

## **Development of Scaffolding Based Buzz Group Models to Improve the Study Ability of Students in PGSD Program Study, University of PGRI Yogyakarta**

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**Abstract:** This research is to develop a scaffolding-based Buzz Group Model, a combination of the Buzz Group Model with sign language and based on the scaffolding principle of Vygotsky. In other words, divide students into small groups, and each group is given one sign language expert. Each group was given the task to solve the problem using sign language. The Buzz Group model is a teaching model by creating small groups of three to six people, and each group is given the assignment to complete an assignment, then ends by delivering the results of the group discussion to other groups. The purpose of this research is to develop a Buzz Group Model that combines the Buzz Group Model with sign language and is based on the principle of scaffolding to facilitate students in mastering sign language to improve the sign language ability of PGSD Yogyakarta PGRI Study Program students. The results of the development of scaffolding-based Buzz Group models referring to Borg and Gall's research and development model after expert validation tested showed that students' sign language skills after using the scaffolding-based Buzz Group model that previously 70% of students had sign-language skills were in a low category, to 5%, 34% of students had sign language skills were categorized as less to 27%, and 16% of students had sign language skills were categorized as being 68%. This value indicates that there is an increase in the ability of students' sign language after the use of the Scaffolding Based Buzz Group Conditional model.

**Keywords:** hearing impairment, Buzz Group conditional model, scaffolding

### **INTRODUCTION**

This study departs from the anxiety of researchers in teaching Student with SEN subjects because of the difficulty of teaching Sign Language (BISINDO) Indonesian Sign Language to students because Sign Language is a language that is different from the language that uses verbal communication while Sign Language uses motion, gesture and mimic as a tool for communication.

Sign language is a language that prioritizes manual communication, body language, and lip movements, rather than sound, to communicate. According to Klima, & Ursula Bellugi (1979) Sign language is the natural visual-gestural language of deaf people, using hands, facial expressions, and head and body positions to convey linguistic messages.

Deaf people are the main group that uses this language, usually by combining the shape of the hands, orientation and gestures of the hands, arms, and body, and facial expressions to express their thoughts.

Sign language basically has a dynamic nature, because it uses hand movements or body gestures instead of sounds, said to communicate. Gestur is a form of body language or non-verbal communication. (Bunawan & Yuwati, 2000) said that according to deaf children, sign media is an appropriate way to compensate for the hearing loss of children. Because deaf children have hearing loss, instead of hearing that functions as a language receiver, they need cues as a substitute.

the ability of children with hearing impairment to use cues, children with hearing impairment will have two choices to be able to communicate and interact with others, namely by sign and oral language.

The problem that occurs in students of Department of Primary School Teacher who are studying Sign Language is how complex Sign Language and the ability of students to capture / learn Sign Language is very limited and can even be said to be less so the researcher makes a development in the use of models in learning, a model that will be developed from the Buzz Group Model Conditional Based Scaffolding in collaboration with GERKATIN (Movement for the Deaf Welfare) Sleman in the implementation of learning

The Buzz Group model is a model for discussing a problem whose implementation divides students / students into small groups of three to six people and ends with the delivery of the results of the discussion (Hatimah, 2017). The purpose of the Buzz Group model is to train students in discussing a problem that is done in a small group in a short time (Hatimah, 2017). In this study, the Buzz Group model was developed in the form of discussion of a problem conducted by students in small groups. When discussing an issue, students work with deaf individuals and use sign language as an introduction

Scaffolding is help or support from teachers, parents, caregivers, or colleagues to assist individuals in

completing tasks that they cannot complete themselves (Morrison, 2012). Scaffolding was first explained by Vygotsky. Vygotsky believes that mental, language and social development is supported and enhanced by others through social interaction. Vygotsky also believes that communication or dialogue between people who are more competent and those who are learning is important (Morrison, 2012)

Scaffolding-based Buzz Group model is a learning model that addresses a problem through the division of small groups. In this small group one expert was given, in this study GERKATIN members, who acted as experts were thus scaffolding. Next, each group is given a task that must be completed using sign language. In the final stage, each small group submits the results of the discussion to other groups

This scaffolding-based Buzz Group model makes it easy for students to learn sign language from people who are more expert / competent through problem solving. That way students can better understand the material they are learning because it is based on problems and is guided directly by people who are more competent

The expected outcome of developing a scaffolding-based Buzz Group model is the improvement of students of Department of Primary School Teacher ability to master sign language so that after graduating students can become sign language instructors and translators. The impact for lecturers is to be able to equip and provide a conceptual framework for students to re-explore knowledge about the world of disability so that students' inclusiveness will increase.

