

Structured and Unstructured Patterns of Abstracts in The 7th Phayao Research Conference 2018

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Abstract

The present study aims to investigate the structured and unstructured abstracts and patterns of abstracts in the 7th Phayao Research Conference 2018. This survey uses a content analysis method. Data were collected through the study of 255 abstracts of research consisting of 97 poster presentation from disciplines of Health Science, Science and technology, and Social Sciences, 158 abstracts from oral presentation comprising of 3 disciplines including Health Science, Science and technology, and Social Sciences presented in the in 7th Phayao Research Conference 2018. Findings showed that their 255 pieces were unstructured abstracts. Regarding abstract pattern based on APA style and Kaetkham's pattern, 89 abstracts from social science disciplines consist of 4 elements; P- Purpose (s), M- Methodology, R – Results, C-conclusions (PMRC), 3, and 2 components. The pattern PMR is the most frequent pattern (75 occurrences or 84.26 %) whereas abstracts from Health Science, Science, and technology have 5 elements ; B - Background of knowledge , P- Purpose (s) , M- Methodology , R – Results , C-conclusions (BPMRC) followed by 4, 3, and 2 components respectively with 68 occurrences of PMR pattern (40.96 %), respectively.

Keyword: Pattern, Structured Abstract, Unstructured Abstract, Abstract Elements

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Introduction

At the end of the dissertation, research, thesis, project, independent study, there is a mandatory requirement to write the abstract, a summary of the work. The abstract refines the essence of the work out the research process. The abstract shows what study is designed to do about, the purpose, the method how to obtain data or information, how to analyze data, findings of the research report, and conclusion with the benefits of research to people or organizations. Cambridge Advanced Learner's Dictionary (2003, p.6) defines the word 'abstract' in this context as "a short form of a speech, article, book, etc., giving only the most important facts or ideas". As far as the significance of the abstract is concerned, the abstract is regarded as the first data that draw the reader' attention to the rest of the work. In this regard, Scott (2018) states "The Abstract page plays an important role in summarizing the overall purpose of your paper to help readers decide if your paper is worth reading". Wanitchdee (2010) states that the abstract is the first part that readers will read the article and its essence. It is also a starting point for readers to know if they want to study more about it or stop reading it. The essence of the abstract is to refine the content of the research in accordance with the research process in every step starting from the importance and background of the problem, research objectives, research methodology, population, research tools, data collection, data analysis, statistics used, research results including the conclusion. In other words, in the abstract, writing must be written according to the research process at all stages. According to Kham-on (2015), there are two types of abstracts; 1) Informative abstracts for study reports, or a summary the user needs sufficiently to avoid the need to read the original document, 2) Indicative of Descriptive Abstract, the most important facts in the document is written without reporting the findings, research or conclusion to the reader for the decision to read or study the original documents. Generally, this type of abstract is used to summarize the presentation or extensive attitudes such as humanities, social sciences, or reviews.

Abstracts may be categorized by the appearance of the structured abstract and unstructured abstract. Habibi et al., (2008) point out a structured abstract consists of separate different parts of the content, such as the objective(s) of the study, the

population, and the method of the study, the results, and the summary (See sample of structured abstract below) while the unstructured type is a traditional way showing in a form of paragraph writing with contents given in unsystematic style (See sample of unstructured abstract below). Based on the items in the structured abstracts, using them as a creative solution can help the effective and efficient development of the results of the study (Hahs-Vaughn & Onwuegbuzie, 2010).

Nowadays, structured abstracts are usually found in the science discipline whereas unstructured abstract is popular in the Humanities and Social sciences of which some authors often ignore critical information, an introduction that readers should read this section. Therefore, the writing of any work must have a clear picture of the work as the abstract is a summary of the structure (Banieghbal & Ramezani, 2011).

A sample of structured abstract

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Display Settings: Abstract

Clin Toxicol (Phila). 2014 Jun;52(5):525-30. doi: 10.3109/15563650.2014.913175. Epub 2014 May 5.

Evaluation of dexmedetomidine therapy for sedation in patients with toxicological events at an academic medical center.

Mohorn PL¹, Vakkalanka JE, Bushlon W, Hardison L, Woloszyn A, Holtsius C, Corbett SM.

