PLAY SKILLS, TEACHERS' EXPERIENCES, AND PARENTS' ENGAGEMENT ON KINDERGARTENERS' LEARNING PERFORMANCE: A CAUSAL MODEL

Play Skills, Teachers' Experiences, and Parents' Engagement on Kindergarteners' Learning Performance: A Causal Model

Shamer K. Mantawil,*Ma. Fe D. Opina
For affiliations and correspondence, see the last page.

Abstract

The present study investigated the play skills of kindergarteners, the experiences of their teachers, and the engagement of their parents, and examined the influence of these factors on the learning performance of the kindergarteners. It primarily utilized Predictive-Correlational and Causal Model designs, covering 226 kindergarten teachers from remotely located primary and elementary schools. Kindergarteners were also observed during their playtime, and their learning performances were also collected. Results revealed that play skills, particularly problem-solving and turn-taking skills, are significantly related to learning performance and that the best predictor of learning performance is the Verbalizations about the Play Scenario under play skills. Lastly, the causal model-3, which proved to be the best-fitted model, revealed that turn-taking, entrance to the playgroup, and verbalizations about the play scenario are skills that potentially augment problem-solving skills and amplify their influence on learning performance. The study concluded that problem-solving skills and verbalization of the play scenario are critical factors affecting the learning performance of kindergarteners. Finally, this study concludes that play skills, as mentioned in several research papers, consistently affect learning performance. Thus, it recommends continually nurturing play skills to effectively enhance learners' learning performance.

Keywords: *kindergarteners, play skills, teachers' experiences, parents' engagement, learning performance*

Introduction

The groundwork of this research originated from the researcher's observations in the classroom settings of kindergartens in public schools, particularly in remote areas. Some of the issues concerning the kindergarten classroom setting are the unavailability of classrooms intended for kindergarten classes, insufficient funds for classroom materials, inadequate instructional materials, a small classroom environment, and the unavailability of workbooks for every pupil (Larawan, 2023). These observations lead him to believe that the kindergarten classroom locally, which should promote play-based learning, is somewhat less prioritized. In addition, the author of this study strongly believes in the importance of a supportive environment for young learners, providing them with sufficient opportunities to play and enrich their knowledge in an enjoyable learning environment.

Corpuz et al. (2016) suggested that a child's early education sets the stage for their entire growth and for lifelong learning. A paper written by Tran (2013) and released by the Asia-Pacific Regional Network for Early Childhood (ARNEC) further said that a child's early experiences have the potential to either support or impede their entire development. This would rely on their protection, learning opportunities, family and community care practices, nutrition and health service quality, and accessibility. Prioritizing initiatives and enhancing regulations that support each child's holistic development or overall formation is so essential.

Anent this, the researcher would like to focus his study on certain aspects that he believes play a significant role in affecting the child's learning performance. The researcher would like to focus on the Play Skills of Kindergarteners, the Experiences of Teachers, and parents' engagement as well.

Despite the enormous beneficial contribution of Play in the holistic development of children, Strauss (2016) mentioned in her article that the emphasis of today's school reform is more on "rigorous instruction," and young children are forced to sit at their desks doing academic work and sometimes with little or no recess and/or sufficient physical education. She then added that there is a dramatic decrease in play among kindergartens and pre-K classrooms.

In addition, the experiences of kindergarten teachers are a significant component of this study, given their impact on the holistic development of each kindergarten student. According to a study by Quileste and Pagara (2022), experiences were used to describe the duties of an Early Childhood Education teacher. These duties included but were not limited to creating schedules and enforcing them, maintaining a safe and comfortable environment, supervising and disciplining children according to their age, planning and executing lessons, observing and communicating effectively, and attending to special needs or cultural differences (Measom, 2018). In summary, these experiences influence the curriculum for early childhood education, which may have an immediate impact on kindergarten students' ability to refine their developmental domains.

Another salient aspect of this study is the parents' engagement in school. In a recent study by Beycioglu (2016), it was cited that parental involvement and/or engagement are among the most prominent and debated issues in education. Recent findings by Yonson (2016), a researcher from the Philippine Normal University, also revealed that the level of parental engagement and/or involvement in academics and extracurricular activities is highly significant at the Elementary level, and similarly significant in their role as members of the Parent-Teacher Association. This is a strong indication that parent engagement is really a vital contributor not only to improving

their children's performance in school but the school as a whole and the center of the educative process.

