THE ROLE OF INFORMATION TECHNOLOGY IN THE DEVELOPMENT OF CRITICAL THINKING IN PRESCHOOL CHILDREN

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Abstract. Psychologists defines critical thinking as human capability to gather information, reason and deduce an idea based on their experience. Young children now days tend to question all the things around them, and it is part of development. one of the important part of children development is to improve their cognitive skill include their critical thinking. This capability uses in daily life that give the children ability to communication, decision making, solving problem and take some action for that. There are so many things to improve children's critical thinking, such as games, socio-dramatic play, and technology. Some said, you can use technology to improve many aspects of critical thinking and some say it is only worst the things. Some claim that using technology such as video interactive, games, television, digital tablet or else can trigger children's critical thinking, but some said technology can squash child's critical thinking. Now days kid tends to depend on gadget in daily basis, such to spend some lazy time another, that make that affect their critical thinking's skill. Critical thinking is like a pathway, it will lose its skill if you are not use wisely and continuously. So they conclude if children don't use their memory and analytical skills, they will lose it over time. Essentially, these devices are taking over the basic functions of the brain like memory and critical thinking.

Keywords: cognitive process, education, tendency, critical thinking;

MAKTABGACHA TAYYORLOV YOSHDAGI BOLALARDA TANQIDIY FIKRLASHNI RIVOJLANTIRISHDA AXBOROT TEXNOLOGIYALARINING O‘RNI

Annotatsiya. Psixologlar tanqidiy fikrlashni insonning ma'lumot to‘plash, o‘z tajribasiga asoslanib fikr yuritish va xulosa chiqarish qobiliyati sifatida belgilaydi. Hozirgi kunda yosh bolalar atrofdagi narsalarga shubha bilan qarashadi va bu rivojlanishning bir qismidir. Bolalar rivojlanishining muhim qismlaridan biri bu ularning kognitiv qobiliyatini yaxshilash, shu jumladan tanqidiy fikrlashdir. Bu qobiliyat bolalarga muloqot qilish, qaror qabul qilish, muammolarni hal qilish va buning uchun ba'zi harakatlar qilish qobiliyatini beradigan kundalik hayotda qo‘llaniladi. O‘yinlar, ijtimoiy-dramatik o‘yinlar va texnologiya kabi bolalarning

tanqidiy fikrlashini yaxshilash uchun juda ko‘p narsalar mavjud. Ba’zilar tanqidiy fikrlashning ko‘p jihatlarini yaxshilash uchun texnologiyadan foydalanishingiz mumkin, deyishadi, ba’zilari esa bu faqat eng yomoni, deyishadi. Ba’zilarning ta’kidlashicha, video interaktiv, o‘yinlar, televizor, raqamli planshet yoki boshqa texnologiyalardan foydalanish bolalarning tanqidiy fikrlashiga olib kelishi mumkin, ammo ba’zilari texnologiya bolaning tanqidiy fikrlashiga putur yetkazishi mumkin. Hozirgi kunda bolalar har kuni gadjetga bog‘lanib qolishadi, masalan, boshqa vaqtni dangasa o‘tkazish, bu ularning tanqidiy fikrlash qobiliyatiga ta’sir qiladi. Tanqidiy fikrlash yo‘lga o‘xshaydi, agar siz oqilona va doimiy foydalanmasangiz, u o‘z mahoratini yo‘qotadi. Shunday qilib, ular shunday xulosaga kelishadi: agar bolalar xotirasi va tahliliy qobiliyatlarini ishlatmasalar, vaqt o‘tishi bilan uni yo‘qotadilar. Aslida, bu qurilmalar xotira va tanqidiy fikrlash kabi miyaning asosiy funktsiyalarini o‘z zimmasiga oladi.