The objectives of this study are: 1) Developing a Scaffolding-Based Buzz Group model to make it easier for students to master Sign Language so that it can improve the students of Department of Primary School Teacher sign language ability in PGRI Yogyakarta University. 2) Determine the effectiveness of the Scaffolding-Based Buzz Group model in improving sign language skills of PGSD University Yogyakarta PGRI students

## **METHOD**

This research uses research and development methods with research development steps according to Borg and Gall. According to (Borg & Gall, 2007) in conducting development research there are 10 steps that must be taken as follows: (1) collection of research results, (2) planning, (3) developing initial products, (4) initial trials, (5) revisions to compile main products, (6) major field trials, (7) revisions to compile operational products, (8) trials of operational products, (9) revisions to final products, and (10) dissemination and implementation of development products. Then

the steps are adapted into 6 stages as follows: (1) A preliminary study by gathering information and analyzing the information that has been collected, (2) developing the initial product (Conditional Scaffolding Based Buzz Method Method), (3) expert validation and revisions, (4) small-scale field trials and product revisions, (5) large-scale trials and product revisions (6) final products.

This research and development uses three stages, namely the pre-development stage, the development stage and the post-development stage. The steps in this research development, namely: a) Pre-Development Instruments, Data collection techniques in the pre-development stage using observation, interviews, and documentation studies. b) Development Instrument, This value scale is used to assess or observe the feasibility of a conditional Scaffolding Based Buzz Group method. A value scale is an instrument that requires observers to assign subjects to categories by giving an assessment of these categories. The value scale used in research and development uses the Guttman scale. (Sugiyono, 2016) states the measurement scale with this type, will get a firm answer that is "yes-no", "right-wrong", "never-never", "positive-negative" and others. c) Post-Development Instruments, Post-development instruments in this study used product effectiveness tests and questionnaires for students

Data management in this research and development uses qualitative analysis and quantitative analysis. Qualitative data analysis techniques in this study were conducted together

## **FINDING & DISCUSSION**

According to the results of the hypothesis testing the calculation of the pretest and posttest results on mastery of multiplication yielded the calculated T value = 11,104 with T table = 1,980 with  $p = 0,000$  with a significance level ( $\alpha$ ) of 5%. So it can be concluded that the T-count is greater than T-Table  $11,104 > 1,980$  with a significance of 0,000 which states that using a scaffolding-based Buzz Group signaling model in learning sign language is very effective to improve PGSD students' signaling abilities in student with SEN subjects.

Difficulty in learning sign language tends to rely on the expression and motion of the sign language learner, if the communicator's movements and expressions are not appropriate then the meaning of the movement can be different from capture by the communicant. Language that prioritizes manual communication, body language, and lip movements, rather than sound, to communicate is sign language. According to Klima, & Bellugi (1979: 12) Sign language is the natural visual-gestural language of deaf people, using hands, facial

expressions, and head and body positions to convey linguistic messages. Deaf people are the main group that uses this language, usually by combining the shape of the hands, orientation and gestures of the hands, arms, and body, and facial expressions to express their thoughts

Another understanding says sign language or gesture or body language is one way of communicating through body movements. Sign language will be used more permanently by hearing impaired because they have their own language (Bunawan & Yuwati, 2000) says that according to children with hearing impairment, sign media is an appropriate way to compensate for hearing loss in children because hearing impaired children have hearing loss, as a substitute for hearing that functions as a receiver language, they need cues in their place (Meeze, Rashid, & Ashaari, 2017)

Sign Language is a language that must be learned by teachers because they study higher education (Yasin et al 2017). These skills must be mastered before these teachers are placed in special education schools. However, to ensure that these teachers really master sign language well, evaluations must be conducted (Rashid & Meeze, 2015). Evaluation can be done both in the form of expressive, receptive, interaction and written assessments (Rashid & Meeze, 2015). In addition, studies such as Haug & Mann (2007) divide the two forms of assessment that can be done in sign language learning which are product-based assessments and assessment forms of understanding. Furthermore, Enns & Herman (2011) divides the two forms of evaluation of English sign language evaluation, which is an evaluation of sign language mastery and poetry mastery, seeing the importance of sign language mastery for students. Sign language is a skill that is quite difficult to understand and use by students who are not from PLB, seeing the difficulties that occur with research students developing a learning model to facilitate the use of sign language using the Buzz Group model with scaffolding-based signaling model

The Buzz Group model based on scaffolding is a solution to the problem, because this method relies on the Buzz Group Model which is a way of discussing a problem whose implementation is carried out by dividing students into small groups of three to six people and ending with the delivery of results. The purpose of the Buzz Group model is to train students in discussing a problem that is done in small groups in a short time (Hatimah, 2017)

Whereas scaffolding is help or support from teachers, parents, caregivers, or colleagues to assist individuals in completing tasks that they cannot complete themselves (Morrison, 2012). Scaffolding was first explained by Vygotsky. Vygotsky believes that mental, language and social development is supported and enhanced by others through social interaction.

