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Improvement in *Sarf* (Morphology) Competency through Gamification at Miri National Religious Secondary School (SMKAMi)

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Abstract

Learning through the gamification method can bring the students directly closer to real experience. Students have the opportunity to improve their ability to remember, increase sensitivity to interaction process and possess the capability to objectively analyse a situation. The purpose of this article is to introduce a type of gamification to strengthen *Sarf* (morphology), in addition to tracking improvement in *Sarf* competency after implementing the gamification method at Miri National Religious Secondary School (SMKAMi) in the 2017 Malaysian Certificate of Examination (SPM). This research uses a qualitative method and data was taken mainly from the Arabic Morphology Diagnostic Test (UDMA) and through the instrument of interview using WhatsApp application (voice message or voice recording). Two teachers were involved in the interview session: Head of Arabic Language Committee and an Arabic language teacher who teaches Form 5. The data obtained were transcribed in writing and descriptively analysed. Research findings show an improved achievement in Arabic language subject of the 2017 SPM by 1.09 with Average Grade of Subjects (GPMP) of 3.64 compared to 4.73 of the previous year. Research results show that the gamification method can resolve student weakness in *Sarf*, especially in remembering the verb and noun patterns and their derivatives, besides increasing student engagement, creating fun and fostering a positive attitude through game activity. The implications of this research will open the space for research on gamification designs appropriate for strengthening *Nahu* and *Sarf* with a high prospect for their application in the context of Arabic language education.

Keywords: *Sarf* (morphology), gamification, religious secondary school, Arabic teaching and learning

INTRODUCTION

Various techniques are practised in teaching and learning Arabic education. Among the most interesting is language learning gamification because it creates an active and fun learning environment. al-Barry (2011) found that language learning gamification is effective for students learning basic Arabic language because students are more inclined towards something new and are motivated to constantly seek knowledge to satisfy their curiosity as compared to traditional teaching techniques. This statement is supported by Smith-Robbins (2010), Ibrahim and Teh (2015), and Mustari et al. (2012), that the gamification method is very effective to be applied in the teaching and learning of Arabic language.

Purely lecture-based language learning causes students to be fatigued and lose concentration. Hence, playing games in learning Arabic language stimulates student interest and motivates them to keep up their enthusiasm for gaining input. Studies related to the effect of gamification on student motivation have been identified (Furdu et al. 2017; Cahyani 2016; Ibrahim & Teh 2015; Flores 2015; Godwin-Jones 2014; Hamari et al. 2014; Herzig et al. 2013; Mahmoud & Tanni 2014; Lee & Hammer 2011) and they show gamification as having a big impact on the teaching and learning process. The motivation element is very essential and is intertwined with learning theory. Without motivation, learning is meaningless and games created become difficult to adjust to other training methods (Juzeleniene et al. 2014).

The learning experience, through activities and training conducted, is intensely felt by students and practised as in the real world. This situation indirectly improves the psychomotor skills of students (Khaleel et al. 2016; Mostowfi et al. 2016; Fattah 2015; Hamizul & Rahimi 2015; Mahmoud & Tanni 2014; Lee & Hammer 2011) and optimally stimulates their minds in completing given assignments creatively. The gamification approach also gives the opportunity and space for students to openly exhibit their talents and assess their own capabilities.

In addition, the concept of relaxed learning influences student psychology and positive behaviour. Language learning gamification enables reducing anxiety, encourages shy students to communicate and increases social skills as well as interpersonal skills (Ibrahim & Teh 2015). The informal learning environment creates cooperation and the spirit of helping one another (Mostawfi et al. 2016; al-Barri 2011) in completing given group assignments.

RESEARCH BACKGROUND

Statement of Problem

The main weakness of students which causes failure to master Arabic language skills was identified in past studies, such as by Mezah (2006), Mezah & Mohammad (2011), Sejo (2012), al-Khulufi (2015), and also Zailani and Ahmad (2015a; 2015b). Several studies have also shown that the game's approach is very effective in teaching and learning Arabic language (Mustapa et al., 2012; Mustari et al. 2012; Ibrahim & The 2015; Omar & Zailani 2016; Ahmad et al. 2016; Jasni et al. 2018; Zailani et al. 2016a; Zailani et al. 2016b). Beginning from the abovesaid studies, the purpose of this research is to assess any improvement in *Nahu* and *Sarf* competency based on the results of Arabic language

subject in the 2017 SPM examination, after adopting the gamification approach in the learning of *Nahu* and *Sarf*.

