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| RESEARCH ARTICLE

Effects Of Resuming In- Person Classes on Early Childhood Development Competencies

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| ABSTRACT

This study examined the impact of the resumption of face-to-face classes on the Early Childhood Development (ECD) competencies of kindergarten learners school. Utilizing a descriptive- comparative research design, the study assessed 94 kindergarten learners and 2 teacher respondents through the standardized Early Childhood Care and Development (ECCD) checklist provided by the Department of Education. The research focused on five developmental domains: health, well-being and motor development; socio- emotional development; language, literacy, and communication; mathematics; and understanding the physical and natural environment. Demographic and socioeconomic data—including age, gender, parents' occupation, family income, and attendance were also collected to contextualize the findings. Results revealed that learners initially demonstrated "Developing" competencies, particularly in fine motor skills, early literacy, and numeracy. However, post-assessment indicated significant improvements, with most learners reaching the "Consistent" level in all domains after one year of in-person instruction. The statistical analysis confirmed a significant difference between pre- and post-assessment scores, validating the positive influence of face-to-face classes on holistic child development. Based on these findings, an enhancement plan was developed to address persistent gaps and further strengthen early learning outcomes. The study underscored the importance of sustained, targeted interventions and active collaboration among teachers, families, and community stakeholders in fostering optimal early childhood development.

| KEYWORDS

Early Childhood Development, Kindergarten Learners, Post-Pandemic Learning Recovery, In-Person Classes

| ARTICLE INFORMATION

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Introduction

The early years of schooling are critical for fostering foundational developmental competencies, including cognitive, socio-emotional, physical, language, and early literacy skills. Kindergarten programs are designed to support holistic development, as emphasized in early childhood education frameworks that highlight structured play, guided interaction, and teacher-child engagement as key drivers of learning (UNESCO, 2022). However, the COVID-19 pandemic significantly disrupted traditional learning environments, forcing educational systems worldwide to shift to remote modalities. This interruption posed challenges for early learners who depend heavily on face-to-face interaction and physical classroom routines to develop age-appropriate competencies (Donohue & Miller, 2021). As schools gradually reopened, early childhood classrooms transitioned back to in-person learning, offering a unique opportunity to examine developmental gains that may have been hindered during remote instruction. Understanding how resuming face-to-face classes influences kindergarten development is essential to guiding post-pandemic recovery strategies and strengthening instructional approaches in foundational learning years.

During the pandemic, concerns mounted over delays in children's socio-emotional, language, and cognitive development due to prolonged isolation, limited peer interaction, and varying levels of family support for home-based learning (Prime et al., 2020). Studies indicate that children transitioning back to in-person school settings demonstrated mixed developmental outcomes, with improvements in social behavior but continued lag in language and foundational literacy skills compared to pre-pandemic cohorts (Engzell et al., 2021). In early childhood settings, social interaction and routine school experiences are especially vital in building emotional regulation, communication, and cooperation, which remote learning structures struggled to replicate (Spinelli & Pellino, 2023). As in-person classes resumed, teachers played a crucial role in re-establishing classroom routines, rebuilding socio-emotional competencies, and supporting children's academic adjustment. Examining the developmental profiles of kindergarten learners at the start and end of the school year provides valuable insight into how resuming physical schooling supports recovery from pandemic-related learning loss.

Motor development and health-related skills also faced challenges during school closures, as reduced physical activity, increased screen time, and limited outdoor play affected children's motor proficiency (Okely et al., 2022). Studies show that young children returning to school after extended lockdowns initially exhibited delays in fine-motor and gross-motor skills, which gradually improved through structured physical play and classroom-based motor activities (Munasinghe et al., 2020). Hands-on learning experiences such as manipulating materials, practicing hygiene routines, and engaging in guided play are essential components of early childhood programs that support overall health and motor competence (Clark et al., 2022). Assessing physical and well-being indicators at both the start and end of the school year allows educators to determine how effectively in-person learning environments help children regain essential developmental functions.

