Gamification of Written Stories (Gows) Model in Improving Speaking and Writing Skills of Students with Intellectual Disabilities in Special Education Secondary School

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ARTICLE INFO	ABSTRACT
	The objectives of this paper were to identify the effectiveness of gamification of written stories (GOWS) model in improving speaking and writing skills of students with intellectual disabilities in a special education secondary school. Intellectual disability refers to individuals who have a low IQ (level of intelligence) and significant weaknesses in terms of development, such as speech problems, social problems, self-care issues, and are unable to interact in the community without supervision from caregivers (e.g., mother, father, aunt, etc.). Therefore, GOWS consists of two components, namely an electronic model and a real housing park application that can help students tell stories and organize ideas in writing essays. This real model is changeable according to the theme of teaching and learning, for example, if the theme is family, then a family model can be built. This innovation of GOWS has been used at Sekolah Menengah Kebangsaan Seremban 2 for three months through participant observation, drills and notes involving 7 students with intellectual disabilities. The study's findings show students with special needs benefit in terms of improved listening, speaking and writing skills. This innovation of GOWS also functions for students to present ideas in speaking activities and then organize those ideas in writing essays. Thus, GOWS has high commercial characteristics because it is very interesting and can be diversified according to the theme of teaching and learning and characters in a theme can be added as appropriate. This innovation of GOWS is also very user-friendly because it is easy to use by teachers and students. For example, by moving human characters representing students who are telling stories through various facilities in the housing park, for example, playgrounds, houses, schools and so on, students can present interesting ideas in their stories. Apart from this, GOWS can also be a therapy for students to solve various behaviour problems in the classroom because it contains fun activities and materials. This innovation is also related to the

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intellectual disabilities; special education secondary school	aspect of Language Arts (KSSR), which emphasizes "learning while playing" and language games.

1. Introduction

The Ministry of Education of Malaysia through the Special Education Division has established the Special Education Integration Program (PPKI) as early as 1962 to assist learning among special education students. This PPKI is an integration program for the education of visually impaired students in selected mainstream primary and secondary schools. In 1963, the opening of Special Education classes for the Hearing Impairment Integration Plan in primary and secondary schools began to be implemented [8]. Subsequently, in 1988, the Ministry of Education of Malaysia started pilot classes for primary level students with learning disabilities and subsequently throughout the country [4]. The terms learning disability and learning difficulty are also used interchangeably to refer to individuals who have limited intellectual function or develop at a slower rate compared to normal children [12]. Based on information from the Special Education Division, Ministry of Education Malaysia 2021, special education students with learning disabilities consist of seven categories, namely Down syndrome, ADHD, autism, intellectual disability, specific learning disabilities (dyslexia), dyscalculia, dysgraphia, retardation and others as shown in Table 1 (Ministry of Education Malaysia 2024).

The objectives of this research were to identify the effectiveness of gamification of written stories (GOWS) model in improving speaking and writing skills of students with intellectual disabilities in a special education secondary school. This research focuses on special education students with learning disabilities, namely intellectual disability in special education secondary school which is the Sekolah Menengah Kebangsaan Seremban 2. The innovation used is the GOWS model in improving speaking and writing skills of students with intellectual disabilities at Sekolah Menengah Kebangsaan Seremban 2. Intellectual disability refers to individuals who have a weak IQ (level of intelligence), and have significant weaknesses in terms of development such as having speech problems, social problems, self-care problems and cannot interact in the community without supervision from caregivers (e.g. mother, father, aunt, etc.). The ability to think and make decisions will be impaired because thinking is not in line with age. Students with intellectual disabilities (ID) can learn and progress, but they are slower to master new skills. If this happens, these students will remain with disabilities in learning and independent living skills in school and as adults. Therefore, placing students with intellectual disabilities in "mainstream" classes without understanding and taking into account their individual needs, cannot guarantee a complete, equitable and inclusive education for them. They will find it difficult to follow the general education curriculum and there will be behavioral problems if these students feel in the classroom because the curriculum too challenging or unrealistic expectations by adults [12].

