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Analysing ESL Persuasive Essay Writing Using Toulmin's Model of Argument

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ABSTRACT

In Malaysian universities, writing in English is taught in several settings: writing for general purposes, writing for academic purposes and writing for specific purposes. Writing in these settings allows learners to learn to write in different genres, such as research, reports, and persuasive writing genres. One of the standard genres is persuasive because it is used to convince readers of what is researched or reported. To be competent in persuading or arguing, using the appropriate rhetorical and linguistic structure is crucial. The appropriate rhetorical and linguistic elements will help to achieve the writers' objective and intention. This paper will examine rhetorical and linguistic structures used by the ESL writers in producing a persuasive essay. Fifteen persuasive essays written by tertiary learners were analysed in this study. The researchers employed Stephen Toulmin's Model of argument (1969) as the tool of analysis in identifying the rhetorical and linguistic structures realised in the students' essays. The analysis outcome indicates that the 15 ESL writers under investigation comply with Toulmin's model except for the rebuttal stage, which was not visible in the essays. The findings will explain the common and uncommon rhetorical and linguistic elements used based on the model that Toulmin has developed. The implications from the findings are twofold; first, academic writing teachers can focus on the necessary elements to produce competent persuasive ESL writers, and secondly, textbook developers may produce their books based on the findings drawn from this study.

Keyword: Toulmin's Model, ESL Writers, Persuasive Essay

I. Introduction

Leki (2007) has defined writing as 'the actual texts produced that are evaluated as evidence of growth and learning' (p. 234). In Malaysian universities, academic writing is a requirement to attain certificates and students are required to complete the writing task according to the instructor's instructions. Academic writing is also used as an evaluation tool for offering a scholarship in many Malaysian universities as it shows a high level of a learner's capability to strive for their work and responsibility.

In the academic setting, writing is an important skill to master. There are many different genres of writing, such as descriptive, comparative and persuasive. Different writing genres require different writing styles with different rhetorical structures and different linguistic elements, requiring discourse competence in writing. Developing discourse competence in tertiary academic writing is inherently complicated, particularly among ESL learners who are also the novice writers of extended written discourse (Januin and Stephen, 2015).

One of the essential skills needed in academic studies is argumentation (Crammond, 1998; Nemeth and Kormos, 2001). The Malaysian education system is presently focusing on producing higher-order thinking skills (National Education Blueprint 2013-2025). Greenstein (2012) outlined that education should fulfil the 21st-century skill needed by learners: the 4Cs; critical thinking, communication, collaboration, and creativity.

One crucial aspect of communication at the tertiary level is argumentation because it is a way to present learners' and educators' views, thinking, and ideas (Crammond, 1998). Persuasive and well-structured argumentation may also indicate a high level of learner autonomy in writing (Januin, 2007). There is a need to critique and defend in an argument, which is a part of the higher-order thinking skills. Jamaludin et al. (2007) concluded from their study on 45 Singapore pre-university students that knowing how to present a good argument plays an essential role in assisting students in acquiring academic discourse. This study supports what Shaughnessy (1977) and Varghese and Abraham

(1998) mentioned about the importance of writing arguments using the appropriate forms.

Analysing argumentative structures helps educators prepare the appropriate instructional materials and carry out practical classroom activities. Many studies have been conducted concerning instructional strategies to write argumentative essays (Varghese and Abraham 1998)

Given the Malaysian education system and the role argument plays in the academic circle, this study examines ESL undergraduate argumentative essay rhetorical and linguistic features in a Malaysian public university. It describes the learners' writing using rhetorical and linguistic features, as highlighted in the Argumentative Model by Stephen Toulmin (1969).

1.1 Persuasive and Argumentative Writing and Essay

An argumentative essay is written with the "main purpose to persuade readers to accept the writer's belief or his opinion" (Choi, 1988, p. 18). In this study, persuasive and argumentative writing or essay refers to the same writing or essay genre and is used interchangeably. This is because to persuade a reader; a writer must present a strong argument of the issue or topic. Imtiaz and Mahmood (2014) describe writing an argumentative essay as the "art of persuasion with responsibility" (p. 96).

Crowhurst (1991) and Imtiaz and Mahmood (2014) are a few researchers who have identified that learners have problems in argumentative writing. They have concluded that organization and genre knowledge are the few reasons for the writing problems. There are two well-known frameworks on the argumentative genre, such as Toulmin model (1969) and Hyland model (1990). However,

this study will only use the Toulmin model (1969) to examine a group of ESL argumentative essays.

1.2 Toulmin Model of Argument

Stephen Toulmin, a British philosopher, proposed an argument structure in 1958, which is now known as Toulmin model of argument. Toulmin's original work focused on law discourse but has now been used widely in other discourse, including written discourse.

