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INSTRUCTIONAL DESIGN FOR STUDENTS WITH VISUAL IMPAIRMENTS IN ENGLISH LEARNING

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Abstract

Mastering English has become an essential ability for students in higher education, particularly at the university level. As a result of this, every university offers an English program for students in the faculty or language center. However, not every learner, such as those with visual impairments, can learn English quickly. Students with visual impairment are students who have a visual disability, such as low vision or blindness. Students with visual impairments require a particular approach to English learning. This situation pushes lecturers to modify specific instructional designs in order to promote classroom activities. Students' characteristics, learning objectives, technique, and assessment are four crucial components to consider when building instructional design for students with visual impairment. The design should be modified to accommodate their full inclusion in the classroom. It is predicted that by providing instructional design for students with visual impairments, they will be able to comprehend the material and boost their motivation to learn English. The purpose of this paper was to better understand acceptable instructional design for students with visual impairment. This paper also includes case studies from an Inclusion English Class at a university level, where students with visual impairment and sighted students study together. By examining this subject, it is expected that every lecture recognizes the basic features of students with visual impairment and selects the appropriate instructional design to accommodate all of the students' characteristics. Instructional design, vision impairment, and English learning are some of the terms used in this study.

Keywords: Instructional Design, Visual Impairments, English Learning

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INTRODUCTION

English learning is increasingly widely known at all levels of school, particularly at the university level. English proficiency is regarded as one competency in college education. English proficiency is supposed to aid academic activities such as locating materials, writing papers, and giving presentations. However, when students have unique needs, such as visual impairments, delivering English information in the classroom might be difficult. They have different requirements than sighted kids. They should receive different teaching and learning techniques.

Certain instructional practices that are appropriate for students who do not have visual impairments may not be appropriate for students who do. For example, encouraging pupils to watch movies to learn specific language elements in class may not be appropriate because they cannot see the movies. As a result, lecturers should provide customized instructional materials to enable their involvement in the classroom.

Several parts of instructional design should be presented, including relevant information, appropriate media, and an appropriate strategy. It is predicted that by creating a customized instructional design for them, their motivation, self-esteem, and independence will improve. The purpose of this research was to determine the best instructional design for students with visual impairments in an English learning program.

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LITERATURE REVIEW

Visually Impaired Students

Students with visual impairment are students who have visual issues. This disorder is commonly referred to as blindness. There are two types of visual impairments: low vision and blindness. Most students with visual impairments have poor vision, according to Carney et al (2001: 7). When appropriate, these pupils should be encouraged to use their residual (remaining) eyesight with the necessary optical aids and adjustments. Blind students, on the other hand, range from being completely blind to having unreliable eyesight and relying heavily on other senses. Braille is commonly used as a reading and writing medium by people who are blind.

Meanwhile, the International Classification of Diseases -10 (Update and Revision 2006) divides visual function into four levels: (1) normal vision, (2) moderate visual impairment, (3) severe visual impairment, and (4) blindness. Moderate and severe visual impairments are classed together as "low vision": low vision paired with blindness comprises complete visual impairment. According to Manal (2012: 1), there are four types of visual impairment: (1) partially sighted, (2) low vision, (3) legally blind, and (4) fully blind. A person who is partially sighted has some difficulty seeing and reading information and requires particular support with learning and reading. Low vision implies a more serious visual impairment, such as the inability to read at normal distances. People with limited vision must rely on assistive technology to read and see in their surroundings. They might even learn by using Braille. Legally blind people have eyesight that is less than 20/200 and have a limited range of vision. People who are legally blind cannot see clearly, no matter how close or far they are. A person who is completely blind has no eyesight at all.

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Their eyes are unable to process images, thus they learn using nonvisual tools such as Braille.

According to WHO (2012), the leading causes of visual impairment worldwide are uncorrected refractive errors (myopia, hyperopia, or astigmatism) (43%), cataracts (33%), and glaucoma (2%). Furthermore, the age at which individuals become visually impaired influences their demands. those who are born blind have distinct needs than those who lose their sight during their youth or adolescence.