Research Objectives

1. To introduce suitable types of gamification to be applied for strengthening *Sarf*.
2. To track improvement in *Sarf* competency at di SMKAMi after the implementation of gamification method.

Research Methodology

This research uses qualitative methods and the main data was collected from the Arabic Morphology Diagnostic Test (UDMA) report dated 10 April 2017 sent to the school. The second data source for this research was obtained through interview instrument of teachers using WhatsApp application (voice message or voice recording). Two teachers are involved in interview sessions: the Head of the Arabic Language Committee and the other, an Arabic language teacher teaching Form 5. Data obtained and transcribed in writing is descriptively analysed based on 10 given questions. The response to the interview with the Head of Arabic Language Committee is coded G1 and for the Arabic language teacher coded G2.

TASRIF GAME BOARD PROGRAM APPLICATION AT SMKAMi

This program was implemented at SMKAMi on 6th February 2017. The participants were 115 students of Form 5 and Arabic language teachers of Form 4 and 5. Four UKM lecturers and another from UPM acted as facilitators for this program. Three types of board game board were used, as follows:

Aplication of *Tasrif* Board

A board game in the form of an A3-sized schedule, consisting of five *tasrif* in Arabic language, that is, *Madi Verb*, *Mudari' Verb*, doer noun, object noun and derived noun.

الرقم	الجزء	الجزء	الجزء	الجزء	الجزء
	A	B	C	D	E
١	فعل	فعل	فعل	فعل	فعل
٢	فعل	فعل	فعل	فعل	فعل
٣	فاعل	فاعل	فاعل	فاعل	فاعل
٤	مفعول	مفعول	مفعول	مفعول	مفعول
٥	مفعول به	مفعول به	مفعول به	مفعول به	مفعول به
٦	اسم	اسم	اسم	اسم	اسم
٧	اسم	اسم	اسم	اسم	اسم
٨	اسم	اسم	اسم	اسم	اسم
٩	اسم	اسم	اسم	اسم	اسم
١٠	اسم	اسم	اسم	اسم	اسم

MY IPO APP NO: LY 2014001302

Advantage: This board game is used to solve the student's problem of lacking skill in five *tasrif*.

Application of *Mushtaqat* Board

A board game in the form of an A3-sized schedule, consisting of seven types of Arabic derived nouns, that is, doer noun, object noun, adjectival noun, hyperbolic noun, tool noun, comparative noun, place and time noun.

لعبة المشتقات						
الرقم	اسم المفعول to-ma... / to...	اسم المفعول to-ma... / to...	اسم المفعول to-ma... / to...	اسم المفعول to-ma... / to...	اسم المفعول to-ma... / to...	اسم المفعول to-ma... / to...
١						
٢						
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١٠						
١١						
١٢						

No. IP: UKM IKB/108/2/1176

Advantage: This board game is used to solve student's problem of lacking skill in differentiating types of derived nouns and their patterns. This game helps the student to remember Arabic derived noun patterns.

Application of *Tajrid al-Af'al* Board

The *tajrid* board game is used to help students identify the original letters and affixed letters for a verb. It comprises of four boards: three-letter verb with one affixed letter, three-letter verb with two affixed letters, three-letter verb with three affixed letters, and four-letter verb with one affixed letter and two affixed letters. On the left side, for each row of boxes is placed the required name or item. If students fill the boxes according to the required item, they will eventually discover the original word and affixed letter of a *mazid* verb.