Toulmin model has been used in many writing modules. The use of the model is evident in writing textbooks such as Troyka (2004) and Maimon et al. (2007). The elements highlighted by Toulmin are used in textbooks, but certain elements have been renamed, such as claim is also called conclusion, assertion or opinion (Qin and Karabacak, 2010). The model has also been used in conducting research related to the argumentative genre. It has been used by researchers such as Crammond (1998), Nussbaum and Kardash (2005).

Toulmin's model of argument (1969) highlights six elements to forming an argument, namely, Grounds or Data, Warrant, Backing, Qualifier, Claim and Rebuttal. At its most basic, Toulmin's model illustrates how the writer arrives at a claim through drawing on a set of established data which are moved through a warrant. The warrant then becomes the foundation of the claim, serving to support and strengthen it. More often than not, the warrant requires additional backing. The backing adds to the validity of the warrant and thus to the validity of the claim. Figure 1 below illustrates how the different elements of argumentation in the model relate to each other.

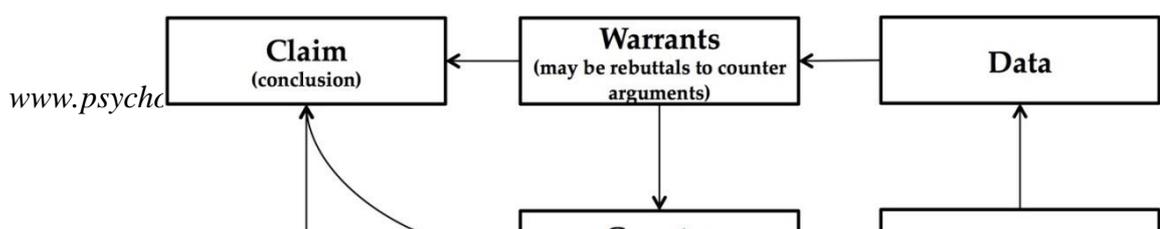


Figure 1: The elements of Toulmin Argument Model

While the data, warrant and claim are essential in all arguments, the rebuttal and qualifier are brought in where relevant to consider exceptions to the claim or warrant as the case may be and indicate

the claim's strength. Table 1 summarises the six elements from the model and how they are related to each other.

- | |
|--|
| <ol style="list-style-type: none"> 1) Makes a <i>claim</i> - the conclusion to be argued for and data denotes the facts or the premises drawn upon as the basis for the claim
 - Qualifier - modals, such as probably, possibly, perhaps. By qualifying or narrowing the claim, a qualifier serves as an indication that the aim not absolute or universal 2) Gives <i>grounds/data</i> to support that claim – support the claim in the form of experience, facts, statistics or occurrences.
 - Backing of facts, authorities, or explanations which are used to strengthen or support the warrant 3) Backs the grounds with a <i>warrant</i> - serves as the bridge to justify how the claim is derived from the grounds/data.
 - Rebuttal or counter argument that specifies the conditions which might defeat the major claim |
|--|

Table 1: Description of Toulmin’s six elements.

2. Literature Review

The Toulmin model (both the original and modified) has been a distinct and clearly defined argument structure model that receives attention among its proponents. A growing number of researchers has comprehensively utilised Toulmin's Model as an analytical framework in their respective fields.

In the field of Artificial Intelligence (AI), de Oliveira Gabriel, Panisson, Bordini, Adamatti, & Billa (2020) proposes an argumentation-based inference mechanism for the following mental

stances *Beliefs, Desires* and *Intention* (BDI) agents utilising Toulmin's model of argumentation which comprises five parts: data, warrant, claim, qualifier, and rebuttal. Through some case studies, the application of Toulmin's model in the argumentation-based inference, such as in BDI, appears to yield encouraging findings: it breaks down an argument into constituents, detailing the reasoning and thereby facilitating its explanation. In other words, the inference mechanism based on Toulmin's Model corroborates the inference of new beliefs based on the available evidence within BDI

agents programmed in an agent-directed programming language.

Also, Toulmin's Model receives considerable attention, mainly when it is employed in the area of criticality or critical thinking. Critical thinking is an essential element of scientific inquiry and reasoning which is also a tool to assist students to establish and fine-tune scientific knowledge and should be implemented in scientific argumentation in science classrooms. In the field of science education, for example, the Toulmin's Model has been employed to elucidate scientific argumentation as a skill to promote critical thinking among students in science subjects (see Böttcher & Meisert, 2011; Nussbaum, 2011; Erduran & Jiménez-Aleixandre, 2012, Hong & Abdul Talib, 2018).

