Early Childhood Learning from Home: Implementation of Distance Learning in Early Childhood Education during the Covid-19 Pandemic Period in Indonesia

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This article describes a survey about activities learning from home conducted by Early Childhood Education and controlled by the teachers. The survey results show data about implementation of early childhood learning from home, techniques for applying learning from home, parental involvement, obstacles, and teacher salary during the pandemic. Data collection was carried out online throughout Indonesia in 34 provinces and 512 regencies. Survey respondents are teachers of early childhood education, with a total of 10601 teachers. The survey results are (1) the teacher makes learning plan for children's activities at home during the covid-19 pandemic; (2) for children's learning activities at home, according to the teacher, the assignment technique through parents (SMS/telephone/WA) is more effective than other techniques; (3) many learning activities that children do at home with parents are drawing/coloring activities; (4) for documentation of children's learning from home, many parents sent photos of children's activities; (5) parents accompany the children and are active in the implementation of learning activities with children at home; (6) the obstacles by teachers to implementation children's learning activities from home are unstable internet networks, lack of parents ICT skills, and limited playing media/online teaching materials; (7) during the covid-19 pandemic, it shows an unbalanced financing of early childhood education institutions, where the institution's income comes



from parents' payment and the fact that more parents don't pay the children's education cost, while teacher salaries are paid in full.

Key words: *early childhood distance learning; early childhood education in covid pandemic*

Introduction

Early childhood aged 3-6 years attend learning at early childhood education institutions which have appropriate development stimulation according to age. In Indonesia, early childhood education institutions are called PAUD (*Pendidikan Anak Usia Dini*) and they provide learning for children aged 3-6 years; these are (1) play groups (KB), that serve children aged 3-4 years; (2) kindergartens, that serves children aged 4-6 years, called TK/RA/BA); and (3) early childhood education institutions that serves children aged 3-6 years called TPA and SPS. KB is Kelompok Bermain, TK is Taman Kanak-kanak, RA is Raudhatul Athfal, BA is Bustanul Athfal, TPA is Taman Penitipan Anak; and SPS is Satuan PAUD Sejenis. These types of early childhood education institutions are legally licensed for early childhood education in Indonesia. The implementation of education in PAUD is almost the same, having the requirements for institutional infrastructure, institutional management, curriculum, educators, and students.

The process of organising learning in PAUD is in accordance with legal standards in Indonesia, which include planning, implementation, evaluation, and supervision of learning in PAUD. Learning planning is arranged according to the needs and characteristics of children base on local culture, which includes semester planning, weekly planning, and daily activities planning. The semester planning is arranged by educators in collaboration with the school principal, and the weekly and daily activity planning is prepared by the teacher which refers to semester planning that has been made previously.

The implementation of learning is done by playing interactively, inspiringly, in a fun way, and contextually and child-centred. The learning process fulfills the principle of adequacy of the ratio of the number of children and the diversity of teaching materials and educational play media, and the adequacy of the learning implementation time. Learning time in PAUD in Indonesia is around 2-4 hours a day, and 5 days a week. However, in some PAUD that provide services aged 3-4 years, they carry out learning 3 times a week, and scheme activities in one day, consisting of opening, learning, and closing.

The teacher also evaluates the learning implementation and this becomes the basis for the next follow-up. During the learning process, the teacher gets supervision through education supervision conducted by the school principal or senior teacher or supervisors of education.



After the covid-19 pandemic occurred, the Indonesian government implemented a policy of working and learning from home, which had implications for all the social and economic aspects of the Indonesian people. Children's learning activities from home is an implementation of distance learning in early childhood education, and one of the options is by online learning. But school institutions or PAUD are not yet familiar with the distance learning model. Some facts that describe the conditions of learning activities from home via online have received responses from the community, as quoted in the writings of Janlika Putri in Wartakotalive;

In fact, learning from home turns out to be heavier, so stress levels are also higher.

