

Good example of essay on cognitive development

[Technology](#), [Development](#)



Introduction

In neuroscience and psychology, cognitive development is a field that deals with development of a child in terms of conceptual resources, processing of information, language learning, perceptual skill as well as other aspects of development of the brain and their cognitive psychology when compared to the point of view of a grown up. In a nutshell however, it can be defined as the emergence of a child's ability to think and to understand. A major force in the establishment of the cognitive development theory was Jean Piaget. Piaget came up with four stages of development. Although most of his claims have since lost favor, the changes described in the stages are still accepted. This paper will expound on the development of memory in children. It will do so by majoring on the theme that is improvement of working memory in children through the use of brain games. It will explain both concepts and proceed to explain not only research results on the same, but also how the research can be applied in improvement of working memory in children and the challenges that may be encountered

Klingberg, T. (2013) states that memory is basically a process through which information is first encoded, stored and then retrieved. Problems in memory are often associated with the retrieval stage of memory. The development of memory in children is evident in the second to third years of life. This is because they exhibit considerable change in in declarative memory.

Enhancement in memory will continue and will cause advancements in working, short-term and long-term memory and also autobiography memory.

While growing up, children may exhibit problems with memory; for example working memory. According to Gathercole & Alloway (2008), working

memory is the memory that is useful in the carrying out of complex tasks such as comprehension, learning and reasoning. Problems with working memory can be a symptom of conditions such as ADHD. Research has been able to establish that a variety of brain activities or games if you will can be useful in improving working memory in children with the problem. The typical test for working memory involves testing the span of a child's memory.

Research by Alloway (2010) on the topic has shown that a series of mind activities or games can be used to improve the working memory of a child. One example of an activity useful in improvement of working memory is playing cards. Simple games such as Uno, Crazy eights and Go fish can improve a child's memory in two ways. The first is that the child will have to memorize the rules of the game and the second is that the child will have to remember not only the cards they hold but those played by others.

Numbering ones directions is also an activity that can help improve memory. An example a parent or teacher can tell a child that they want two or three choses done. This will help the child keep all of the activities in mind.

Research also showed games involving visual memory to be especially effective in improving memory. The study by Alloway, (2010) had twelve children with memory problems. They were taught a game where they were shown slides of a series of car license plates and were asked to recite them and then say them backwards after they were removed. With time, then number of children who were able to remember five license plates in series increased from three to eight at the end of the study. Showing a child connections will also help the child remember better. This involves finding

things that the child already is able to learn and finding a connection to the new material. For example, showing them the connection between the times table of the number two and the child's doubles. That is $3 \times 2 = 6$ and $3 + 3 = 6$.

The final research described in the use of connection of emotion to information to help a child with working memory problems. The processing of information in more than one way can aid a child in retention of said information. Having a child connect emotion to the facts that they are learning might help them remember the information simply by tapping into their emotion. For example, having child visualize how it must have been like to perhaps work in the fields all day in the sun may help them retain facts about slavery. The research by Phillips, R. L. (2006) who however focused mainly on audial games showed this.

As stated earlier in this paper, a variety of conditions can cause a child to exhibit problems with working memory. The findings in described in the pieces of research above can be applied in differentiation of instruction when dealing with children with special abilities and needs both in the home and school setting. The activities can be used or applied not only as games but also in the carrying out of simple house hold chores for example the numbering of activities. A child with special needs vis-à-vis working memory can benefit significantly from this. Parents and guardians can also have said children play games like card games and games involving visual memory rather than conventional games such as video games only. This is according to Phillips (2006).

Gathercole & Alloway, (2008) also explain that in school, it may be relevantly

more difficult but not impossible to apply mind activities to help children with problems with working memory. Here, activities in the line of connection of information with emotion and helping children make connections. The main benefit of the above techniques is that they can be used with a collective student body and will benefit all children but especially children with special needs. The techniques though useful mostly with problems with working memory, are designed such that they benefit even those with no problem. Many challenges affect research and use of memory games in improving memory. The first is the fact that not much research has been conducted on the topic. For this reason, very few facts are known about the effectiveness of memory games and activities in solving the problem. Research-based methodology is currently replacing traditional practices that are simply based on experience. Because of this, research has to be invested in methods so that they can be accepted into any practice. The technique will gain more results and publicity if research proves that it works effectively. Currently, it has received only enough publicity to warrant it have more research funded in its name. This is supported by Klingberg (2013). Secondly, in this day and age, people believe more in treatment using medication rather than therapy and other similar interventions. Few parents and teachers will therefore seek information on how to improve a child's using therapeutic means but will quickly turn to medication. Phillips (2006) explains this fact. This too can be solved by increased research on the subject. Professionals, guided by research-based methodology will promote this therapeutic intervention instead of offering prescriptions. Research findings will not only make the technique more accepted by professionals

but also to lay people who base the success of psychological and medical intervention on factors such as past success and safety of procedure rather than research results.

This paper would recommend that more research be put into non-medication treatments for cognitive developmental conditions. It is evident that although the techniques are quite effective, lack of adequate information on them results in little application. The paper would also discourage the separation of children with problems in working memory from the normal class setting. This might discourage their learning. This is according to Alloway, (2010). The researcher recommends that more attention be given to the student instead alongside using the above explained techniques.

Conclusion

References

Alloway, T. P. (2010). Improving working memory : Supporting student's working. SAGE.

Gathercole, S. E., & Alloway, T. P. (2008). Working Memory and learning : A practical guide for teachers. Los Angeles: SAGE.

Klingberg, T. (2013). The learning brain : Memory and brain development in children. Oxford: Oxford University Press.

Phillips, R. L. (2006). Effects of short-term memory auditory games on children enrolled in learning disability classes. Madison: University of Wisconsin Press.