ҚАЗАҚСТАН РЕСПУБЛИКАСЫ
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NAS RK is pleased to announce that Bulletin of NAS RK scientific journal has been accepted for indexing in the Emerging Sources Citation Index, a new edition of Web of Science. Content in this index is under consideration by Clarivate Analytics to be accepted in the Science Citation Index Expanded, the Social Sciences Citation Index, and the Arts & Humanities Citation Index. The quality and depth of content Web of Science offers to researchers, authors, publishers, and institutions sets it apart from other research databases. The inclusion of Bulletin of NAS RK in the Emerging Sources Citation Index demonstrates our dedication to providing the most relevant and influential multidiscipline content to our community.

Қазақстан Республикасы Ұлттық ғылым академиясы "ҚР ҰҒА Хабаршысы" ғылыми журналының Web of Science-тің жаңаланған нұсқасы Emerging Sources Citation Index-те индекстелуге қабылданғанын хабарлайды. Бұл индекстелу барысында Clarivate Analytics компаниясы журналды одан әрі the Science Citation Index Expanded, the Social Sciences Citation Index және the Arts & Humanities Citation Index-ке қабылдау мәселесін қарастыруда. Web of Science зерттеушілер, авторлар, баспашылар мен мекемелерге контент тереңдігі мен сапасын ұсынады. ҚР ҰҒА Хабаршысының Emerging Sources Citation Index-ке енуі біздің қоғамдастық үшін ең өзекті және беделді мультидисциплинарлы контентке адалдығымызды білдіреді.

НАН РК сообщает, что научный журнал «Вестник НАН РК» был принят для индексирования в Emerging Sources CitationIndex, обновленной версии Web of Science. Содержание в этом индексировании находится в стадии рассмотрения компанией Clarivate Analytics для дальнейшего принятия журнала в the Science Citation Index Expanded, the Social Sciences Citation Index и the Arts & Humanities Citation Index. Web of Science предлагает качество и глубину контента для исследователей, авторов, издателей и учреждений. Включение Вестника НАН РК в Emerging Sources Citation Index демонстрирует нашу приверженность к наиболее актуальному и влиятельному мультидисциплинарному контенту для нашего сообщества.

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EFFECT OF PROBLEM BASED LEARNING MODELS ON THE ABILITY TO REMEMBER ENGLISH VOCABULARY IN PRESCHOOL

Abstract. Early childhood is a fundamental period for the life of a human being, the selection of learning models in the world of education makes children active students. However, the active involvement of children is something that must still be considered in teaching and learning activities in Indonesia. Quasi-experimental research was conducted using 60 children aged 4-5 years, on the influence of the problem-based learning model on the ability to recognize English vocabulary in kindergarten. Bloom's Taxonomic thinking concept is a reference to children's ability to remember English vocabulary such as mentioning, identifying, showing, and pairing pictures using English. Comparison between the control class of 30 children and the experimental class with the number of 30 children was done in obtaining the results of a comparison of the effects generated on the learning model. The results showed that the ability to remember English vocabulary in the experimental class in the application of the problem based learning model increased significantly compared to the research control class. Differences in outcomes are likely to arise due to research interventions, for this reason further study is required by using a larger sample size of the study to obtain the accuracy of the effects caused by the application of the problem based learning model to the ability to remember English vocabulary in kindergarten and higher education levels. Further adjusted to the stages in the concept of higher Bloom Tasonomics thinking skills.

Key words: Problem Based Learning Model, the ability to remember English vocabulary, the concept of Bloom's Taxonomy thinking.

Introduction. Learning model is a design that aims to anticipate the adaptive and generative behavior of students in achieving learning goals (Hanafiah & Suhana, 2009). Adaptive behavior is related to self and social maturity (age and culture) in carrying out daily activities whereas generative behavior is an activity carried out to explore oneself. Enjoyable environmental conditions help children to develop rapidly, with the concept of active learning and student centers making children more easily understand the concept of learning (Zare, Sarikhani, Salarii, & Mansouri, 2016). The teacher has the task of forming a learning pattern that is related to the experience the child has gained through a series of learning activities. Many studies state that there are still many teachers who use models that are not right, so the lack of motivation of children in participating in learning activities and lack of achievement of learning objectives(Isnaini, Sugiarti, & Indah, 2013; Margaret, 2014;Kenzhaliyev et al., 2019; Lavrinenko et al., 2020; Zhapbasbayev et al, 2016). The selection of the right learning model will help the child to learn and carry out activities more effectively so that the skills and knowledge gained are in accordance with the learning objectives that are achieved well and are beneficial for children in the future (Putri et al., 2020).

