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**DEVELOPMENT OF ONLINE CONTEXTUAL LEARNING MODELS  
USING A SCIENTIFIC APPROACH**

Beta Tivi Phariandi<sup>1</sup>

<sup>1</sup>Islamic University of Borneo, Indonesia

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**ABSTRACT**

This study aims to describe the science-based contextual learning model applied in kindergarten in North Banjarbaru District during the pandemic, by adopting the type of development research. The tool used in this research is a science-based contextual learning tool developed by the researcher, so the tool must be tested before being used. Based on the findings, it is known that so far teachers have not designed learning tools according to the 2013 curriculum, where in the curriculum there are six aspects of development that must be carried out, including aspects of religious and moral values, social emotional, cognitive, language, physical motor, and art. . Where in presenting the themes and sub-themes, it must refer to these six aspects by presenting them in an integrated manner, it means linking the indicators developed in these aspects related to the sub-themes that have been selected or determined. The learning implementation plan made by the teacher only contains an assessment sheet in the form of a checklist, while to find out all aspects of child development, several assessment techniques are needed when the teacher provides learning and observes children while in the school environment.

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<sup>1</sup> Corresponding author.

E-mail addresses: [Betativi@gmail.com](mailto:Betativi@gmail.com)

## **PRELIMINARY**

The 2013 Curriculum for Early Childhood Education is part of the development and refinement of the previous curriculum. designed according to the background, characteristics, and age of the child. As known

that the 2013 curriculum contains five essences, namely thematic learning, contextual learning, character education, scientific approaches (observing, asking, reasoning, trying, communicating) and authentic assessments that students need to have.(Rahmi, et al., 2014).

Learning requires strategies that are able to develop children's cognitive abilities, one of the suitable learning strategies to develop children's cognitive abilities is contextual learning strategies. Contextual learning strategy is one of the learning strategies that is very close to the world of children. This can be seen from the child's mindset that children learn from concrete things to abstract things.

Elaine stated that contextual learning is a learning system that fits the brain that produces meaning by connecting academic content, with the context of everyday life. Contextual learning strategy is a learning model that emphasizes the process of children's involvement in finding their own learning material, linking the material to real world situations, so that the material is embedded in children's understanding, and the material obtained through contextual teaching and learning can be applied in life. .

This is in line with Sanjaya's opinion that Contextual Teaching and Learning (CTL) is a learning strategy that emphasizes the process of full student involvement to be able to find the material being studied and connect it to real-life situations so as to encourage students to apply it in their lives. Meanwhile, according to Blanchard, contextual learning is learning that occurs in close relationship with actual experience.

The learning process using contextual learning strategies has a mutually supportive relationship with the application of a scientific approach. (Rahmi et al., 2014)stated that, "the 2013 curriculum has two stages in its application, namely the scientific approach and authentic assessment". In the scientific approach, students are given the understanding to recognize and understand various materials using a scientific approach so that the learning atmosphere is created to encourage children to find out information through observation, not being told. The stages of the scientific approach are observing, asking, reasoning, trying, and forming networks.(Sani et al., 2014) argues that the scientific (scientific) method generally involves observation activities which are needed for the formulation of hypotheses or collecting data, based on the presentation of data obtained through observation and can be replaced with

activities to obtain information from various sources.

Based on that, it is important for teachers to be able to design learning tools using strategies and approaches that are suitable for students. In contextual learning strategies, teachers are expected to be able to manage learning materials based on the themes taught in schools by linking children's daily lives. This contextual learning strategy is not only based on the provision of learning in theory, but how the learning provided can relate to real problems experienced by children. Furthermore, with a scientific approach, teachers should be able to design 5M-based learning (observing, asking, trying, reasoning, and communicating) in order to provide real learning experiences for students.

The importance of contextual learning with the application of a scientific approach as an application of the 2013 curriculum which is developed continuously by the government from the center to the regions through school clusters. However, the teacher's understanding of the development of contextual learning tools with the application of a scientific approach is still not optimal. This is supported by previous research data.

Based on circular letter No. 4 of 2020 concerning Appeals from the Government in accordance with health protocols regarding procedures for preventing the spread of the Covid-19 virus, all school activities must be abolished and children learn from home and all teachers must work from home. With the implementation of Work From Home (WFH), all parties must comply with the given rules. With this appeal, teachers should continue to monitor and provide activities for children through online learning. A new challenge for early childhood education teachers, who have never used the application of online learning for teaching and learning activities. With the existence of WFH at the Early Childhood Education level, it is hoped that teachers can continue to monitor children's development and activities at home, and continue to interact with children and parents.