Table 1
Categories of Special education students with learning disabilities

Bil	Jenis masalah pembelajaran	SPK PRA	SPK REN	SPK MEN	SPK JUM	PPKI PRA	PPKI REN	PPKI MEN	PPKI JUM	PPI PRA	PPI REN	PPI MEN	PPI JUM	Jumlah
1	Sindrom Down	14	63	0	77	116	2,691	2,119	4,926	2	21	5	28	5,031
2	ADHD	3	79	86	168	59	5,019	3,305	8,383	18	918	499	1,435	9,986
3	Autisme	95	515	61	671	1,078	22,546	6,259	29,883	152	1,814	734	2,700	33,254
4	Kurang Upaya Intelektual	5	156	368	529	33	16,196	18,048	34,277	18	2,700	1,645	4,363	39,169
5	Masalah Pembelajaran Spesifik (Dyslexia/ Dyscalculia/ Dysgraphia)	77	230	0	307	10	8,477	7,260	15,747	4	3,146	1,672	4,822	20,876
	Dyscalculia	0	0	0	0	0	0	0	0	0	0	0	0	0
	Dysgraphia	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Lain - Lain	6	50	17	73	63	2,353	1,657	4,073	8	351	238	597	4,743
	Jumlah	123	940	762	1,825	1,359	57,282	38,648	97,289	202	8,950	4,793	13,945	113,059

1.1 GOWS Model

The GOWS model as in Figure 1 consists of two components, namely an electronic model and a real housing park application that can help students tell stories and organize ideas in writing essays. This model is changeable according to the theme of teaching and learning, for example, if the theme is family, then a family model can be built. This model is also equipped with a human statue that can walk around the place where the student is telling stories. The GOWS model functions for students to present ideas in speaking activities and then organize those ideas in writing essays. Thus, GOWS model has high commercial characteristics because it is very interesting and can be diversified according to the theme of teaching and learning and characters in a theme can be added as appropriate. GOWS model is also very user-friendly because it is easy to use by teachers and students for instance, by moving human characters representing students who are telling stories through various facilities in the housing park, i.e. playgrounds, houses, schools and so on, students can present interesting ideas in their stories.

Fig. 1. GOWS Model

Previous studies have focused on the benefits of using teaching aids either in the forms of model or technology. Yahya *et al.,* [15] asserted that although students have the limited capability and little knowledge, they are able to reconstruct ideas in the pursuit of exploring new things. Yaakob *et al.,* [13] noted that, material-based learning is seen as an effective alternative in the teaching and learning process as it is able to create student-centered learning. In this regard, according to Gargiulo *et al.,* [7], the development of technology in the creation of teaching and learning equipments has a real impact in delivering the knowledge and skills of teachers as well as in accelerating the learning process among students and saving teachers' time. Fatul [6] agree that by utilizing attractive teaching aids, the quality of teaching and students' performance can be improved [11]. According to him, young students are making logical reasoning but are still bound to concrete and interesting objects to understand a new phenomenon.

In connection with this, Faridah et al., [5] conducted a study to identify the effectiveness of Cerlis *(Cerita Tulis)* or storytelling and writing model in assisting teachers to improve students' creative writing skills and to analyze whether the model can improve students' ways in expressing and organizing ideas in composing essays accurately. The study focused students that lack of ideas in

producing creative essays such as descriptive and imaginative types. The results yielded that the Cerlis model was able to create fun in learning and generate high confidence level in producing ideas for essay writing. Indeed, Cerlis model is able to increase students' interests in writing essays and their comprehension level. This study also shows that games are generating students' ideas for composing descriptive and imaginative essays.