The problem based learning model is a learning model that makes children active learning with the opportunities given directly in compiling knowledge, developing children's independence and confidence

(Tsoukalas, 2011). The application of this model has been proven to increase the ability of students in every level of education, such as the ability of children in learning science (Zhang, Parker, Emberhardt, & Passalaqcuan, 2011) geography in students in grade 7 (Simons & Klein, 2007), biology in grade 9 and grade 12 (Goodnough & Cashion, 2006), increasing the acquisition of chemical values in grade 9 children (Tarhan, Raziye, Urek, & Acar, 2008), majoring in chemistry and biology at the S1 level (Overton & Bradley, 2010; Sahin, 2010) and majoring in psychology and business administration in graduate students (Hays & Vincent, 2004). In a study conducted by Zhang (2011) explained that the problem based learning model is very helpful for children in improving their abilities and ideas (Zhang et al., 2011), contextual understanding of the activities in the structure of its implementation is better than the learning model traditional.

Problem solving in problem based learning models makes children active individuals in learning activities, so that an understanding of learning goals is created (Arends, 2012). The opportunity for children to explore themselves is important in supporting children's abilities (Atayeva et al., 2019; Fauzi, Basikin, Duisenbayeva, &Kassymova, 2020) The opportunities provided make it easier for children to gain maximum understanding compared to traditional learning models requires children to memorize learning (Ningsih, Rahman, & Muhammad, 2019). Student-centered learning and the presence of small groups in learning are characteristics of this learning model (Arends, 2012). The teacher acts as a facilitator in learning activities which include activity planners and supporting media needed in learning. Planning problems that will be raised in children's activities related to children's daily lives, it is intended that children gain skills in solving problems in their lives and obtain new information from the activities that he went through from the activity. The opportunities given by the teacher in the activities carried out by children must be in a pleasant learning environment

Cognitive development is an ability that includes the ability to think, give reasons, change of mind, intelligence, and language abilities that children have (Sujiono, 2010). There are four stages of cognitive development according to Jean Piaget (Santrock, 2016), namely the sensorimotor stage (0-2 years), the pre-operational stage (2-7 years), the concrete operational stage (7-11 years), and the formal operational stage (11-15 years). The pre-operational stage (2-7 years) is characteristic of children in this study where symbolic is the ability of children at this stage and the children do not involve the operational thoughts they have. at this age, the child is in an egoistic and intuitive period which is a symbolic stage of thinking, but does not involve operational thinking. Egocentrism can be interpreted as the inability of children to distinguish the perspectives they have from others. Intuitive children go through when they are at the age of 4-7 years, primitive reasoning is used by children in this age. Children's curiosity about everything also happens at this age, in this case the child is considered to know about something but cannot explain rationally. In the cognitive theory proposed by Piaget, children actively build their cognitive world (Janssen-Vos&Pompert, 2012), the availability of information from the environment is not simply poured into children's minds but rather how children perceive the world and how these changes occur systematically in their minds (Santrock, 2016).

English is an international language, which is used as the language of instruction in primary, secondary and tertiary education (Santrock, 2007), Vocabulary plays an important role in everyday human life (Ismawati, 2011). The use of traditional learning models such as memorization is often used as a teacher in carrying out teaching and learning activities that result in a lack of active children (Lin, 2010; Min & Hsu, 2008) Using the PBL approach, second language learners (L2) can explore the meaning of vocabulary through collaboration between group members, developing their knowledge of vocabulary in real life contexts. Knowledge of the construction process can guide these students to realize the meaning of vocabulary and its use in the context of communication. Determining the final success of the use of English is when the child is at an early age (Santrock, 2016) Regulation of the Minister of Education of the Republic of Indonesia number 58 regarding Early Childhood Education Standards explains the Standards of Development Achievement Levels of Children aged 4-5 namely repeating simple sentences, answering questions simple, expressing feelings with adjectives, mentioning known nouns, expressing opinions to others, telling the contents of fairy tales. In the EFL context, empirical research examining the influence of problem based learning models is very limited. Then this study will look at the effect of problem based learning chosen as a learning model in overcoming problems of the ability to remember