"Online learning method, in my opinion, is very helpful and stressful. At home it is different, unlike in schools where there are many friends and also other factors that make them enthusiastic to go to school. At home, certainly not all parents can be asked or help with difficulties in lesson," said Rosdiana Setyaningrum, a psychologist when contacted by the city news (26/3/20)

He added, learning online at the same time is making teachers and students busy, and depressed.

Because they were not prepared in advance, so they have not found a formula how this way of learning. (Warta Kota, 2020)

Conseptually, children learning activities from home are forms of distance learning in early childhood. Not much has been written about distance learning in early childhood, and in the current pandemic conditions, early childhood learning is explained as children's learning activities with parents at home. As presented by Kaul on the Arnec Webinar #4, which outlines the impact of the covid-19 pandemic on children, which emphasizes that the implementation of early childhood learning is an opportunity for parents to build positive emotional attachment and learning together with more flexible time. However, it is also necessary to pay attention that there is limited space for children to play, limited play with peers, and stressful conditions can cause violence in the home. (Kaul, 2020)

To solve distance learning problems, every institution or educator tries to implement various techniques in order to communicate and carry out learning with students. This paper describes the results of a survey that describes the learning process from home in early childhood, methods or techniques used by teachers, parental involvement, obstacles, and teacher salary/incentives during the learning process from home.



Literature Review

The Concept of Distance Learning

In some conditions, teachers and students cannot meet face to face on a regular basis. However, this is not an obstacle to providing learning to students, and the concept distance learning is one strategy that can be used as a solution. Distance learning has cross-border opportunities for students to connect via social media which are followed by all students from all over the world. Besides that, the advantage you get is that it gives you the opportunity to study in any country while staying at home. Distance learning allows all students to access information, communicate, and collaborate both with peers and with lecturers or facilitators. A curriculum that can adapt to distance learning is required. For that, South Africa has it. This research has broadened the theory of internationalization of higher education, thus providing an important starting point for conversations around the role technology plays in fostering and supporting international and intercultural learning experiences around the world. (Mittelmeier, Rienties, Rogaten, Gunter, & Raghuram, 2019)

The study concludes that distance education and distance learning develop an interdisciplinary field in which technology has become a significant catalyst and this field has become part of the mainstream of education. The history of distance education dates back to the 1700s and 1800s and reflects an egalitarian approach to education (Jowsey, T., Foster, G., Cooper-Ioelu, P., & Jacobs, S., p. 253). The history of distance education begins with courses in which the content of learning is delivered by post, and is thus referred to as correspondence studies. The era of distance education was marked by a didactic teaching style and a form of industrial education. (Bozkurt, 2019).

According to Dohmen, he stated about distance learning, namely, a form of systematically organized independent learning in which student counselling, presentation of learning materials and safeguarding and monitoring student success are carried out by a team of teachers, which has different responsibilities. This form of self-learning is made possible remotely through media that can cover long distances. The opposite of 'distance education' is 'direct education' or 'face-to-face education', the type of education that occurs with direct contact between lecturers and students (Jowsey, T., Foster, G., Cooper-Ioelu, P., & Jacobs, S., p.259). Peters stated that teaching distance education is a method for imparting knowledge, skills and attitudes rationalised by the application of the division of labour and organizational principles, as well as by the widespread use of technical media, primarily for the purpose of reproducing high-quality teaching materials that allow teaching a number large students at the same time wherever they live. It is a form of industrial teaching and learning (Jowsey, T., Foster, G., Cooper-Ioelu, P., & Jacobs, S., p. 259). According to Moore, distance teaching can be defined as a teaching method in which teaching behavior is executed