2. Methodology

A total of seven students with intellectual disabilities from the Sekolah Menengah Kebangsaan Seremban 2 at the suburb of Seremban, Negeri Sembilan were selected for this study. The participants of this study consisted of four boys and three girls. A model of action research according to Kemmis & McTaggart, in Yahya *et al.,* [15] as shown in Figure 2 was utilized for this model is user-friendly. Thus, the Kemmis and Mctaggart model comprises four phases, namely planning, acting, observing and reflection.
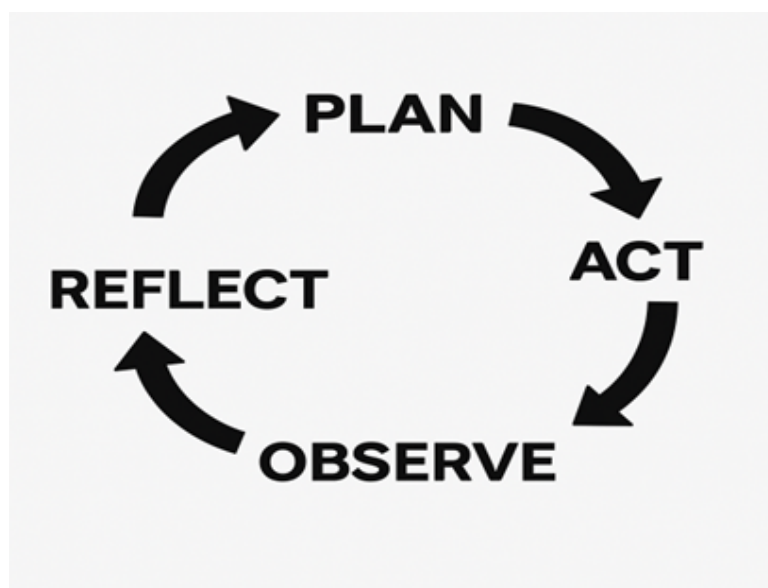

Fig. 2. Model of action research (Kemmis and Mctaggart)

Based on Figure 2, the action research process started with the teacher reflecting on the issue of teaching and learning to be addressed. Then, the teacher provided a suitable plan to deal with the problems faced. The teacher then implemented the plan and in the process of implementation the teacher was to observe the progress of the action. The whole implementation was described as the First Ring (cycle 1) and if the problem was not resolved, then the teacher could start the process again up to the Second Ring (cycle 2) until the problem is solved. In the Second Ring, the teacher must reflect and adapt to his or her action plan. This study utilized a cycle as shown in Figure 3.
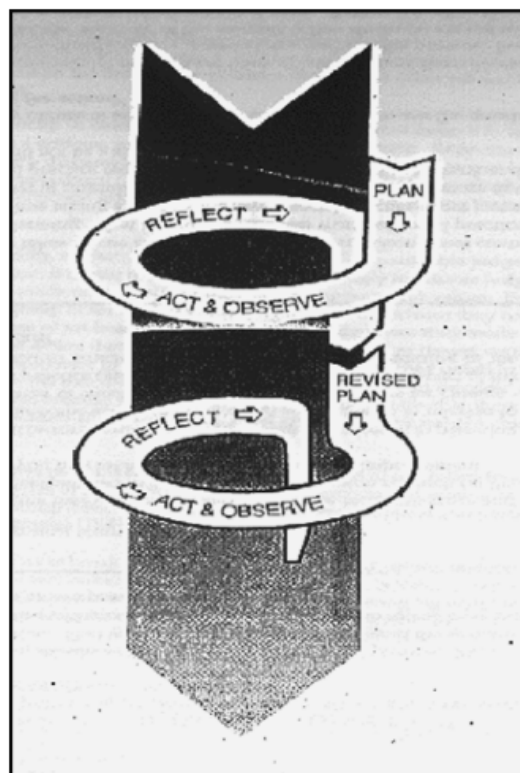
Fig. 3. A cycle concept in action research

In this regard, this study is also an action research conducted on two loops, the first and second loop. During the first loop, researchers used the Model of Kemmis and Mctaggart. This study focused on students who cannot express ideas in creative writing in the form of guided imaginative and descriptive essays. At this stage, supplementary material construction was designed to generate more creative ideas in the guided writing.

The first and second phases were executed and a Daily Teaching Plan was produced. The one hour teaching session was conducted in the classroom, focusing on teaching objectives where students could write imaginative and descriptive creative essays using the GOWS model. In this regard, the objective of this research were tested which is the students were able to submit and put ideas into writing correctly according to the GOWS model. The teaching and learning of creative writing in the form of imaginative and descriptive essays using GOWS model were observed and recorded. Besides recording and observation, survey via questionnaire and document analysis were also conducted.

Next, the reflection process was implemented on the implementation of action to identify whether the objectives of the study were achieved or not. This phase also enabled researchers to identify the advantages and disadvantages of the teaching and learning process. In addition, researchers can also reassess the teaching process after using the GOWS model. Through this first loop, it was found that the GOWS model should be improved as it is not suitable for students to carry out storytelling activities as they face difficulties in comprehending the story itself prior to the actual storytelling session.