Kalit so‘zlar: Kognitiv jarayon, ta’lim-tarbiya, tendensiya, tanqidiy fikrlash;

РОЛЬ ИНФОРМАЦИОННЫХ ТЕХНОЛОГИЙ В РАЗВИТИИ КРИТИЧЕСКОГО МЫШЛЕНИЯ У ДЕТЕЙ ДОШКОЛЬНИКА

Аннотация. Психологи определяет критическое мышление как способность человека собирать информацию, рассуждать и выводить идею на основе своего опыта. В наши дни маленькие дети склонны подвергать сомнению все, что их окружает, и это часть развития. Одной из важных частей развития детей является улучшение их когнитивных навыков, включая критическое мышление. Эта способность используется в повседневной жизни, что дает детям возможность общаться, принимать решения, решать проблемы и предпринимать для этого определенные действия. Существует множество вещей, которые могут улучшить критическое мышление детей, например, игры, социально-драматические игры и технологии. Некоторые говорят, что вы можете использовать технологии для улучшения многих аспектов критического мышления, а некоторые говорят, что это только худшие вещи. Некоторые утверждают, что использование технологий, таких как интерактивное видео, игры, телевидение, цифровой планшет или что-то еще, может вызвать критическое мышление у детей, но некоторые говорят, что технологии могут подавить критическое мышление ребенка. В наши дни дети, как правило, зависят от гаджетов ежедневно, например, проводят некоторое время без дела, что влияет на их навыки критического мышления. Критическое мышление похоже на тропу, оно потеряет свой навык, если вы не будете использовать его разумно и постоянно. Поэтому они приходят к выводу, что если дети не используют свою память и аналитические навыки, они со временем потеряют их. По сути, эти устройства берут на себя основные функции мозга, такие как память и критическое мышление.

Ключевые слова: познавательный процесс, образование, склонность, критическое мышление;

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Abstract. Psychologists defines critical thinking as human capability to gather information, reason and deduce an idea based on their experience. Young children now days tend to question all the things around them, and it is part of development. one of the important part of children development is to improve their cognitive skill include their critical thinking. This capability uses in daily life that give the children ability to communication, decision making, solving problem and take some action for that. There are so many things to improve children's critical thinking, such as games, socio-dramatic play, and technology. Some said, you can use technology to improve many aspects of critical thinking and some say it is only worst the things. Some claim that using technology such as video interactive, games, television, digital tablet or else can trigger children's critical thinking, but some said technology can squash child's critical thinking. Now days kid tends to depend on gadget in daily basis, such to spend some lazy time another, that make that affect their critical thinking's skill. Critical thinking is like a pathway, it will lose its skill if you are not use wisely and continuously. So they conclude if children don't use their memory and analytical skills, they will lose it over time. Essentially, these devices are taking over the basic functions of the brain like memory and critical thinking.

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Introduction. In today's world where we keep getting hit with different kinds of information in various plat-forms, it is not unusual to keep finding ourselves thinking more and more about how to pick out accurate information from a sea of non-fact-based information or bias opinions. There are many patterns in our living habits which should be re-evaluated, changed, or leave in the past entirely. It is easier said than done. For human nature, change seems scary. Here lays one of the reasons for difficulties in seeing the flaws in our doings and changing our behavior; This would mean a change needs to happen.

Critical thinking skills are highlighted as a thinking and learning skill which should be sup- ported by early childhood educators. Gathering information, structuring, and creating some- thing new are seen as things which require creative thinking, as well as critical thinking.

Child's mind and learning is seen to develop by varied and meaningful experiences. Through education and care, children are guided to form their own opinions, evaluate dominating thinking patterns and act in ethically sustainable matter.

With all more reason, we must pay attention to our critical thinking skills. If we all were effi- cient critical thinkers, we would have the skill to evaluate our learned daily patterns or infor- mation given to us. Thinking critically, we are able to get to clearer fact-based conclusions on what we believe and make connection to where our values lay. Mastering a skill to think and evaluate information is not the only thing needed for us to change our ways, but it sure is an efficient way to start.

They called childhood or early years development as golden age, this is related

to the rapid development of children in this stage. In this stage, all of children development's aspect growth rapidly include physical, language, thought, and emotional. During this process children dependency will decrease over the time. Children develop in holistic ways, holistic mean how all of development aspect work together and emphasis it's importance, include physical, emotional and psychological. This learning methods teach children on how to take a challenge, face the crisis, solving the problem and develop their social and communication skill. In this approach children engage in activity in nature, such playing with plant, animals and bugs. Exploring is one of the most favorite activity for children because they can be play and learn at the same time. In additional to holistic development, children also grows at varying speed.