Abstract

INTRODUCTION: Although clinical use of dexmedetomidine (DEX), an alpha2-adrenergic receptor agonist, has increased, its role in patients admitted to intensive care units secondary to toxicological sequelae has not been well established.

OBJECTIVES: The primary objective of this study was to describe clinical and adverse effects observed in poisoned patients receiving DEX for sedation.

METHODS: This was an observational case series with retrospective chart review of poisoned patients who received DEX for sedation at an academic medical center. The primary endpoint was incidence of adverse effects of DEX therapy including bradycardia, hypotension, seizures, and arrhythmias. For comparison, vital signs were collected hourly for the 5 h preceding the DEX therapy and every hour during DEX therapy until the therapy ended. Additional endpoints included therapy duration; time within target Richmond Agitation Sedation Score (RASS); and concomitant sedation, analgesia, and vasopressor requirements.

RESULTS: Twenty-two patients were included. Median initial and median DEX infusion rates were similar to the commonly used rates for sedation. Median heart rate was lower during the therapy (82 vs. 93 beats/minute, $p < 0.05$). Median systolic blood pressure before and during therapy was similar (111 vs. 109 mmHg, $p = 0.745$). Five patients experienced an adverse effect per study definitions during therapy. No additional adverse effects were noted. Median time within target RASS and duration of therapy was 6.5 and 44.5 h, respectively. Seventeen patients (77%) had concomitant use of other sedation and/or analgesia with four (23%) of these patients requiring additional agents after DEX initiation. Seven patients (32%) had concomitant vasopressor support with four (57%) of these patients requiring vasopressor support after DEX initiation.

CONCLUSION: Common adverse effects of DEX were noted in this study. The requirement for vasopressor support during therapy warrants further investigation into the safety of DEX in poisoned patients. Larger, comparative studies need to be performed before the use of DEX can be routinely recommended in poisoned patients.

PMID: 24792780 [PubMed - indexed for MEDLINE]

Source: Clin Toxicol (Phila). 2014 Jun;52(5):525-30. doi: 10.3109/15563650.2014.913175. Epub 2014 ,May 5.

According to Ketkum, (2013), elements of an abstract consists of five main components: namely; Introduction stating background of knowledge, the importance and origin of the problem, research objectives with around about 1-2 sentences, (2) methodology stating data collection, statistical analysis with one or two sentences in length (3) results / findings , telling the most important research results with about 1-3 sentences, (4) conclusion with about 1-2 sentences, and (5) Keywords being placed at the end of the abstract.

According to her studies, abstracts in research articles published in journals and proceedings of the conference do not have all 5 components due to space constraints and an increase of the space for the main contents is needed (Ketkham, 2556, p. 169).

According to APA manual, all the abstracts should have the five following components:

1. Problem/purpose/objective/research question/focus of study, 2. Sample/ population size/characteristics, 3. Method (e.g., data-gathering procedures, intervention, research design), 4. Findings, and 5. Conclusions/implications/recommendations (BPMFC).F stands for Finding.

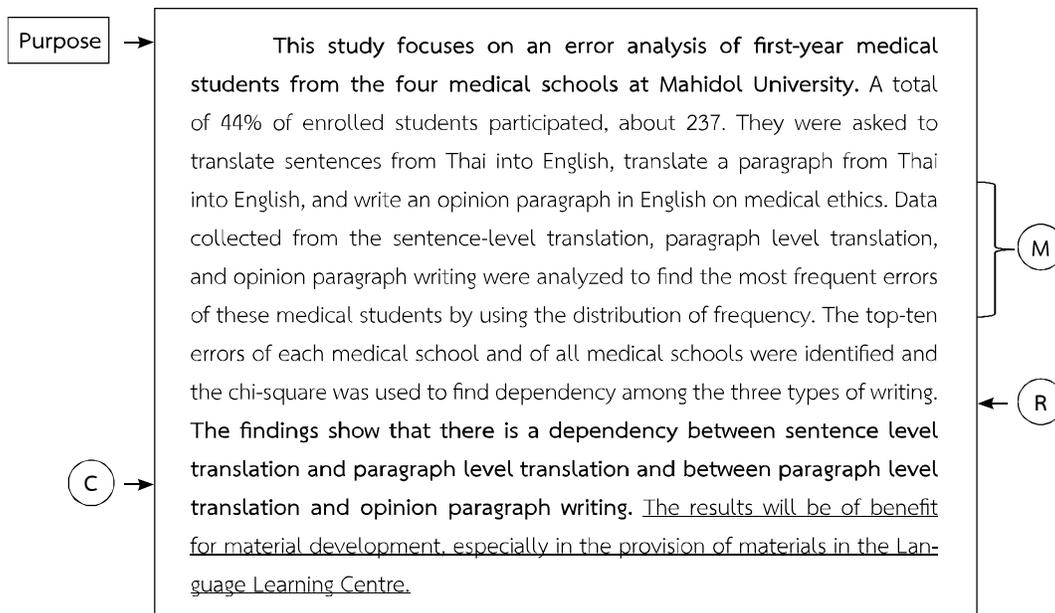
Patterns of an abstract categorized by Ketkham (2013, p. 176- 184) consisting of 8 patterns and each pattern has different components of elements as follows:

1. Pattern 1 BPMRC: B-Background of knowledge, P- Purpose (s), M- Methodology, R- Results, C-conclusions
2. Pattern 2 BPRC: B - Background of knowledge, P- Purpose (s), R – Results, C-Conclusions
3. Pattern 3 PMRC: P- Purpose (s), M- Methodology, R – Results, C-conclusions
4. Pattern 4 PMR: P- Purpose (s), M- Methodology, R – Results
5. Pattern 5 BPR: B - Background of knowledge, P- Purpose (s), R – Results
6. Pattern 6 MRC: M- Methodology, R – Results, C-conclusions
7. Pattern 7 RC: R- Results, C-conclusions
8. Pattern 8 BR: B - Background of knowledge R – Results

In each pattern, the language use is important as far as the use of tense is concerned. The language used in writing the research is concise focusing on only the important parts that need to be presented in 5 parts. The five important parts are related to the use of tense. The tense commonly used is the present simple tense,

which is the fact. The content related to the past is the research process that ends with the use of past simple tense. Content and information that has already occurred and continues to present use the present perfect tense. The sentence form has both active voice and passive voice, preposition, prepositional phrase, gerund, gerund phrase. Mount Royal University writes, “Writing Good Abstracts According to APA,” recommends using of the present simple tense while discussing the results and summarizing, using of the past simple tense for describing the methods or measurements used in the research. Future tense is not used (APA Publication, 2010). Additionally, using the active voice and past tense in the abstract is recommended, but the present tense may be used to describe conclusions and implications. Acronyms or abbreviated words should be defined in the abstract. In the same line, Wordvice.com (2018) states that present tense is used with common truth or fact and present tense is used with the subject of the sentence indicating research being presented. When mentioning observation based on past tense because it has already observed, the past tense is recommended here.

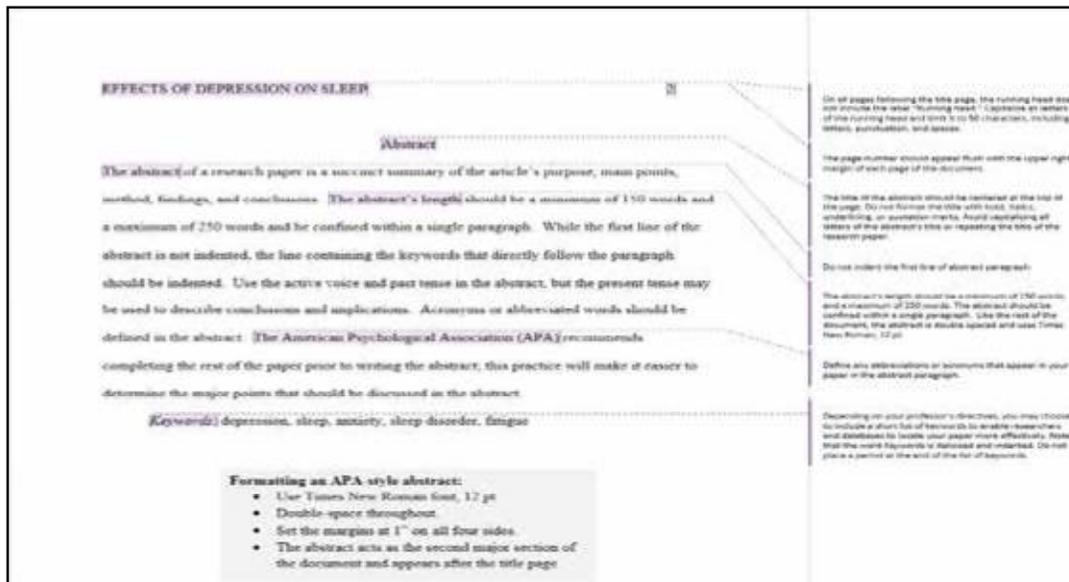
A sample of unstructured abstract pattern PMRC