The above contentions and issues regarding the significance of Play Skills in Kindergarteners, Experiences of Kindergarten Teachers, and Parents' Engagement, which are believed to influence the learning performance (developmental domains) of children, awaken the researcher's mind and heart, leading him to pursue this humble study.

Research Questions

This study seeks to answers the following questions.

1. What is the level of Play Skills of the Kindergarteners in terms of the following:
    1.1. pretending objects;
    1.2. role-playing;
    1.3. verbalizations about the play scenario;
    1.4. verbal communication during play episode;
    1.5. persistence in play;
    1.6. interactions;
    1.7. entrance into a play group;
    1.8. problem solving;
    1.9. turn taking; and
    1.10. support of peers?
2. What is the level of Kindergarten Teachers' Experiences in terms of the following:
    2.1. learning needs;
    2.2. objectives;
    2.3. testing;
    2.4. materials;
    2.5. teaching;
    2.6. thought expression;
    2.7. feeling expression;
    2.8. attitude formation;
    2.9. value discussion;
    2.10. knowledge mediation; and
    2.11. action execution?
3. What is the level of Parents' Engagement in terms of the following:
    3.1. parent knowledge;
    3.2. efficacy;
    3.3. school climate;
    3.4. teachers' outreach; and
    3.5. parental influence on decision-making?
4. What is the Learning Performance of the Kindergarteners in terms of the following learning areas:
    4.1. socio-emotional development;
    4.2. physical health and motor development;
    4.3. mathematics;
    4.4. physical and natural environment; and
    4.5. Language, Literacy, and Communication?
5. Is there a significant relationship between the kindergarteners' learning performance and:
    5.1. kindergarteners' play skills;
    5.2. teachers lived experiences; and
    5.3. parents' engagement?
6. Which of the variables, singly or in combination, best predicts the learning performance of kindergarteners?
7. What causal model best fits the Learning Performance of Kindergarteners?

Methodology

Research Design

This study primarily employed a quantitative method in research, whereby, according to Herbst and Coldwell (2004), it describes, infers, and resolves problems using numerical data. In addition, its emphasis is placed on collecting numerical data, summarizing that data, and drawing inferences from the data. The research designs included Predictive-Correlational and Causal Models.

A descriptive quantitative research design was employed to describe the extent of kindergarteners' play skills, teachers' experiences, and parents' engagement. Descriptive research, according to Calderon (2006), is a purposeful process that involves obtaining,

evaluating, categorizing, and tabulating data about current circumstances, procedures, patterns, and cause-and-effect relationships.

Correlational Quantitative research design was used to investigate how kindergarteners' play skills, teachers' experiences, and parents' engagement significantly influence the Learning Performance of kindergarteners. Furthermore, correlation research is characterized by a non-causal type of research, as neither variable is considered the leading cause of the escalation or de-escalation of the consequences (McCoombes, 2019). A correlational research design measures the relationship between two or more variables without the researcher controlling either of them.

Lastly, Causal research design was also considered in the conduct of this study, as it reveals the acceptable causal model for establishing how Kindergarteners' play skills, teachers' experiences, and parents' engagement are intertwined with Learning Performance. Oppewal (2010) posited that causal research seeks to investigate causal relationships and, therefore, always involves one or more independent variables (or hypothesized causes) and their relationships with one or more dependent variables. Causal relationships can be tested using statistical and econometric methods.

Respondents

This study involved respondents from primary elementary schools located in remote areas within Cotabato Province. The participants included Kindergarten Teachers, while kindergarteners were naturally observed for their play skills. Secondary data on their learning performance was also collected with strict confidentiality.

The study utilized both probability and non-probability sampling techniques. Simple random sampling (using the lottery method) was employed to select at least two kindergartners per classroom for observation. Meanwhile, purposive sampling was used to select the Kindergarten Teachers. A total of 226 teachers participated, with the remaining four excluded based on the study's criteria. Additionally, 452 kindergarteners (two per classroom) were randomly observed.

Instrument

Research instruments are crucial in providing valid and reliable data for the study's purpose. Available questionnaires were adapted to gather data, particularly on the Level of Play Skills and Teachers' Experiences. To measure the quality of kindergarten play skills, a checklist was adapted from the book "Play: The Pathway from Theory to Practice," authored by Sandra Hedimann and Deborah Hewitt. Likewise, in measuring the level of Experiences of Kindergarten Teachers, an adapted questionnaire was utilized from the study of Quileste (2022).

