English Learning Assistance Using Interactive Media for Children with Special Needs to Improve Growth and Development

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ABSTRACT

Background. Children with special needs (ABK) are children who are in several ways different from other children in general. Among the crew members are Special Children (ALB), which consists of children who are blind, deaf, mentally retarded, quadriplegic, mentally disabled and double disabled. Some of the main things that need to be considered in the learning process for ALB are teachers, learning methods, learning approaches, infrastructure and learning support media (teaching aids).

Purpose. The purpose of this community service activity is to solve the problems faced by partners in the English learning process, namely when a disorder results in disruption in daily functioning, especially in learning, the student requires special services (children with special educational needs) and requires specific learning methods in addition to appropriate and interactive learning media.

Method. The solution offered to overcome this problem is the optimization of teaching methods. The recommended approach in the English language assistance activities for the Cilacap State Polytechnic PkM Team is in the form of prompts and demonstrations. Meanwhile, teaching English can use total physical response (TPR) by maximizing lip reading technique in addition to maximizing the use of flash cards to attract students’ interest and focus.

Results. The results obtained from this community service activity are increasing the ability of children with special needs to say a few simple words in English. The growth and development of children with special needs increase after the community service activities are completed. This is shown from the evaluation results carried out by the service team by conducting a post-test on ABK.

Conclusion. To get significant results, namely increasing the growth and development of ABK, especially in the pronunciation of words in English, it is better if this activity is carried out regularly in the future.

KEYWORDS

Assistance, Children with Special Needs, English Learning, Growth and Development, Interactive Media
INTRODUCTION

Language is the result of socializing in society and is not a personal individual product so that each individual follows the linguistic rules that apply in society by following or imitating (Madina, 2019). Linguists realize that the existence of a language environment is very important to always present, encompass, and provide nuances and contexts for learning the language itself. The environment in which language learning is conducive (Guo dkk., 2020) makes the learning process conducive too (Shidqi & Mudinillah, 2021). A language environment is a place where everything that is heard and seen by the learner is related to the target language being studied (Febrianti & Pulungan, 2021). The informal environment (Ranasinghe & Zampieri, 2021) also provides input for language acquisition, while the formal environment provides tools for monitoring what has been acquired. The language environment should be created as early as possible so that the language acquisition process can take place optimally (Mahendra dkk., 2022).

Language ability relates to whether or not a person interacts fluently with his environment. Children with special needs, for example, people who are deaf, experience serious obstacles in language development, especially in spoken language (Tarigan dkk., 2021). This happens because of hearing organ dysfunction (Sutomo, 2014). This condition will certainly have an impact on their language skills, both in vocabulary mastery and in its structure. This problem will lead to the difficulty of the communication process. The ability to communicate in spoken language is very important in everyday life so it is necessary to hold special training and education that can help ABK in the communication process (Dewi, 2019).

Figure 1. SLB Putra Mandiri Kawunganten

SLB Putra Mandiri Kawunganten is one of several special schools (SLB) in Cilacap, precisely in the Kawunganten sub-district. This school was established in 2015 and started from a concern for the many children with special needs, especially the mentally disabled and physically disabled, who
do not receive an education. Starting with 12 students, this extraordinary school has grown to have 113 students in 2023 and has implemented the Merdeka SMLB curriculum. Even so, learning English at Putra Mandiri SLB is still limited to vocabulary recognition due to limited textbooks and learning support media. The introduction of foreign languages, in this case, English, is applied regardless of class level and student's abilities so that the learning process is carried out in the same class. Language ability relates to whether or not a person interacts fluently with his environment. Children with special needs, for example, people who are deaf, experience serious obstacles in language development, especially in spoken language (Gabriela dkk., 2022; Kartel dkk., 2022; Qureshi dkk., 2022). This happens because of hearing organ dysfunction. This condition will certainly have an impact on their language skills, both in vocabulary mastery and in its structure (Tarigan dkk., 2021). This problem will lead to the difficulty of the communication process. The ability to communicate in spoken language is very important in everyday life so it is necessary to hold special training and education that can help ABK in the communication process (Dewi, 2019).

**Figure 2.** (a) and (b) The process of learning English at SLB Putra Mandiri Kawunganten

(a) (b)

The implementation of this community service activity tries to focus on the following problems, (1) in what form are the abnormalities or obstacles faced by children with special needs in language, especially English (2) what pedagogical interventions can be given to children with special needs (ABK) to be able to assist them in communicating, especially using a foreign language. Theoretically, reinforcement learning can be flexible and automatic to understand words in different meanings and contexts (Dewi S dkk., 2022; Keshav dkk., 2022). Based on this understanding, this community service activity emphasizes the use of interactive media, namely flashcards, in learning English at Putra Mandiri Kawunganten SLB. The target is SLB students with a basic level of English proficiency. This activity is an informal educational activity and is not directly related to learning at school.