Table 1 – The steps of the problem based learning model

No	Learning Steps	Information
1	**The first step** Provide orientation about problems to children	Children observes and desribes the pictures Children pay attention to the teacher's explanation about the introduction of various means of transportation in the media provided by the teacher Children ask questions and answers about the names of the means of transportation on the media provided by the teacher
2	**Second step** Prepare students to study	Children pay attention to examples of activities to remember English vocabulary that will be done in learning (means of transportation)
3	**Third step** Guiding independent and group investigations	The child does the activity of remembering transportation independently and in groups
4	**Fourth step** Develop and present the work	The child starts to convey the results of the activity considering the means of transportation they have done
5	**Step Five** Analyze and evaluate the problem solving process	Children get explanations and reflections about English vocabulary

English vocabulary by following the steps contained in the problem based learning model (table 1) with the theme "Transportation" in preschool.

Methods. This study conducted research on 60 children aged 4-5 years in kindergarten as research subjects. There were 2 research classes: 30 children in the control class and 30 children in the experimental class. The teacher in this study acts as a learning activity implementer and the researcher as an observer who assesses the achievement of the ability to remember English vocabulary. Research design in this uses a quasi-experimental design with two classes. These classes are divided into two conditions: experimental conditions and control conditions. In the control condition, the children received the activity of remembering English vocabulary as usual. Meanwhile, in experimental conditions, children receive the ability to remember English vocabulary using a problem based learning model. The learning theme presented in each class is the same theme for children. Assessment of Children's Abilities used the concept of thinking skills in Bloom's Taxonomy is a reference to the ability to remember English vocabulary in applying problem based learning models. Activities on the ability to recognize or remember are at the Lower Order Thinking Skills (LOTS) thinking ability which includes mentioning, identifying, showing, and pairing pictures using English with the theme "Transportation Equipment". The media used in the assessment of activities that children do in the form of picture cards and miniature transportation (cars, planes, ships, and trains). Data collection tool in the form of observation sheets recorded by researchers using a 4 rating scale (table 2).

Table 2 – Assessment of the ability to remember English vocabulary

Type of activity	Learning subject	Remarks on Rating Rubric
Mentioning	Car, plane, ship and train	Value 1, if the child can mention 1 vocabulary of transportation in English Value 2, if the child can mention 2 vocabulary words of transportation in English Value 3, if the child can mention 3 vocabulary of transportation in English Value 4, if the child can mention 4 vocabulary of transportation in English
Identifying		Value 1, if the child can identify 1 means of transportation in English Value 2, if the child can identify 2 means of transportation in English Value 3, if the child can identify 3 means of transportation in English Value 4, if the child can identify 4 means of transportation in English
Showing		Value 1, if the child can show 1 means of transportation in English Value 2, if the child can show 2 means of transportation in English Value 3, if the child can show 3 means of transportation in English Value 4, if the child can show 4 means of transportation in English
Pairing		Value 1, if the child can pair 1 of the same means of transportation in English Value 2, if the child can pair 2 of the same means of transportation in English Value 3, if the child can pair 3 of the same means of transportation in English Value 4, if the child can pair 4 similar means of transportation in English

There are three stages in this research, namely pretest stages, implementation stages and posttest stages. At the implementation stage the children in the control class participate in the application of the traditional learning model led by the teacher, while the experimental class applies the problem based learning model to the learning activities. The researcher serves as an observer in assessing the ability to remember English vocabulary in different activities by the way children work alternately. The absence of 10 children in this study in the completion of the intervention at the pretest and posttest stages, there were only 50 children who completed the application of the problem based learning model in the ability to remember English vocabulary. The existence of this shortage then the distribution of pretest and posttest data cannot be calculated in the test for normality and homogeneity of variance, for that researchers report the findings of this study using non-paramateric tests with the Mann-Whitney U test with SPSS 22.00.

Results. Table 3 shows the average ability score given the vocabulary for the control class at the pretest stage is 2.6, while the experimental class obtains an average of 2.8. These results indicate that before the application of the problem based learning model the ability of each class the average value of the ability possessed was relatively the same. At the posttest stage of the study, a significant difference was seen in the acquisition of the average ability to remember vocabulary in the control class 3.4 and the experimental class to get an average result of 5.6 after applying the problem based learning model in learning activities.

