An Assessment of the Computer Subject in Kindergarten for Academic Year 2015-2016

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ABSTRACT

De La Salle Lipa, having known to keep abreast with the technological advancement in the educational system, encourages the different departments to offer innovative techniques in the teaching-learning process. In line with this, the Computer Department humbly responds by planning to teach and widen the offerings of Computer Curriculum in kindergarten. It has been observed that based on this grade, it would be helpful to introduce such to the inquisitive minds of the pupils since they have shown technical skills at their young age. Since technology motivates and empowers all members of our learning community that will help our pupils to explore, experiment and connect with the larger global community, young as our pupils are, it would be a great help for them to acquire such basic skills. Moreover, with our help, it would be easier for them dealing todeal with the 21st century challenges.

Keywords: Computer, education, kindergarten

Introduction

As we prepare our students for the challenges of the 21st century education, the Computer department believes that this subject be integrated into early childhood education since this would provide them an earlier exposure to the formal computer literacy concepts, functions and theories.

Purpose of the Study

The purpose of the study is to assess the pilot implementation Computer subject to Kindergarten students and how it helps the students to learn better.

This research seeks to answer the following questions:

1. What is the profile of the kindergarten pupils?
   a. Age
   b. Sex
2. What are the difficulties encountered by the parents in guiding their children in answering different take home activities given by the computer teacher?
3. What are the adjustments made by the computer teachers in the implementation of the Computer curriculum for Kindergarten?
4. What recommendations may be offered to improve the curriculum being offered by the computer department?

Literature Review

Heft and Swaminathan (2002), found out that designing stories on the computer has proved to be another excellent method for children to improve social skills. Children can read their stories to a partner or to the class. Thus, computer activity can create social context based on story telling activities and this can support children's social interaction (Haugland & Wright, 1997).

Children 3 and 4 years of age are developmentally ready to explore computers, and most early childhood educators see the computer center as a valuable activity center for learning. Timing is crucial. Children need plenty of time to experiment and explore. Young children are comfortable clicking various options to see what is going to happen next. Teachers may want to intervene when children appear frustrated or when nothing seems to be happening. Frequently, just a quick word or two, even from across the room, reminds children what they need to do next to reach their desired goal. Providing children with minimal help teaches them they can operate the computer successfully. In addition, by observing what children are doing, the teacher can ask probing questions or propose problems to enhance and expand children's computer experiences.

Kindergarten students have notoriously short attention spans, but their interest is sparked by technology. When a teacher involves her students in a smart board program to extend their understanding of letter sounds, for example, she gives them the opportunity to interact physically, using keyboards and touch screens. A colorful animated screen captures their attention visually, keeping children interested for longer periods of time. Choosing their own programs for skill practice makes kindergartners feel empowered and encourages them to work independently (LoBello, K. (2015).

Based on the result of the study of Kumtepe (2006), results of the present study provided supporting evidence to the proponents of computer use in kindergarten classrooms. Results indicated that positive effects of computers on children's social skills in kindergarten depend on the level of proficiency in using one. Children who used a computer more proficiently demonstrated more positive social skills and less problem behaviors. On the other hand, owning a home computer that is available to the child's daily use did not have any significant effect on positive social skills. The only effect of owning a home computer was observed on the externalizing problem behavior scale where children who had a home computer exhibited less problem behaviors. Computer using frequency had no effects on either the positive social skills or the negative problem behaviors. Children who vary in daily computer using frequency did not differ in the aforementioned skills demonstrated. It is essential to notice that using computers more frequently in kindergarten did not result in any negative social behavior as it was argued in the previous research.

According to the result of the study of Pange & Kontozisis (2001), they examined the level of knowledge that Greek pre-school children had about computers. How Vygotsky's theory about socio-cultural learning, as a teaching process, could be effectively applied when new knowledge was presented to a classroom environment was investigated. Participants were Greek preschool children and teachers. Data collection in-cluded classroom observations, informal interviews, ques-tionnaire administration, and field notes. Results revealed that following this approach, that teachers used to initiate children with computer technology was a thriving and effective one. The particular study gave the authors the opportunity to more closely search the ways in which children view new technologies, and the ways that teachers used it to develop their approach in introducing such new concepts.

