

# Teacher's Opinion Towards Constructive Thinking for Teaching Essay Writing Based on Interactive Multimedia Integration

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## Abstract

Teaching essay writing scenario in this technological era is also aimed on interactive multimedia integration; text and graphics that revolve around inquiry and constructive thinking. In thinking process itself, inquiries are considered fundamental to teachers in teaching essay writing. Hence, this research is conducted to study teacher's opinion on constructive thinking process that based on interactive multimedia integration; text and graphics. Quantitative research design that based survey method is used in accordance with the questionnaire. The samples are 33 Malay Language teachers in Bangsar Zone, Federal Territory Kuala Lumpur. The finding shows that there is a significant correlation between inquiry and constructive thinking,  $r = 2.01$ , the level of significant is  $< 0.05$ . It is advised that all Malay language teachers focus on the aspect inquiry and constructive thinking for teaching essay writing. The implication of this study is focused on impressive teaching sources. The interactive multimedia integration that is being studied should also focus on other integrated elements; graphic, audio, animation and video.

**Keywords:** inquiry, constructive thinking, essay writing, interactive multimedia integration

## 1. Introduction

The pedagogy about thinking skills in current education needs to be diversified to ensure student can acquire creative and concrete knowledge. This means that in teaching language knowledge, teacher should be advised in the manner of taxonomic stages. In this new era of teaching, various approaches should be adapted to specific lesson and must be aligned with information technology-based sources.

When it comes to language teaching, the approach adopted by any teacher to launch student thinking process towards constructive is complex and difficult. In this case, there are too many pedagogical elements that can be adapted for language teaching. Teaching sources that based on interactive multimedia integration are also widely available, especially in the age of advanced technology that is more focused on digital and virtual learning. Mohd. Elmagzoub and A. Babiker (2015) highlighted, generally in a lesson involving a high-level constructive thinking based on interactive multimedia integration should be studied from teacher's opinion.

### 1.1 Statement of Problem

Some researchers found a complex study on cognitive process. Adenan Ayob (2014) and Aloud Asnawi Muslem and Merza Abbas (2017) argue that teacher's opinion towards inquiry and constructive thinking that based on Internet vary and are very complex and have to be justified. It is really showed that Internet sources are often used as an interactive multimedia integration; text and graphic for problems solving in teaching.

There got study that dealt with correlation statistic regarding cognitive process. From Adenan Ayob (2014) and Aloud Asnawi Muslem and Merza Abbas (2017) studies also, obviously occurs a significant correlation between teacher's opinion towards inquiry and constructive thinking subscale that based on Internet for teaching reading. They added that the integration of text and graphic elements can function steadily for teachers to channel their focus in problem solving through certain topic.

The effect of cognitive process also provided more focus on some studies. Based on Adenan Ayob (2014) and Aloud Asnawi Muslem and Merza Abbas (2017) too, its impact on teaching has contributed to the adaptation of the cognitive process via Internet sources. Therefore, this study is tried to conduct and review teacher's opinion towards inquiry and constructive thinking subscale based on interactive multimedia integration; text and graphic for teaching essay writing.

### 1.2 Research Objective

The specific objectives of this study are formulated based on the above mentioned statement. The specific objective is to study:

- i. Inquiry and constructive thinking of secondary school Malay language teacher that based on interactive multimedia integration; texts and graphic in essay writing.
- ii. Correlation between inquiry and constructive thinking of the secondary school Malay language teacher that based on interactive multimedia integration; texts and graphic in essay writing.

### 1.3 Research Question

There are two research questions formulated in accordance with the above-mentioned objectives. The study questions are as follows:

- i. What is the mean score of the inquiry and constructive thinking of secondary school Malay language teacher that based on interactive multimedia integration; texts and graphic in essay writing?
- ii. Is there any significant correlation between the inquiry and constructive thinking of the secondary school Malay language teacher that based on interactive multimedia integration; texts and graphic in essay writing?

### 1.4 Limitation of the Study

This study limits on survey methods involving the sample of Malay Language teachers in Bangsar Zone, Federal Territory Kuala Lumpur. In this study, data were analyzed descriptively and inferentially by Pearson Correlation. Research also limits on inquiry and constructive thinking subscale that based on interactive multimedia integration; text and graphic sources. Questionnaires are used for data collection. The constructivism theory was also the main limitation of the study (Okon, 2016).

### 1.5 Significance of the Study

This study is significant to teachers to focus on the opinion of inquiry and constructive thinking. This is because in the process of constructive thinking, it is desirable to look at the teacher's opinion (Nxumalo & Naidoo 2018). The impact is to improve the teacher's performance and competence in channeling the science of writing via technological sources. The opinion of cognitive process by a teacher should also be aimed at facilitating student to think of writing quality essays, which specific and complex in content, descriptions, examples, processing and abrogation. From this study it can also facilitate the teacher's affairs to detect interactional elements in teaching essay writing.