Sometime parent is such a problematic person, in one side they want the best thing to improve all their child's development aspect include critical thinking. But in other side, there's no effort to do that and provide their children with something that they did not need yet such gadget, pc and game player. This thing give a dilemma for everyone, and it create a question such "do they really need that? do that stuff really something that can improve their skill or worst it?".

Lately parent give a privilege to their children to use gadget to make children comfortable at home for entertainment and education purpose. According to survey in Central Asia, about 2.714 parent or 98% of the sample who participated in the study stated that they give freedom to their children to use technology such smartphone, computer pc or tablet.

Based on these data parents provide gadgets as education. However, in reality in the field of early childhood use gadgets as entertainment, like games.

Critical thinking is one of the most important aspect in children development, because critical thinking link to the children's judgment. Critical thinking also links to how people understand such a complicated connection, idea, argument, and reasoning. See the best and effective way to solve the problem.

Literature review. Critical thinking and criticality may have a negative ring to it, but it surely is not done in neg- ative intentions. According to McKean critical thinking origins can be traced back to early Greek philosophy and language. The word critical comes from a word "kritikos" and the definition of criticality is strongly attached to ideology of reasoning and making good judgements. Psychologist, philosopher, and the father of modern- day critical thinking John Dewey defines critical thinking as following*: "Active, persistent, careful consideration of a belief or supposed form of knowledge in light of the grounds that support it and the further conclusions to which it tends"* This quote refers to critical thinking as a tool to explore and explain one's beliefs by leaning on facts. Critical thinking is seen as an asset and important developing target in the education field. However, there are mixed opinions amongst educators on the definition and development of critical thinking.

To form an understanding of varying views, critical thinking can be looked through five well- known philosophers' eyes and their ideology: Robert Ennis, Richard Paul, John McPeck, Har-vey Siegel and Jane Roland Martin. There are some differences in the discussion about criti- cality and what makes an efficient critical thinker. Some ideas suggest that the most im- portant way to look at critical thinking

is seeing criticality as a skill, which should be learned and developed. Some on the other hand emphasize criticality as a character trait or just knowledge on particular topic. Amongst these philosophers Ennis and Paul gravitate towards skills for critical reasoning, McPeck to particular discipline and thorough knowledge on topic.

Research shows that the process of critical thinking consists in not placing limits or prohibitions on the child's development and abilities. In the West, this phenomenon S. L. Rubinstein, J. Piaget, D. Bruner, L. S. Vygotsky, R. Paul, K. Popper, E. Glasser, D. Johnson, D. A. Braus, D. Byde, D. Halpern, M. N. Brown, Dj. Cheffey, Ch. Templen, K. Meredikt, D. Steele, S. Walter, K. Adamson, S. Brookfield, S. I. Veksler, V. A. Shams, R. Paul, etc., were studied by a number of pedagogues.

Today, in various scientific sources, you can find different definitions of the term "critical thinking". J. Brous and D. Wood define it as intelligent, reflective thinking aimed at deciding what to believe and what to do. Critics are trying to understand and realize their own self, to be objective, logical, and to understand other points of view. Critical thinking, according to them, is the search for common sense: "how to judge objectively and act logically, taking into account your own point of view and the opinions of others, abandoning your own prejudices ability. Critical thinkers can come up with new ideas and see new possibilities, which is essential in solving problems."

D. Halpern [2] in his book "The Psychology of Critical Thinking" defines critical thinking as follows: it is "directed thinking that is balanced, logical and purposeful, characterized by the use of such cognitive skills and strategies, it increases the probability of achieving the desired result.

Educator E. Glasser developed a critical thinking program that includes tests for reasoning, drawing conclusions, recognizing assumptions, evaluating the strength of conclusions and arguments. According to him, critical thinking is the ability to evaluate the validity of judgments, to approve actions and their level of validity, to find a specific limit of their application.

Richard Paul [1], one of the leading scientists of the USA in the field of theory and practice of critical thinking, believes that the concept of critical thinking can be defined in different, non-contradictory ways. With this in mind, he gives this definition: "Critical thinking is thinking about thinking, where one reflects on one's own thinking with the goal of improving it".