Furthermore, a researcher-structured questionnaire was also crafted, patterned after the study by Ishimaru, Lott, Fajardo, and Salvador (2014), to solicit responses from parents and measure the extent of parental engagement. Validation and Pilot testing were conducted to ensure the validity and reliability of these questionnaires.

Procedure

For collecting data, the researcher used an organized and ethical procedure. First, clearance from the Liceo de Cagayan University Research Ethics Board (REB) and approval from the Dean of the School of Teacher Education were obtained. After receiving approval from the superintendent of the Cotabato Schools Division, the researcher reviewed the study instruments and ensured that all panel recommendations were considered. After receiving approval, the researcher visited the eligible schools and spoke with participants and kindergarten teachers. The study was conducted with rigorous attention to ethical principles, including informed consent, confidentiality, and trust-building.

Data Analysis

To interpret the results, this study required statistical analysis to answer the quantitative research questions. The mean was used to reveal the levels of Kindergarteners' play skills, teachers' experiences, parents' engagement, and Learning Performance of the Kindergarteners. Furthermore, Pearson's R Correlation Analysis was used to determine the significant relationship between kindergarten students' learning performance and Play Skills, teachers' experiences, and parents' engagement. To determine the variable(s) that best predict(s) the kindergartners' learning performance, Multiple Regression Analysis was used. Lastly, Structural Equation Modeling was employed to derive the causal model that best fits the Learning Performance of the Kindergarteners.

Results and Discussion

Problem No. 1: What is the level of Play Skills of the Kindergarteners in terms of the following:

    1.1. pretending objects;
    1.2. role-playing;
    1.3. verbalizations about the play scenario;
    1.4. verbal communication during play episode;
    1.5. persistence in play;
    1.6. interactions;

1.7. entrance into a play group;
1.8. problem solving;
1.9. turn taking; and
1.10. support of peers?

Table 1 summarizes the findings on kindergarteners' level of play skills which revealed that the kindergarteners obtained the highest mean of M=3.67, SD=1.14 for Support of Peers followed by Problem Solving (M=3.58, SD=1.14), Interactions (M=3.54, SD=1.224), and Pretending with Objects (M=3.52, SD=1.23) all fall under high level with the description of almost every time. It can be inferred that kindergarteners regularly demonstrate these play skills during their playtime.

Table 1. *Level of Play Skills of the Kindergarteners*

Sub-Variables	Mean	SD	Description	Interpretation
Pretending Objects	3.52	1.23	Almost Every Time	High
Role-Playing	3.26	1.20	Occasionally	Moderately High
Verbalizations about the Play Scenario	3.34	1.24	Occasionally	Moderately High
Verbal Communication during Play Episode	3.24	1.26	Occasionally	Moderately High
Persistence in Play	3.36	1.16	Occasionally	Moderately High
Interactions	3.54	1.22	Almost Every Time	High
Entrance into a Play Group	3.33	1.16	Occasionally	Moderately High
Problem Solving	3.58	1.14	Almost Every Time	High
Turn Taking	3.38	1.08	Occasionally	Moderately High
Support of Peers	3.67	1.15	Almost Every Time	High
Over-all Mean	3.42	1.18	Occasionally	Moderately High

Whereas Turn Taking (M=3.38, SD=1.08), Persistence in Play (M=3.36, SD=1.16), Verbalizations about the Play Scenario (M=3.34, SD=1.26), Entrance into a Play Group (M=3.33, SD=1.16), Role-Playing (M=3.26, SD=1.20), and Verbal Communication during Play Episode (M=3.24, SD=1.26) all fall at moderately high level with the description of occasionally. This denotes that kindergartener in this study irregularly demonstrated the above play skills.

The overall mean is M = 3.42, SD = 1.18, described as "occasionally," which can be interpreted to mean that the kindergarteners have a moderately high level of play skills. This indicates that the observed kindergartners demonstrated marginal skills when playing. This may be because children in rural and remote areas have less experience playing both at home and at school. In addition, this may also be due to the rigid class structure, which tends to focus fully on academic endeavors, potentially depriving children of the opportunity to play.

The current findings are supported by Straus (2016), who pointed out that, despite the enormous beneficial contributions of Play in the holistic development of children, today's school reform is more focused on "rigorous instruction." Young children are often forced to sit at their desks doing academic work, sometimes with little or no recess and/or insufficient physical education. She then added that there is a dramatic decrease in play among kindergartens and pre-K classrooms.