Table 3 – Average value of vocabulary recall ability

Condition	Mean	
	Pretest	Posttets
Control Class (n=25)	2.6	3.4
Experimental Class (n=25)	2.8	5.6
Total n = 50		

Pretest and Posttest results obtained from the calculation of the ability to remember English vocabulary using Mann-Whitney U. The first step is to look for the normality of research data (table 4). The significant value of the Shapiro-Wilk test at 0.05 indicates that the normality of the data is 0.00 <0.05. From these results it can be said that the normality value at the pretest stage of the study is not normal. Then, the researchers continues the test using homogeneity test of varian where the significant value was 0.607> 0.05 (table 5).

Table 4 – Pre-test Significant Normality Test based on Shapiro-Wilk Test

	Shapiro- Wilk		
	Statistic	d f	Sig.
Control Class	.785	25	.000
Experimental Class	.815	25	.000

Table 5 – Pretest Test Values for Homogeneity of Variance

Based on Mean	Levene Statistic	Sig
	.269	.607

From the results of the normality and homogeneity test, it can be concluded that the data on the ability to remember English vocabulary is homogeneous but not normal. In the non-parametric difference test it is intended that the researcher can find out the value of the differences that occur in the control class and the experimental class using Mann-Whitney. From the results of calculations performed the results of different tests at the pretest stage is 0.556> 0.05 (table 6). The results of these calculations can be used as a conclusion of children's ability to remember English vocabulary of children aged 4-5 years in kindergarten, so it can be said that the forerunner of the problem based learning model at the pretest stage did not have a significant effect on the ability to remember English vocabulary.

Table 6 – Mann-Whitney Test in Pretest Research

	the ability to remember vocabulary
Asymp. Sig. (2-tailed)	.556

In the second stage, the teacher implements the learning model in the experimental class, then the researcher does the normality calculation at the posttest stage. The significance test value from the Shapiro-Wilk test calculation shows that the posttest data is not normal for both the control and experimental classes, the conclusion of this normality test is obtained from the calculation results obtained namely 0.00 <0.05 (table 7).

Table 7 – Test Significance of Posttest Value for Shapiro-Wilk Normality Test

	Shapiro- Wilk		
	Statistic	d f	Sig.
Control Class	.634	25	.000
Experimental Class	.732	25	.000

In the second stage, the teacher implements the learning model in the experimental class, then the researcher does the normality calculation at the posttest stage. The significance test value from the Shapiro-Wilk test calculation shows that the posttest data is not normal for both the control and experimental classes, the conclusion of this normality test is obtained from the calculation results obtained namely 0.00 <0.05 (table 7). After searching for the significance value of normality, the researcher calculated the average significance of the homogeneity tests of the two classes. From the results of the calculation of the ability to remember English vocabulary based on the average Sig. obtained is 0.039 > > 0.05 (table 8), it can be concluded that the two classes can be declared not homogeneous.

Table 8 – Test Values of Posttest Homogeneity Variance

	Levene Statistic	Sig
Based on Mean	4.489	.039

From the results of normality and homogeneity tests, it can be concluded that the ability to remember English vocabulary is homogeneous but not normal. In the non-parametric difference test it is intended that the researcher can find out the value of the differences that occur in the control class and the experimental class using Mann-Whitney. From the results of calculations performed the results of different tests at the pretest stage were 0.00> 0.05 (table 9). So it can be concluded that at the posttest stage in the application of problem based learning models significantly influence the ability to ask for English vocabulary of children aged 4-5 years in kindergarten by sharing media and activities carried out by children in the model.

Table 9 – Mann-Whitney Test in Pretest Research

	the ability to remember vocabulary
Asymp. Sig. (2-tailed)	.000

Discussion. The final result calculation shows that at the pretest stage there was no significant effect on the ability to remember English vocabulary of children aged 4-5 years in kindergarten. The teacher's full mastery of learning makes children passive in accepting learning. The habit of activeness of children from an early age in learning will create students who are ready to face the future. Improving the ability of children can be accustomed through the application of learning models that stimulate children to be independent in learning and willing to explore (Fauzi et al., 2020). The application of problem based learning models brings children to experimental activities or learning through their own experiences. This is the basis for a significant influence on the ability to remember children's vocabulary through problem based learning models. Children should be given the freedom to prove, express their opinions, and find a

way out of the design of related problems in the real life they live (Arends, 2012). The activity of mentioning, identifying, showing, and pairing pictures and concrete objects using English in the ability to remember in this study teaches children to be focused in developing their skills. Learning media that come from concrete objects around children's lives make learning more interesting. These tangible objects make children interested in doing activities compared to the worksheets they have to do (Kauchank&Eggen, 2012)