Some of the research that has been done, among others, by Kadek is by providing English teaching for special children. Some of the main things that need to be considered in the learning process for ALB are teachers, training, curriculum, infrastructure, evaluation, and learning strategies. The teaching methods can be in the form of prompts, lectures, discussions, and questions and answers. Meanwhile, teaching English can use the direct method, total physical response (TPR), and lexical approach. In addition to learning methods, the learning process for ALB can run well with the support of learning media including the use of realia, slides, film strips, cards, and interactive videos. The evaluation process for learning English for ALB should also not only be product-oriented but also process oriented. Several ways of assessment can be done in the form of anecdotal notes, checklists, interviews, and retelling stories. Assessments that are not only oriented
toward language competence but also language skills will be able to encourage ALB to be able to use English functionally and contextually (Anoum dkk., 2022; Demina dkk., 2022; Hikmah dkk., 2022). Teaching English to ALB is not much different from learning the language in general for normal children. However, teaching ALB does have its challenges. Teachers are required to have more competence in teaching ALB than teaching children in general, for example, a teacher is required to be able to understand the needs of ALB so that they can design, implement and evaluate the ALB education process properly (Dewi, 2019).

The second study was by Jaka, et al who provided training programs to improve English skills for orphanage children at the Al Falah Orphanage, Parupuk Tabing, Koto Tangah, Padang, West Sumatra. This program aims to improve the English skills of orphanage children through student empowerment. The training program was carried out for 24 children and 10 students involved. The training consists of 16 meetings and each meeting lasts 90 – 120 minutes. The team applied 5 combined and modified teaching methods (Firman dkk., 2022; Ilham dkk., 2022). The data were obtained from the results of the pre-test and post-test and class observations. The results showed that the children's English proficiency increased from an average of 42.8 to 69.5. In addition, there was also an increase in their reading and speaking skills as well as their motivation in learning English. In addition, this program also benefits both parties (the orphans and students) from social, economic, and educational aspects. This means that there is a significant positive impact after the implementation of this program. Therefore, it is highly recommended to do the same program (Warman dkk., 2020).

The latest research was conducted by Sri Wiyanah, et al who provided English training for blind children using the audiolingual learning method. The training and mentoring aim to improve the English learning abilities of Audiolingual-based blind students at the Yaketunis Foundation so that they have learning opportunities that it is hoped that these students will have the same English ability as other normal children (Aman dkk., 2019; Hartini dkk., 2022; Safitri dkk., 2022). This service was carried out at Yaketunis, a foundation dedicated to blind children. This service uses training and mentoring methods. The training is carried out with classical teaching which focuses on forming simple sentences and correct pronunciation. The training is carried out using the audiolingual method and uses variations of drills such as Repetition, Replacement, Completion, Transportation, and Expansion. Assistance is carried out using dialogue memorization techniques (Dialogue Memorization Technique) and practiced using dialogue development techniques (Backward Build-up / Expansion Drill). Furthermore, classical teaching using the audiolingual method is complemented by learning media, namely the British Council Podcast. The results of this activity are improving the English language skills of blind students in forming simple sentences and correct pronunciation using the audiolingual learning method (Wiyanah dkk., 2020).

**RESEARCH METHODOLOGY**

Based on the situation analysis that has been described, some of the problems encountered in learning English at SLB Putra Mandiri Kawunganten include: (1) There are several differences in the learning process including physical conditions, health, intellectual abilities, emotional, social, perceptual, motoric and/or impaired neurologist and others. Existing abnormalities can be in the form of conditions below average or above average. If this disorder disrupts daily functioning, especially in learning, then these students need special services (children with special educational needs) and require specific learning methods (2) Appropriate and interactive learning media are needed to assist teachers in the English learning process (3) Class teachers have not used sign language optimally, both in Indonesian and English.
Figure 3. Business Plan for Community Service Activities

Community service activities are carried out at Putra Mandiri Kawunganten SLB, Jeruk Legi District, Cilacap Regency. The time for this community service activity is around April 2023 to July 2023. This community service activity involves 5 Cilacap State Polytechnic lecturers who are assisted by 3 students from the Kawunganten Putra Mandiri SLB. The methods used in this Community Service (PKM) activity include:

1. Coordination of the PKM Implementation Team

   Coordination is carried out so that the team can prepare several things related to the implementation of this community service activity. The task of the team in this coordination is to prepare all related needs such as:
   
   a. Survey to partners

      Survey activities are carried out to obtain information on problems with PKM partners so that the team can then find and determine solutions to overcome them. Before the survey was carried out, the team first contacted the relevant parties to ask for advice and references for SLBs who could be referred to as partners. The survey was carried out at the end of April through a direct visit to the Putra Mandiri Kawunganten SLB. From the meeting, several problems were identified in learning English for children with special needs (ABK).

   b. Discussion and coordination with partners

      The PKM team coordinated through discussions to be able to determine the most optimal learning method and learning media that could be used in the process of learning English for ABK.