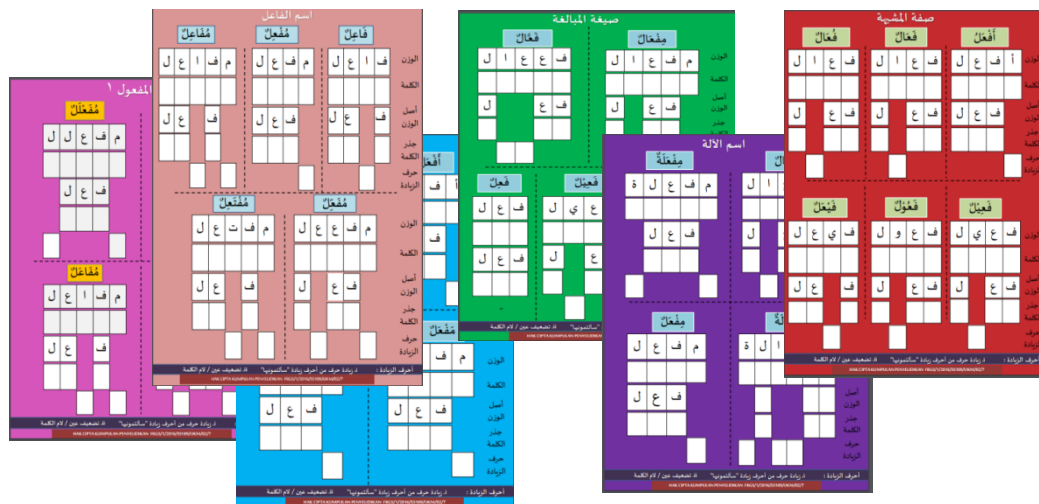


No. IP: UKM IKB/108/2/1528

Advantage: This game helps the students to differentiate between *mujarrad* verb and *mazid* verb as well as the derivatives, and to quickly identify the base/root word as well as distinguish the types of affixed verbs, whether one or two or three affixed letters.

Application of *Tajrid al-Mushtaqqat* Board

This board game is designed specially to trace the original letters and affixed letters for seven derived nouns based on a certain pattern. The game set comprises of nine boards, that is, two *ism al-fa'il* boards, two *ism al-maf'ul* boards, two *sifat al-mushabbahah* boards, one *ism al-Alah* board, one *ism al-Tafdil* and *isma al-zaman wa al-makan* board and one *sighah al-mubalaghah* board. On the left side for each row of boxes are placed required names/items. If students fill the boxes according to the required items, they will eventually discover the original word and affixed letters for each derived noun.



No. IP: UKM IKB/108/2/1874

Advantage: This board game helps students to quickly trace the root word and affixed letters for each derived noun, facilitates to guess the meaning of the words based on the root word as well as helps them to find the meaning of the words in the dictionary. The problem of difficulty in understanding the text is also reduced if students succeed in tracing the root word of a word.

TRACKING LEVEL OF SARF MASTERY THROUGH ARABIC MORPHOLOGY DIAGNOSTIC TEST (UDMA)

A diagnostic test was conducted to track the competency or mastery level of Arabic *Sarf* (morphology) of Form 5 students at the selected school, SMKAMi. This test is an assessment procedure used to collect information on the students' shortcomings in learning, to identify the students' specific strengths and weaknesses, and identify their mastery of syllabus. The diagnostic test is forward-

looking because information from the test is used to set the direction for future teaching and learning. The research instrument used is the second set of the Arabic Morphology Diagnostic Test (UDMA) developed by a group of researchers under the scheme, FRGS/1/2016/SSI09/UKM/02/7, and registered as IP No.: UKM IKB/108/2/1533.

Table 1. Question Distribution in UDMA

Section	Item	Number of Questions (100)
1	Determination of verb <i>tasrif</i> (conjugation)	20
2	Additional Letters	20
3	Affixation Patterns	20
4	Use of Affixation Patterns in Sentence	20
5	Derived Nouns	20

Table 2. Overall Results of Arabic Morphology Diagnostic Test (UDMA)

Scale	Marks	No. of Students	Percentage (%)
Excellent	80 - 100	0	0
Good	60 - 79	25	22
Average	40 - 59	87	76
Weak	20 - 39	3	3