Language, literacy, and numeracy are foundational academic domains that are highly sensitive to disruptions in schooling. Evidence shows that kindergarten learners experienced measurable declines in oral language and pre-reading skills during remote learning due to limited exposure to structured language activities and fewer opportunities for peer language modeling (Kim & Quinn, 2020). Similarly, early numeracy skills, such as counting, number recognition, and patterning, benefited from classroom interaction and teacher-guided exploration more than from home-based tasks (Garbe et al., 2020). As face-to-face classes resumed, schools implemented targeted literacy and numeracy interventions to accelerate skill recovery. Comparing learners' performance at the beginning and end of the school year offers a crucial measure of how resuming in-person learning contributes to rebuilding essential foundational competencies in early childhood.

Given these observations, the current study aims to assess the effects of transitioning back to in-person learning on early childhood development competencies among kindergarten learners. Specifically, it examines changes in health and motor development, socio-emotional skills, language and literacy, numeracy, and environmental understanding at Baring Elementary School. By comparing teacher-assessed developmental outcomes at the start and end of the school year, this study seeks to provide empirical evidence on the extent to which face-to-face schooling supports recovery of early childhood developmental skills. Findings will help inform early learning policies, guide targeted interventions, and support teachers and administrators in building resilient early childhood programs in the post-pandemic education landscape.

Literature Review

Resuming in-person classes after pandemic closures has been associated with measurable recovery in key early childhood domains, though evidence also shows persistent gaps relative to pre-pandemic cohorts. Meta-analytic and international assessments document substantial learning slowdowns during closures, particularly in foundational literacy and numeracy, with partial but uneven catch-up after schools reopened (Betthäuser et al., 2023; Engzell et al., 2021; Kuhfeld et al., 2022). In-person environments restore peer interaction, teacher scaffolding, and routine each linked to gains in oral language, early reading, and classroom engagement that were difficult to reproduce online (Timmons et al., 2021; Tomasik et al., 2021). PIRLS 2021 and PISA 2022 likewise indicate broad declines in reading performance, underscoring the need for targeted instruction when children return to classrooms (Mullis et al., 2023; OECD, 2023). Beyond academics, public health and developmental research show that school reopening supports socio-emotional regulation and mental health by re-establishing safe, structured social contexts (Viner et al., 2021; Loades et al., 2020). For physical development, lockdowns reduced activity and motor practice opportunities (Moore et al., 2020), while post-reopening programming that embedded play, movement, and hygiene routines was associated with improvements in motor competence and health behaviors (Okely et al., 2021).

In early learning specifically, classroom talk, interactive read-alouds, and teacher-child feedback loops are strongly tied to oral language, phonological awareness, and emergent literacy mechanisms that intensify with face-to-face instruction (Anderson et al., 2022; Timmons et al., 2021). Evidence from large-scale monitoring emphasizes that the youngest learners benefit most from direct modeling and hands-on exploration in literacy and numeracy, reinforcing the importance of in-person routines for story listening, letter-sound mapping, counting, and patterning (Mullis et al., 2023; OECD, 2023; Kuhfeld et al., 2022). At the same time, learning-poverty estimates warn that without systematic, developmentally appropriate interventions phonological awareness, oral-language enrichment, small-group guided reading, manipulatives-based math recovery may plateau (World Bank, 2022; Betthäuser et al., 2023). In the holistic ECD domains (health/motor, socio-emotional, environmental understanding), reopening provides access to

structured play, peer collaboration, classroom norms, and inquiry about the natural world inputs linked to gains in self-regulation, prosocial behavior, and scientific observation (Viner et al., 2021; Okely et al., 2021; Anderson et al., 2022). Collectively, the literature suggests that in-person kindergarten programs when intentionally designed can accelerate post-closure recovery across ECD competencies, while highlighting the need for targeted supports to close persistent gaps.