M. N. Brown defines critical thinking as a special type of thinking that focuses on evaluating ideas. In a narrow sense, it is related to checking the accuracy of statements and the correctness of judgments. According to him, the uniqueness of critical thinking is largely determined by its questioning position, which is explained in the following points:

- to know a set of interrelated critical issues;
- the ability to ask critical questions and quickly respond;
- the desire to actively use critical questions.

American philosopher and educator John Dewey believes that critical thinking occurs when children begin to deal with a specific problem. "The main question to be asked about a situation or phenomenon, taken as the starting point of the learning process, is the question of what problems this phenomenon creates" [5]. According to Dewey, preschoolers are encouraged to think critically by focusing on problems and

being naturally curious. “Only by struggling with a particular problem, by finding a way out of a difficult situation, does one really think”. This, by critical thinking, Dewey means reflection.

Therefore, one aspect of critical thinking is manifested in reflecting, perceiving and evaluating the opinions of others and one's own. The second aspect of critical thinking is related to knowledge. In this case, critical thinking performs evaluation tasks: the origin of knowledge, its reliability and validity are evaluated, knowledge is interpreted and understood, and conclusions or conclusions are drawn based on it. Thus, the result of critical thinking can be a decision, a point of view, a proposal, a new approach to a decision. However, critical thinking does not fully reflect it, even though it includes it.

Research methodology. One of the most important cognitive aspect is critical thinking. In his life, child will face with problems which demands a solution. Resolve a problem is such a difficult thing to do in children, it includes such complicated thinking process, and before able to solve the problem, children need the ability to find the solution to their problem.

Critical thinking is ability to think about the problem and trying to solve it based on past experience, knowledge of logical judgment, and reasoning skill.

Critical thinking demands great effort to examine every conviction or assumptive knowledge based on evidence supporters and conclusions continued the result. Kids in particular tend to asked and curious about something, they will be asked and recheck for many times about it. Such when they see something move on the ground, they will asked what is it? Is it some kind of animal? Or is it something you can eat? They will ask you several time till they’re sure with your answer. Such when they’re meet a hole in the ground, they will ask what is it? Who make this hole, what the function of this hole, how can there’s a hole in the ground. They will look for the answer, and recheck the answer for several times.

In olds days, children will looking the answer in many possible ways, such looking in the book, ask people around them or observed it several time and conclude the answer, but with technology this day such smartphone or pc, they can type the word in search engine and got the answer. In the past, when people have family dinner or tea time, they will chat about random things, their children will ask some unexpected question and then will answer it together. Example: “why this table in round shape? Why do we use spoon or forks to eat, or why this fruit in some color or shape”. In the old day, they will trying to answer the question together but now days what you need to do is open google and type the question you want to ask, and google will provide the answer for us. On one hand, it’s such a great that we can get an answer for every question instantly about all the question that we had. On the other hand, it is also mean make our child lazy. They are no longer need effort to looking for the answer like their brain are freeze and unable to process all the information. Only with one click and the you get an answer.

We know in today society it is really rare to saw a young kid read a book in public space such station, train, hospital or somewhere else. If in the old day young kid used to read for pleasure than enhances their thinking instead they’re use their smartphone to playing video game and watched their favorite tv show.

Analysis and results. You can apply that research to kids as well. When they know the technology such internet and browser, they will used it to looking the answer for their question. Critical thinking will grow as much as we use it over the time, because it is use past experience to process information, if kids looking for answer instantly it will dull their thinking skill because the answer for each question only stay in short term memory. With technology uses children can't thinking for them self, so what will they do to face problem outside the world.

For people who pro for the idea that technology can improve child's critical thinking state you can use video game interactive to improve their critical thinking. Video game with many question and game which trigger their thinking can be used to improve their thinking. Or you can internet to help you answer a hard question and link it to your own knowledge and perspective.

Conclusion. Like two blades, gadgets can have both positive and negative effects. As teachers and parents, we must be smart to respond to the use of gadgets in children, how can we be able to use gadgets in a more positive direction and minimize the negative impact caused by gadgets for achieving optimal development in children.

With so many interesting features offered and often make children quickly familiar with it. Some say give some kind of gadget to your child will help their critical thinking and other development, on the other side it will numbed your child critical thinking skill. So it is up to you on how to take advantages of gadget.

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