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Analysis of the need for learning media for children with a certainty

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ABSTRACT

Scholarly communication for children with special needs is significantly different from children in general. The low potential of children with special needs means that their lives differ from those with average abilities. In the aspect of developing the concept of thinking as a whole, it cannot be mastered properly because the IQ level is below the aim of this study to provide opportunities for children with special needs in the aspect of equal rights as children of the nation to get proper education in SLB by developing their potential and interest in themselves. The research methodology uses a descriptive qualitative approach to the literature study design by analysing several references from online journals and ebooks. The study's results describe the role of learning media in increasing the understanding of children with special needs by facilitating two-way communication. Education with feedback transfer of knowledge helps children with special needs optimize growth and development through appropriate talents and interests. Learning media includes the existence of effective media to help children with special needs in optimizing the development of talents and interests and establishing communication by involving teaching aids so that children's talents can develop optimally.



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Introduction

The growth of children with special needs physically and psychologically is different, such as the ability to think less potential and talent has not been seen well. The weaknesses experienced by children with special needs have limitations in developing various cognitive, affective and psychomotor aspects. Due to limitations on children with special needs, the government needs to take the academic and social situation seriously. The existence of special schools in several big cities is a form of government concern for the nation's children. Not necessarily the child has physical or mental abnormalities and is retarded. The government's efforts are to protect the nation's children with several methods and ways to survive well and not be isolated. The presence of children with special needs requires social and emotional support from the family environment, close friends and other community neighbours. (Aziz & Al Irsyadi, 2021) (ABK) to get the same education. As stated in Law no. 20 of 2002 concerning National Education Article 5 paragraph 2, which states: "Citizens who experience physical,

emotional, mental, intellectual and social disabilities have the right to education". One of the students who include special needs is a mentally disabled child. Mental retardation has weaknesses in thinking and reasoning.

The presence of education by displaying changes in the face of science and new modifications means that the birth of technological developments makes a comprehensive and dynamic scientific contribution to continue to change and develop consciously and massively. (Aziz & Al Irsyadi, 2021) Education is one of the keys to keeping up with industrial developments in Indonesia by changing the learning system using new technology. Novelty and innovation in Learning need to be involved for children with special needs. For example, learning in SLB involves visual, audio and kinetic media according to the needs of existing teaching aids. In principle, children are one of the important discourses for the nation with perceived deficiencies with special needs meaning that children with special needs can compete in a healthy and good manner and develop optimally. Public awareness in accepting the presence of ABK began to shift the negative paradigm to positive thinking.

Social differences are a problem for the future life of mentally disabled children (Rusminati & Rafikayati, 2022). Predators widely use women with special needs compared to women in general, namely 19.7%, where women are generally 8.2% (Radcliffe, 2016). This fact is certainly inconsistent with one of the missions of the Indonesian Government's Development Plan 2005-2025, namely to create a society of noble character, morality, ethics, culture and civility based on the philosophy of Pancasila. (Rusminati & Rafikayati, 2022) Intelligence is the centre of all human abilities. When a person experiences intelligence barriers, it is not only cognitive skills that experience obstacles, one of which is affected are language skills. They have difficulty understanding complex language. This is of great concern in communicating with mentally retarded children, where communication is required to use language that is simple and easy to understand.

(Dewi & Fahmi, 2018) Based on Government Regulation of the Republic of Indonesia Number 32 of 2013 concerning Amendments to Government Regulation Number 19 of 2005, Article 1 paragraph 19 concerning National Education Standards states that "Learning is a process of interaction between students, between students and educators and learning resources in a learning environment. Moral and measurable support for the educational environment is a consideration for the government to provide opportunities for ABK in channelling expectations, competitions and other activities involved with unique concepts. Such a strategy gives the discourse that human rights are fully felt by the ABK group; feeling that they exist and are valued as a group can increase their enthusiasm for life more meaningfully. In principle, Abraham Maslow's Hierarchy of Needs theory explains that humans have different levels of needs.