Conceptual Framework

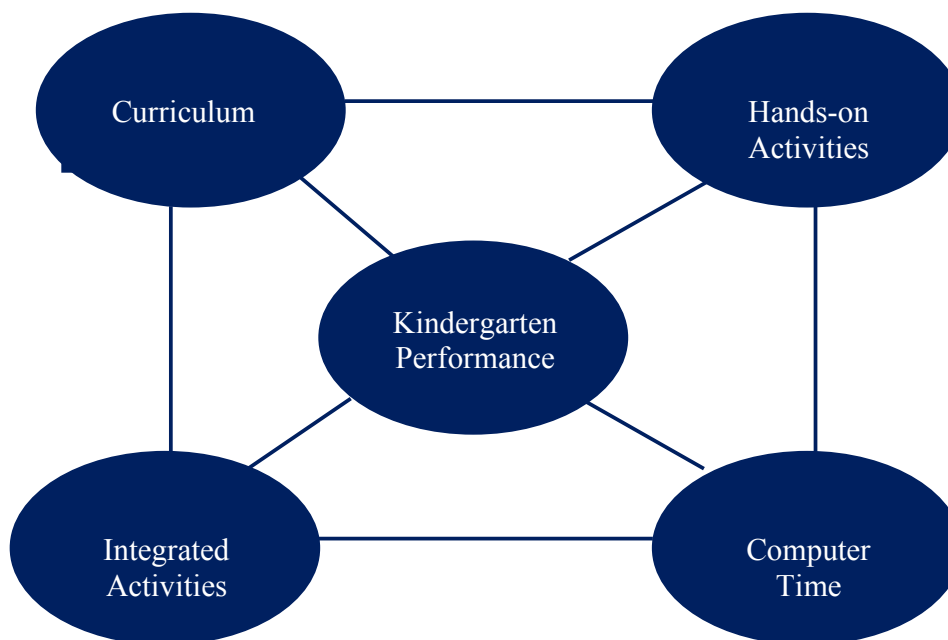Figure 1 shows the conceptual framework of this study.

Figure 1. Conceptual Framework

There are many factors that affect the performance of the kindergarten pupils. One of which is the curriculum being offered to them. It is very important that the curriculum is being oversees not only by the computer teachers but as well as the curriculum coordinator. Through this, the different topics that needed most focus will be given more ample time for discussion. The hands-on activities which deals more on laboratory used should be given emphasis in the sense that through these activities, the logical thinking skills of the students are being developed and enhanced. Giving hands-on activities really made it possible for the students to apply all the acquired skills and concepts for the duration of each computer session. The collaboration among the different disciplines made the wholeness of the pupils to fully explore through the use of the computer the different concepts and learning discussed in other subject areas. All the cited variables greatly affect the time allotment of the computer subject. Even how good the effects of the three existing variables are and if the computer time is insufficient for the implementation and execution of such, it will break the connections going to the wholeness of the pupils' performance in computer subject.

Methodology

Sources of Data

The researcher considered the use of existing information, documents, and records as sources based on all the classroom activities provided by the computer teacher. And other sources data such as survey questionnaire and focused group discussion.

Research Design

The descriptive research design was used in this study.

Data Gathering Procedures

The researcher kept track of the different classroom activities being provided by the computer teachers for the whole school year. A usual interview with the computer teachers were done for the entire study. To counter check the interview, a checklist type of questionnaire was given to the computer teachers. The said questionnaire was double-checked by the research coordinator.

It is important to interview the students, kindergarten advisers and the parents to determine if the inclusion of the computer subject in the kindergarten curriculum helps in the wholeness of the child.

Before conducting the survey, the researcher wrote a letter to the parents through the research coordinator requesting the parents for the possibility of allowing their child to be interviewed and answer the checklist that will serve as a proof to the answers of the students. Together with the letter of request is the checklist for the parents to answer to determine if the pupils' answer will be congruent to the answer of the parents. The answer of the parents and pupils were counterchecked through the answers of the classroom advisers and computer teachers.