Subsequently, the second loop was carried out with the improved GOWS model. The researchers have added models such as football fields, rivers, bridges, schools and social activities in the GOWS model. After this improvement, it was found that students' minds have been challenged and stimulated to produce creative ideas.

2.1 Daily Teaching Plan of the GOWS Model

Daily Teaching Plan is prepared at the level of action planning and applied during the activity implementation and observation session. The preparation for the Daily Teaching Plan to use the GOWS model is included in the teaching aid in the teaching and learning of creative writing skills in terms of descriptive and imaginative essays.

2.1.1 Daily teaching plan

Date: 20th March2025
Year: 3 Alpha
Number of students: 30
Time: 11.00 – 12.00
Theme: Unity
Title: Healthy well-being through good values Skills: Writing

Standard Content: 3.7 To produce creative writing in various genres accurately.
Standard Learning Outcomes: 3.7.2 To produce creative writing in terms of guided descriptive and imaginative essays.

Objectives: At the end of the teaching and learning session, students will be able to:

  i.   Produce ideas using the GOWS model and organize them in writing essays.
  ii. Produce descriptive writing (explanation based) in a log book.

2.1.2 Content of curriculum

Knowledge: Life skills
Values: Collaboration, politeness, tolerance
Sociocultural Rules: Language level, politeness in language
EMK: Creativity and Innovation: Idea generation and new idea production.

Teaching Strategy: Added value skills

  i.   Critical Thinking Skills: Producing sequence.
  ii.   Creative Thinking Skills: Generating ideas.
  iii. Multi Intelligence: Verbal, linguistics, music
  iv.   Learning How to Learn: Writing.

Existing Knowledge: Students already know the format for guided essays based on pictures.

Language System: Syntax: Guided essays Teaching Resources:

  i.   GOWS Model
  ii. Watching video

Steps / Time	Content	Teaching and learning activities	Remarks
Induction Set 5 minutes	Questions Who is your neighbour? What are good values displayed in the picture? What is the importance of neighbour to you? Do you always help your neighbour? 	. 1. Students are shown the flash cards about good values in the neighborhood . 2. Students and teacher have a question-answer session on the flash cards by stating their values. . 3. Teachers associate the discussion with the theme and topic of the lesson.	Flash Cards Strategy Association Idea generation Analysis Value Collaboration Politeness Tolerance Empathy
Step 1 15 minutes	GOWS Model 	Teachers demonstrates neighborhood housing concept model to students. Students are asked to give a view on the friendly neighborhood concept by referring to the model of the housing park. Students need to identify the neighborhood-friendly values found in the housing park model.	GOWS Model Strategy Idea generation Value Collaboration, Appreciation, Acknowledgement
Step 2 15 minutes	Students generate and produce their own ideas as many as possible with the movements of the human statue that can walk around the GOWS model while they are telling stories for instance, My name is Sally, this is my housing area. I live in Taman Melur, Seremban Negeri Sembilan. I have four very kind neighbors. They always lend a helping hand when my family is in trouble. Neighbors are those who live near our home. During weekend, we will gather in the park to clean the area (telling stories as students move the human statues).	1. Each student is to tell his/her journey with the assistant of the GOWS model to the class. 2. Each student is given a human statue that reflect him/her. 3. Student tell a story by moving the human statues in the GOWS model according to the neighborhood concept through their experience. 4. Students are to recount their experience when	

		moving the human statue in front of the class. 4. Teachers make a summary of student findings.	
Step 3 20 minutes	Descriptive Essay writing – Teacher assists the students to write the story told to the class using the GOWS model in the exercise book.	Assessment Students are asked to write an essay from the ideas of using the GOWS model.	Work log Strategy Idea generation Writing Value Hard work Politeness Collaboration
Closure 5 minutes	Cognitive Closure Teachers summarize the Teaching and Learning session.	1. Students are to review the lesson learned today. 2. Teacher and students have a question-answer session and teacher summarizes the teaching and learning outputs of the day.	TA Video Clip Strategy Verbal Linguistics Music Value Collaboration Summary