Diagram 1. Results of UDMA at SMKAMi

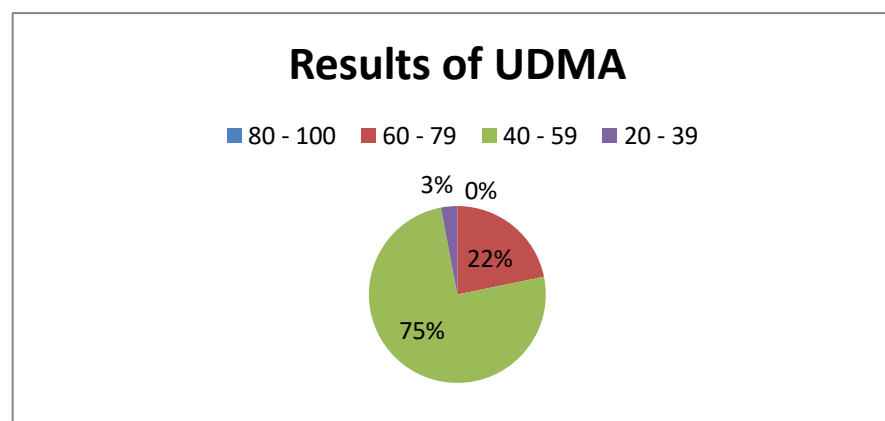


Table 2 above shows that not a single student scored excellent results, that is, achieving 80 - 100 marks. The majority of students, 87 persons, are at the average level of 40 - 59 marks and the rest, 26 students, are at a good level of 60 - 79 marks and only 3 students at a weak level of 20-39 marks. On the whole, Form 5 students at SMKAMi are seen to be still at the average level in mastery of *Sarf*.

Table 3. Results of Arabic Morphology Diagnostic Test (UDMA) according to Section

Scale	Marks	No. of Students				
		Section 1	Section 2	Section 3	Section 4	Section 5
Excellent	16 - 20	4	29	72	0	1
Good	11 - 15	45	61	42	5	13
Average	6 – 10	59	21	1	68	69
Weak	1 – 5	7	4	0	42	32

Table 3 above shows the aspects which are less than satisfactorily mastered by SPM 2017 candidates at SMKAMi as tracked by the Arabic Morphology Diagnostic Test (UDMA). The students failed to answer well in two sections of the test, sections 4 on Affixation Patterns in Sentences and Section 5 on Derived Nouns. As for Section 1 on Determination of Verb *Tasrif* (Conjugation), more than half of the students failed to master it well.

IMPROVEMENT IN SARF COMPETENCY THROUGH GAMIFICATION METHOD

From the results of the Diagnostic Test (UDMA), the school, SMKAMi, and Arabic language teachers, specifically know the level of *Sarf* mastery among the 2017 SPM candidates. This helps the teachers to plan a strategy and suitable teaching method to apply to the students, especially in giving special focus on aspects or topics less than satisfactorily mastered by students. Among the efforts and approaches is the gamification approach and frequent drilling to help students improve their mastery in certain topics. The following are the responses to interview questions related to gamification approach:

1. What is your view of the gamification approach in teaching and learning Arabic language, specifically in *Sarf* (Morphology) introduced by UKM?

G1- In my view, the gamification approach for the sarf topic is very good and effective because it helps students understand the wazan technique of words in a simple way.

G2- In my view, the gamification of Sarf introduced by UKM is very helpful to facilitate students' understanding of Sarf.

2. In your view, does the *Tasrif* game Board Application Program give a positive impact on the teaching method of Arabic language teacher?

G1- We use various methods of teaching Arabic language and the Tasrif game board is one of the methods we apply especially in the Sarf Section and the impact obtained from the test/ training is positive.

G2- Yes. The tasrif game board application program introduced really gives a positive impact to teaching Arabic language by the teachers at SMKAMi in diversifying teaching techniques.

3. Has the students' perception of Arabic language subject, especially in learning Sarf, changed after following the program?

G1- Good students are able to quickly understand the topic Sarf, average students are able to wazan the words after having been given explanation, weak students are able to do exercises after guidance.

G2- Students say that the tasrif board game application makes it easier for them to understand Sarf, especially for the topic wazan.

4. What is the main strategy implemented to improve Arabic language skills, especially Sarf, among Form 5 students?

G1- Repeated exercises.

G2- Some of the main strategies we carry out to improve student performance in Arabic language subject is by holding the Young Murshid (Teacher/Guide) Program, Additional classes for GALUS (students who sometimes fail and need to be helped to pass) and CEMERLANG (good or excellent) students, Games and Centred Drill Training.

5. If the gamification approach is implemented, explain in what form the games are implemented?

G1- Tasrif Board for Sarf, rubrics for Nahu (Grammar) and Scrabble for vocabulary.

G2- Sentence rubrics, tasrif board and Arabic scrabble.