The level of basic needs, including the need for breathing or oxygen, eating, and drinking, has been fulfilled properly and can proceed to level 2, namely, the need for a sense of security. Every human being needs protection from situations and conditions safely and comfortably (Lian, 2020). Level 3 is the need for love and affection. It is human nature on earth to want love and affection from other people. Level 4, the feeling of wanting to be appreciated, is a basic aspect and respect. Level 5 is *self-actualization*. Self-actualization is evidence of personal independence and being able to be responsible as a form of self-existence that each individual owns (Koropetska, 2014). Of the five levels, it is a part that can be felt by ABK but cannot be conveyed clearly because other physical and psychological factors hamper it. This difference affects the pattern and system of learning on an ongoing basis. (Dewi & Fahmi, 2018) the conditions in mentally disabled students are reasonable if their Learning takes a long time.

The teaching and learning process at the formal level provides the first step to the role of ABK by planning learning mechanisms up to the final learning evaluation stage. (Fajrie & Masfuah, 2018) Learning evaluation aims to develop skills and intellectual and emotional intelligence that deserves attention from class teachers or teachers of students with special needs. Improving Learning from the evaluation results is a follow-up plan that needs to be improved and realized following the ABK *needs assessment*. (Dewi & Fahmi, 2018) In the field of cognitive characteristics, mentally disabled children lack the learning speed of normal children in general, are less accurate at capturing responses, do not have strategies for completing assignments and have poor memory.

Teaching and learning activities must be considered according to the needs and characteristics of crew members (Moore, 2018). The learning method that needs to be developed for mentally disabled children is learning while playing (Kızar et al., 2015). Play activities by building further meaningful learning concepts to help the development of ABK in SLB. This provision is adjusted to the TK, SD, SMP or SMA level. Types of game media for Learning, such as games. (Dewi & Fahmi, 2018) A game is a game that uses electronic media and is a form of multimedia entertainment. Playing games is a means of Learning (Jantke & Hume, 2015). Educational games are one of the products of the creative industry. Developed to assist students in achieving a sense of fun and joy while learning. Educational game thinking maps try to provide positive suggestions to ABK

as a cognitive stimulus by involving aspects of psychomotor and affective roles, such as special movements that are well instructed and developed quickly to reach the stage of understanding optimization on ABK.

The shift in the social paradigm from the weakness of ABK still has a negative view. The intimidating attitude of some people who looked down on the lives of ABK became the seeds of personal disaster. (Fajrie & Masfuah, 2018) People with disabilities or special needs who live in society are considered different and even receive bad treatment. They are also considered useless and do not contribute to the family, society and country. Referring to the rule of law in Indonesia, which has several rules of mutual agreement on the assessment of social rights and justice, it is the government's priority for full protection to provide opportunities for the eligibility of life for ABK through local, national and international championship competitions. The selection of talent is known from formal education in SLB. ABK, in the SLB education environment, get quite a good service and even high awards, such as ABK students who excel and have craft skills with handicrafts exhibited in national and even international classes.

Method

This research method uses a descriptive qualitative approach with a literature study design. Moleong (2017: 4) suggests that the type of research used is qualitative research. Qualitative research is a particular tradition in the social sciences. Data analysis techniques involve several online reference sources from online journals and ebooks. (Ross et al., 2020) Library research (library research) is conducted based on information from scientific publications, prior research or other written sources that support the discussion in this writing.

Results and Discussions

Keywords used to search for studies related to learning media for children with special needs are learning methods, children with special needs, and education for children with special needs. The search for journals or studies on learning media for children with special needs was carried out by utilizing search engines on Google Scholar, Garuda, and Sinta Kemdikbud.

Table 1. Literature Review

Author	Title	Finding
(Sarrah & Marlina, 2022)	Pengembangan Aplikasi AAnCer Berbasis Android Bagi Anak Tunagrahita Sedang dalam Meningkatkan Kemampuan Komunikasi Ekspresif (Research & Development)	The results showed that the android-based Aku Anak Cerdas (AAnCer) application is feasible and practical to be used by parents and teachers as a learning media for students with moderate disabilities.
(Louk & Sukoco, 2016)	Pengembangan media audio visual dalam pembelajaran keterampilan motorik kasar pada anak tunagrahita ringan	This research produces media for learning gross motor skills in children with mild disabilities, namely learning media for gross motor skills with (1) jumping over shapes, (2) hot balls cold balls, (3) cloth rolling balls, (4) light balls, (5) stepping on tiger tails, (6) kangaroo balls, and (7) gymnastics movements and songs.
(Dewi & Fahmi, 2018)	Analisis Kebutuhan Pengembangan Media Pembelajaran Berbasis Android Pada Pokok Bahasan Operasi Hitung Campuran Untuk Anak Berkebutuhan Khusus (ABK) Tunagrahita	The results of the research obtained information that the learning material is more thematic than science. Then, it is difficult for students with disabilities to be invited to think abstractly. They are more interested in things that are in the form of games using computers. They need interactive learning media to improve their math problem solving skills.
(Ivan ALfikri & Tengku Khairil Ahsyar, 2017)	Media Pembelajaran Interaktif Seni Origami Berbasis Animasi Untuk Anak Tunagrahita Sedang	The results showed that the existence of interactive learning media for origami art can attract the attention of Tunagrahita children to pay attention to origami art lessons that are presented