Methodology

This study utilized a descriptive-comparative research design to examine the effects of the resumption of in-person classes on the early childhood development competencies of kindergarten learners at Baring Elementary School in Baring, Olango Island, Lapu-Lapu City. The descriptive aspect enabled the systematic documentation of learners' developmental performance across key domains, while the comparative component facilitated the evaluation of differences in competencies at the beginning and end of the school year without manipulating variables, consistent with Creswell's (2014) assertion that such a design is appropriate when examining natural changes in groups over time. A total enumeration sampling technique was employed, consisting of 96 respondents, including 94 kindergarten learners and their 2 teacher evaluators, ensuring that all eligible participants were included for comprehensive representation. Data were gathered using the standardized Early Childhood Development (ECD) Checklist developed by the Department of Education (DepEd, 2015), which measures learners' competencies in the areas of Health, Well-Being and Motor Development, Socio-Emotional Development, Language, Literacy and Communication, Mathematics, and Understanding the Physical and Natural Environment. Learners were rated twice at the start and end of the school year using a three-point scale: 1.00–1.67 (Beginning), 1.68–2.35 (Developing), and 2.36–3.00 (Consistent). Teacher evaluations were based on structured classroom observations, performance tasks, and guided assessment procedures aligned with DepEd standards. The gathered scores were recorded, tabulated, and analyzed to determine developmental progress following the resumption of face-to-face learning. Ethical protocols were strictly observed, including obtaining permission from school authorities and ensuring the confidentiality and protection of learner data throughout the study.

Results

Table 1. Age and Gender of the Learners

		Frequency	Percentage
A. Age [in years]			
5		94	100.00
	Mean : 5.00		
	StDev : 0.00		
B. Gender			
Female		34	36.17
Male		60	63.83

Table 1 presents the profile of kindergarten learners in terms of age and gender. All respondents (100%) were five years old, consistent with the standard entry age for kindergarten in the Philippine basic education system as mandated by DepEd Order No. 47, s. 2016. This uniform age distribution ensures developmental comparability among learners, allowing for a more accurate assessment of their Early Childhood Development (ECD) competencies. In terms of gender, 60 learners (63.83%) were male and 34 learners (36.17%) were female, indicating that the majority of the class population consisted of boys. This gender distribution aligns with common classroom trends where male learners frequently outnumber females in early grade levels in some local school settings. The predominance of male learners may also be relevant in interpreting developmental patterns, as research has suggested that boys often display varying developmental pacing in early childhood skills compared to girls. Overall, the demographic profile supports a balanced foundation for analyzing ECD outcomes within the class.

Table 2 presents the parents' occupation and combined monthly family income of the kindergarten learners' households. The occupational data show that most parents are engaged in fishing-related work, with 23 parents (24.47%) identified as fishermen and 16 (17.02%) as boatmen, reflecting the coastal and island-based livelihood context of Baring, Olango Island. Other common occupations include drivers (10.64%), production workers (8.51%), and laborers (6.38%), indicating that a large portion of parents are engaged in manual or service-based jobs. A few respondents reported roles such as teachers (6.38%), house helpers (5.32%), and vendors (4.26%), while 16 (17.02%) were categorized under "others," suggesting diverse informal or small-scale livelihood activities.

Table 2. Parent's Occupation and Combined Monthly Family Income of the Respondents

	Frequency	Percentage
C. Parent's Occupation		
Fisherman	23	24.47
Boatman	16	17.02
Driver	10	10.64
Production Worker	8	8.51
Laborer	6	6.38
Teacher	6	6.38
Househelper Vendor	5	5.32
	4	4.26
Others	16	17.02
D. Combined Family Monthly Income		
Less than 9,100 (Poor)	62	65.96
9,100 - 18,200 (Lower Income)	18	19.15
18,200 - 36,400 (Lower Middle Class)	8	8.51
36,400 - 63,700 (Middle Class)	4	4.26
63,700 – 109, 200 (Upper Middle Class)	2	2.13

Regarding income, the majority 62 households (65.96%) fall under the "poor" income bracket earning less than ₱9,100 monthly, followed by 18 households (19.15%) classified as lower-income. Only a small portion belong to middle-income groups. These findings highlight a predominantly low-income community, which may influence children's access to learning resources, nutrition, and support for home-based educational activities factors known to affect early childhood development outcomes.