6. How is the approach implemented, individually or in groups, as a teaching aid in class or out of class activity, relaxed activity or competition?

G1- In groups of four. Conducted out of class when all Form 5 students are combined in one class. Usually during teaching and learning.

G2- The said activity is done in class in groups.

7. How frequent is the games method implemented in a week/month?

G1- It is implemented when teaching the topic Sarf relating to wazan and fi'l mazid.

G2 – The game activity is implemented only once a week for each class and then resumed frequently, after the teaching syllabus is completed, for the purpose of strengthening.

Based on the answers in interviews with the Head of the Arabic language Committee and the Arabic language teacher SMKAMi, they both agreed that the Game Board Application Program implemented by UKM has a positive impact on teachers especially in diversifying teaching techniques. Students also hold a good perception and give a good response towards implementation of the game method in learning *Sarf*. They are able to understand the topic *wazan* and technique of finding the *wazan* of words more quickly. Some of the strategies implemented at SMKAMi in order to improve Arabic language skills, especially *Sarf*, are through methods of playing games, centred training drill and repetition. This approach is implemented in groups in class or outside of teaching and learning time. This method is also implemented while teaching *Sarf* topics relating to *wazan* and *fi'l mazid* and is frequently implemented after the completion of the syllabus for the purpose of strengthening of topics not well mastered by students.

IMPROVEMENT IN ARABIC LANGUAGE ACHIEVEMENT IN 2017 SPM OF SMKAMi

Improvement in Arabic language achievement among students of SMKAMi may be clearly seen in the answers G1 and G2 to interview questions 8 and 9, as follows:

8. How is the performance or achievement in Arabic language of Form 5 students in 2017 SPM?

G1- Our performance in 2017 SPM is very good and has improved from the previous years Alhamdulillah we achieved 100% pass in Arabic language for 118 candidates (GPMP: 3.64) *G2- Student performance in 2017 SPM shows a very good improvement by obtaining results GPS: 3.64 and is recognised as the best subject at the Sarawak state level.*

9. What is the rate of improvement in Arabic language achievement in the 2017 SPM compared to the previous years?

G1- The rate of improvement is very significant because in the previous years the GPMP of Arabic language for this school was the figure 4 or 5. This year we broke record after achieving the figure 3. *G2- The rate of improvement for the 2017 Arabic language results is 1.09 compared to the 2016 results whereby GPMP: 4.73.*

Based on the above answers, the improvement in Arabic language subject achievement in the 2017 SPM at SMKAMi is very encouraging. The rate of improvement was 1.09 in the year 2017 with Subject Grade Average (GPMP) of 3.64 compared to GPMP: 4.73 in the year 2016. With a 100% pass of 118 candidates in the Arabic language subject, SMKAMi is recognized as the best school for the Arabic language subject at the state level of Sarawak.

IMPACT OF TASRIF GAME BOARD APPLICATION PROGRAM

1. The level of student mastery in a subject may be tracked through a diagnostic test. As an example, the level of student mastery of Arabic language morphology is successfully tracked by the Arabic Morphology Diagnostic Test (UDMA).
2. A diagnostic test to detect aspects or topics which students fail to master satisfactorily needs to be done by the school or another study centre in order to help teachers to plan suitable teaching and learning methods and strategy in addition to giving more focus on the aspects and topics.
3. To give new ideas on developing teaching aids based on game boards to schools and Arabic language teachers. This game method is very suitable to be practised as one of the learning methods for the 21st Century.
4. The game method or gamification enables improvement *Sarf* competency among students if implemented in a scheduled manner and continuously whether in the class or outside of teaching and learning time.

CONCLUSION

Research findings show that gamification can help to solve student weakness in *Nahu* and *Sarf* especially in remembering verb and noun patterns and their derivatives, in addition to increasing student engagement, creating fun and fostering positive attitude and healthy competition through game activities. The implications of this research are to pave the way for studies on suitable gamification designs to strengthen *Sarf* with a high prospect of application in Arabic language education. Gamification applications can become a teaching activity and practical and interactive teaching aid compatible with the Malaysian Ministry of Education's aspiration toward creating a 21st Century learning environment through a new approach and strategy so that each student has the ability to possess and master the required skills in the 21st Century.

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