Vygotsky also believes that communication or dialogue between people who are more competent and those who are learning *sagatlah* is important (Morrison, 2012: 77)

The scaffolding technique used by the teacher allows students to sketch out their ideas. It also increases students' confidence in answering a question. The guidance of more skilled people can support the development of the skills they want (Rashid, Hanafi, and Yasin 2014)

Implementing this scaffolding-based group buzz model by dividing students into small groups and each group is given one sign language expert. Each group was given an assignment to complete a problem based task using sign language

The Scaffolding-based Buzz Group model is useful for increasing the ability of PGSD students to master sign language so that after graduating students can become sign language instructors and translators. The impact for lecturers is to be able to equip and provide a conceptual framework for students to re-explore knowledge about the world of disability so that it will increase the character of student inclusiveness.

Seeing from the discussion above it can be concluded that sign language uses a demonstration in communication so that if it uses a demonstration / demonstration method in improving sign language ability it can work effectively to improve the student's conditional ability in Student with SEN courses. with data collection. The process of data analysis is done by reducing the data that is the process of completion. simplification, focusing, abstracting and transforming data (Arikunto, 2010). Data reduction is carried out continuously from the beginning of the data collection to completion. While the quantitative analysis technique in this study uses quantitative descriptive statistical analysis. This statistic serves to present information in such a way that the data obtained can draw conclusions. Research on the development of Scaffolding-Based Conditional Buzz Group models was conducted at Yogyakarta PGRI University. This study involved 40 2016 PGSD students

## CONCLUSION

The results of sign language proficiency scores indicate that student sign language before using the Buzz Group Scaffolding-based method can be categorized as low, while the results of sign language ability after product trials can be categorized as moderate, indicating that there is an increase in student sign language skills after using Buzz Scaffolding-Based method.

Sign language uses a demonstration that forms a two-way relationship in communication so in improving sign language skills one should also use a problem-based model or a Scaffolding-Based Buzz

Group developed according to student needs, Basically Sign language emphasizes its communication in a demonstration so that the use of methods Scaffolding-based Buzz Group in improving sign language skills can work effectively to improve the students' conditional skills in Student with SEN courses

## REFERENCES

- Arikunto, S. (2010). *Prosedur Penelitian Suatu Pendekatan Praktik [Research Procedure A Practical Approach]*. Jakarta: Rineka Cipta.
- Gall, M. D., Gall, J. P., & Borg, W. R. (2007). *Educational research: an introduction* (8. utg.). *AE Burvikovs, Red.) USA: Pearson*.
- Bunawan, L., & Yuwati, C. S. (2000). *Penguasaan bahasa anak tunarungu [Mastery of the language of deaf children]*. Jakarta: Yayasan Santi Rama.
- Enns, C. J., & Herman, R. C. (2011). Adapting the assessing british sign language development: Receptive skills test into American sign language. *Journal of deaf studies and deaf education*, 16(3), 362-374.
- Hatimah, I. (2017). *Pengertian Pendekatan, Strategi, Metode, Teknik dan Taktik*.
- Klima, E. S., & Bellugi, U. (1979). *The signs of language*. Harvard University Press.
- Morrison, G. S. (2012). *Dasar-dasar pendidikan anak usia dini (PAUD)*. Jakarta: Indeks.
- Meeze, S., Rashid, M., & Ashaari, N. S. (2017). *Sign Language Learning Assessment Model Framework for Special Education Teacher*. 5(1), 26–30. Retrieved from <http://journal2.um.ac.id/index.php/jppplb/article/view/2254/2702>
- Rashid, N. A., Hanafi, M., & Yasin, M. (2014). *The Use of Sketching Technique to Assist Deaf Children in Writing Bahasa Melayu Essay 's Report*. 5(2), 1–5.
- Rashid, S. M. M., & Meeze, S. (2015). *Reka bentuk kurikulum bahasa isyarat Malaysia (BIM) untuk golongan pekak bagi perkara asas fardhu ain (PAFA)* [Malaysian Sign Language (BIM) curriculum design for the deaf for Basic Fardhu Ain (PAFA)] (Doctoral dissertation, Institut Pengajian Siswazah, Universiti Malaya).
- Sugiyono. (2016). *Metode Penelitian dan Pengembangan [Research and Development Method]*. Bandung: Alfabeta
- Yasin, M. H. M., Tahar, M. M., Bari, S., & Manaf, F. N. (2017). The sign language learning in deaf student and special education teacher in integration program of hearing problem. *Journal of ICSAR*, 1(2), 166-174.