separately from learning behavior, including in adjacent situations, to be carried out in learners, so that communication between teachers and students must be facilitated by printing, electronic, mechanical, or other means (Jowsey, T., Foster, G., Cooper-Ioelu, P., & Jacobs, S., p. 259). Holmberg states that, distance teaching is a method for imparting knowledge, skills and attitudes, rationalised by the application of division of labour and organisational principles for the purpose of reproducing high-quality teaching materials that make it possible to teach large numbers of students at the same time wherever they live. It is a form of industrial teaching and learning. (Jowsey, T., Foster, G., Cooper-Ioelu, P., & Jacobs, S., p. 260). Garrison and Shale stated that distance education implies that the majority of educational communication between teachers and students occurs non-side-by-side. It should involve two-way communication between teachers and students for the purpose of facilitating and supporting the educational process, in this case using technology to mediate the required two-way communication. (Jowsey, T., Foster, G., Cooper-Ioelu, P., & Jacobs, S., p. 260). According to Moore distance education involves all arrangements to provide instruction via printed or electronic communication media to people who are involved in planned learning at a different place or time from the instructor or teacher. To that end Moore and Kearsley argue that planned learning usually takes place in different places and requires a well-defined delivery system that includes modified teaching techniques, alternative modes of communication, but not limited to technology. (Jowsey, T., Foster, G., Cooper-Ioelu, P., & Jacobs, S., p. 260).

Distance Learning Methods

The most important thing in the use of online learning in the studies conducted is positive communication in terms of interactions with academic institutions, peer-to-peer interactions, and in face-to-face contact with teaching staff during the learning experience. With Covid-19, very large online platforms such as Canvas, Zoom and Google Drive (with over a billion users) are now essential to support the mixed learning. Teachers and students alike depend on a stable internet connection and the platform to keep running. (Jowsey, T., Foster, G., Cooper-Ioelu, P., & Jacobs, S., p. 1). Several factors contribute to online learning, including: (1) design of learning activities, (2) technical problems, (3) support mechanisms, and (4) communication strategies (student-teacher and student-to-student). (Jowsey, T., Foster, G., Cooper-Ioelu, P., & Jacobs, S., p. 9).

The methods can be divided into two categories: (1) feature-based learning methods and (2) distance learning-based methods. The feature-based learning method focuses on designing a person's feature descriptors to represent images of people, whereas the distance learning-based method designs a knowledge concept using an available online platform (Zhu et al., 2019). In distance learning, especially via online, an effective communication strategy must be 'built'. When communication strategies are not well defined or properly implemented, restrictions for



synchronous and asynchronous learning occur. Conversely, when communication is effective, the relationship between students and staff is optimised and student satisfaction increases. The findings show that student achievement increases when students are confident, and have support with information technology. In other words, effective learning in an online setting requires that teachers take advantage of the unique opportunities technology has to offer, take advantage of these aspects, and measure and spread their impact. (Jowsey, T., Foster, G., Cooper-Ioelu, P., & Jacobs, S., p. 9). When distance learning is delivered deliberately and effectively in terms of managing and supporting student active learning, it positively affects student achievement. It is likely that with the construction and development of online learning theory, the quantity and quality of research around distance learning will increase as well. (Jowsey, Foster, Cooper-Ioelu, & Jacobs, 2020)

Distance Learning Constraints

The results identified that the main obstacles to the effective implementation of distance learning technology in the teaching and learning process: unpreparedness of teachers and parents, lack of skills needed to implement computer-based online learning systems, inability to interact with faculty and teachers, and the lack of academic advisors online. In addition, internal problems were identified: limited resources, unequal marketing profits, inappropriate administrative structures, and a lack of innovative physical facilities. (Leontyeva, 2018)

Research Method

This study is a survey method that collects data with online technicques. The purpose of the survey is to collect data about implementing learning from home, techniques for applying learning from home, parental involvement, obstacles encountered, and teacher incentives during the pandemic. Respondents are teachers who are spread throughout Indonesia, with sample criteria being (1) a sample of public and private teachers; (2) samples of kindergarten teachers (in Indonesia called TK / BA / RA), play groups (in Indonesia call KB), and Similar Kindergarten Unit (in Indonesia call SPS) / daycare (in Indonesia call TPA); (3) sample of teachers in remote areas (in Indonesia call 3T) and non-remote areas. The sample of state teachers refers to teachers who teach in public schools or teachers who are PNS and private teachers are teachers who are not PNS and are paid by the foundation. The kindergarten (TK /BA /RA) teacher is a teacher who serves children aged 4-6 years, TK is under the Ministry of Education and Culture, and RA (Raudhatul Atfal) /BA (Bustanul Atfal) is coordinated by the Ministry of Religion.