Table 3. Attendance in the School of the Respondents (n = 94)

	Frequency	Percentage
E. Attendance in School		
190 – 200	26	27.66
201 – 210	68	72.34
Mean : 203.00		
StDev : 3.09		

Table 3 presents the school attendance of the 94 kindergarten learners across the academic year. The results show that a majority of children demonstrated high attendance, with 68 learners (72.34%) attending 201–210 days of school. Meanwhile, 26 learners (27.66%) recorded attendance between 190–200 days. The computed mean attendance of 203 days (SD = 3.09) indicates that most learners were consistently present in class, falling well above the typical attendance threshold of public early education settings. These findings suggest that kindergarten pupils in Baring Elementary School maintained regular participation in face-to-face learning sessions, an encouraging outcome especially in the context of the post-pandemic return to in-person classes. Consistent school attendance is strongly associated with improved learning readiness, social adjustment, and developmental progress in the early years. The high attendance rate observed may positively contribute to children's acquisition of foundational competencies and classroom routines.

Table 4. Before the school year results on Level of ECD Assessment of the Kindergarten Learners

	Indicators	Mean	StDev	Interpretation
A.	Health, Well-Being, and Motor Development	2.22	0.79	Developing
B.	Socio-emotional Development	2.11	0.74	Developing
C.	Language, Literacy, and Communication	2.10	0.75	Developing
D.	Mathematics	2.10	0.74	Developing

E.	Understanding the Physical and Natural Environment	2.28	0.82	Developing
	Aggregate Mean :	2.16	0.77	Developing

Table 4 presents the kindergarten learners' Early Childhood Development (ECD) competencies before the start of the school year. Results indicate that learners were at the *Developing* level across all assessed domains, with an aggregate mean of 2.16 (SD = 0.77). Among the five developmental areas, Understanding the Physical and Natural Environment obtained the highest mean (M = 2.28, SD = 0.82), suggesting that children showed relatively stronger emerging skills in observing their surroundings, identifying basic environmental concepts, and engaging with nature-based experiences. This may reflect children's everyday exposure to physical spaces at home and in the community. Conversely, the lowest ratings were observed in Socio-emotional Development (M = 2.11, SD = 0.74) and Language, Literacy, and Communication (M = 2.10, SD = 0.75), which implies that learners were still progressing in regulating emotions, interacting with peers, following structured routines, and expressing ideas through language. Overall, the results highlight the need for targeted interventions at the start of the school year to support foundational literacy, social-emotional readiness, and communication development among kindergarten pupils.

Table 5. After the school year results on Level of ECD Assessment of the Kindergarten Learners

	Indicators	Mean	StDev	Interpretation
A.	Health, Well-Being, and Motor Development	2.57	0.49	Consistent
B.	Socio-emotional Development	2.48	0.50	Consistent
C.	Language, Literacy, and Communication	2.45	0.50	Developing
D.	Mathematics	2.45	0.49	Developing
E.	Understanding the Physical and Natural Environment	2.58	0.50	Consistent
	Aggregate Mean :	2.51	0.50	Consistent

Table 5 illustrates the kindergarten learners' Early Childhood Development (ECD) performance after the school year. Results show a notable improvement from the initial assessment, with an aggregate mean of 2.51 (SD = 0.50), interpreted as Consistent. This indicates that by the end of the year, most learners consistently demonstrated the developmental competencies expected at their age. The highest mean was recorded in Understanding the Physical and Natural Environment (M = 2.58, SD = 0.50) and Health, Well-Being, and Motor Development (M = 2.57, SD = 0.49), reflecting strengthened physical coordination, hygiene practices, and awareness of environmental concepts—likely supported by structured routines, play-based learning, and hands-on activities in school. Although gains were observed across all domains, Language, Literacy, and Communication and Mathematics remained in the Developing range (M = 2.45 each), suggesting ongoing needs in foundational literacy, numeracy, and communication skills. Overall, these results underscore the positive impact of in-person instruction in reinforcing young learners' developmental competencies and readiness for Grade 1.