## 2. Operational Definition

### 2.1 Inquiry

The inquiry focuses more on the exploration of new ideas. Idea exploration is tailored to the constructivism approach. For this study, the statement of inquiry is shown below:

*The main focus of constructivism is inquiry-based learning. Applying the inquiry helps students develop creative and critical thinking skills and gain knowledge and master the scientific skills. The inquiry concept covers all the process of obtaining answers or conclusions from the question, or from the problems posed. This will encourage the student's creative and critical thinking as well as acquiring the skills required for self-learning. Student will be actively involved in learning and will have the opportunity to develop knowledge and new concepts based on own experience. From constructivism, one will be able to actively build his own knowledge by comparing new information through his existing knowledge.*

(Source: Casas, 2006)

### 2.2 Constructive Thinking

The process of constructive thinking refers to high cognitive level. This is aligned to the following:

*In the process of building new knowledge, student will think to solve problems, generate ideas, and make wise decisions on various possibilities and challenges. For example, this can be achieved through inquiry and constructive thinking such as identifying problems, collecting information, processing data, interpreting and concluding.*

(Source: Huseyin Uzunboylu and Jameel Ahmad, 2012)

Constructive thinking also relates to the production of concepts and cognitive structures. For this study, it is operated in the form of scores. The following statements are also aligned with the Constructivism Learning Module presented by the Curriculum Development Division, Ministry of Education, Malaysia.

*Cognitive development is described as a conceptualization in thinking structures. The existing knowledge in this process is known as "accretion". The constructivism approach is very important in teaching process. Teachers and student are encouraged to develop their own concepts and relate learning with existing knowledge. In this case, student can improve their understanding of learning.*

(Source: Ministry of Education, Malaysia, 2001)

### 2.3 The Interactive Multimedia Integration

Interactive multimedia integration should be focused on exact angle on definitions. Multimedia means multiple media (Adenan Ayob, 2014). Mohd. Elmagzoub A. Babiker (2015). interprets interactive multimedia sources as an integral part of basic elements; text, graphics, audio and animation. Video is also said to be a special multimedia sources because it is ready for text, graphics, audio and animation elements (Adenan Ayob, 2014; Obiekwe 2018). Texts can be said phrases, clauses and sentences, besides engaging relationships in the context of cohesion (Adenan Ayob, 2014). Graphic is interpreted as illustrations (Adenan Ayob, 2014) and some scholars argue that graphics are images in the form of bitmaps and metafile (Tri Sedyani, Yufiarti & Eko Hadi, 2017; Obiero, 2018).

### 2.4 Essay Writing

In Malay Language Syllabus, writing skills are considered important, as well as some other skills. In the context of curriculum, writing skills involve several types of essays. Among them is the ability of students to generate thinking to multiply content, language and processing (Adenan Ayob, 2014). Most of the topics in test and examinations are more about a particular theme, especially those involving national issues. Hence, in multiplying essential contents, in addition to explaining facts, student needs to be taught with a variety of creative and innovative multimedia sources that based on computer (Tri Sedyani, Yufiarti & Eko Hadi, 2017; Ok, et.al 2018).

## 3. Literature Review

### 3.1 Teaching Based on Computer and Information Technology

In line with literature review, some researcher highlight teaching was meaningful when it is based on computer and information technology. Teaching that focused on inquiry and constructive thinking that based on computer and information technology revolves around generating ideas and images in minds represented by scheme (Tri Sedyani, Yufiarti & Eko Hadi, 2017). If new information is in line with the scheme, then the information is acceptable. On the other hand, if the information is inappropriate or rejected, the scheme should also be modified (Aloud Asnawi Muslem & Merza Abbas, 2017).

Wazeema and Kareema (2017) study shows that constructive thinking leads to new ideas. This is because generating is more important than just accepting. In the era of computer and information technology, skills in pedagogy; inquiry and constructive thinking is considered as self-built knowledge (Aloud Asnawi Muslem & Merza Abbas, 2017).

## 4. Methodology

### 4.1 Research Methods

This research is based on quantitative research design. Survey methods that based on interviews were used in this study. This method is selected because it corresponds to the structure of interviews that collects normal data distribution.

### 4.2 Sample and Location of Study

The sample for this study is comprised of 33 secondary school Malay teachers located in Bangsar Zone, Federal Territory Kuala Lumpur. The characteristics of the sample are in line with the equivalence of teaching experience, as well as the norms about the absorption of various technological sources in teaching. Samples are randomly selected. The location of the study was chosen because it involved the suitability of data characteristics in probability sampling.