Given that each student with a visual impairment has unique learning needs, lecturers must be aware of the various forms and causes of visual impairment in order to begin the educational process. As a result, lecturers can select an acceptable instructional design for their courses.

Design of Instruction

Instructional design, as defined by Reigeluth (1983) in Prawiradilaga (2007: 15), is the overview of learning theories applied to facilitate the learning process. Furthermore, Gagne, Briggs, and Wager (1992) claim that instructional design aids the learning process in both the short and long term (Prawiradilaga, 2007: 15). According to this approach, instructional design is regarded as fundamental thinking in a single systematic system that comprises analysis, design, development, implementation, and evaluation (Dick, Carey, & Carey, 2005 in Prawiradilaga, 2007: 16). Instructional design is crucial in learning because it can increase the quality of learning and make it more meaningful. It is also influenced by students' personalities and personal circumstances (Hamzah Uno et al. 2010: 7-11). To

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summarize, instructional design is an endeavor to construct an effective learning approach in order to attain a learning goal.

Students, learning objectives, methods, and assessments are the four components of instructional design. In terms of students, instructional design should take into account their history, such as their degree of proficiency, physical condition, motivation, and learning style. By assessing students' backgrounds, lecturers can create learning objectives based on their ability and pace, allowing students to master a specific skill in a single set of activities. An appropriate strategy can also support the success of instructional design after assessing students and defining unique learning objectives. The method is associated with learning strategies, such as techniques in presenting material in class. The final component is evaluation. After understanding the lesson, this component becomes an indicator of pupils' achievement in class. Formative testing (ongoing testing), summative testing (final testing), observation, surveys, and interviews can all be used to assess students (Prawiradilaga, 2007:17-18). Based on the components of instructional design, the following characteristics can be summarized: a) student-centered learning; b) systematic; and c) empiric.

English Instruction for Visually Impaired Students

Children with visual impairments were previously placed in a separate school for blind children and had no option to pursue higher education. They can now study alongside sighted or normal pupils at a regular school or institution. Inclusion education refers to placing pupils with special needs in mainstream classrooms.

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Dealing with visually impaired pupils in our classroom is not a problem as long as the lecturers know how to interact with them. The professor and other students should be aware of the best ways to assist students with visual impairments in the classroom and during exams.

RESEARCH METHOD

Our conversation is focused on specific instructional design in English learning for students with visual impairments, based on four areas of instructional design (students, learning objective, method, and assessment). According to the SSD (Services for Students with Disabilities) center at the University of Indianapolis (USA), there are numerous instructional designs that can be integrated into the learning process, including (1) the student's physical condition; (2) the learning target; and (3) methodologies.

The first consideration is the physical condition of the students. The classroom should be designed to accommodate their needs. A visually impaired student requires appropriate seating because he or she cannot perceive visual cues, he or she must be situated in a position to receive verbal cues. The greatest seat for him or her is close to the teacher so that they may properly hear the lecture. Lecturers should aim to talk directly to the class, keeping in mind that moving our heads away can muffle sound since body language and gestures are not visible. Furthermore, background noise must be controlled because it will divert the focus of visually challenged students.

The second part is the learning goal. Because a learner with visual impairment has vision difficulty rather than hearing loss, the most prospective

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English skill that they can master well is listening and speaking. Use their abilities to provide the majority of the content. Explain the lesson using general vocabulary. Do not be afraid to use words like look or see; kids with vision impairments do as well.

Methods are the third consideration. Lectures can incorporate some methodologies and media into the learning process. To help the learning process, lecturers can employ a variety of media, particularly audio media (audio recording, speech, or lecture). Lectures might also question students about any learning assistance they may require during the process. In addition, coordinate computer lab access with an IT technician and the disabled center (multimedia-based learning). Allow the student to collaborate with a partner or a volunteer in the class to assist the student (teamwork). Ensure that the materials are well-organized and easily accessible to the student. Allow students to record results verbally rather than writing them down. Verbalize all whiteboard writings and spell all technical terms.

This is consistent with Rofah et al (2010a: 42), who suggest that lecturers should meet the learning demands of students with visual impairment who use various aids appropriate for their disability and resources. She stated that instructors should provide students with visual impairments with soft copies of teaching materials as well as reference lists ahead of time because they require more time to acquire information. The lecturer should narrate visual instructional materials and avoid using too much visual stuff in the classroom. Furthermore, if outside activity (field trip, interview) is seen as a challenge for students with vision impairment to deal with, the lecturer should consider it.