In applying the problem based learning model, the effect obtained by the child is based on the presence of information processing. The new knowledge or information they get is entered into their cognitive system (assimilation), the new information is adjusted to the knowledge they get from direct experience activities (accommodation) and then the child's cognitive abilities will balance that knowledge so that the information and knowledge they get becomes relevant to their thinking (Santrock, 2016; Sujiono, 2014). The steps in the problem based learning model ensure the teacher is only a facilitator for children in exploring themselves, teachers are allowed to provide assistance in stages according to what children need until they can work on it themselves (scaffolding) (Santrock, 2016). that in their child-centered learning activities and the presence of real problem designs presented, children will get an explanation of the activities they have done (Marra, Jonassen, Palmer, &Luft, 2014; Ningsih, Rahman, & Muhammad, 2019; Arend, 2012).

The opportunity provided is a learning model that is needed in the implementation of learning in Indonesia where the teacher provides the opportunity for children to explore the knowledge they have gained. The right theoretical development in applying this model in kindergarten will have an effective impact on children. This learning model is child-centered learning, has a problem design that is presented, and is carried out in small groups (Arends, 2012). This model will make children explain and identify problems that have been designed (Marra, Jonassen, Palmer, &Luft, 2014; Ningsih, Rahman, & Muhammad, 2019; Arend, 2012), which is also a set of learning that uses problems as a focus in developing problem solving skills, materials and self-regulation owned by children (Kauchank&Eggen, 2012). The series of activities carried out in this learning model resulted in obtaining a maximum understanding of achievement than the learning model that requires children to memorize learning material making this learning model suitable to be applied in enhancing the skills and abilities that children have.

Conclusion. From the results of the study that aims to determine the effect caused by the problem-based learning model on the ability to remember children aged 4-5 years in kindergarten, a significant effect occurs at the posttest stage of the study. Learning that gives children the opportunity needed in education at this time, where their skills are stimulated through the activities presented in the problem-based learning model. Not only children, but teachers as facilitators must also have knowledge and understanding of problem-based learning models and the abilities and needs of children in their English vocabulary. This is done so that the teacher can design problems and activities that are suitable for what the child needs. The provision of media on this model is required for the concrete objects of the child, therefore the creativity of the teacher in choosing learning media also determines the influence caused in the ability to remember vocabulary child English. The research model of problem-based learning in research with a larger sample is needed in exploring the application of the problem-based learning model in all learners' abilities.

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АҒЫЛШЫН ТІЛІНІҢ МЕКТЕПКЕ ДЕЙІНГІ ЛЕКСИКАСЫНА ПРОБЛЕМАЛЫҚ ОҚЫТУ ҮЛГІЛЕРІНІҢ ӘСЕРІ

Аннотация. Ерте балалық шақ – бұл адам өмірінің маңызды кезеңі, білім беру әлемінде оқыту моделін таңдау балаларды белсенді студенттерге айналдырады. Алайда балалардың белсенді қатысуы Индонезиядағы оқыту мен оқу іс-әрекетінде әлі де ескерілуі керек мәселе. Квази-эксперименталды зерттеу 4-5 жас аралығын-дағы 60 баланың көмегімен проблемалық оқыту үлгісінің балабақшадағы ағылшын тілінің сөздік құрамын

тану қабілетіне әсер етті. Блумның таксономиялық ойлау тұжырымдамасы – бұл балалардың ағылшын тіліндегі сөздерді есте сақтау қабілетіне сілтеме, мысалы, ағылшын тілін қолдану арқылы суреттерді атап өту, анықтау, көрсету және жұптастыру. Оқу үлгісіне келтірілген әсерлерді салыстыру нәтижелерін алу үшін 30 баланың бақылау сыныбы мен экспери메னталды сыныпты 30 баланың санымен салыстыру жүргізілді. Зерттеу нәтижелері тәжірибелік сабақта ағылшын тілінің сөздік қорын есте сақтау қабілеті зерттеуді бақылау класымен салыстырғанда едәуір артқандығын көрсетті. Зерттеулерге байланысты нәтижелерде айырмашылықтар пайда болуы мүмкін, сондықтан зерттеудің проблемалық моделін есте сақтау қабілетіне қолдану нәтижесінде туындаған әсерлердің дәлдігін алу үшін зерттеудің үлкен көлемін қолдану арқылы қосымша зерттеу қажет. Балабақшадағы және жоғары білім деңгейіндегі ағылшын тілінің лексикасы. Одан әрі Блум таксономикасының жоғары ойлау қабілеті тұжырымдамасындағы кезеңдерге бейімделеді.