With the implementation of school holidays during the Covid-19 virus pandemic, starting from PAUD to Higher Education levels, each educational unit applies distance learning to maintain and break the chain of spread of the Covid-19 virus. All habits change, as well as lessons that must be applied and of course must continue so that school children can still learn and improve their academic abilities. All children who attend school have the same right to continue to receive learning activities provided by the teacher. Even at the PAUD level, during the Covid-19 virus emergency pandemic, it is very possible to continue to carry out distance learning. With increasingly sophisticated technology, educators who are proficient in applying technology and parents who are increasingly following the development of technology. PAUD children also have the right to continue to participate in learning activities during the Covid-19

virus pandemic because they are also part of compulsory education, and of course so that parents who send their children to PAUD institutions have their rights fulfilled. It is not an easy thing, but it is very possible to carry out learning for PAUD children.

PeTeaching Early Childhood is required to be able to design and design distance learning (online) that is able to convey and convey to students effectively, interestingly, and fun. The use of online devices or media is expected to be in accordance with the techniques and benefits.

Teacher readiness in understanding and utilizing information and communication technology in interacting and communicating in various forms. The form referred to in this case is creating, collaborating, communicating and working according to goals. according to(Hanifa, et al., 2017) that teachers who have readiness in learning are marked by preparing plans, carrying out the implementation process, and evaluating, as well as with certain considerations by each teacher.

Based on sSecretary General Circular No. 15 of 2020 concerning Guidelines for the Implementation of BDR During the Covid-19 Emergency. Adding from the contents of Circular No. 15 of 2020 that there are two methods that can be implemented in learning activities from home, namely (1) using gadgets or laptops through several portals and online learning applications, (2) Networking/offline (Offline), using television, radio, modules independent study and worksheets, printed teaching materials, teaching aids and learning media from objects in the surrounding environment. The role of educators in preparing the online learning process is as follows: (1) creating a communication mechanism with parents of students, (2) arranging lesson plans according to children's interests, (3) discussing with guardians of students in preparing lesson plans, (4) ensuring the learning process runs smoothly,

according to(Jia et al., 2020) in research (abdul Latif: 2020) states that the learning system during the covid-19 period has a "Flexible Learning" system with characteristics (1) it can be done anywhere and anytime, (2) can learn about anything you want, (3) can conduct direct or through media learning, (4) teachers have the flexibility to choose and determine the implementation of learning (online discussions, seminars, and others, (5) assessments can be carried out flexibly according to activities during the covid-19 pandemic. The emphasis on distance learning is on learning methods assisted by technology. Distance learning will certainly be carried out without direct physical interaction between teachers and students. Distance learning has positive implications that come from advances in digital technology.

according to (Moore, et al., 2017) In this study, distance learning is classified into three types, namely (1) distance learning activities, namely learning activities carried out remotely. (2) E-learning is an electronic means used in the learning process, (3) Online learning is learning that requires connectivity and accessibility.

Pethe implementation of distance learning does not take place in one room so there is no direct interaction between the teacher and students because the focus on distance learning is a learning method that is assisted by technology as a medium to send learning materials to students virtually (Tavuccu, at all) in research (Latif, et al., 2020).

Similarly, the results of observations and interviews with PAUD educators in the North Banjarbaru sub-district. Educators are generally not fully able to design contextual learning tools with a scientific approach due to confusion, difficulty, and even laziness. Although the training has been given, the educators do not understand it optimally. This is evidenced by the initial findings of the draft RPPH that have been made by educators both when they teach in schools and when they attend teacher professional education. The learning tools they make are far from what is expected in the curriculum which includes contextual learning and a scientific approach. The RPPH made is in the form of weekly Eid which is distributed to parents along with children's assignments once a week according to the schedule determined by the school. The lesson plan is made in the form of a weekly guide for parents at home in assisting children in learning. Educators only a few times a week hold online meetings with children to ask about what materials have not been and have been done by children.

Taking into account the above description, this research is very appropriate and in accordance with the needs of teachers who will implement the 2013 curriculum. Contextual learning design with a scientific approach, is expected to encourage teachers to design quality, effective, and efficient learning in producing quality generations in order to achieve educational goals, both instructional, institutional, and national goals. For this reason, it is necessary to have a guidebook as a guide for PAUD teachers and prospective PAUD teachers in designing online contextual learning using a scientific approach to the 2013 curriculum in PAUD. Referring to that.

## RESEARCH METHODS

The stages in this development research refer to the steps developed by Borg & Gall according to Sugiono, which can be seen in the chart below:

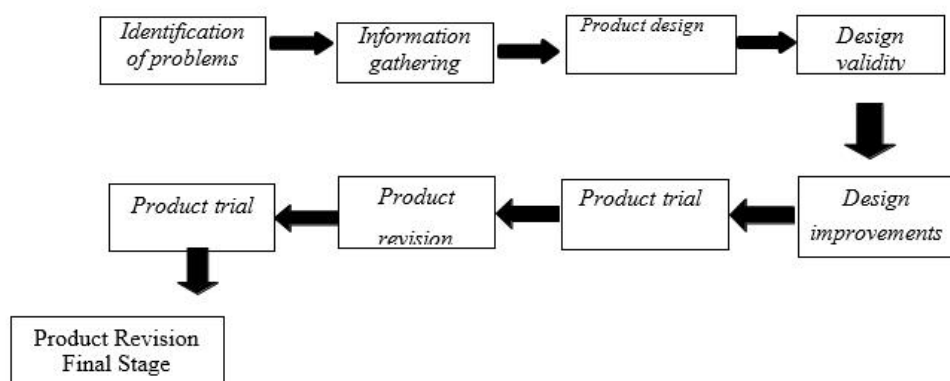


Figure 3.1. Borg and Gall's (2003) Design Model

## RESEARCH RESULTS AND DISCUSSION

### A. Online Learning Device Design in PAUD

The design of learning tools in the (RPPH Daily Learning Implementation Plan) made by PAUD teachers during the current pandemic when we carried out direct observations and interviews with several teachers in Banjarbaru District, before determining the research problem we determined.