Furthermore, UNICEF Philippines' Chief of Education, an agency that strongly supports Early Childhood Education in the Philippines, mentioned that, in many rural, remote, and disadvantaged areas in our country, parents are generally unaware that various forms of play keep children healthy and sharpen a child's skills in listening, self-expression, observation and other skills for beginning literacy. They also noted that play-based learning could be the key to developing an early love of learning, which can improve school attendance, creativity, and ultimately make a significant difference in a child's success or failure when they start formal schooling.

Problem No. 2: What is the level of Kindergarten Teachers' Experiences in terms of the following:

2.1. learning needs,
2.2. objectives,
2.3. testing,
2.4. materials,
2.5. teaching,
2.6. thought expression,
2.7. feeling expression,
2.8. attitude formation,
2.9. value discussion,
2.10. knowledge mediation, and
2.11. action execution?

As exhibited in table 2, the participants obtained the highest mean of M=4.82, SD=.399 for Value Discussion and Feeling Expression, followed by Thought Expression (M=4.80, SD=424), Attitude Formation (M=4.76, SD=.489), Knowledge Mediation (M=4.69, SD=.509), Objectives (M=4.63, SD=.519), Action Execution (M=4.61, SD=.59), Teaching (M=4.60, SD=.577), Materials (M=4.51,

SD=.653), Testing (M=4.50, SD=.646), and Learning Needs (M=4.46, SD=.648). The above clearly shows that all variables related to teachers' experiences were very high, indicating that teachers are highly consistent in their experiences on these indicators. This further suggests that teachers in this study were explicitly satisfied with their teaching experiences on the above indicators.

Table 2. *Level of Kindergarten Teachers' Experiences*

Sub-Variables	Mean	SD	Description	Interpretation
Learning Needs	4.46	0.648	Agree	High
Objectives	4.63	0.519	Strongly Agree	Very High
Testing	4.50	0.646	Strongly Agree	Very High
Materials	4.51	0.653	Strongly Agree	Very High
Teaching	4.60	0.577	Strongly Agree	Very High
Thought Expression	4.80	0.424	Strongly Agree	Very High
Feeling Expression	4.82	0.399	Strongly Agree	Very High
Attitude Formation	4.76	0.489	Strongly Agree	Very High
Value Discussion	4.82	0.41	Strongly Agree	Very High
Knowledge Mediation	4.69	0.509	Strongly Agree	Very High
Action Execution	4.61	0.59	Strongly Agree	Very High
Over-all Mean	4.65	0.533	Strongly Agree	Very High

On the other hand, the learning needs came out to be a little lower, with an interpretation of 'high' and a description of 'agree', which means that teachers' experience in this indicator shows that there is still a need to improve it. This also suggests that teachers may have experienced some challenges in assessing and addressing the learning needs of their learners.

The overall mean is M = 4.65, described as "strongly agree," indicating that the respondents have a very high level of experience among Kindergarten Teachers. The results imply that teachers' experiences in this study were generally positive, as they strongly agreed with most of the indicators presented. This further indicates that there is a significant manifestation of satisfaction among the kindergarten teachers in this study, particularly in terms of their teaching experiences.

This is supported by the findings from Quileste's (2022) study, which revealed that Daycare teachers' lived experiences are 'above average' in Curriculum Activities and 'exemplary' in Teaching-Learning Experiences. Quileste added that building a strong foundation is essential for early childhood education to support pupils' success.

With this, teachers play a crucial role in a child's development. In addition, it is suggested that while kindergarten teachers may experience the nature of play differently, play should be welcomed naturally and unequivocally, as it promotes social skills and cooperation, language and concept development, and fosters motivated and self-directed learners (Holman, 2016).

Problem No. 3: What is the level of Parents' Engagement in terms of the following:

  3.1. parent knowledge;
  3.2. efficacy;
  3.3. school climate;
  3.4. teachers' outreach; and
  3.5. parental influence on decision-making?

As presented in Table 3, the participants obtained the highest mean of M=4.55, SD=.705 for Efficacy, followed by Parent Knowledge (M=4.41, SD=.746), School Climate (M=4.34, SD=.771), Teachers' Outreach (M=4.26, SD=.857), and Parental Influence in Decision Making (M=4.11, SD=.95).