Play groups (KB) are institutions that serve children aged 3-4 years. Teachers at TPA /SPS are institutions that serve children aged 3-6 years. For the sample of teachers in remote areas that are legally economic or educational characteristics legalised as remote areas.

Teacher respondents were spread across 34 provinces or 512 districts and include 10,601 teachers, with the distribution of teachers as follows;

Table 1. Distribution of Teacher Respondents based on PAUD Institutions

| No. | Teacher Respondents | Amount |
|-------|---------------------|--------|
| 1. | KB | 3540 |
| 2. | TK/ RA/ BA | 5827 |
| 3. | TPA/SPS | 1234 |
| Total | | 10601 |

Table 2. Distribution of Teacher Respondents based on Remote Areas

| No. | Teachers in Remote Areas Respondents | Jumlah |
|-------|-----------------------------------------|--------|
| 1. | Teacher in Remote Areas | 719 |
| 2. | Teacher in non-Remote Areas | 9882 |
| Total | | 10601 |

Results

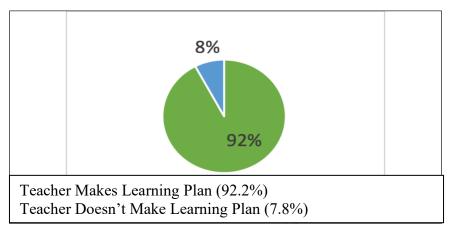
Implementation of learning from home (distance learning) in PAUD includes application techniques, parental involvement, obstacles encountered, and teacher incentives during learning from home.

Application of Learning Techniques from Home

The application of learning from home includes: (1) learning plan by teachers; (2) techniques for learning activities from home; (3) effectiveness techniques for learning activities from home; (4) methods of learning activities from home with parents; (5) type of documentation from parents about the application of learning from home.

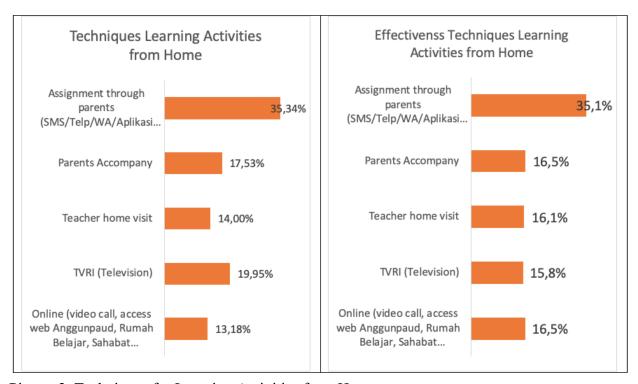


Data shows;



Picture 1. Data of Learning Plans by Teacher

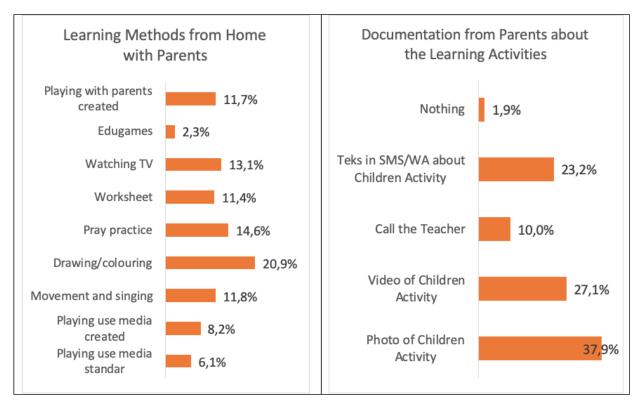
Data of techniques learning activities from home and effectiveness techniques for learning activities from home according to parents