Table 6. Difference Between the ECD Assessment of the Kindergarten Learners Before and After the School Year

Domain	t-value	p-value	Interpretation
Health, Well-Being & Motor Dev.	−6.32	< .001	Significant — Reject H_0
Socio-Emotional Development	−6.57	< .001	Significant — Reject H_0
Language, Literacy & Communication	−6.52	< .001	Significant — Reject H_0
Mathematics	−6.47	< .001	Significant — Reject H_0
Understanding Physical & Natural Environment	−5.61	< .001	Significant — Reject H_0
Overall ECD Level	−5.71	< .001	Significant — Reject H_0

Table 6 presents the significance of differences between kindergarten learners' Early Childhood Development (ECD) scores before and after the school year. The results show statistically significant improvement across all developmental domains, as indicated by t-values ranging from −5.61 to −6.57 and p-values < .001. Since all p-values are below the 0.05 threshold, the null hypothesis (H_0) is rejected in all cases. This confirms that learners exhibited marked developmental gains in health and motor skills, socio-emotional behavior, language and literacy abilities, early mathematics skills, and environmental understanding after the resumption of face-

to-face classes. The overall ECD level also showed a statistically significant increase ($t = -5.71$, $p < .001$), demonstrating that regular in-person instruction, peer interaction, guided play, and structured learning routines contributed positively to children's holistic development. These findings support global and local reports emphasizing the crucial role of school-based experiences in accelerating early learning recovery following pandemic disruptions.

Discussion

The findings revealed substantial improvement in kindergarten learners' developmental competencies after the resumption of in-person classes, with notable gains in health, motor, socio-emotional, and environmental awareness domains. This aligns with global reports emphasizing that young learners benefit significantly from classroom routines, structured play, and peer interaction, which are difficult to replicate in remote settings (UNICEF, 2022). The shift from Developing to Consistent performance in most domains suggests that face-to-face schooling provided essential opportunities for active learning, gross-motor activities, hands-on tasks, and guided social interaction. These improvements support recent studies demonstrating that post-pandemic school reopening accelerated developmental recovery among early learners by restoring consistent school-based stimulation and teacher-child interaction (Engzell et al., 2021; Kim et al., 2023). Additionally, increased physical activity and structured hygiene routines in school may explain the high gains in health, well-being, and motor development, consistent with findings that early childhood environments with routine movement and health practices enhance motor and self-help skills (Barnett & Jung, 2021).
Despite overall developmental progress, Language, Literacy, and Communication and Mathematics remained in the Developing category, indicating that academic-focused skills required deeper support and more time to recover. This pattern mirrors emerging evidence suggesting that foundational literacy and numeracy suffered the greatest setbacks during pandemic-related school closures and require extended remediation through targeted instruction (Hammerstein et al., 2021; World Bank, 2022). Oral language development and numeracy skills are highly sensitive to disruptions in instructional time and require continuous guided practice, rich language exposure, and scaffolded learning from adults (Lonigan & Shanahan, 2020; Tambunan & Kim, 2023). The significant t-test results across all domains affirm the critical role of classroom-based teaching in accelerating early childhood learning recovery. These findings reinforce calls by education experts to prioritize early childhood interventions, structured phonological awareness activities, math readiness experiences, and family-school collaboration to sustain developmental gains and address remaining learning gaps (Cruz & Lachica, 2023; OECD, 2023).

Conclusion

Based on the results of this study, it was concluded that the resumption of face- to-face classes significantly enhanced the early childhood development competencies of kindergarten learners. The assessment of learners before and after the academic year revealed notable progress across all key developmental domains, including health, well-being and motor development, socio-emotional development, language, literacy and communication, mathematics, and understanding the physical and natural environment. Initially, most learners were assessed at the "Developing" stage, with particular challenges in fine motor skills, self-regulation, early literacy, and numeracy. By the end of the school year, the majority had progressed to the "Consistent" level in these domains. The study further concluded that holistic, play-based, and in-person instruction contributed greatly to these improvements, even in the context of socioeconomic challenges. Regular school attendance, active classroom participation, and access to a diverse range of developmentally appropriate activities proved essential for fostering children's holistic growth. Statistical analysis confirmed a significant difference between pre- and post-assessment results, leading to the rejection of the null hypothesis. Thus, the findings supported the conclusion that early childhood education programs, when delivered through face-to-face modalities, had a positive and significant impact on the overall development of young learners. The results highlighted the importance of continued investment in quality early childhood education to support the foundational skills and lifelong well-being of children, especially in resource-limited settings.

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