Keywords: error analysis, medical student, sentence level, paragraph level, translation

Source: http://www.asian-efl-journal.com/June_07_as&sh.php

As aforementioned, the abstract is a concise, single-paragraph summary of the paper's purpose, main points, method, findings, and conclusions written after the rest of the paper has been finalized. However, authors of a number of abstracts in conferences, especially in Humanities and Social Sciences, although APA style is normally preferred, still produce a long paragraph, not single-paragraph. Maximum words required is 250 and 150 for minimum words. It is seen that a number of words in some abstracts in these three disciplines exceed the required number of words. According to the APA manual, authors of abstract should follow APA abstract format as given below:



Source: <https://writingcommons.org/abstract-template-apa>

Ketkhum (2013,pp.169-170) points out that in abstract writing, the most commonly tense used is present tense and past tense. It is based on modern style and traditional style. In the modern abstract, the use of tense depends on the content of the components of the abstract as follows.

B - Background of knowledge can be used using present simple tense, together with the present perfect tense, in order to demonstrate the current theoretical or historical relevance to the present.

P - Purpose (s): Purpose or the objective of the research can be used with present perfect tense.

M - Methodology: the most common tense research method used is past simple tense but may be used in conjunction with the present simple tense.

R - Results (findings): The results of the study are past simple tense, but may be combined with the present simple tense.

C - Conclusions Summary: The most commonly used tense is the present simple tense, which indicates the facts of the data. It may be used in combination with the present perfect tense if the need is to demonstrate a connection to the theory or research in the past that has an effect on the present.

Sriporn (2011) points out the tense used in abstract writing is divided into two types: modern and traditional. To write a new abstract or modern style, the present simple tense is used to write background knowledge and purpose. But if the emphasis is that the theoretical or historical research relevant to the present time, the present perfect tense can be used. In methodology and results, past simple tense with present simple tense is usually used. The concluding part can be presented with past simple tense. To write traditional abstracts or conventional styles, the use of past simple tense is required.

Wanitchdee (2010) mentions that the importance of writing an abstract is the use of correct verb tenses and also depends on requirements in the guidelines of the journal to be published. However, there are differences in each journal. Wordvice.com (2018) suggests appropriate tenses in abstract writing in the following ways:

“When writing an abstract for a research article, several tenses can be used. The tense you would use largely depends on the subject of your sentence. As a general rule: Any statements of general fact should be written using the present tense. Any discussion about prior research should be explained using the past tense.

If the subject of your sentence is your study or the article you are writing (e.g. “Our study demonstrates...,” or “Here, we show...”), then you should use the present tense. If you are stating a conclusion or an interpretation, use the present tense. If the subject of your sentence is an actual result or observation (e.g. “Mice in Group B developed...”), you would use the past tense”.

Khasseh (2013) investigates the quality of the structured versus unstructured abstracts in terms of content comprehensiveness and observing the items in the APA manual. Data were collected through a study of 245 abstracts from Journals in Iran. Of 245 abstracts, 49.4 percent were structured and 50.6 percent were unstructured. It was revealed that most of the Persian journals of LIS use structured abstracts, although the structures used were not the same. Based on the findings of the current study, it seems that a structured format increases the quality of abstracts.

This paper interests in a survey of structures and patterns of abstracts using a content analysis method to investigate structures and the quality of the structured and unstructured abstracts in terms of content comprehensiveness based on five items in APA manual or patterns of abstracts categorized by Kaetkham (2013). 255 abstracts in the 7th Phayao Research Conference 2018 are samples.

Research Objectives:

The present study is designed to investigate the structured and unstructured patterns of abstracts in the 7th Phayao Research Conference 2018.