The results denote that the parents, as observed by the teachers in this study, manifest a very high level of efficacy in their school engagement. This suggests that the parents, as observed by the teachers, are confident enough in their ability to support the learning needs of their children.

Table 3. *Level of Parents' Engagement*

Sub-Variables	Mean	SD	Description	Interpretation
Parent Knowledge	4.41	0.746	Agree	High
Efficacy	4.55	0.705	Strongly Agree	Very High
School Climate	4.34	0.771	Agree	High
Teacher Outreach	4.26	0.857	Agree	High
Parental Influence in Decision Making	4.11	0.95	Agree	High
Over-all Mean	4.26	0.857	Agree	High

On the other hand, Parental Influence in Decision-making got the lowest meaning, which implies that parents frequently participate in and attend school gatherings. This further implies that parents have fewer opportunities to influence what happens at school.

The overall meaning is M = 4.33, described as 'agree', and it can be interpreted that the participants have a high level of Parental engagement. The results suggest that, as observed by teachers, parents exhibit a high level of engagement in school, although not

consistently. This further suggests that parents' engagement in school activities still needs to be improved to maximize their advantages.

The findings above support the assumption that parent engagement in children's upbringing and education is crucial for a child's holistic development (Manzon et al., 2015). School leaders and teachers play a crucial role in fostering parent engagement and establishing lasting school-home partnerships built on trust (Khong, 2015).

In addition, Pagsuguiron (2024) concluded that parents are highly involved in co-curricular activities, financial support, and decision-making. They highly practice home-based engagement, parent-teacher/school relationships, and communication. However, there are evident challenges in terms of time, discipline, and environmental factors.

Problem No. 4: What is the Learning Performance of the Kindergarteners in terms of the following learning areas:

     4.1. socio-emotional development;
     4.2. physical health and motor development;
     4.3. mathematics;
     4.4. physical and natural environment; and
     4.5. Language, Literacy, and Communication?

Table 4 displays the kindergartners obtained the highest mean of M=2.44, SD=.469 for Physical Health and Motor Development followed by Socio-Emotional Development (M=2.38, SD=.504), Mathematics (M=2.30, SD=.541), Physical and Natural Environment (M=2.28, SD=.475), and last is Language, Literacy and Communication (M=2.24, SD=.544).

The results show that the learners, in general, excel in both Socio-emotional and Physical and Motor development. Whereas learners perform on average in Mathematics, Physical and Natural Environment, and Language, Literacy, and Communication.

Table 4. *Level of Learning Performance of the Kindergarteners*

Subject		Mean	SD	Description	Interpretation
Socio-Emotional Development	452	2.38	.504		High
Physical Health and Motor Development	452	2.44	.469		High
Mathematics	452	2.30	.541		Moderately High
Physical and Natural Environment	452	2.28	.475		Moderately High
Language, Literacy and Communication	452	2.24	.544		Moderately High
Over-all Mean	452	2.33	0.507		Moderately High

The overall mean of M = 2.33 indicates that the kindergarteners have a moderately high level of learning performance. The result implies that the kindergarteners in this study are generally average learners. This further suggests that the learners were less performing in the different learning areas.

In a recent study by Costelo (2023), learners were generally at the average stage in each of the seven developmental domains: self-help, expressive language, receptive language, gross motor, fine motor, cognitive, and social-emotional. The highly advanced stage was substantially more difficult for all students to reach than the slightly advanced level.

Additionally, some students were found to be slightly behind in each of the seven domains, and a small percentage of students were significantly behind in the developmental stages, particularly in the areas of gross motor, self-help, cognitive, and social-emotional development.

Furthermore, the findings of Ninal (2015) revealed that the performance of the kindergarten pupils during their assessment period showed that they were slightly advanced in their development. It also shows that the domain as to the performance of the kindergarten pupils was average overall development.

Problem No. 5: Is there a significant relationship between the kindergarteners' learning performance and:

     5.1 kindergarteners' play skills;
     5.2 teachers lived experiences; and
     5.3 parents' engagement?