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Rofah et al (2010b: 41) also stated that cooperative learning should be used instead of competitive learning for students with visual impairment. Competitive learning causes pupils with visual impairments to lose confidence and may cause them to fall behind students who do not have visual impairments.

Assessment and examination adaptation for students with visual impairments must also be considered. Assessment and examination are extremely beneficial to teachers in evaluating and determining students' development and accomplishment. There are some modifications: (a) Select an appropriate test type. Lecturers can select a test format such as an oral test using an interview or a listening exam utilizing audio. Furthermore, it is preferable to conduct closed-book examinations rather than open-book examinations because students with visual impairment will find it difficult to access their kinds of literature; (b) Tests can be administered by having the questions read to the students by a volunteer or assistance. The assistant will read and write for the kids who are blind. However, it will be difficult to pass the English exam if the helper does not speak English well. Both the students and the assistants will be in trouble; (c) if the students can use JAWS to access the computer, they will be able to take independent tests. The professor only needs to give the exam to the students in soft files, which they can then read independently on their computer; (d) Reproduce exams in large type if the student has low vision. (e) Allow extra time (20-50% longer) for testing in a separate and quiet location.

Concerning various classroom accommodations and testing adaptations for students with visual impairment, it is vital to discuss classroom accommodations and testing adaptations with them early in the semester (during the first couple of

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class days). The professor should be aware of the needs of students with visual impairment.

RESULTS AND DISCUSSION

Case Study No. 1

This study lesson was derived from a university-level English class. This is an inclusive class in which sighted and disabled students study in the same room. Rini (name changed to protect privacy) was a visually impaired student who learned English with other sighted students in a regular English class. She has been legally blind since she was a newborn. She developed a high temperature, which caused nerve damage in her brain. As a result, she has never seen the color of the world, making it difficult for her to visualize things, colors, and so on.

Rini attended a special school for the blind before enrolling in an inclusive university. However, because English is one of her favorite subjects, she taught herself. She enjoys English music. She enjoys listening to English news and reading English Braille, which is where she learned grammar. She also has a Braille English dictionary, which allows her to learn new words. She used to converse in English with her teacher in high school. As a result, her English skill is far superior to that of the other students.

Rini was a friendly and helpful student. She is also a very dedicated student. She did not hesitate to approach the instructor for assistance with her studies. This open approach inspired her lecturer to make certain changes in the classroom

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setting and material, such as particular mentoring for him, peer learning, and game-based learning.

Imageries don't mean much to Rini because she can't see them. Instead, of writing the content, the lecturers should read and explain it aloud. While other students in the classroom may understand what is printed on the whiteboard, she needs it read aloud by the lecturer or her classmates. She would have it read by a coworker to complete the task when other students can read and perform activities in their academic books. When other students can quickly take notes and write their exercises on scrap paper, she must convert them into Braille symbols. Otherwise, she will have difficulty recalling the materials. It takes her longer to hole her papers in order to produce Braille symbols. As a result, the course should provide her extra time to convert material to Braille symbols.

To illustrate various scenarios, the speaker should utilize descriptive instruction expressions such as left, right, in front of, besides, behind, and so on. The use of "this" or "that" must be avoided because it is meaningless to children with visual impairment. When explaining prepositions of place and movement, using media such as a ball or toys might help clarify the lesson. It is vital to supply a copy of vocabulary words, explanations, and examples to the learner ahead of time, in either soft copy or Braille, so she is familiar with topics when they are introduced.

Surprisingly, Rini was able to convey her work in written form. She can, in reality, access and use computer programs. She stated that at the start of her studies, she took a computer course designed specifically for blind students at a different center at this university. As a result, she has good typing skills. She can also read typed stuff because she has an adapted computer that uses JAWS software to

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read the screen aloud. The lecturer only needs to send soft copies of the materials so she can use JAWS to access them. She can access it on her computer or in the different parts of the university library. Her pals were always willing to assist her in gaining access to the materials.