Author	Title	Finding
(Fajrie & Masfuah, 2018)	Model Media Pembelajaran Sains untuk Anak Berkebutuhan Khusus	interactively, can increase children's motivation in learning origami art, can develop children's understanding of the material presented, and can help develop fine motor skills. Based on the assessment of the practicality aspect, the media is easy to make and easy to use. Based on the efficiency aspect, the media is made of safe materials, easy to obtain and affordable. Based on the effectiveness aspect, this media can make it easier for teachers to explain the material to children with disabilities and improve learning outcomes.
(Novayani et al., 2021)	Pengaruh Permainan Mobile Edukasi Terhadap Proses Pembelajaran Berhitung Anak Tunagrahita Ringan	The results showed that educational mobile games made students with mild disabilities interested in learning to count, increased learning outcomes and increased the speed of students with mild disabilities in the process of learning to count at SLB PH compared to before playing this educational game.
(Ramdani & Tresnawati, 2017)	Pengembangan Media Pembelajaran Interaktif (Studi Kasus Mata Pelajaran Ilmu Pengetahuan Sosial) Sebagai Pendukung Pembelajaran di Sekolah Luar Biasa	This research shows that interactive learning media can make it easier for teachers to convey abstract material, besides that the presence of video media makes children more interested in interactive learning media.
(Apriliawan & Parmiti, 2021)	Improve Students' Numeracy Skills Using Learning Videos	This research produced a learning video for counting that was tested for validity and classified as very good. Therefore, learning to count for first grade elementary school students is valid and feasible to be developed and taught to students.
(Saputra et al., 2020)	Rancang Bangun Aplikasi Game Matematika Untuk Penyandang Tunagrahita Berbasis Mobile	The results of the research on the game that has been developed received a good response from teachers and parents, this is because students with disabilities are more enthusiastic and enjoy learning about the introduction and calculation of numbers.
(Makhmudah, 2020)	Penanaman Nilai Keagamaan Anak Melalui Metode Bercerita	The results of the research regarding the techniques used for storytelling can use a variety of media such as puppets, pictures, or other media to attract children's interest. The process of implementing the storytelling method is carried out in learning and habituation activities. After the appropriate techniques and efforts are made, further review will be carried out regarding the percentage of success obtained.
(Chasanah & Pradipta, 2019)	Pengaruh Penggunaan Media Sempoa Geometri pada Kemampuan Berhitung Tunagrahita	The average scores of all tunagrahita students in the pre test and post test were 52.00 and 84.00. It is concluded that the abacus geometry media has an effect on the ability to count the addition of numbers 1 - 10 in class IV SDLB jombatan VII Jombang.
(Istighfarah & Ngayuningtyas, 2017)	Peningkatan Kemampuan Berhitung Siswa Tunagrahita Sedang Kelas Viii Melalui Media Ular Tangga Di Smp Inklusi Tpa Jember	The results showed an increase in counting ability through snakes and ladders game media for students with moderate impairment in class VIII of TPA Jember Inclusive Junior High School in the 2015/2016 academic year.

Author	Title	Finding
(Novayani & Sasmita, 2020)	Efektivitas Penggunaan Game Analisis Training terhadap Peningkatan Kemampuan Berpikir Induktif Remaja	Berdasarkan hasil penelitian, permainan ini diyakini 95% efektif dalam meningkatkan kemampuan berpikir induktif remaja, dengan rata-rata peningkatan 26,6 poin dalam bentuk IST dan 17,8 poin dalam bentuk IRT. Media pembelajaran dengan permainan efektif diterapkan pada pembelajaran induktif dan dapat digunakan sebagai alternatif pembelajaran berpikir induktif di SMP YKPP Sungai Pakning.