Table 5 exhibits the variables Pretending Objects (p>.05), Role-Playing (p>.05), Verbalizations about the Play Scenario (p>.05), Verbal Communication during Play Episode (p>.05), Persistence in Play (p>.05), Interactions (p>.05), Entrance into a Play Group (p>.05), Support of Peers (p>.05), Play Skills (p>.05), Learning Needs (p>.05), Objectives (p>.05), Testing (p>.05), Materials (>.05), Teaching (p>.05), Thought Expression (p>.05), Feeling Expression (p>.05), Attitude Formation (p>.05), Value Discussion (p>.05), Knowledge Mediation (p>.05), Action Execution (p>.05), Teachers' Lived Experiences (p>.05), Parent Knowledge (p>.05), Efficacy (p>.05), School Climate (p>.05), Teachers' Outreach (p>.05), Parental Influence in Decision Making (p>.05), and Parents' Engagement (p>.05) have no significant relationship on kindergartners' learning performance. This implies that the abovementioned variables were not found to be statistically correlated to the performance of kindergarteners in their learning areas.

Table 5. *Relationship between Kindergarteners' learning performance, Play Skills, Teachers'*

Lived Experiences, and Parents' Engagement

Variables	N	R	Effect Size	P	Interpretation
Pretending Objects	517	-.031	Small	.517	Not Significant
Role-Playing	517	.005	Small	.909	Not Significant
Verbalizations about the Play Scenario	517	-.057	Small	.229	Not Significant
Verbal Communication during Play Episode	517	.001	Small	.996	Not Significant
Persistence in Play	517	.035	Small	.457	Not Significant
Interactions	517	.069	Small	.146	Not Significant
Entrance into a Play Group	517	-.008	Small	.87	Not Significant
Problem Solving	517	.108	Small	.021	Significant
Turn Taking	517	.105	Small	.026	Significant
Support of Peers	517	.039	Small	.555	Not Significant
Play Skills	517	.045	Small	.338	Not Significant
Learning Needs	517	.039	Small	.555	Not Significant
Objectives	517	.035	Small	.602	Not Significant
Testing	517	.069	Small	.305	Not Significant
Materials	517	.075	Small	.259	Not Significant
Teaching	517	.015	Small	.818	Not Significant
Thought Expression	517	.059	Small	.380	Not Significant
Feeling Expression	517	.029	Small	.560	Not Significant
Attitude Formation	517	.068	Small	.306	Not Significant
Value Discussion	517	.060	Small	.365	Not Significant
Knowledge Mediation	517	.012	Small	.861	Not Significant
Action Execution	517	.010	Small	.879	Not Significant
Teachers' Lived Experiences	517	.057	Small	.396	Not Significant
Parent Knowledge	517	.085	Small	.200	Not Significant
Efficacy	517	.008	Small	.903	Not Significant
School Climate	517	.006	Small	.932	Not Significant
Teachers' Outreach	517	-.007	Small	.919	Not Significant
Parental Influence in Decision Making	517	-.031	Small	.639	Not Significant
Parents' Engagement	517	.009	Small	.888	Not Significant

On the other hand, the variables Problem Solving ($p<.05$, r=.108) and Turn Taking ($p<.05$, r=.105) have a small positive significant relationship on kindergarteners' learning performance. This implies that variables such as problem-solving and Turn-Taking, identified as play skills, are statistically correlated with the performance of kindergarteners in their learning areas.

This also means that if the conditions of these variables increase, there is a possibility that the kindergartener's learning performance will likely increase. In other words, when problem-solving and turn-taking skills in play are increasingly developed in kindergarteners, the chances of enhancing their learning performance will also improve.

The claim that problem-solving as a play skill is significantly related to learning performance is supported by the study of Banawi et al. (2024), which showed that the impact of problem-solving ability on learning outcomes and achievement was very significant, at 84.8%. Furthermore, a strong positive correlation ($r = 0.69$) exists between problem-solving ability and student learning outcomes and/or achievement.

Further study results also claim that turn-taking skills are significantly related to the learning performance of kindergarteners. A study conducted by Ngah and Stapa (2019) revealed that turn-taking management features came out to be evidence of interactional competence. Lastly, a child who can take turns has developed important life skills, such as patience, empathy, waiting, negotiating, and building friendships. Although it takes time, teaching your child to take turns can be a lifelong and fulfilling experience (Jiron et al., 2018).

Problem No. 6: Which of the variables, singly or in combination, best predicts the learning performance of kindergarteners?

As depicted in Table 6, of the given variables, Verbalizations about the Play Scenario (p=0.05, beta=-.168) emerged as the best predictor of kindergarteners' learning performance, while the rest of the variables statistically failed to predict kindergarteners' learning performance.