Research Instrument

For both the parents and computer teachers, an interview was used as the research instrument for the study. And to validate the interview, the Likert Scale type of questionnaire was used as the instrument in the facilitation of the study.

For the kindergarten pupils, an interview was done. And to validate the interview, questionnaire with emoticons and pictures were used for the pupils to find it easy to answer. The second part of the questionnaire was answerable by a yes or no.

Statistical Treatment of Data

There was no statistical tool to be used since this is a qualitative type of research.

Findings

This research seeks to answer the following questions:

What is the Profile of the Kindergarten Pupils?
    i. Age
    ii. Sex
Based on the interview and checklist, most of the kindergarten pupils' age is ranging from five – six years old and they are a combination of male and female.

What are the Different Factors that Help the Pupils to Enjoy the Subject?

The different factors that help the pupils to enjoy the subject according to their parents are the following: pupils learned to solve basic problems they encounter through the different logical and analytical written and hands-on activities being provided by the computer teacher every computer session. They learned how to socialize with their peers by sharing what they know about computer. And with this, the pupils are excited as they wait for their computer subject.

The parents' comments are interconnected with the answers given by the pupils during the interview and when the pupils were asked to answer the questionnaire given to them. According to the pupils, they feel happy during computer time and learning is fun in computer. For them, computer time is like drawing because of the different classroom and laboratory activities provided by the computer teacher and this was supported with the

answer of the pupils on the question why do they like computer time and it is because it is drawing time and they are thinking during computer time to solve basic problems. And it was with a great pride when the pupils express their comment that they are sharing what they know about computer to their peers.

Such comments and experiences of both the parents and pupils are made stronger with the result of the interview with the computer teachers. The reasons why pupils are very excited and happy whenever they have computer time is that according to the computer teachers, they choose interesting activities fit for their pupils' age. Also, they made it to a point to guide their pupils in seeing the connection of the lesson with other areas through integration with other subject areas.

Aside from this, it was noticed by the parents that the routinely standard operating procedures being followed inside the laboratory for example putting back the keyboard and mouse on its proper place after using it and arranging the chairs before leaving the laboratory, help the pupils to apply it in fixing their thing whenever they are done. Based on the computer teachers' experience, they trained the pupils early with the basic tasks like arranging the chairs, computer mouse and the like which guide and lead them to be more responsible individual. This is supported with the answers of the pupils that whenever they use the computer during computer time, they are arranging their chair, mouse and keyboard right after using it.

According to the parents, whenever there are assignments in computer, their children are very excited to answer such very independently. It was observed that the pupils have the sense of eagerness and responsibility in answering the take home tasks. This statement was double-checked with the answers of the pupils if they are doing their assignment in computer on their own. And the result was the same.

For the whole school year, the computer teachers witnessed the logical, analytical and critical thinking among their pupils based on the well thought teacher-made material and they provided the pupils with challenging tasks which make the later creative and bolder. These were supported with the comments of the parents that with the implementation of the computer subject in kindergarten, varied aspects of their children like solving simple problem, being independent, reasoning, logical thinking skills, being responsible and helping other pupils were developed through their computer class.

What are the Difficulties Encountered by the Parents in Guiding their Children in Answering Different Take Home Activities Given by the Computer Teacher?

Parents didn't encounter any difficulties in guiding their children in answering different take home activities given by the computer teacher. As a matter of fact, according to them, their children are doing their take home activities with minimum supervision. Using a computer textbook really assists and guides the pupils in independently performing such tasks.

What saddens their children when computer time ends are the following: end of educational games when computer time is over, their children are disappointed whenever it is time already and they have to go back to the classroom, the pupils have to wait for a week for the next computer class, whenever there is no more play time in computer subject, cannot learn new lessons because of a short time for computer and when computer time itself ends.

The parents' observation goes along with the responses of the pupil that they feel sad when it is time for them to leave the computer laboratory.