The birth of children in the world has its advantages and disadvantages. Regardless of fate and God's will, every child has an innate nature: purity. To be more meaningful or not, the child's life is influenced by several internal and external factors. In aspects of the child's internal development, such as the ability to think, comprehension, psycho-social development and so on, it is a major part of the potential possessed by normal children. Other external aspects such as social and environmental support consisting of nuclear parents, family, and society become one of the supporters of acceptance of children who are more well received or rejected. There are several reasons for social rejection, such as weakness and physical and psychological disabilities in children with special needs. Aspects of child development are not only able to be developed socially. Another thing from cognitive development in ABK needs to get feasibility in following programmatic learning developments. (Fajrie & Masfuah, 2018) Special education services for children with special limitations can be carried out, prioritizing physical and spiritual Learning in developing potential talents or interests following the limitations of children with special needs.

There are differences in the IQ results of children with special needs (Ramdani & Tresnawati, 2017). Mental retardation is a child with below-average intellectual abilities divided into several classifications: mild mental retardation with an IQ ranging from 50-70, moderate mental retardation with an IQ ranging from 30-50, and severe mental retardation with an IQ ranging from <30. The difference in cognitive abilities in ABK makes SLB schools a place for teaching and learning effectively and efficiently for ABK children. As a parent or family, you don't need to force yourself to place your children with special needs in other formal schools except in special schools. Social self-acceptance can develop well in the SLB environment because the ABK group has a different world from children with an average or above-average IQ. This awareness still occurs in some families who have not been able to accept the presence of ABK in the social environment.

Teaching and learning activities for ABK have special and different characteristics from other formal schools. Learning media is important to be involved in academic or social life. Besides being a learning tool, the role of learning media in schools can be used as an introductory medium for ABK communication to better understand it. Without media and teaching aids, the ABK group finds it difficult to follow the teaching and learning process at school. (Fajrie & Masfuah, 2018) Learning media can be made and developed by teachers themselves. Still, several teachers at SDLB Kudus district, namely teachers at SDLB Purwosari, SDLB Cendono and SDLB Kaliwungu, find it difficult to create and develop science learning media. Based on previous research from several great elementary schools.

Exceptional school rules at the junior or senior high school level tend to. (Fauzi et al., 2021) an educational concept that places more emphasis on children's needs be it vocational skill needs, interest and talent needs, communication needs, social interaction, cooperation, attitude, friendliness, and honesty. (Ivan ALfikri & Tengku Khairil Ahsyar, 2017) Children with mental retardation are making children's incomprehension following the example of folding origami paper taught by the teacher. This problem makes the teacher repeat giving examples to children many times. This is because moderately mentally disabled children have low thinking skills, weak attention and memory, easy-to-shift concentration, and easily bored attitudes, causing children to experience difficulties in receiving lessons or following the lessons given by the teacher. This can also lead to boredom for the teacher to repeat lessons so that the lesson does not run optimally.

Table 2. Condition of Children with Special Needs

Crew identification	Learning Media	Learning outcomes
Barriers to social development	Group communication is formed through group games, and audiovisual role-play in	Students with special needs can understand the meaning of grouping with mutual help.
Barriers to effective development	Role plays audiovisual habituation of classical music and music that contains positive messages.	Students with special needs can feel relaxed Learning with happy and excited expressions.
Obstacles to the development of religion	Prayer tools and teaching aids for the introduction of hijaiyah letters and audiovisual murotal Al-Qur'an	Students with special needs can follow the movements and recognize the differences in hijaiyah letters.
Barriers to cognitive development	Props, motivational films and educational games are adapted to the learning curriculum.	Students with special needs can listen and understand Learning based on visual aids.
Barriers to psychomotor development	Students can be given musical instrument training, dance, painting, weaving, and other skills.	Students with special needs can practice well and develop their talents and interests through art.