The regression equation of this study is Y'=1.634 + (-.091X1)

Where:

Y'=Kindergarteners' Learning Performance

1.634= is the B constant

X1= Verbalizations about the Play Scenario

Table 6. *Variables that best predicts the Kindergarteners' Learning Performance*

Variables	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. Error	Beta	T	Sig.	Interpretation
(Constant)	1.634	.705		2.319	.021	Not Significant
Pretending Objects	-.069	.051	-.110	-1.343	.181	Not Significant
Role-Playing	.071	.064	.103	1.122	.263	Not Significant
Verbalizations about the Play Scenario	-.091	.047	-.168	-1.944	.050	Significant
Verbal Communication during Play Episode	-.070	.062	-.095	-1.136	.257	Not Significant
Persistence in Play	.043	.046	.077	.933	.352	Not Significant
Interactions	.042	.048	.071	.868	.387	Not Significant
Entrance into a Play Group	-.085	.077	-.094	-1.104	.271	Not Significant
Problem Solving	.054	.061	.081	.879	.380	Not Significant
Turn Taking	.106	.065	.139	1.641	.102	Not Significant
Learning Needs	.023	.085	.026	.275	.783	Not Significant
Objectives	-.012	.122	-.011	-.102	.919	Not Significant
Testing	.055	.131	.049	.421	.674	Not Significant
Materials	.126	.105	.134	1.203	.230	Not Significant
Teaching	-.061	.120	-.061	-.514	.608	Not Significant
Thought Expression	.039	.173	.027	.223	.824	Not Significant
Attitude Formation	.095	.182	.092	.523	.601	Not Significant
Value Discussion	-.042	.231	-.034	-.181	.857	Not Significant
Knowledge Mediation	-.033	.123	-.033	-.270	.787	Not Significant
Action Execution	-.077	.097	-.087	-.794	.428	Not Significant
Parent Knowledge	.168	.110	.210	1.530	.127	Not Significant
Efficacy	.006	.080	.009	.075	.940	Not Significant
School Climate	-.012	.093	-.019	-.134	.894	Not Significant
Teachers' Outreach	-.012	.124	-.019	-.099	.921	Not Significant
	R=.303	R2=.092	F=.845	P=.676		

The regression equation suggests that verbalizations have a significant influence on the kindergartners' learning performance regarding the Play Scenario. Regarding the effect of the said variable on kindergarteners' learning performance, for every one-point increase in Verbalizations about the Play Scenario, the kindergarteners' learning performance will decrease by 0.091. The outcome suggests that children's learning performance may be at risk when they frequently engage in pretend play, especially when using words in this context. This means that when pretend play is not regulated and guided, it could result in negative effect/s on learning.

An article supports the above finding written by Lillard and Taggart (2018), cited that Western beliefs are challenged that fictional pretend play is central to early child development and the growth of individual creativity since there is no strong evidence supports the idea that pretend play based on fiction or fantasy has a unique, causal role in creativity. Furthermore, some evidence suggests that it can disrupt children's thinking.

The study by Weisberg (2015) also posits, along with its results, that in order to engage in productive pretense without confusion, children should understand the boundary between pretense and reality. If children truly did not realize that pretend scenarios are separate from reality, as Piaget feared, they would risk blurring the distinction between what is true in the pretend world and what is true in the real world, potentially leading to numerous false ideas about reality.

Problem No. 7: What causal model best fits the Learning Performance of Kindergarteners?

The best-fit model of the study is this causal model 3 since its model fit values for CMIN/DF (.283 <.2), P-value (.595 >.05), NFI (.999>.95), TLI (1.00 >.95), CFI(1.00>.95), RFI(.999>.95), and RMSEA (.000<.05) were within the normal standard values of the said model fit indices. Model 3 proposes that Problem-Solving and Verbalization significantly influence the Learning Performance of kindergarteners in the Play Scenario. Furthermore, the model reveals that the variable Problem Solving-PS significantly mediates the significant relationships between the Learning Performance of kindergarteners and Turn-Taking, Entrance to Play Group, and Verbalizations about the Play Scenario skills.

Causal model-3, being the most acceptable model, suggests that Play Skills significantly affect the learning performance of kindergarteners. It further implies that when these specific play skills are appropriately nurtured, this could contribute significantly to improving the learning performance of kindergarteners. Likewise, it can also be inferred that when Problem-Solving skills are complemented by skills in Turn-taking, Entrance to Play Group, Verbalizations about the play scenario; Teaching Materials; and Parent Knowledge, the effect of problem-solving skills on learning could be amplified.

