that they did not encounter any significant difficulties. The open-ended responses helped contextualize these descriptive findings by showing that implementation challenges were not limited to individual teacher motivation. Rather, they were also related to the availability of methodological resources, technical support, structured cultural information, and institutional conditions.

4.8 Teachers' Perspectives on Future Development

Considering the number of valid responses (n = 139), the majority of participants (60.4%, n = 84) supported making ethnocultural projects a mandatory component of preschool education. Another 34.5% (n = 48) supported a flexible approach, depending on the institutional situation, while 5.0% (n = 7) did not support mandatory inclusion. Regarding future plans, 38.1% of respondents (n = 53) reported having specific plans to develop ethnocultural projects.

Another 49.6% (n = 69) expressed general support for further development, albeit without having specific plans. A small group (12.2%, n = 17) expressed no intention of continuing such work. These findings indicate a contrast between educators' generally positive attitudes toward ECPBL, and the practical conditions required for its systematic implementation. The results, thus, suggest

that further development of ECPBL depends not only on teacher interest but also on methodological, organizational, and resource-based support.

5. Discussion

The aim of this study was to investigate how preschool educators in Kazakhstan perceived ECPBL and to identify factors that shaped its implementation. The results indicate that educators viewed ECPBL as a meaningful and potentially valuable approach. The results highlight significant differences in how such practices are understood, implemented, and supported in educational settings.

The study is based on self-report data. Therefore, the discussion does not address specific developmental outcomes for children, but rather focuses on how educators interpreted their experiences and how these interpretations relate to the literature. At the same time, the findings should be interpreted critically. Although educators generally expressed positive views of ECPBL, the results indicate uneven implementation and an imbalance in the use of culture-related components.

Using interactive and visible cultural elements, such as games, crafts, and celebrations, were reported more often than language-related and narrative components. This pattern may reflect contextual factors such as the availability of materials, teachers' methodological preparation, institutional support, time constraints, and differences in local preschool settings. Therefore, the findings should be understood as context-specific perceptions rather than evidence of uniform implementation or direct developmental effects.

5.1 Ethnocultural Project-Based Learning and Holistic Development: Perceived Contributions

One of the most consistent findings is that educators link ECPBL to several areas of child development, particularly creativity and cognitive engagement. This seems to be consistent with a broader understanding of holistic development in early childhood education, where learning is expected to be interconnected rather than limited to isolated skills.

A possible explanation lies in the nature of project-based activities. Such activities often involve making, creating, experimenting with or role-playing processes that naturally engage children in creative thinking and exploration. Similar trends have been observed by other research, where open-ended and project-based formats have been associated with higher levels of engagement and creativity (Cankaya et al., 2023).

In addition, communicative and social-emotional aspects, although positively rated, were rated slightly lower. This may indicate that, although interaction occurs in project work, it is not always intentionally structured to support language development or emotional regulation. As suggested by other scholars, these areas typically require conscious pedagogical support, instead of emerging automatically from engagement (Chen & Tippett, 2022; Shih, 2022).

5.2 Cultural Content: Prioritizing Experiential Elements

Another observed pattern concerns the types of cultural elements used in practice. Educators seem to rely more on interactive and experiential components, such as games, crafts and celebrations, while language and narrative elements are rarely used. Activities such as games or crafts are easier to adapt to preschool settings: They are concrete, interesting and naturally fit into play-based learning. In contrast, systematically integrating language or storytelling often requires additional training and methodological support. In this sense, the relatively limited use of Kazakh in projects may not be the result of a failure to recognize its importance, but rather of practical difficulties in implementation. Similar observations were made by other studies, in which teachers tended to prioritize visible and action-based forms of culture, while complex components such as language were less systematically integrated (Suri & Chandra, 2021; Yiğit Gençten & Gultekin, 2024).

5.3 Teacher Capacity and Institutional Conditions

While the overall perception of ECPBL is positive, the results show clear differences in how actively it is implemented. One of the most frequently cited challenges is the lack of methodological materials, followed by limited access to equipment and structured cultural resources. This suggests that the use of ECPBL is not determined solely by teachers' motivation or interest. Rather, it seems to be strongly related to their working conditions. In settings where teachers have access to materials, guidelines, and institutional support, project-based approaches are more likely to be consistently implemented.

In other settings, their use may be occasional or limited. In the case of Kazakhstan, this variability may reflect differences in resources, professional development opportunities, and curriculum flexibility at different institutions. International studies have described similar patterns in which the implementation of culturally responsive and project-based approaches is strongly linked to broader organizational conditions (Demircan, 2022; Stier & Sandström, 2018).

5.4 The Role of Families and the Socio-Cultural Context

The findings also highlight the role of parents in ethnocultural projects. In many cases, parental involvement takes the form of attending events, preparing materials or contributing to cultural activities. This indicates that ECPBL can serve as a bridge between preschool education and the wider cultural environment. Families play a particularly important role in this context because they often act as cultural knowledge providers. Through joint activities, children gain access to cultural experiences that go beyond the classroom and become part of their everyday experience.

Parental involvement is not equally consistent in different settings. It appears to depend on factors such as parental availability, interest, and the way in which collaboration at an institution is organized. These findings indicate that family involvement in ECPBL is not automatic and may require structured approaches to ensure continuity.

5.5 Implications for Practice and Future Research

The study contributes to the still limited body of research on ECPBL in Kazakhstan. The findings suggest that, while educators generally see the value of ECPBL, its implementation is uneven and influenced by contextual factors.

From a practical perspective, several important areas for further development can be identified:

- The availability of structured methodological materials;
- Stronger integration of language components into project work;
- Targeted professional development for teachers; and
- Institutional conditions that support sustained and systematic implementation.

These implications are based on educators' experiences and should be viewed as practice-oriented rather than prescriptive. Future research could extend this work by using observational or experimental designs to examine children's developmental outcomes directly. Longer-term studies could help us to better understand how sustained participation in ECPBL impacts identity formation, language development, and school readiness over time.

6. Conclusion

This study examined how preschool educators in Kazakhstan perceived ECPBL and how this approach is reflected in their reported professional practice. The findings indicate that educators generally viewed ECPBL as a meaningful and relevant approach for preschool education, particularly in relation to children's creativity, research activity, and cognitive engagement. At the same time, the results indicate that ethnocultural project-based practices are not yet implemented consistently. Many educators reported limited experience with ethnocultural projects, and the main barriers were related to methodological resources, time constraints, technical support, and institutional conditions.

Another important finding concerns the imbalance in the cultural components used in preschool projects. Using interactive and experiential elements such as folk games, crafts, national clothing, and celebrations were reported more often than language-related and folklore-based components. The results suggest that ethnocultural content is often represented through visible and activity-based forms, while deeper linguistic and narrative dimensions may require stronger methodological support. Parental involvement also emerged as an important factor, although its level varied depending on institutional context and family participation.

The study contributes to the limited empirical discussion of ethnocultural and project-based approaches in preschool education in Kazakhstan by identifying current practices, perceived benefits, and implementation barriers. Its practical implication is that ECPBL requires structured methodological materials, teacher training, stronger integration of language and folklore, and institutional support. Since the findings are based on self-reported data, they should be interpreted as exploratory rather than as direct evidence of developmental outcomes. Future research should use more representative samples, validated instruments,

observational data, and inferential analysis to examine how ECPBL influences children's development and preschool practice over time.

Conflict of Interest

The authors declare that there were no conflicts of interest regarding the publication of this paper.

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