Picture 2. Techniques for Learning Activities from Home



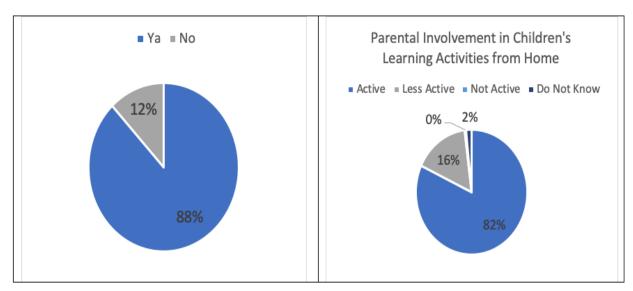
Data learning methods from home with parents and types of documentation from parents about the learning activities show:



Picture 3. Learning Methods from Home with Parents and Types of Documentation from Parents about the Learning Activities

Parental Involvement

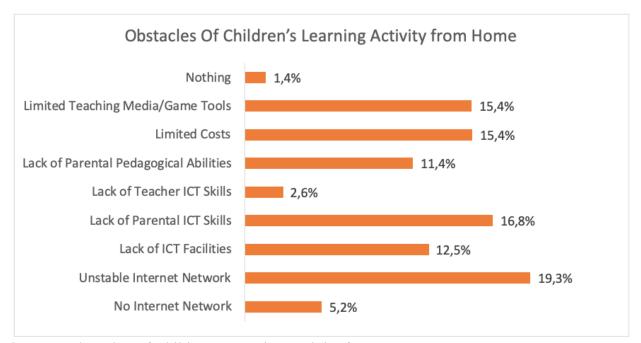
Parental involvement in children's learning activities from home includes parental assistance and parent activity in the process of children's learning activities at home. Data shows that:



Picture 4. Parental Involvement in Children Learning Activities from Home

Obstacles of Children's Learning Activity from Home

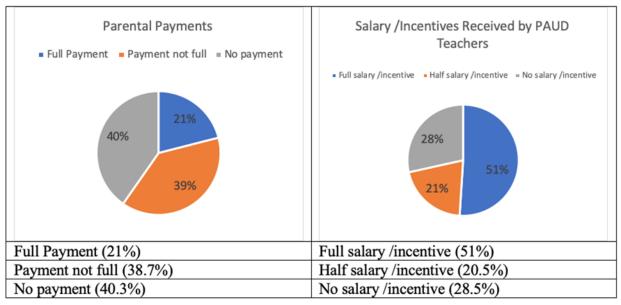
The obstacles in the process of learning from home based on PAUD teacher perceptions are shown in the data;



Picture 5. Obstacles Of Children's Learning Activity from Home

Teacher Incentives in Learning Activities from Home

The teacher incentives' policy during the learning activity from home is enforced and learning activities controlled by the teacher are still being discussed, because there is a change in the job description of PAUD teachers. Teacher incentive data are described through parental payments and incentives received by PAUD teachers. Data descriptions are presented as follows;



Picture 6. Teacher Incentives in Learning Activities from Home

Discussion

Application Techniques of Learning Activities from Home

The application techniques of learning activities from home includes (1) the teacher makes learning plans; (2) techniques used for learning from home; (3) effective techniques for learning activities from home; (4) learning methods from home with parents; (5) documentation from parents about the learning activities. Data shows that teachers make learning plans for children's learning activities at home, and means that the teacher is ready to assist children's learning activities at home. Even though children do activities at home with parents, the teacher provides assistance for the process of learning activities, which begins with making learning plans. Good planning in distance learning can give children the opportunity to learn anywhere while staying at home, and the main objective is to improve equitable access to quality learning. Distance learning allows all children to access information, communicate and collaborate well with the teacher (Mittelmeier, Rienties, Rogaten, Gunter, & Raghuram, 2019).