2. English assistance in class

   a. The application of the demonstration method and giving prompts is the assistance given to the child to give the correct response. Prompts give the child additional information
or help to carry out instructions. This assistance can be in the form of verbal, modeling (eg by demonstrating a given activity or exercise), and gestural (signs using limbs). Providing this prompt is very helpful for deaf students.

b. In-class mentoring activities are also implemented using the repetition method and utilizing body movement/language or known as Total Physical Response (TPR) (Pratama dkk., 2019). In general, using gestures is an easy and simple way to apply in language class. Students with special needs also tend to absorb the material provided better through learning models that involve movement and gestures (Ikhwati & Megawati, 2018). Learning about vocabulary is the most appropriate material to be taught with TPR (Euis Yanah Mulyanah, Ishak, 2018). The use of the TPR method as well as simple lip reading, SIBI (Indonesian Signing System), and BISINDO (Indonesian Sign Language) are expected to make it easier for students with special needs to understand the English vocabulary being taught (Sofialina & Hanifah, 2020).

3. Utilization of flashcards in English learning assistance activities for ABK

Flashcard media is learning media in the form of picture cards that are about 25×30 cm in size (Azhima dkk., 2021). The images on this media are a series of messages presented with a description. The advantage of this supporting media is to increase students’ association skills with vocabulary and objects referred to, this is a very important aspect in the pattern of learning in special schools (SLB), especially in the teaching and learning process for deaf and autistic students (Febiola & Yulsyofriend, 2020).

RESULT AND DISCUSSION

This community service activity is carried out at Putra Mandiri Kawunganten SLB with the following stages:

1. Survey partners

Teaching English for Children with Special Needs (ABK) is a challenge that requires the cooperation and participation of all parties in the school. The design of learning English for ABK includes the selection of learning approaches, learning models, learning methods and media that suit the needs of ABK are some important aspects that need attention. Therefore, surveys and discussions are needed involving partners, in this case the principal and teaching staff, so that the activities carried out later are appropriate and beneficial for the development of English language learning for students with special needs at Putra Mandiri Kawunganten SLB.

2. Discussion with partners

Discussions and interviews with school principals and teachers at SLB Putra Mandiri discussed the learning methods that have been used so far in class, especially for language learning, both Indonesian and English. The teaching materials and material presented are also an important input which will be used in determining the appropriate and optimal learning approach in the classroom. The team also conducted discussions about learning support media that might be effective if used in language learning in the classroom.
3. Teacher assistance in English lessons in class
   The Cilacap State Polytechnic PkM team provided assistance to a class of approximately 25 students from grade 1 elementary school (SD) to grade 1 high school (SMA). One of the challenges found by the team was that the English language learning provided was not in accordance with the age and competency groups. This is caused by the lack of textbooks and the varying abilities of children with special needs, as well as the dysfunction they suffer. The ability to absorb material for deaf students will be different from that faced by autistic students. Most of the autistic people in Putra Mandiri SLB have learning difficulties and focus on something that doesn't interest them, so it is necessary to apply special methods other than lectures and direct methods, especially in language learning, both English and Indonesian.

   Based on the results of discussions and interviews with class teachers and school principals, there are several things that play an important role in the learning process in Special Schools, especially in the English class. Optimization of seating and classroom design is one of the highlights in class. The teaching and learning process is carried out by placing students in curved seats (the letter U) which is very helpful for both students and teachers in the following matters:
   a. Visibility (broadness of view)
      One of the learning approaches applied at Putra Mandiri SLB is demonstration and TPR (Total Physical Response) which focuses on student focus on the teacher's gestures and body movements as well as lip reading (reading lip movements), especially for students who are deaf (Ikhwati & Megawati, 2018). One of the advantages of the U-style classroom layout is that all students get equal access and are free to face the teacher.
   b. Accessibility (easy to get to)
      Handling students with special needs is not easy. Teachers and ABK need sufficient space to move comfortably during the learning process. Provision of accessible physical accessibility in the school environment will make it easier for ABK to carry out moving activities more independently without having to rely on help from others.
   c. Flexibility (dexterity)
      Items in the classroom should be easy to organize and move to suit learning activities, especially considering the need for ABK to move around is higher than normal students.
Seating arrangements can be changed and adjusted at any time if the learning process uses the discussion method and group work.

d. Comfort
Comfort in the classroom includes temperature, ventilation, light, sound and whether or not the class is crowded. The English class at SLB Putra Mandiri consists of approximately 25 students and is held in adequate classrooms.

e. Beauty
The principle of beauty relates to the teacher’s efforts to arrange a pleasant and conducive classroom for learning activities. Beautiful and pleasant classrooms can have a positive effect on students’ attitudes and behavior towards the learning activities carried out.