Research Methodology:

Samples

Data were collected through the study of 255 abstracts of research consisting of 97 poster presentation from disciplines of Health Science, Science and technology, and Humanities and Social Sciences, 158 abstracts from oral presentation and poster presentation comprising of 3 disciplines including Health Science, Science and technology, and Social Sciences presented in the in 7th Phayao Research Conference 2018. (2018, pp. 2-432).

Data Collection

Procedures of the study were as follows:

- 1) Categorizing 255 abstracts according to 3 main disciplines, Health Science, Science and technology, and Humanities and Social Sciences.
- 2) Classifying 255 abstracts in accordance with types, structured and unstructured abstract and
- 3) Sorting 255 abstracts according to patterns suggested by Kaetkham (2013).

Data Analysis

- 1) Content analysis was carried out to find structured and unstructured abstracts from 255 abstracts.
- 2) Content analysis was conducted to find patterns (components) of abstracts based on five items in APA manual or patterns of abstracts suggested by Kaetkham (2013).
- 3) Tabulating results of the study

Research Results:

Findings were as follows:

- 1) 255 pieces of abstracts are unstructured ones (100%) as shown in Table 1.

Table 1. Total Abstracts of papers based on their type from Humanities and Social Sciences

Abstract	Frequency	Percent 100 (%)
Structured	0	0
Unstructured	255	100
Total	255	100

Based on table 1, all 255 abstracts from three disciplines were categorized as unstructured as they do not indicate each components separately (see sample of structured abstract above).

Table 2. The frequency of abstracts by component (n=89) from Humanities and Social Sciences

Components of abstract	Frequency	Percent 100 (%)
B-P-M-R	3	3.37
B-M-R	3	3.37
P-M-R	75	84.26
B-R	7	7.86
M-R	1	1.12
Total	89	100 %

2) Regarding abstract patterns or components, 89 abstracts from Humanities and Social Science disciplines consist of 4 elements, 3 elements, 2 elements as stated in Table 2.

From the table 2, 85 abstracts from Humanities and Social sciences consist of 4, 3, and 2 elements or components, and background and conclusion of the study were the most frequent omission from abstracts followed by methodology. Only 3 abstracts have 4 components. The P-M-R pattern is the most frequently used with 75 occurrences followed by B-M-R pattern (See a sample of P-M-R abstract with a pseudonym below).

Abstract

This research aims to develop the creative thinking ability by using Problem-Based Learning for the 21st Century Student Teacher. The sampling comprised of the 3rd year student teachers from the School of Education, the University of Phayao who were studying in the course 161322 Learning Management and Design 2 in the 2nd semester of the academic year 2016. The research instrument consisted of the lesson plans of creative thinking by using Problem-Based Learning for the 21st Century student teachers. One group pretest-posttest design was conducted in this research. The data were analyzed by mean, standard deviation, percentage, and paired sample t-test. The research result revealed that the creative thinking ability of student teachers by using Problem-Based Learning for the 21st Century; in which the application of situational analysis problem solving was used while studying, after learning (27.88) had higher achievement than before learning (20.60) and revealed of significance at .05. The study of satisfaction of student teachers towards the lesson plans of creative thinking ability by using Problem-Based Learning for the 21st Century also revealed at the highest level ($x=4.46, S>D>+1.35$)

Keywords: Creative thinking ability, Problem-Based Learning, Student teacher

Source: Kongtiva Rungsun. (2018). The Development of creative thinking ability by using Problem-Based Learning for the 21st Century Student Teacher. Abstract in 7th Phayao Conference. Kaosip Press, p.399.

3) Health Science, Science, and technology presents 166 abstract with 5, 4, 3, and 2 elements as stated in Table 3.

Table 3: Frequency of abstracts by component (n=166) from Health Science, Science, and Technology

Components of abstract	Frequency	Percent 100 (%)
B-P-M-R-C	5	3.02
B-P-M-R	30	18.07
P-M-R-C	29	17.46
B-M-R	16	9.63
P-M-R	68	40.96
M-R-C	2	1.20
B-P-R	1	0.60
B-R	3	1.80
M-R	12	7.22
Total	166	100 %

From table 3, abstracts form Health Science, Science and Technology discipline consist of 5, 4, 3 and 2 elements. The most frequent used patterns is P-M-R with 68 occurrences followed by the pattern P-P-M-R, P-M-R-C, B-M-R, and M-R respectively. Comprehensiveness of the contents of abstract in Health Science, Science and Technology is found with occurrences of 5 components of abstract. Besides, conclusion is added whereas this component is not preferred in the abstract of Humanities and Social Sciences in this conference. In terms of comprehensiveness of the abstract contents, sample of B-P-M-R-C is given with a pseudonym below.