In the application of learning activities from home, the techniques carried out by the teacher are: (1) assignment through parents (sms /telephone /wa /other applications); (2) implementation by parents; (3) teacher visits to home; (4) through television; (5) online (video calls /www.anggunpaud.kemdikbud.go.id;/www.belajar.kemdikbud.go.id/www.sahabatkeluarga.kemdikbud.go.id). Data shows that the technique used is to provide assignments through parental communication (35.3%), and the least is online (13.2%). Based on the 5 techniques mentioned, in the teacher's opinion the most effective way was to give assignments through communication with parents (35.1%) and the least effective was through television (15%). This means that PAUD teachers more easily communicate with parents to give assignments to children. It is very important that the teacher cooporates with the parents because teachers have two heavy roles, as a teacher and as a parent, in the life of the children. In another study where parents and teachers did not communicate at all, the results show children lost all the results of their efforts for years (Lafferty, McConkey, & Simpson, 2012).

The learning methods of children's activities from home include playing parents' creations, edugames, watching television, using worksheets, pray practice, drawing /colouring, movements and singing, playing use media created, and playing use media standard. The learning method of children's activities at home shows the most is colouring /drawing activities (20.9%) and the least is edugames (2.3%). Drawing is one of the most common arts and crafts activities carried out in kindergarten. Children's drawing activities are considered as one of the "one hundred languages" that children use to express themselves and communicate with others about how they view the world around them. There is a significant relationship between drawing and early childhood thinking, namely through graphic symbols, and this can support and develop children's thought processes (Chang, 2012). Drawing activities can function as a means to remember and express previous experiences and knowledge, elaborate new information, and manage all of these (Papandreou, 2014). Therefore, drawing is not only a fun activity for children but it strengthens the development of individual skills (e.g. observation) and understanding and learning processes (e.g. facilitating children to ask questions from drawings made). So, teachers need to introduce children to various forms of images and make them a learning tool (Delserieys et al., 2018). As for edugames, these are games that are designed for learning, and they can still offer play and fun. Edugame is a combination of educational content, learning principles, and computer games (Prensky, 2012). Some studies also mention that the use of technology such as edugames in learning can help children in understanding the concepts of the material being studied (A., N. J., W., S., & and Sobarningsih, 2018). A good edugame must meet the criteria of the education game itself, they are: (1) overall value, the overall value of a game is centered on the design and length of the game; (2) can be used (usability); easy to use and access are important points for game makers; (3) accuracy; accuracy is defined as how the success of the model /picture of a game can



be poured into an experiment or design; (4) appropriateness, can be interpreted as how the contents and design of the game can be adapted to the needs of the user properly; (5) relevance, this means being able to apply game content to the target user; (6) objectivity, determines user objectives and criteria for success or failure; (7) feedback, to help users understand that their game (performance) matches the object of the game or not, and feedback must be provided (Adisutjipto, Janti, & Lanud, n.d., 2016).

The process of learning activities of the children is documented by the parents and communicated to the teacher. The documentation that parents do, include text sms /wa about children's activities, parents call to the teacher, make video recordings of children's activities, and photos of children's activities. The most documentation was with photos of children's activities (37.9%) and the least was telephone calls to the teacher (10%), but there were also parents who did not document, namely 1.9%. There are several descriptions of good communication between teachers and parents, including: (1) openness. In this case, teachers and parents need to take the time to discuss children's learning achievements. Parents are also expected to respond if there is information on the obstacles experienced by children in learning; (2) empathy. The empathy attitude that parents can take with the teacher, such as parents responding to teacher's information about children's learning development in class and understanding about children's learning difficulties; (3) support. The support includes supporting for children to choose activities of interests, motivating children to be enthusiastic in activities at school, and parents believing that teachers are able to educate and direct children to become better individuals; (4) positive taste. In this case parents are expected to be able to be positive in accepting suggestions from the teacher if the children's achievement decreases and parents and teachers alike think positively in solving problems for the children; (5) equality. Parents and teachers alike prepare facilities and infrastructure both at home and at school for the smooth learning of children (Kahar, 2017).