Toulmin's model has also acquired a significant consideration in the field of pedagogic writing. Research on Toulmin's Model in the teaching and learning of writing has generally concentrated on

- i) a model for analysis in argumentative writing in L1 contexts (see Connor, 1990, Knudson, 1992, Crammond, 1998, Chambliss & Murphy, 2002, Nussbaum and Kardash, 2005, Uccelli, Dobbs & Scott, 2012),
- ii) an analytical framework in L2 writing settings (see Qin & Karabacak, 2010, Huh & Lee, 2014, Imtiaz & Mahmood, 2014, Liu & Wan, 2020),
- iii) an instructional approach to teach argumentative writing in both L1 and L2 contexts (see Karbach, 1987, Varghese and Abraham, 1998, Yeh, 1998, Qin, 2013, Zainuddin & Rafaek-Galea, 2016),
- iv) a framework for contrastive analytical tool between L1 and L2 students' writing (see Hamam, 2020, Uysal, 2012, Khodabandeh, 2014).

Closer to home context, although infrequently, the Toulmin's Model has been utilised as a tool for teaching writing to L2 learners in Malaysia. One of the studies is by Rafik-Galea, Zainuddin, & Galea

(2008), which brought to light Toulmin's Model's employment to scaffold students' argumentative writing and criticality. The study was conducted among 21 seventeen-year-old students of a semi-rural secondary school from lower-middle-income families in Malaysia through pre-and post-test essays. The study indicates an overall improvement in both students' argumentative writing and critical thinking skills. With the Toulmin's model, the mean scores between the pre-test and post-test results also demonstrated a substantial positive difference; the subjects were able to better analyse their essays and, therefore, improved their writing quality for each element. This improvement has also indicated the amelioration in the subjects' critical thinking skills. Hence, the study concluded that with Toulmin's Model as a scaffolding tool for writing, students could enhance their critical thinking skills and writing for persuasive purposes.

Another study by Zainuddin & Rafik-Galea (2016) highlighted the Toulmin's Model as a potent model to improve L2 students' writing skills. The study was conducted among twenty-one year five high-school students at a rural school. The study attempted to address the following two research questions: 1) To what extent does training in the understanding of the Toulmin elements help in the development of students' critical thinking when completing argumentative writing?, and 2) How does the use of Toulmin model influence students' organisation of ideas?. The study presented both quantitative and qualitative data in responding to the two research questions, respectively. Both the quantitative and qualitative data yielded significant and positive results between the pre-and post-tests in terms of a reinforced use of individual elements of the argument indicating the students' improved analysis of their essays based on the model which therefore improved the quality of each element of the argument. The results have also suggested the subjects' improved ability to write arguments and to think critically.

Another critical study by Abdul Aziz & Ahmad (2017), in a Malaysian setting, examined the ways L2 learners argue in their writing. The aims of this study are threefold: i) determine the distinctive characteristics of persuasive essays commonly utilised by Malaysian students, ii) examine the problems students encounter while developing

their arguments, and iii) to propose strategies that can enhance students' persuasive writing skills.

The data of the study were drawn from seventy-nine essays crafted by secondary school L2 learners. The essays were analysed through the lens of the Toulmin's Model as an attempt to identify the persuasive elements (claim, grounds, warrant, backing, rebuttal and qualifiers) that the learners have utilised in their writing. The findings suggest that the learners utilised the essential persuasive elements such as claim, grounds and warrant. Nonetheless, the learners seemed to display inadequacy in employing persuasive elements namely the qualifier, rebuttal and backing, suggesting that learners need to be equipped with the qualifying, rebutting and backing strategies while crafting their persuasive essays.

The review of past studies at the international level provides insights that Toulmin's model has been employed in ESL settings and across disciplines. This phenomenon suggests the flexibility and feasibility of the model existing in multidisciplinary environments. The model has also exhibited its worth in language learning, particularly in argumentative and persuasive writing.

Closer to home context, the review of the three past studies in the Malaysian setting has focused on high school learners, and it indicates the positive prospect of interweaving the Toulmin's model in the teaching and learning of writing for general purposes even among low proficient learners of English. This paper aims to analyse tertiary learners' essay writing in Sabah through the Toulmin's model lens. To add the significance of this study, we aim at examining the employment of the Toulmin's model as the analytical tool in an academic writing module.

3.1 Methodology

3.1 Participants

The participants for this study were fifteen ESL writers who attended an English writing class offered in a public university in East Malaysia. They were students in their second year of undergraduate studies. There were ten female and

five male writers, which consist of Malay (6), Chinese (3), Kadazan (3), and Bajau (2) races. These students are categorised as low proficiency English users; four students scored band 1, and eleven scored band 2 in Malaysian University English Test (hereafter MUET). MUET is an English test used for entrance into Malaysian universities. Students sitting for MUET are tested in four components: Listening (45 marks), Speaking (45 marks), Reading (120 marks), and Writing (90 marks). The total marks are 300, and these marks are categorised into six (6) bands, with six being the highest and one the lowest.