Based on the analysis of table 1.1, the condition of children with special needs. There are 5 points of different barriers influenced by aspects of social, affective, religious, cognitive and psychomotor development. Development of affective aspects Students with special needs have the same feelings as normal children. The function of feeling appreciated and appreciated is more sensitive than normal children; this can be seen from the advantages that ABK children have from affective development. Children with special needs can feel the neglect of social attitudes, ridicule and exclusion of group discrimination. Teaching and learning outcomes can be maximally assisted by teaching aids provided by teachers at SLB to increase knowledge and increase stimulus for the development of children with special needs. (Ivan ALfikri & Tengku Khairil Ahsyar, 2017) Media can channel information from sources of information to recipients of the information. (Ivan ALfikri & Tengku Khairil Ahsyar, 2017) Learning media is something that is used to convey messages and can stimulate the thoughts, feelings, concerns, and abilities of students so that they can encourage the learning process. (Louk & Sukoco, 2016) Physical education for mentally disabled children requires a special design so that their motor skills experience optimal growth and development. Physical education for mentally disabled children must be adapted to their characteristics and abilities.

Appropriate learning techniques include educational Learning involving teaching aids and other supporting facilities. Playing for children is learning. Understanding the situation and environmental conditions is important to be a part of the learning model following the times. (Louk & Sukoco, 2016) Interesting Learning for children, one of which is by playing, and mentally disabled children are no exception. Children can achieve physical, intellectual, emotional and social development through play activities. Physical development can be seen while playing. Intellectual development can be seen in the ability to use or take advantage of the environment. Emotional development can be seen when children feel happy, angry, and win and lose.

(Novayani et al., 2021) Previous research on learning media for children with special needs has been carried out. Educational game media is appropriate for learning media (Apriliawan & Parmiti, 2021) and can convey material well to mentally disabled children (Makhmudah, 2020). Using games as a learning medium for mentally disabled children can increase learning motivation (Saputra et al., 2020) and increase the attention and memory of mentally disabled children (Singh et al., 2012). Other researchers have also found that games can improve abilities (Chasanah & Pradipta, 2019; Istighfarah & Ngayuningtyas, 2017) and are much better than conventional learning methods in the numeracy skills of mentally disabled children (Singh & Agarwal, 2013). Learning through educational games also increases adolescents' inductive thinking skills (Novayani & Sasmita, 2020).

Effective communication can promote harmony socially as well as intellectually. The existence of communication that cannot be established because of obstacles to understanding the language conveyed makes it difficult for children with special needs to convey verbal language. (Sarrah & Marlina, 2022) Delay in the development of language skills is characterized by a child's very low language ability in capturing and recording whatever he sees and hears (low ability to express thoughts and feelings) in the form of words or sentences. You can see the difference in several aspects of development visually. (Sarrah & Marlina, 2022) Mentally disabled children will experience difficulties in aspects of speech, especially in communicating using spoken language.

Therefore, researchers are interested in helping mentally disabled children's problems, which are adapted to the circumstances and needs of mentally retarded children.

The interest of mentally retarded children in android (HP) is the basis for helping mentally retarded children's problems. Because the intellectual disability of mentally retarded children is below average, thus causing mentally disabled children to have difficulty understanding things, the interest of mentally disabled children in something or an android is prioritized in this case to achieve the goals to be achieved. (Suprotun & Suparman, 2018) New learning process standards are used for students to have the competencies needed in the 21st century. The sophistication of communication technology in the metaverse era has made learning progress for children with special needs in special schools. The development of teaching aids is one of the main parts that must be prioritized to increase the stimulus and development of other aspects. The meaning of learning so far is still too narrow, so it needs to be clarified that the context of learning in the metaverse era involves cellphones, laptops, the internet and other applications.

Conclusions

ABK's talents and interests are developed from their presence in the school environment (SLB). The involvement of teachers in the learning process is one of the government's efforts to provide equal rights for the nation's children to get proper education and be accepted in society. The tendency for ABK to become weak is when there is chaos in the child, for example, rejection from society. Children with special needs become weak mentally and socially and cannot play a role properly. The existence of ABK groups in the SLB environment can help children become more confident and ready to live life in a programmed and measurable way. The feeling of wanting to be loved and appreciated as ABK is a special expression that must be given in real terms in aspects of social behaviour and Learning. SLB is a place where ABK can optimize their talents, potential and interests. Feelings of sociality as a group are formed and felt in formal life. One of the human rights that must be protected by the nation and state is to provide facilities for education and public life in society.

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