Our findings so far have been that teachers design learning toolsonline still does not use a scientific approach, where 5M collaboration must be included in developing six aspects of development that must be carried out including aspects of religious and moral values, social emotional, cognitive, language, physical motor, and art. Presenting themes and sub-themes must refer to these six aspects by presenting them in an integrated manner, meaning linking the indicators developed in these aspects related to the sub-themes that have been selected or determined.

The approach that must exist is a feature of the 2013 curriculum, which is to include 5 M, observing, asking questions, gathering information, reasoning and communicating or what is called a scientific approach, as well as evaluating using authentic assessments, with online learning processes during current conditions during a pandemic or pandemic. learning is carried out on a limited basis.

Learning device planning should refer to: firstwe have to look at the curriculum that we use, whether group A or group B, what semester, then we choose what themes and sub-themes will be developed, in the 2013 curriculum there are 11 themes developed for both group A and

group B, but what needs to be remembered is the theme as well as sub-themes the teacher must be able to develop and adapt to the environment we live in or the area. Each theme for this first semester that can be developed includes myself, my environment, my needs, animals and plants, with various sub-themes that can be developed.

1. The findings in designing the RPPH format that the teacher made in the Landasan Ulin sub-district are still not clear what aspects of development will be carried out, they immediately include the stages of learning, the name of the activity, the initial activity, the foothold before playing, the footing after playing and the final activity, with the theme of my environment. , sub theme my family.
2. From the North Banjarbaru sub-district, they also included basic competencies that were developed, including indicators, learning objectives, materials, learning activities starting from opening, core, rest and closing, methods, tools/media & learning resources, assessment tools, and rubrics.
3. Another form of RPPH model that was developed from the South Banjarbaru District, they include basic competencies, materials, play activities, tools and materials, in the process of opening, core, recalling, closing activities, attitude assessment plans, knowledge and skills.
4. Other forms of RPPH models developed from Cempaka Sub-district they include Themes & Sub-themes, Basic Competencies and aspects of child development, learning objectives, material content consisting of habituation and activities, learning strategies consisting of main scientific and supporting scientific, tools and materials, resources learning, the process of learning activities consists of welcoming children, lining up activities outside the classroom, stepping before playing, stepping during play, stepping after playing, resting, final activities. Meanwhile, the assessment plan used is in accordance with the aspects of KD development and indicators as well as anecdotal assessment techniques, rating scales, anecdotes, and works.

Based on the findings above, there are various forms of RPPH that are different and varied from each school in several sub-districts, on the basis of these findings we finally designed a learning tool that refers to and combines with several existing forms of RPPH, where each The learning tools still have weaknesses, especially for novice teachers, who are not used to designing and using RPPH when teaching and for teachers who are still not proportional.

## B. Developed learning and assessment tool models

The learning device model developed was made in accordance with the findings in the field, where researchers made learning tools based on a scientific approach to online learning, before being used this learning device was first tested in accordance with the development research steps developed by Borg and Gall. Learning tools, assessments and approaches used went through two tests, first internally and secondly limited trials. First internal trial incarried out on April 28, 2021, was given to three experts, whose doctorate degrees have a background in early childhood education, ( Dr. AR, Dr. A, and Dr. KA,) ), and three of their practitioners also have Masters degrees. early childhood education, (NH, RW, and M,) and has more than ten years of teaching experience.

The themes and sub-themes developed in this study refer to the 2013 first semester curriculum for both group A and group B, where the themes and sub-themes developed are the same but the only difference is indicators, while the basic competencies are the same. The first theme, I, the five senses sub-theme for group A, and the sub-theme of my body members for group B, the second theme is Plants, the soursop fruit plant sub-theme for group A, and the banana plant sub-theme for group B, the third theme is Animals, the sub-theme Animals living in water for group A, and the sub-theme of living on land for group B. Fourth, the environment, the sub-theme of the family environment, for group A, and the sub-theme of the school environment, for group B. Fifth, the theme of My Needs, the sub-theme of daily clothing for group A. group A, and the food sub theme for group B.