Parental Involvement

Early childhood needs assistance from parents /adults in learning activities. Teachers can implement distance learning through parental involvement in learning activities. The implementation of learning activities from home depends on the involvement of parents in early childhood learning. However, parents also have different activities so that the involvement of parents also varies. Data shows that 88% of parents accompany their children to study at home, 82% are described as being active, 16% less active, 0.4% not active, and those who do not know 1.6%. Parental involvement consists of parental participation in educational processes and experiences for their children, including home-based parental involvement, for example listening to children read or checking their homework. It also includes parental involvement in schools, such



as the participation of parents in educational seminars and parent-teacher meetings (Hornby, 2011).

Parental involvement can include maintaining the children's progress, communicating frequently with teachers, ensuring that children enjoy challenges, good learning classes, and directing children to have high achievement motivation in school (Berk, 2006). The impact of parental involvement: research from Henderson and Mapp states that parental involvement in children's education is related to children's achievement, children's behavior, culture, age, and school quality. In terms of behavior for early childhood, the influence of parental involvement in children's education according the research results are: (1) when children tell that they feel support from school and home, the children will have higher self-confidence, perceiving school as more important, and tend to do things better, (2) violent and antisocial behavior of children shows a decrease because of increasing parental involvement, and (3) children show more positive attitudes and behaviors when parents are actively involved (Henderson and Mapp, 2002).

Learning Constraints for Children at Home

Learning activities for children at home through teacher control is a form of distance learning, although it is not yet common. Home learning activities require the help and ability of parents to handle children in the learning process. There are obstacles in learning from home, including (1) limited online teaching materials; (2) limited costs; (3) lack of parental pedagogical ability; (4) lack of teachers' ICT skills; (5) lack of parental ICT skills; (6) lack of ICT facilities; (7) unstable internet network; (8) non-existent internet network. The data shows that the most obstacles in the opinion of the teachers is the unstable internet network (19.3%) and the lowest obstacle is the lack of ICT skills of teachers (2.6%). Thus, it means that the difficulty of teachers in learning activities at home is learning with networks (online) and there are no constraints on teachers' skills in ICT.

In the application of the learning process from home, there are major obstacles to the implementation of distance learning technology in the teaching and learning process, including: unpreparedness of teachers and parents, lack of skills to implement computer-based online learning systems, and lack of adequate academic advisors online. In addition, internal problems were identified, including: limited resources, unequal marketing profits, inappropriate administrative structures, and a lack of innovative physical facilities. (Leontyeva, 2018).

Conclusion

The results of a survey on the implementation of children's learning activities from home through teacher control during the Covid-19 pandemic show that:



- 1. Teachers make lesson plans for children's activities at home during the Covid-19 pandemic.
- 2. For the teacher to implement learning activities for children from home, that are more effective with assignment techniques through communication with parents (sms /phone /wa).
- 3. The method of learning that children do at home with their parents is doing a lot of drawing/colouring activities.
- 4. For documentation of children's learning activities from home, parents send photos of children's activities to the teacher.
- 5. Parents still accompany children and are active in implementing children's learning activities at home.
- 6. The obstacles in children's learning activities from home are an unstable internet network, a lack of parents' ICT skills, and limited online teaching materials.
- 7. During the pandemic, PAUD institutions experienced unequal financing, that the institution's income through payments shows that more parents do not pay for children's education, but teacher incentives are paid in full.

Recommendation

Based on the data description, discussion, and conclusions, the recommendation according to the survey results are:

- 1. Provide guidance to PAUD teachers to design strategies for home learning activities with a variety of children's techniques and activities, especially educational games.
- 2. Provide guidance to PAUD teachers in order to build effective communication with parents
- 3. Socialisation to parents in order to understand about children's stimulation and learning, so that they can accompany children's learning activities appropriately.
- 4. Strive to improve facilities to support online learning for teachers and parents in accompanying children to study at home.
- 5. Provide special attention in the form of institutional financing, so that teachers can provide maximum service.



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