Rini values the presence of a friend's assistant greatly. As a result, the lecturer permits her to work with a partner or a volunteer in the class to assist her in completing some activities in class. The helper also assisted her in reading and writing. However, because she is able to use an adapted computer with JAWS, she did not require any assistance in taking her exam. She only needs a PC with JAWS to complete her exam.

Working in a group could be enjoyable and fulfilling for Rini. The lecturer can include her in a discussion group and have her tackle problems alongside the other pupils. Rini's English skills are superior to those of her classmates. The instructor took advantage of this opportunity to invite her to assist by conducting a discussion group and solving difficulties with the other students. She is assigned to verify the other pupils' pronunciation or to translate in reading groups. Then she must, for example, summarize the section. She enjoys this activity because her classmates accept her, she is learning, and she is not bored. Furthermore, through participating in discussion groups, all students become closer and stronger.

In verbal communication, tone can change the meaning of a sentence. To create chemistry in communication, the lecturer should employ pleasant intonation and a sense of humor. In terms of body language and vocal communication, pupils can sense the teacher's emotions through gestures, which influences learning awareness. A witty, kind and happy teacher with a passionate soul would motivate

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kids to work more. With Rini, the smile made contact with a clear and pleasant intonation and sense of humor.

Jokes and laughter, games, and movies are all effective techniques to reduce learner anxiety. This technique focuses on activities that students may participate in and laugh together. What lecturers should do is incorporate meaningful activities in class that Rini can enjoy and share laughing with her classmates. As previously said, one of the activities involves the use of games. According to Ur (1988; 23), games are interesting because they give a sense of joyful tension. When a lecturer just presents the materials, asks the students to do exercise after exercise, delivers drills, and constantly corrects the students' faults, the students become stressed and do not like the lesson. This will be an impediment to accomplishing the class aim. However, when pupils play games in class, they have fun and may relax. They will be able to learn the material more efficiently if they are free of fear and tension.

Rini enjoys playing video games as well. However, the lecturer should use appropriate games that are suitable for Rini's condition, such as whispering some vocabulary, index cards, bingo, and snake and ladder. Rini could readily play whispering games because she didn't have any hearing problems, and she could convey information she heard to her peers. Index card match was also a simple activity for her because she only had to hold the paper while her peers tried to figure out their pairs. She creates the sentence with her partner when she has found her companion. She would throw the dice in some board games, such as bingo and snake and ladder, and her peers would assist her with reading the instructions. She also enjoyed miming games, as Simon mentions. Despite her obstacles, she was able to enjoy the games and share her laughs with her peers.

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The lecturer could identify some positive results in Rini's learning by changing some classroom settings and content, such as: a) Rini could study English well in class and share her English comprehension with her peers; and b) Rini could present her work in a written text. In reality, she learned to utilize a computer during her undergraduate studies. She used an adaptive computer with JAWS software, which can read out loud all of the words on the computer screens.

Case Study No. 2

A second case study was conducted in an inclusive English class with students of varying abilities. Tono (name changed for privacy) became blind as a result of a tragic accident that hurt his brain when he was 9 years old. Because of his family's history of blindness, his parents are overprotective of him. As a result, he becomes a very dependable individual. Furthermore, he encountered some challenges adjusting to his new environment at university.

Tono was enthusiastic about learning English. In general, he was eager to participate in class, for example, by repeating what his classmates said during interactive dialogue. However, he performed poorly in class due to a variety of problems, including a lack of basic English knowledge, a lack of English vocabulary, and a lack of capacity to understand concepts.

Tono had inadequate basic English knowledge because he attended a special school for blind pupils where English was not taught as intensively as it was in regular school. As a result, his command of the English language is limited. He also had a restricted vocabulary because he was not used to using English words. He also had limited capacity to study English using a computer (with or without specific software for visual impairment). Meanwhile, other students with vision impairment

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at this university can access their learning materials such as e-books, documents, and so on using JAWS (software that reads out loud all the words) on their personal computer or in a disabled corner, whereas Tono can only turn his computer on and off. As a result, providing soft files to help his research is insignificant to him.