The design of the learning device which is given an assessment format refers to the performance test assessment (UKIN) and is modified by adding character values in the RPPH design. The RPPH format can be seen in the table below: Table 4.1 Assessment Data from experts in the first trial

No. Rep	Learning Device Instrument Item Score																	Jlh
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
1	7	6	7	7	7	6	8	7	7	6	6	7	7	7	7	7	6	115
2	7	6	8	8	7	7	7	7	8	7	7	7	6	7	7	8	7	121
3	7	6	7	7	7	6	6	7	7	7	7	6	6	7	7	6	6	112
Amount	21	18	22	22	21	19	21	21	22	20	20	20	19	21	21	21	19	348

Source: data processing, 2021

Based on table 4.1, it can be seen that the total score for the three experts = 354. The number of criteria scores =  $3 \times 10 \times 17 = 510$ . Thus the value of the learning device design (RPPH) =  $348 : 510 \times 100 = 68.2$ . So, the value of the online learning design using the scientific



approach given by the expert = 68.2. While the standard set by the researcher is 75, thus, the design of the learning device made still needs to be improved because it does not comply with the 75 criteria that have been set.

Inputs for the internal test from three experts who teach as lecturers at the Faculty of Teacher Training and Education consist of:

**Assessment (AR) Theme My Needs developed well for group A**, the objectives are good and adapted to the learning objectives in the RPPH, the learning objectives are still describing measurable operational verbs, which include elements A, B, C, and D. Learning resources only refer to the curriculum, even though there are many other learning resources from others, for example, books and magazines, electronics, and the environment. Teaching materials and media do not need to be attached but are included in the learning activities column. Media and tools used to support learning activities are equipped with pictures or statements using direct objects. Teaching materials are not included in the appendix but are combined to be described in the learning activities column. Examples of pictures used can be emphasized or clarified so that it is easy for children to understand.

In the learning activity column, four columns are made consisting of the KD/Aspect column, learning activities, time allocation, media and assessment and the assessment rubric is made in the appendix to the assessment technique. Determination of the time allocation is included in each learning activity such as in the initial/preliminary activities, core activities, rest and closing activities. The description of the activity steps is adjusted to the activities of the center or group in general. The assessment column is entered according to aspects of NAM development, Sosem, Language, Cognitive, Physical Motoric and Art. For example, the assessment of work, performance, checklists, anecdotes is placed in the fourth column, namely the assessment column and is adjusted to the indicator aspects of the activities being assessed. Already attached assessment worksheets, both anecdotes, work, performance and checklists. The existing assessment technique is only a checklist sheet assessment format equipped with a rubric, but it needs to be equipped with a clear rubric to measure according to the purpose of indicators of all aspects of child development. For assessment, the criteria should be if the child only meets one criterion.

**Assessment of (A) My Needs Theme developed for group B**, the objectives must be adjusted to the learning objectives in the RPPH, the learning objectives still do not fully describe the operational verbs that can be measured. Learning resources only refer to the curriculum, even though there are many other sources of learning, for example, books and magazines, electronics, and the surrounding environment. Teaching materials and media do not

need to be attached but are included in the learning activities column. Media and tools used to support learning activities are equipped with pictures or statements using direct objects. Teaching materials are not included in the appendix but are combined to be described in the learning activities column

In the learning activity column, four columns are made consisting of the KD/Aspect column, learning activities, time allocation, media and assessment and an assessment rubric is made in the appendix to the assessment technique. Determination of the time allocation is included in each learning activity such as in the initial/preliminary activities, core activities, rest and closing activities. The assessment column is entered according to aspects of NAM development, Sosem, language, Cognitive, Physical Motoric and Art. For example, the assessment of work, performance, checklists, anecdotes is placed in the fourth column, namely the assessment column and is adjusted to the indicator aspects of the activities being assessed. Attach an assessment worksheet, including anecdotes, work results, performances and checklists. The only format for the assessment technique is a checklist assessment sheet completed with rubrics, but not equipped with assessment sheets and rubrics in the form of anecdotal notes, performance, and work. The description of the assessment and follow-up must be included in the draft RPPH.

**Assessment (KA) My Environment Theme which was developed well for group A,** learning objectives are in accordance with KD and indicators of each development, the formulation already contains elements of Audience, Behavior, Condition, Deigre. The learning activity column is made up of four columns consisting of the KD/Aspect column, learning activities, time allocation, media and assessment. The teaching materials and teaching materials that are included are good according to the order of the learning objectives. In developing the material for learning activities, it is necessary to explain the description of the activities delivered by the teacher and the activities carried out by the children. The core material for developing character values in scientific implementation has been included after the teaching materials have been included in learning activities from the foothold before playing, the footing when playing, resting and stepping after playing.

The learning media was checked again, because in the activity of praying before eating and after eating, the media used was prayer before eating. Learning resources that contain curriculum, books and magazines, but can be equipped with electronic teaching materials, and the surrounding environment. Teaching materials do not need to be attached but are included in the learning activities column.

The teacher must be able to give examples of simple movements so that children can easily understand, as well as the use of language to children, especially for group A children so that the language used can be better understood by children. For RPPH during a pandemic or online learning, it can be made briefly.