Based on the questionnaire, the following are the parents wishes: as a parent, I wish that more activities be given to my child; more time will be added in computer class it should

be extended or even additional time be given; more hands-on activities, typing, drawing and child security lessons in using the internet be included in the curriculum.

Some parents gave comments to the questionnaire saying that computer class in kindergarten is a good start for the development of children in technologies and their children are very interested and excited to use computer.

What are the Adjustments Made by the Computer Teachers in the Implementation of the Computer Curriculum for Kindergarten?

The adjustments made by the computer teachers in the implementation of the computer curriculum for Kindergarten are the following: it took them longer hours in preparing and choosing activities which are interesting and will fit for the pupils' age; it is not that easy to integrate with different subject areas but still, for the benefit of the pupils, the computer teachers made it possible though in a very limited time only; most of the pupils found it difficult to use the computer mouse because all of them are used to make use of gadgets which only require them to touch; the academic learning time of the pupils was not fully utilized because it took time for the computer teachers to bring the pupils to the computer laboratory, some of the afternoon session pupils came to school late but with the assistance of the kindergarten advisers, it was not a long term problem; with the experiences and observations made by the computer teachers, they found out that there is inadequate time allotted for a thorough integration and deepening of computer experience due to short time in computer subject.

What Recommendations May be Offered to Improve the Curriculum Being Offered by the Computer Department?

Based on the interview and experiences of the pupils, parents and computer teachers, the recommendations that may be offered to improve the curriculum being offered by the computer department to kindergarten are as follows: to deepen the logical, critical and analytical thinking skills of the pupils, additional hands-on activities should be provided to the them to improve their thinking skills; an enhancement on the current curriculum for kindergarten by integrating with other subject areas is needed for the pupils to really feel that computer time is playing time and an increase in the number of minutes for computer subject should be given due consideration to make the cited recommendations make possible.

Discussion

Summary

Based on the findings from the interview and data gathered, pupils, computer teachers and parents agreed that having a computer subject in the kindergarten help the pupils not only to acquire skills and concepts which are related to the subject and integrated with other subject areas but then it mold the wholeness of the pupils by providing the them that sense of responsibility at their young age. It was also seen that the pupils learned more through hands-on activities. Engaging in different classroom and laboratory activities made the pupils to feel confident enough in sharing, helping and guiding their peers in the performance of some of the activities being given during computer time.

Conclusions

Based on the findings from the data gathered, the following conclusions were drawn:
1. The kindergarten pupils' age ranges from five to six years old.

2. The pupils are always looking forward for their computer subject because they are enjoying it because of the interesting activities being provided by the computer teachers.

3. With the daily routine in the computer laboratory through the standard operating procedures given by the computer teachers, the pupils learned to be responsible and work independently.

4. The parents didn't encounter any difficulties in guiding their children in answering different take home activities given by the computer teacher.

5. The logical, analytical and critical thinking skills of the pupils were deepen through the different assignments, classroom and laboratory activities provided by the computer teachers.

6. Whenever computer time ends, it saddens the pupils because it only means that they will have their next computer subject after a week.

7. Due to the limited time of computer subject in kindergarten, some of the activities provided by the computer teachers were not executed or being implemented.

8. The computer teachers made adjustments not only in the different activities provided to the pupils but also with the strategies in dealing with them.

9. The kindergarten advisers were a great help in the duration of the implementation of computer subject in kindergarten.

Recommendations

Based on the findings and results, the researcher hereby offers the following recommendations:

1. Having the kindergarten advisers to assist the computer teachers during computer time should be continued since it really help the pupils especially during the first quarter wherein the pupils only knew their adviser because this is the first time that they have another teacher aside from their adviser.

2. Professional learning community should be made possible for the kindergarten advisers and computer teachers to deepen the integration among different subject areas.

3. Typing should be included in the curriculum being offered to kindergarten.

4. An additional number of minutes to the kindergarten computer subject must be given due consideration to fully implement and execute the curriculum being offered to kindergarten pupils.

5. Further studies may be conducted with different set of variables and respondents in order to affirm or contrast the findings of this study and to strengthen the validity of this research.

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