As a result of his condition, he was unable to study on his own. Someone had to assist him. The professor has designated a classmate as an assistant to assist him during class. His aide assisted him in reading and writing his written task. His helper also taught him how to spell English words. He requested assistance with his assignment when he received it. Unfortunately, the person who assisted him at home does not speak English well.

Third, Tono's knowledge of concepts was limited due to a poor remembering process. It has something to do with the reason for his blindness. He was in an accident as a toddler that affected his brain nerve. However, since he has had the opportunity to go across the world, he can picture colors, objects, alphabets, and numerals.

Despite these issues, all of his classmates always assisted him in executing the majority of the tasks in class, such as reading the reading material for him or reading the exercises for him, especially for speaking practice. Based on this condition, the lecturer decided to make various changes to assist him in studying English, such as constructing a physical environment, providing particular coaching for him, peer learning, and learning through games.

The lecture involves some attempts to manage the physical environment, such as conditioning his seat, his position to the lecturer, and the class atmosphere. He needs a decent seat from which he may plainly hear the professor. As a result, his

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seat and location must be close to the lecturer. Conditioning the classroom environment is limiting other students' activities so that he is not distracted from his learning concentration. Even his buddies' chit-chat can keep him from paying attention to the lecture. The lecturer additionally offered or performed extra guidance for him, such as speaking louder, closer, and slower to him. The professor should endeavor to address the student with visual impairment directly and by name. He would not have realized the professor was speaking to him otherwise. The lecturer should sometimes spell the words or explain the meaning one by one. Then he writes key vocabulary in Braille.

Switching to one's mother tongue is a common speaking approach. It is extremely beneficial when his instructor or helper explains concepts or vocabulary. This is known as code-switching. Two codes or two languages are used in the same communication. In general, English is employed as the primary language in the classroom. When a term or phrase is difficult to understand, pupils employ the Indonesian language.

Furthermore, in this scenario, the peer learning method is really beneficial. While his lecturer was unable to assist him during the class exercise, his classmates could. The professor can designate one student with strong English skills as Tono's assistance throughout the lesson hour. He should have his assistant read, write, and clarify the contents for him. Furthermore, he stated that his helper could clarify things more clearly when he was having problems understanding what the lecturer was saying. Furthermore, because he couldn't use JAWS to access the computer, the assistant assisted him in reading and marking the answer sheet during a test. This type of support was common at the time. Sometimes it happened on its own,

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without the lecturer's intervention. Tono, on the other hand, finds the group work method to be ineffective. Although he can debate grammar or reading comprehension subjects in his group, it appears that he has difficulties following the discussion when several friends speak at the same time. Furthermore, not all of his classmates can help him as well as his aide. As a result, he simply remained mute during the conversation. So, although his peers debated in groups of 3-5 students, Tono preferred to debate in pairs with his assistant.

In terms of activities, employ simple games that are appropriate for children with visual impairment in the classroom, such as whispering, Simon says, circle movement, snake and ladder, and throw and catch. He was a big fan of the games. He participated in the activities by doing things like composing a statement and following instructions.

Creating pleasant and interesting learning methods in an acceptable manner is a problem for the lecturer in order to maintain Tono's motivation. He is enthusiastic about learning English. He appreciated most of the activities in English class. However, he lost enthusiasm when he felt the information was too difficult for him to handle. Furthermore, he appeared upset when the professor was too quick to provide teaching information. Serious and boring teaching and learning methods, on the other hand, would make Tono asleep because he couldn't see the lecturer's gestures or the movement of other students.

Tono may be able to appreciate the classroom activity as a result of the preceding efforts. The goal of these efforts was to get him to do as much as possible with other sighted students. He could, however, do some more practice to develop a

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better knowledge of English and improve his ability to use various types of media to assist him in learning English.

CONCLUSION

Students with visual impairments can be motivated in the same way as sighted students, especially when learning English. Lecturers should consider this motive when developing specialized instructional approaches for them. The emphasis of the learning process is not only on presenting the subject but also on motivating and supporting students so that they can maximize their learning. Lectures should examine students' character based on their physical condition and learning challenges before constructing the instructional design so that lecturers may choose the best strategy to support the learning process.

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