After the internal test is carried out, it is continued by revising the design of the learning device that will be tested to find out its weaknesses or have not met the specifications of the learning design product on May 3, 2021. The next test is given to practitioners who have been previously determined, namely there are three people from different backgrounds. S2 PAUD education and has long experience in the field of early childhood education. Table 4.2 Assessment Data from practitioners in the first trial

No. Rep.	Learning Device Instrument Item Score																	Jlh
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
1	6	6	6	6	6	6	6	7	7	6	7	6	6	7	6	6	6	106
2	7	7	8	6	7	7	6	7	7	8	7	7	6	7	7	7	7	118
3	7	7	7	7	7	7	7	6	6	6	6	6	6	6	6	7	7	111
Amount	20	20	21	19	20	20	19	20	20	20	20	19	18	20	19	20	20	335

Source: data processing, 2021

Based on table 4.1, it can be seen that the total score for 6 practitioners = 783. The number of criteria scores =  $3 \times 10 \times 17 = 510$ . Thus, the value of the learning device design (RPPH) =  $335 : 510 \times 100 = 66$ . So, the value of the learning design online using the scientific approach provided by the practitioner = 66. While the standard set by the researcher is 75, thus, the design of the learning device made still needs to be improved because it does not comply with the 75 criteria that have been set.

The input for the first internal test from three teacher practitioners teaching in PAUD consisted of:

**Assessment (NH) Theme 1 well developed plants for group A**, learning objectives for sentences can be reduced or briefly emphasized to be easily understood by educators, for example (children can, children are able, etc.). In the learning center there must be one focus, for example "Prosostan toys"

Learning resources are not only curriculum, books and magazines, but can be equipped with electronic teaching materials, and the surrounding environment. Teaching materials and media do not need to be attached but are included in the learning activities column. In the learning activities column, four columns are made consisting of the KD/Aspects column, learning activities, time allocation, media and assessment. Determination of the time allocation is

included in each learning activity such as in the initial/preliminary activities, core activities, rest and closing activities.

The assessment column is entered according to aspects of NAM development, Sosem, Language, Cognitive, Physical Motoric and Art. For example, the assessment of work, performance, checklists, anecdotes is placed in the fourth column, namely the assessment column and is adjusted to the indicator aspects of the activities being assessed. Attach the assessment worksheets both anecdotes, works, performances and checklists. Student sheets must have pictures so that children can easily understand the tasks given by the teacher. Cognitive development for a given image is still too difficult.

**Assessment (RW) Theme 2 plants developed for group B**, learning objectives are in accordance with KD and indicators for each development are further detailed in each theme, but their placement should be issued in the learning activity column. Learning activities are made up of four columns consisting of the KD/Aspects column, learning activities, time allocation, media and assessment. Teaching materials and teaching materials are included after the order of learning objectives, not included in the appendix. In developing the material in learning activities, it is necessary to explain the description of the activities delivered by the teacher and the activities carried out by the children. Not attached to teaching materials, but described in the learning activities column.

The learning resources contained are only curriculum, books and magazines, but can be equipped with electronic teaching materials, and the surrounding environment. Teaching materials and media do not need to be attached but are included in the learning activities column. The assessment technique described is good, but the assessment made is only an assessment format in the form of a check list, an assessment format should also be made for anecdotal notes and work.

Online learning can now be prepared by media and teaching materials that are not only in the form of pictures so that children do not get bored when learning from home with their family members.

### **C. The Effectiveness of Small-Scale Research Implementation**

The research was carried out in a limited trial to see the level of effectiveness of online contextual learning tools using a scientific approach that was given to ten educators from three kindergarten schools in northern Banjarbaru, namely Ma'Rifah Asyifa Kindergarten, Banjarbaru Pembina Kindergarten, Khanzul Khairat Kindergarten.

Data on the effectiveness of learning devices provided by teachers at Ma 'Rifah Asyifa

Banjarbaru Kindergarten in the 2020/2021 school year.

Table 4.3 Assessment Data from teachers at Ma 'Rifah Asyifa Banjarbaru Kindergarten in a limited trial.

No. Rep	Learning Device Instrument Item Score																	Jlh
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
1	9	8	8	8	9	8	8	8	9	8	9	8	9	9	9	8	9	144
2	9	8	8	9	9	8	8	8	8	8	9	9	9	8	9	9	9	145
3	8	9	8	9	8	9	8	8	9	8	9	9	8	9	9	9	8	145
4	9	8	8	9	8	8	8	8	9	8	9	9	9	8	9	9	8	144
Amount	35	33	32	35	34	33	32	32	35	32	36	35	35	34	36	35	34	578

Based on table 4.3, it can be seen that the total score for 4 educators = 578. The number of criteria scores =  $4 \times 10 \times 17 = 680$ . Thus, the value of the learning device design (RPPH) =  $578 : 680 \times 100 = 85$ . So, the value of the learning design online contextual using a scientific approach given by 4 educators = 85. The standard set by the researcher is 75, thus, the design of the learning device that has been made has exceeded the 75 criteria that have been set and is declared eligible to be used as a learning product.