Abstract

Serum amylase is a biochemical marker used for diagnosing pancreatic diseases. The purposes of this study were to isolate amylase enzyme from porcine pancreas and evaluate the enzyme stability in two different storage conditions 4 and -20 Celsius. Total protein in crude extract was determined using the Biuret method. Amylase activity was measured using Amyloclastic-starch-iodine method. The specific activity of amylase in crude extract was 929,250 units per gram of protein. The crude extract was diluted with the proportion of 1:4000 to obtain the amylase activity similar to commercial abnormal control material. The results showed that the amylase activity in crude extract storage at 4 Celsius was more stable than -20 Celsius ($p < 0.05$). Stabilizers should be necessarily added for improvement of enzyme stability.

Keywords: Amylase, Control material, porcine pancreas, Stability

Source: Ruangdao Yotdao and Pakwisri Theppon.(2018). Abstract in Abstract 7th Phayao Conference. Kaosip Press, p.22.

Research Discussions:

The results of the present study indicate that an abstract, either structured or unstructured, should well define the body of the paper. From findings, 255 pieces belonging to the disciplines of Humanities and Social Sciences, Health Science, Science, and Technology are unstructured ones (100%). In fact, structured abstracts are clear and systematic in terms of presenting organized information of the paper body, but in unstructured abstracts, as found in the target samplings of the study were preferred by authors of the abstracts. Several research findings revealed the effectiveness and comprehensiveness of the contents of a structured abstract and it is better than the unstructured abstracts. This corresponds with the study conducted by Banieqbal et al. (2011) confirming their findings of the content analysis showing the quality of the structured abstracts were better than unstructured ones. Thus, using the structured abstract results in effective presentation of the study to other researchers and increases the citation capability. Hartley and Betts (2007) in one of the studies found that the structured abstracts had more details compared to the unstructured abstracts and reading process and finding the data in the abstract are facilitated. In the same line, Budgen, Burn and Kitchenham (2011) conducted a comparative study on structured and unstructured abstracts and findings showed that structured abstracts were

more comprehensive and clear than the unstructured one. In addition, results revealed that using a structured format during abstracting can help the less-experienced researchers.

Regarding abstract patterns or components, Humanities and Social Sciences present the abstract with 4 elements, 3 elements, and 2 elements. Most of them (89) omitted the background and preferred to show the objectives of the study. Concluding part is not presented as well. It seems Humanities and Social Sciences discipline pay less attention to the background and concluding part. In contrast, comprehensiveness of the contents of abstract in Health Science, Science, and Technology discipline is found with occurrences of 5 components of abstract. Besides, the conclusion is added. It seems that both disciplines present high quality of abstract in terms of comprehensiveness of the contents of the abstract although abstracts are unstructured. However, there are some abstracts do not follow all five components, but present only 2, 3, 4 patterns.

By The results of the study also showed that authors of three disciplines preferred modern styles in which tenses are mixed in different components 100.40%) With regard to patterns of abstract, abstract from Humanities and Social Science disciplines, 85 pieces follow 4 PMRC elements ; P- Purpose (s), M- Methodology, R – Results, C-conclusions. Some abstracts are not in the pattern, but only the contents of the study were described. Language use in some abstracts was not well approved in terms of grammatical use.

Results of the survey study can be concluded that unstructured abstract and modern style of the abstract is preferred by authors of abstracts. Language use is not strict. However, the survey study does not pay attention to the investigation of language use. Based on APA manual on abstract writing regarding a number of words used in the abstract, the abstract's length should be a minimum of 150 words and a maximum of 250 words; it should be confined within a single paragraph. This requirement is not fulfilled in some samples abstracts as some of them produce two or three paragraphs.

Recommendations:

From research findings, it is seen that the abstract plays a great role in the research work as far as the essence of the work is concerned. With the support from other research results, this research suggests that the abstract writing should have at least 4-5 elements for the quality of the abstract with its comprehensiveness. For further research on the abstract, a comprehensive study on abstract writing conventions, moves, and collocations both in Humanities and Social Science and Health Science, Science and technology should be conducted.

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