3. Results

Overall, based on the findings, the objectives of this research have been achieved which are to identify the effectiveness of GOWS model in improving speaking and writing skills of students with intellectual disabilities in a special education secondary school I.e. Sekolah Menengah Kebangsaan Seremban 2, Seremban, Negeri Sembilan. Students are seen very keen to talk using the GOWS model and have been able to handle it well on their own. The teacher does not have to give a lot of information as students are stimulated through the GOWS model and aided by their imagination. Based on the satisfaction feedback of the GOWS model using the questionnaire, all seven students (100%) as respondents in this research stated, "I enjoyed using the GOWS Model." In addition, all of seven students (100%) also stated "I am passionate about taking the Malay language classes." Apart from this, the quality of teaching also improved as class control improved after the use of the GOWS model. Furthermore, all seven students (100%) responded positively and they were not complacent with anything other than the teacher's teaching. This fact is proven again during an induction set when a student responded positively when asked by the teacher. In addition, the findings also showed that the use of this model saved time for teachers. The teacher does not need to explain how to present ideas in writing. Students will spontaneously submit their ideas based on the GOWS model, where teachers only guide occasionally.

The findings of the research also indicate that the GOWS model has helped the students to present sound ideas in guided writing. The GOWS model has been able to stimulate the students' mind as the material used was 3D-like, resembling a real estate park. This model is also easily understood by students as they can imagine through what they have seen directly. This is evidenced in 39:53 minutes, when one of the student woke up and looked back at the GOWS model to get even more ideas. All students enjoyed using the GOWS model as they succeeded in producing guided writing

with divergent ideas. Based on the questionnaire it was found that 100% of students enjoyed using the GOWS model.

The students' interest in studying also increased from 80% to 100% throughout the teaching and learning sessions. This finding can be clearly demonstrated when all seven students can relate their experience when moving the human statue that can walk around the place where the student is telling stories on the GOWS model. Subsequently, all seven students were found to be able to write the essay from the idea of using the GOWS model and complete the essay with a description based on the GOWS model. At the end of the teaching and learning sessions, the participants were able to restate what they learned and enjoyed learning based on the GOWS model. All student respondents in this research were also highly motivated when their work showed improvement.

In this study, the use of the GOWS model particularly to write imaginative and descriptive essays has facilitated the teacher's work as it has been fully utilized by students. Teachers only become observers and facilitators when problems emerge. The use of attractive innovation such as the GOWS model is different from pictorial and printed materials to stimulate the students' minds. Picture-only materials cause students to not understand what teachers are really saying. Through this study, teachers' motivation has also increased. This is in line with the findings of A.R. Jamian (2021) that showed teachers are positive and have high confidence in utilizing fun learning and teaching.

Additionally, the use of the GOWS model is similar to language games which has also shown improved class control. This is in line with the study of A. Hamzah, S. N. S. Idrus, and Z. M. Ashari (2020) which stated that, one of the learning media that facilitates and conforms to psychological developments and language development is the teaching of language game. It can be concluded that, the GOWS model has managed to create a fun and controlled learning culture as students are always curious about what they are learning.

4. Conclusions

The use of the GOWS model rhymes with the interest of students in playing while learning because the students enjoy using it. Teachers only act as facilitators, where students can use the GOWS model to produce interesting, descriptive essays. Indeed, the GOWS model triggers students' ideas without any boundaries. This is because, all students are creative and only creative and fun teaching materials such as the GOWS model are capable of generating creative qualities among students. Interestingly, the GOWS model has facilitated teachers and students to produce interesting and descriptive essays. If before, students are faced with a variety of problems, especially to present interesting ideas but the use of the GOWS model, has changed this scenario. Teachers' role as facilitators are also enhanced which lead to independent learning among students. Hence, the use of the GOWS model is in line with the teaching strategies that have been used, namely material-centered strategies. The process of teaching and learning will be more effective if all students focus on teaching materials and at the same time facilitate teachers' tasks.

Thus, few suggestions are worth noted for this study. Firstly, the number of participants must be added so that the findings of this study will be more robust. Secondly, several different GOWS model can be built on various themes for example, the theme of agriculture and animal husbandry. The next suggestion is to diversify other skills such as text-based reading skills in the model, as the model is now only relevant for speaking and writing skills. In addition, the GOWS model will also be modified to be used in other subjects as well i.e. for historical subjects, this model can be modified subject to arising needs.

Acknowledgement

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