The input for the small-scale trial assessed by 4 teachers who teach at TKMa 'Rifah Asyifa Banjarbaru Banjarbaru consists of:

Theme 1 is the Plants Theme which was developed for group A with the sub-theme Clothing, revision of the DK, in the front cover it is necessary to enter the name of the school identity, the current semester, the name of the teacher. Basic competencies and activities in the developmental aspect of Sosem are included in rest activities, in the media column they are described according to the media used for learning activities, not only pictures.

Theme 2 is the Plants Theme which was developed for group B with the sub-theme Banana Fruit, revised from the US, in the front cover it is necessary to enter the name of the school identity, current semester, teacher's name. On the page after the cover, the identity group is equipped with a description of the week to. The media used are real/concrete objects.

Theme 3 is the My Needs Theme which was developed for group A with the sub-theme of clothing, revised from S, in the front cover it is necessary to enter the name of the school identity, current semester, teacher's name. On the page after the cover in the identity group is equipped with a description of week 2, The media used is in the form of real/concrete objects. In the media column, it is described according to the media used for learning activities, not only the pictures.

Theme 4 is the Animal Theme which was developed for group A with the sub-theme of animals living on land, revision of the AK, in the front cover it is necessary to include the name of the school identity, the current semester, the name of the teacher. On the page after the cover, the identity group is equipped with a description of the week to. In the learning activity column, the preliminary information is replaced by the initial activity. The media used are real/concrete objects.

Learning device data provided by school principals and teachers at the Banjarbaru Pembina Kindergarten in the first semester of the 2020/2021 academic year.

Table 4.4 Assessment data from teachers at TK Pembina Banjarbaru in a limited trial.

No. Rep	Learning Device Instrument Item Score																	Jlh
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
1	9	9	8	9	8	9	8	9	9	8	9	8	9	9	9	8	9	147
2	8	9	8	9	9	8	7	9	8	9	9	9	9	8	9	9	9	146
3	8	9	8	9	8	9	8	8	9	8	9	9	8	9	9	9	8	145
Amount	25	27	24	27	25	26	23	26	26	25	27	26	26	26	27	26	26	438

Source: data processing, 2021

Based on table 4.4, it can be seen that the total score for 3 teachers = 438. Total criterion score =  $3 \times 10 \times 17 = 510$ . Thus, the value of the learning device design (RPPH) =  $438 : 510 \times 100 = 86$ . So, the design value uses authentic scientific and character-based assessment given by 3 educators = 86. The standard set by the researcher is 75, thus, the design of the learning device that has been made has exceeded the 75 criteria that have been set and is declared eligible to be used as a learning product.

The input for the small-scale trial assessed by 3 teachers who teach at the TK Pembina Banjarbaru consists of:

Theme 1 is the theme of my needs which was developed for group B with the sub-theme of Muslim clothing, revised from M, on the purpose of learning to brush teeth included in the teaching materials. In the introductory activity, the surah that will be delivered to the children is explained. Establish rules for playing with children. The media column is added with information on learning resources. In the language aspect, the description of learning activities is corrected, children pay attention to the teacher saying the word on the picture card shown, the child follows the word spoken by the teacher, the child pronounces the word correctly.

Learning activities and media used are adjusted to the theme. Activities on the social media aspect are added with pictures of how/steps to fold clothes. In selecting activities/making learning activities, it should not always be with LKPD. In making LKPD, it is not always possible to check by drawing a line, giving color to the box, sticking a sticker and adjusting it

to the age of the child. Assessment of the work is given a picture of the child's work in accordance with the activities that have been described in the learning activities. Overall the RPPH that has been made is good and easy to understand, the information is clearly described, it's just that the criteria can be made briefly, and the abbreviations can be given explanations.

Theme 2 is Myself which was developed for group B with the sub-theme My Body, revision of SM, each initial, core and final activity is equipped with a time that is adjusted to the lesson hours as information for parents. In the assessment column, a description of the learning objectives is added. Assessment of the work is given a picture of the child's work in accordance with the activities that have been described in the learning activities. Overall it is very complete and good, very easy to understand by educators, and parents of students because during this pandemic period children learn a lot with their parents at home.

Theme 3 is the Self-theme which was developed for group B with the sub-theme Panca Indra, revised from M, in the column for the learning activities the introduction is replaced with the initial activity. The media used are real/concrete objects. In the media column, it is described according to the media used for learning activities, not only the pictures. For learning purposes, it is in accordance with the 2013 curriculum. For writing each word/sentence can be shorter Learning device data provided by school principals and teachers at Khanzul Khairat Banjarbaru Kindergarten in the 2020/2021 school year.

Table 4.5 Assessment Data from teachers at Khanzul Khairat Banjarbaru Kindergarten in limited trials.