Проблемалық оқыту үлгісінің балабақшадағы 4-5 жас аралығындағы балалардың есте сақтау қабілетіне тигізетін әсерін анықтауға бағытталған зерттеу нәтижелері зерттеудің кейінгі кезеңінде айтарлықтай нәтиже береді. Қазіргі уақытта балаларға білім алуға қажетті мүмкіндік беретін оқыту, олардың проблемалары негізінде оқыту моделінде ұсынылған іс-әрекеттер арқылы олардың дағдылары ынталандырылады. Тек балалар ғана емес, сонымен бірге фасилитаторлар ретінде мұғалімдерде проблемалық оқыту модельдері туралы білуге және олардың ағылшын тіліндегі сөздік қорындағы балалардың қабілеттерімен қажеттіліктеріне ие болуы керек. Мұны мұғалім баланың қажеттіліктеріне сәйкес келетін мәселелер мен іс-әрекеттерді орындай алатындай етіп жасайды. Осы модель бойынша ақпарат құралдарын беру баланың нақты объектілері үшін қажет, сондықтан мұғалімнің оқу құралдарын таңдаудағы шығармашылығы баланың ағылшын тілінің сөздік қорын есте сақтау қабілетіне әсер етуді де анықтайды. Зерттеудегі проблемалық оқытудың үлгісі барлық оқушылардың қабілеттерінде проблемалық-оқыту моделін қолдануды зерттеу үшін қажет.

Түйін сөздер: Мәселеге негізделген оқыту моделі, ағылшын тілінің лексикасын есте сақтау қабілеті, Блум таксономиясы туралы түсінік.

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ВЛИЯНИЕ ПРОБЛЕМНЫХ МОДЕЛЕЙ ОБУЧЕНИЯ НА ДОШКОЛЬНУЮ ЛЕКСИКУ АНГЛИЙСКОГО ЯЗЫКА

Аннотация. Ранее детство является фундаментальным периодом жизни человека, выбор моделей обучения в образовании делает детей активными учениками. Тем не менее, активное участие детей - это то, что должно учитываться в преподавании и обучении в Индонезии. Было проведено квазиэкспериментальное исследование в детском саду влияния проблемной модели обучения на способность распознавать словарный запас английского языка с участием 60 детей в возрасте 4-5 лет. В концепции таксономического мышления Блума отмечается способность детей запоминать английский словарь, такие как упоминание, идентификация, показ и соединение картинок с использованием английского языка. Было сделано сравнение результатов эффектов, генерируемых на модели обучения между контрольным классом из 30 детей и экспериментальным классом из 30 детей. Результаты показали, что способность запоминать словарный запас английского языка в экспериментальном классе при применении проблемной модели обучения значительно возросла по сравнению с контрольным классом исследования. Различия в результатах, вероятно, возникли из-за вмешательств, по этой причине требуется дальнейшее изучение с использованием большей выборки исследования для более точного эффекта от применения проблемной модели обучения к способности запоминать английский словарь в детском саду и на более высоких уровнях обучения. Далее они адаптированы к этапам концепции высших навыков мышления Таксономии Блума.

Исходя из результатов исследования, целью которого является определение влияния, вызванного моделью проблемного обучения, на способность запоминать детей в возрасте 4-5 лет в детском саду, значительный эффект наблюдается на посттестовой стадии исследования. Это обучение дает детям возможность стимулирования их навыков посредством действий, представленных в модели проблемного обучения. Не только дети, но и учителя в качестве помощников должны также обладать знаниями и пониманием проблемных моделей обучения, а также способностей и потребностей детей в английском словаре. Это делается для того, чтобы учитель мог разработать нужные ребенку задачи и задания.

Предоставление мультимедиа по этой модели требуется для конкретных потребностей ребенка, поэтому креативность учителя в выборе средств обучения также определяет влияние, вызываемое умением запоминать словарный запас ребенка. Исследовательская модель проблемно-ориентированного обучения в исследованиях с более обширной выборкой необходима для изучения возможности применения этой модели обучения в способностях всех учащихся.

Ключевые слова: проблемно-ориентированная модель обучения, способность запоминать английский словарь, концепция таксономического мышления Блума.

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