Table 7. *Summary of Goodness-of-Fit Measures of the Three Structural*

Models

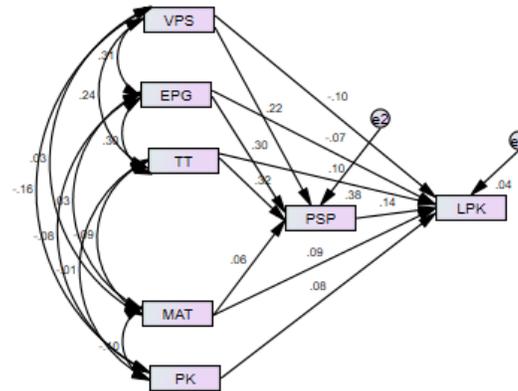| Model	CMIN/DF	P-value	NFI	TLI	CFI	RFI	RMSEA
1	13.90	.000	.006	-.178	.000	-.163	.169
2	5.13	.024	.985	.633	.987	.581	.096
3	.283	.595	.999	1.00	1.00	.977	.000
Standard	<2	>.05	>.95	>.95	>.95	>.95	<.05

Figure 8. CausalModel-3 of Learning Performance of the Kindergarteners

Sakib (2022) noted that play-based learning is an effective educational approach that has been found to impact children's learning and development positively. Through play-based learning, children can engage in active and participatory learning experiences tailored to their individual interests and needs. In his paper, research has demonstrated that play-based learning can enhance student engagement and academic performance, while also fostering their cognitive, social, emotional, and physical development.

Studies have shown that playing provides a safe and effective way for young learners to practice and experience a variety of life skills, including problem-solving within a peer group, while gaining and enhancing language skills (Irvin, 2017). Through daily play, young children gain valuable life experiences in a variety of roles that support their growth and ultimately translate into adulthood.

Moreover, Becker (2022) posits that the ability to solve problems is crucial to both academic and social-emotional learning. Problems and solutions are inherent to the sociodramatic play themes and discourse of children. This makes play an authentic medium for teachers to promote problem-solving in the early childhood classroom. Teachers can facilitate the problem-solving process by engaging children in planning activities and instruction and by providing problem-solving models and scaffolds during play.

Finally, to strengthen the study's claims about the importance of turn-taking, the study by Yokozuka et al. (2021) suggested that in creative problem-solving discussions, the more taking the conversation has, the more rapport participants feel. In conclusion, the amount of turn-taking is a reliable non-verbal predictor of rapport, even in cognitive goal-oriented communication. In addition, a child who can take turns has developed important life skills, such as patience, empathy, waiting, negotiating, and building friendships. Although it takes time, teaching your child to take turns can be a lifelong and fulfilling experience (Jiron et al., 2018).

Conclusions

From the findings of this study, kindergarteners demonstrated an average level of play skills, suggesting that they may not have had the opportunity to develop the important lifelong social skills they need, which could be acquired through play. Hence, these kindergarteners' playing experience is inadequate.

On the other hand, this study concludes that Kindergarten teachers are sufficiently equipped in their everyday teaching encounters. Moreover, the findings suggest that teachers are generally satisfied with their experience as kindergarten teachers. Furthermore, this study also assumes that parents are participatory in most school gatherings and activities, especially those focused on improving the quality of parent-teacher relationships, which also led to the assumption that schools value the importance of partnership between parents and the school.

The results showed that the kindergarteners in this study are generally developing, as reflected in their learning performance. It is also assumed that they are experiencing moderate difficulty in some learning areas.

Since there is a potential relationship between play skills and learning performance, specifically in problem-solving and turn-taking skills, it can be concluded that nurturing kindergarteners' play skills could potentially improve their academic performance. Meanwhile, when children are not well supervised while playing pretend, especially when verbalizing their play scenarios, it could potentially affect

and disrupt their learning performance.

The results of the causal modeling led to the assumption that turn-taking, entrance to the playgroup, and verbalizations about the play scenario are the play skills along with teaching materials and parent knowledge that could potentially augment problem-solving skills and amplify their influence on learning performance. Lastly, this study concludes that problem-solving skills and verbalization of the play scenario are critical factors affecting the learning performance of kindergarteners.

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Affiliations and Corresponding Information

Shamer K. Mantawil
Cotabato Foundation College of Science and Technology – Philippines

Ma. Fe D. Opina
Liceo de Cagayan University – Philippines