No. Rep	Learning Device Instrument Item Score																	Jlh
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
1	9	9	8	10	8	9	8	9	9	8	10	9	9	9	10	8	9	151
2	9	9	9	9	9	8	8	9	9	9	10	9	9	8	9	9	9	151
3	8	9	8	10	9	9	8	8	9	8	9	9	8	9	9	9	8	147
Amount	26	27	25	29	26	26	24	26	27	25	29	27	26	26	28	26	26	449

Source: data processing, 2021

Based on table 4.5, it can be seen that the total score for 3 teachers = 449. The number of criteria scores =  $3 \times 10 \times 17 = 510$ . Thus, the value of the learning device design (RPPH) =  $449 : 510 \times 100 = 88$ . So, the design value uses authentic scientific and character-based assessment given by 3 educators = 88. The standard set by the researcher is 75, thus, the design of the learning device that has been made has exceeded the 75 criteria that have been set and is declared eligible to be used as a learning product.

The input for the small-scale trial assessed by 3 teachers who teach at Khanzul Khairat Kindergarten Banjarbaru consists of:

Theme 1 is the My Environment Theme which was developed for group A with the sub theme My Family, revised from S, KD aspects of language, improve 3.10 & 4.10 according to learning activities. The media column is added with information on learning resources. In the language aspect, the description of learning activities is corrected, children pay attention to the teacher saying the word on the picture card shown, the child follows the word spoken by the teacher, the child pronounces the word correctly. Learning activities and media used are adjusted to the theme. Assessment of the work is given a picture of the child's work in accordance with the activities that have been described in the learning activities. All aspects are complete, there are only a few image media that still need to be clarified.

Theme 2 is the My Environment Theme which was developed for group A with the sub-theme of the school environment, revision of D, KD language aspects, improve 3.10 & 4.10 according to learning activities. The concept map of material content, jumping using can be improved by jumping sentences with various media.

The media column is added with information on learning resources. In the language aspect, the description of learning activities is corrected, children pay attention to the teacher saying the word on the picture card shown, the child follows the word spoken by the teacher, the child pronounces the word correctly. In the artistic aspect, assessment can be added with assignments or performance. Learning activities and media used are adjusted to the theme. Assessment of the work is given a picture of the child's work in accordance with the activities that have been described in the learning activities. The RPPH made as a whole is complete and in accordance with the 2013 Curriculum, in terms of the selection of indicators, the ability of aspects of child development, methods and media as well as assessment.

Theme 3 is the Animal Theme which was developed for group B with the sub-theme Animals that live on land, revised from F, KD aspects of language improve 3.12 & 4.12 according to learning activities, namely 3.10 & 4.10. The media column is added with information on learning resources. Learning activities and media used are adjusted to the theme. Complete with an assessment of the work that is given a picture of the child's work in accordance with the activities that have been described in the learning activities. Complete teaching materials and can be applied in PAUD kel. B but there is a word 'painting' that can be replaced by coloring it.



#### **D. Results of Developing Effective, Efficient, and Practical Learning Device Models in accordance with the 2013 Curriculum Applied in PAUD**

The results of the final revision of the test were limited to the design of daily learning tools after improvements were made through trials carried out in three schools including Ma Rifah Asyifa Kindergarten, Pembina Kindergarten, Khanzul Khairat Kindergarten with 10 teachers, where the accreditation of each school was accredited A. The results of the revision the product is very good so it deserves to be tested in the main field. The trial was carried out in the main field with a total of 25 respondents in five schools in the North Banjarbaru sub-district. The test was carried out in the main field using a combination method and mixed with experiments (quantitative, observations and interviews) during and after the experiment. Activities in the main field test were carried out using pretest, treatment and posttest.

**O1** is to assess the results of making RPPH before being treated with an online contextual learning model using a scientific approach. **X** is giving treatment by developing online contextual learning RPPH using a validated scientific approach. **O2** is to assess the results of the respondent's RPPH design after being treated with an online contextual learning model using a scientific approach.

##### **1. Initial Pretest Design Results**

Based on the results of the initial pretest at five schools in the northern Banjarbaru sub-district in designing their RPPH they were the same in one cluster because they copied and pasted their fellow schools. In their RPPH they contain titles, descriptions of days, dates, age groups, themes and sub-themes as well as basic competencies. In the description of the material, the activities have been described in accordance with what will be carried out in learning in one day. However, the design they made did not contain a description of the indicators according to the 2013 curriculum and the objectives to be achieved. Play activities use a central system with play activities.

The media used are still worksheets, crayons, drawing books, pencils, and pictures related to the theme to be taught. They do not describe the tools and materials used in the form of concrete objects so that it is easier for children to understand the knowledge related to the theme that will be conveyed. The activity process in the opening, core, recalling and closing activities, only mentions the activities to be carried out. Does not include the implementation of learning using a scientific approach. The activities of teachers and children during the learning activities are not described. The lesson plan does not include rest activities. The assessment used only assesses attitudes and knowledge and skills according to children's activities in the implementation of learning.