### 4.3 Research Instrument

This research instrument is questionnaire. This instrument structure involves Part A (Respondent Demography). Part B is about inquiry subscale, while Part C is about constructive thinking subscale.

Part A involves gender and race. Part B which is Inquiry Subscale involves 15 items. Part C is Constructive Thinking Subscale which is also involves 15 items.

All items are formulated using positive Likert Scale. Scale is showed in the following table:

Scale	Description
5	Strongly Agree
4	Agree
3	Neutral
2	Not Agree
1	Strongly Not Agree

From the above table, "5 is Strongly Agree", "4 is Agree", "3 is Neutral", "2 is Disagree" and "1 is Strongly Disagree". The instrument of this study was modified from Clinch and Richards (2002).

4.4 Data Collection Procedures

The data collection procedure for this study was conducted in three stages. Three stages involved the briefing, distributing, and collecting data via questionnaire.

4.5 Data Analysis

The data for this study were analyzed descriptively and inferentially. Table 2 shows the data analysis.

Table 2. Data analysis

No.	Research Question	Analysis
i.	What is the mean score of the inquiry and constructive thinking of secondary school Malay language teacher that based on interactive multimedia integration; texts and graphic in essay writing?	Descriptive:  Mean dan Standard Deviation
ii.	Is there any significant correlation between the inquiry and constructive thinking of the secondary school Malay language teacher that based on interactive multimedia intehration; texts and graphic in essay writing?	Inferential:  Pearson Correlation

5. Findings

5.1 Respondent

Table 3 shows the respondents' demography. Breakdown in this table involves gender and race.

Table 3. Respondents' demography

Gender				%
	Malay	Chinese	Indian	
Male	10	3	2	50
Female	8	5	2	50

Table 3 shows Malay male teacher is 10, Chinese is 3 and India is 2, which is 50% of the total of respondents. Female teacher is 8, Chinese is 5 and Indian is 2. It is also 50% of the total respondents.

**Mean Score of Inquiry of Secondary School Malay Language Teacher that Based on Interactive MultimediaIntegration; texts and graphic in Essay Writing**

Table 4. Mean and standard deviation of inquiry

	Mean	SD
Inquiry	73.3	0.11

SD = Standard Deviation

Table 4 shows the mean and standard deviation of inquiry subscale. For this subscale, the mean is 73.3 (SP = 0.11).

### Mean Score of Constructive Thinking of Secondary School Malay Language Teacher that Based on Interactive Multimedia Integration; texts and graphic in Essay Writing

Table 5. Mean and standard deviation of constructive thinking

	Mean	SD
Constructive Thinking	74.1	0.10

SD = Standard Deviation

Table 5 shows mean and standard deviation of constructive thinking subscale. For this subscale, the mean is 74.1 (SP = 0.10).

### The Correlation between Inquiry and Constructive Thinking of the Secondary School Malay Language Teacher that Based on Interactive Multimedia Integration; texts and graphic in Essay Writing

Table 6. Correlation between inquiry and constructive thinking

	Mean	SD	r	Sig
Inquiry	73.3	0.11	2.01	0.02**
Constructive Thinking	74.1	0.10		

\*\*Significant Level < 0.05 SD = Standard Deviation

Table 6 shows the correlation between inquiry and constructive thinking subscale. In this study, there is a significant correlation between the two subscales ( $r = 2.01$ ,  $p < 0.05$ ).

## 6. Discussion

The findings show that there is a significant correlation between inquiry and constructive thinking. The findings were supported by Wazeema and Kareema (2017) that illustrate different thinking skills affect the significance of the correlation between inquiry and cognitive thinking.

Aloud Asnawi Muslem and Merza Abbas (2017) study showed that there is significant correlation between inquiry and constructive thinking that based on web environment. They conducted study on thinking process through divergent communication in teaching. From the description of his discussion, the teaching process is only suitable for generating language facts as opposed to other focuses on imposing communication or discussion in virtual classroom (Adenan Ayob, 2014).

Mohd. Elmagzoub A. Babiker (2015) also described that thinking process will only works well in problem solving activities or environment. In problem solving, meta-cognitive element is in line with teacher's efforts to integrate various interactive multimedia elements in language teaching. Their findings have also been strongly supported by Aloud Asnawi Muslem and Merza Abbas (2017) that characterize the dynamism of ideas in exploration activities are prioritized through online, digital and virtual environment.

## 7. Conclusion

From this study, the Malay Language teachers should explore inquiry and constructive thinking opinion through teaching that involves cognitive skills. The integration of interactive multimedia sources that is being studied also needs to focus on the different elements that are integrated equally in terms of text, graphics, audio, animation and video.

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