**Figure 5.**

Learning English uses the lip-reading method and the TPR (Total Physical Response) approach

4. Optimizing the TPR approach using the lip-reading technique (lip reading), SIBI (Indonesian Sign System) and BISINDO (Indonesian Sign Language) in English classes

Learning English sign language is different from learning regular English. In terms of structure and vocabulary, Indonesian sign language is much different from English sign language. Because English sign language and Indonesian sign language are different, the use of English sign language for communication and sign language for learning is also different. In communicating using a foreign language, especially English, teachers are required to understand sign language in Indonesian in advance to be able to convey the meaning of words correctly. Production of words in English is the most difficult stage for deaf students because they have to go through two translation processes, namely Indonesian into English and then into sign language. Not all deaf people can communicate in English sign language because English is used more in writing than communicating. Therefore the sign language used in the Putra Mandiri SLB English class is BISINDO which is simple and easier for ABK to use. One of the obstacles encountered in learning language at SLB Putra Mandiri is the lack of competence and ability of teachers in sign language, so that the sign language used is still limited to the vocabulary used every day.

5. The use of interactive media in class
A child is born into the world with different conditions, some are born with normal conditions but some are born with abnormalities such as: blindness, down syndrome, hyperactivity, and physical disabilities/disability (Tarigan dkk., 2021). These abnormalities cause sufferers to have limitations, because they cannot carry out activities like normal children in general, especially for students who are deaf and disabled (autism). If limitations are not handled by providing special
services. ABK will experience difficulties in interacting with the environment. Limitations are the main problem that greatly affects the lives of deaf people and people with autism. Due to these limitations, individuals who are deaf and hearing-impaired need facilities that can help them develop attitudes (Dianovi dkk., 2022; Najeed dkk., 2022; Nopiana dkk., 2022), knowledge and skills, one of which is to maximize the use of interactive English learning support media, namely flash cards.

Flash cards are small cards that contain pictures, text, or symbols that remind or direct students to something related to pictures (Kumullah dkk., 2019). The purpose of the flash cards is to train the ability of the right brain to remember pictures and words so that vocabulary and reading skills can be trained and improved from an early age (Pradana & Gerhni, 2019). The basis of using flashcards is to train children to memorize associations between pictures and words, so that when they see those words again later they will remember and be able to pronounce them (Hafidzoh Rahman dkk., 2021). In its application at Putra Mandiri SLB, flash cards are used to train ABK in the ability to associate Indonesian words with English equivalents while simultaneously stimulating the ability to focus on ABK by pointing out the object or body part in question. The activity begins with the teacher distributing flash cards to each student in a closed state, then continues with demonstrations and giving prompts to students, for example, the word "nose" on the flash card is shown with a picture and its meaning in Indonesian, namely nose. The teacher shows the "nose" card, reads the word in English and asks students to look for the same card and show the body part referred to (Amado-Alonso dkk., 2019; Rahmah dkk., 2022; Rohmalimna dkk., 2022). On the other hand, students pay attention to gestures and look at the teacher's lips (lip reading) while trying to find the card in question and holding the body parts on the card. The learning process is continued by writing the vocabulary given in the notebook to maximize students' focus and memory of the material just given. This series of activities apart from stimulating students' curiosity, also stimulates and provides motivation for ABK in learning foreign languages (Febriyanto & Yanto, 2019).

Figure 6. The use of flash card learning media in learning English
CONCLUSION

This service activity aims to maximize the classroom setting and the implementation of demonstrations in learning English at Putra Mandiri SLB, prioritizing the application of interactive learning media (teaching aids) such as flash cards to motivate and stimulate children with special needs (ABK) and achieve optimization of the use of the TPR method (Total Physical Response) and lips reading method in learning English for children with special needs (ABK). This activity was carried out within a limited time, so that in the future it is necessary to hold an evaluation agenda to determine the significant impact of this community service activity.

AUTHORS’ CONTRIBUTION
Author 1: Conceptualization; Project administration; Validation; Writing - review and editing.
Author 2: Conceptualization; Data curation; Investigation; Methodology; Writing - original draft.
Author 3: Data curation; Investigation; Formal analysis; Validation.
Author 4: Formal analysis; Methodology; Writing - original draft.
Author 5 & 6: Supervision; Resources; Visualization.

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