The results of the pretest assessment in five schools in North Banjarbaru District. can be seen in appendix no. 1.1 with the total score for 25 teachers = 2602. The number of criteria scores =  $25 \times 10 \times 17 = 4250$ . Thus the value of the learning device design (RPPH) obtained in the pretest result =  $2602: 4250 \times 100 = 61,2$ . So, the value of the online contextual learning model design using a scientific approach given by 25 educators = 61.2 with less category. The standard set by the researcher is 75, thus, the design of the learning device made does not meet the 75 criteria that have been set and is declared unfit to be used as a learning product.

## **2. Learning Implementation Results Developed**

The implementation of learning carried out at five schools in the District of North Banjarbaru uses learning products that have been previously validated. The learning activities carried out for three days were observed by researchers directly at the schools where the research samples were taken.

There are four schools, namely TK Agrinusa, TK Amalia, TK Gembira and Al-Hikmah which are good at carrying out learning activities because they are located close to the center of Banjarbaru City and some educators are already certified. This can be seen in learning, where the teacher when opening the lesson is able to prepare students physically and mentally, motivate children, convey apperception, and convey learning objectives. In the core activity in mastering the material when delivering material in accordance with the learning objectives in the RPPH, applying the concept of learning material by providing real examples, linking it with the surrounding environment.

The implementation of learning uses learning steps in accordance with a scientific approach. Cultivating positive habits in children, using tools/materials and learning media that are concrete, effective and efficient by growing children's active participation in learning and increasing children's understanding and attracting children's attention. In managing learning, educators are skilled in guiding children individually, both online learning through zoom and home visits, groups and individuals so that learning remains conducive and provides reinforcement and motivation to children. The use of language used is clear and easy to understand, the volume is heard clearly and uses polite language.

The teacher also during the learning process monitors the progress of children's learning, motivates children to achieve better development, but has not carried out the process assessment in accordance with the lesson plan. Conduct assessments according to objectives, carry out results assessments according to planning, use rubrics in assessing but follow up on assessment results after the learning process. Social sensitivity is carried out by the teacher by

giving a caring attitude to the needs of children and being open to differences in children's conditions. Have an open, friendly attitude, look neat, clean and polite and enthusiastic.

The implementation of learning in the closing activity or the final activity the teacher summarizes the learning material by involving children through recalling, discussing what play activities the child has played, and what they like the most and providing feedback. Reflect and follow up on the concept material that has been taught, guide children to self-evaluate to find benefits, and inform learning activity plans for the next meeting.

One school, namely TK. Al-Amin is still not optimal in the implementation of learning because most of the teacher education is only high school graduates, there are some who have Bachelor degrees but are not linear with PAUD S1 Education, infrastructure and study rooms that do not meet school standards according to the 2013 curriculum. Lack of understanding of educators on the implementation of online learning techniques so that children continue to develop all aspects of child development. Technology facilities in the form of tools and internet networks are inadequate by some educators and parents of children.

The teacher's preliminary activities in opening learning have prepared students physically and mentally. Lack of motivating children, rarely in asking questions that relate previous knowledge and everyday life to the material to be studied. Delivering learning objectives and material coverage according to themes and sub-themes with indicators formulated in the learning design. In the core activity of mastering the material in accordance with the learning objectives in the RPPH, some teachers only apply the concept of learning material by providing real examples by linking to the latest information. In carrying out the learning steps the teacher has not encouraged children to carry out direct experience activities in accordance with the 5M scientific approach.

Cultivate positive habits by giving directions to children to apply good habits in learning activities, encouraging children to get used to speaking politely. Using tools/materials and media effectively and efficiently in learning as well as strengthening students' understanding and attracting children's attention. In classroom management, teachers are skilled in guiding children classically, in groups and individually so that the class remains conducive, as well as strengthening and motivating children. Use of language with clear and easy-to-understand sentences, clear voice volume and use polite language.

The teacher's assessment of the learning process has not monitored the child's progress optimally, rarely asks questions to monitor student achievement, sometimes carries out process assessments according to the lesson plan. Assessment of learning outcomes is carried out after the learning activities take place using an assessment rubric and only in the form of a checklist

assessment. The teacher's social sensitivity shows empathy for children and is open to differences in children's conditions, has a good personality by looking neat, clean and polite and enthusiastic. In the closing activity the teacher summarizes the learning material by involving children, guiding children and providing feedback, reflecting and following up on the concept of the material that has been taught and informing the learning activity plan for the next meeting.

## CONCLUSION

The design of learning tools in the RPPH Daily Learning Implementation Plan made by PAUD teachers still does not refer to the 2013 curriculum, where in the curriculum there are six aspects of development that must be implemented, including aspects of religious and moral values, social emotional, cognitive, language, physical, motor, and artistic. And in presenting the themes and sub-themes, it must refer to these six aspects by presenting them in an integrated manner, meaning linking the indicators developed in these aspects related to the sub-themes that have been selected or determined. The RPPH made is only one sheet and lacks an explanation of children's activities to study at home so that parents feel bothered by additional children's learning activities at home.

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