The participants enrolled in English academic writing module taught by the same instructor. The contact hours were once a week for 3 hours. The academic writing module offered by this public university, "... aims to equip students with the advanced skills needed for academic reading and writing. A variety of texts from various disciplines will have been used as materials in teaching this module. Course lecturers teach the students to use useful strategies when reading academic texts related to their main course study.

Regarding academic writing strategies, students learn how to introduce essays in a thought-provoking manner, form and arrange ideas sequentially, develop and support their own opinions, and reiterate the main points concisely when concluding. In short, students will learn to be effective academic writers. Students will also be taught to present their ideas to an audience." (UB00402 Course Synopsis, Sem 2 2017/2018). In this module, there five academic genres that students need to learn: problem-solving, cause-effect, persuasive, exploratory, and compare contrast.

Before the writing module, these students had already sat for two other English modules: Grammar in Semester 1 and Oral Communication in Semester 2. Thus, when they sit for the writing module, the focus is on writing in the five academic genres, and grammar is taught incidentally.

3.2 Setting and Procedure

The participants were taught five genres throughout the 14 weeks of writing module classes. The participants learned about each genre for two weeks, and the remaining four weeks were employed to administer tests, quizzes, and presentations. One of the genres highlighted in the module was persuasive writing, where participants were exposed to persuasive writing samples, focusing on the rhetorical and linguistic element that makes a good piece of a persuasive essay. Participants then had to produce a piece of persuasive writing based on their own chosen topic. The participants had to produce an outline or draft of their topic, title, points/data. When the instructor approved the outline or draft, the participants proceeded to write their full essay.

3.3 Data Analysis

Toulmin's (1969) model of argumentation is encouraged not only as a model for constructing credible arguments within specific disciplines but also as a tool for their analysis. While his model applies primarily to legal arguments, convincing cases have been made for its applicability to other disciplines and genres such as Mitchell (1997), who used the model in his study on pedagogical processes, and Qin & Karabacak (2010), who employed the model to analyse ESL undergraduates' writing in China.

The data gained for this study are from the participants' final essays. We analysed the essays by identifying the six elements stated in Toulmin's argument model (1969). Toulmin has outlined a few questions to check for clarity and efficacy of an argument. According to Karbach (1987), these questions can be used to analyse arguments. Table 2 is a list of questions that can be used as a guide.

<i>Argumentative Elements</i>	<i>Questions</i>
1) Claim	Is the claim clearly understood? From what stand point is the claim addressed – moral, religious, financial etc.?
2) Rebuttal	Does the wording of the claim allow for these exceptions?
3) Backing	Is the warrant solidly backed for supporting the grounds?
4) Ground/Data	Are the grounds/data sufficient and relevant?

Table 2: Questions to guide identification and justification of elements

Thus, we used these questions to guide us in determining the appropriate elements in the participants' writing. The questions also helped justify why the sentence or phrase was considered as the said element.

This study's findings were written descriptively with some statistical data highlighting certain rhetorical and linguistic elements. The findings also included some statistical figures quantifying the data essential features, such as counting the frequencies and ranges, identifying the mean, mode, and median of the data. The scores

strengthened the data by highlighting the frequently used structures and markers.

4. Findings

We examined fifteen essays written by students who attended the English language module class. The essays were part of their in-class activity. The students were required to write a persuasive/argumentative essay stating and defending their stand on the essays' issue. The themes that the students selected are shown in Table 3. Out of the fifteen essays, six themes are on technology, four on business and marketing, and five on psychology.

Respondent	Theme	Issue
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R1	Technology	Bad and good of technology
R2	Psychology	First impression is important
R3	Psychology	Why do we need to help people
R4	Marketing	Advertisement is bad
R5	Psychology	Being a successful person
R6	Marketing	Effects of advertisement on business
R7	Technology	Advantages of Internet
R8	Technology	Impact of smart phone
R9	Psychology	Taking risk
R10	Technology	The importance of technology
R11	Marketing	Advantages of advertisement
R12	Technology	Benefits of technology
R13	Psychology	The effects of internet relationship
R14	Business	Tourism and environment
R15	Technology	Effects of internet

Table 3: Essay topics

To answer the research question concerning which

Toulmin elements occurred in the participants' argumentative paper, we tabulated the Toulmin's elements according to their categorisation in percentile figures, as shown in Table 4.

Table 4:

	Toulmin’s Elements	Findings
S1	Claim (the conclusion to be argued for and data denotes the facts or the premises drawn upon as the basis for the claim)	- Found in introduction as thesis statement - 12 or 80% out of 15 participants employed ‘Claim’
S2	Grounds/Data (support the claim in the form of experience, facts, statistics or occurrences)	- Use of facts and experience most common - All 15 or 100% participants employed ‘Ground/Data’
S3	Warrant (serves as the bridge to justify how the claim is derived from the grounds/data)	- Written in parts and isolation - 12 or 80% out of 15 students employed ‘Warrant’
M1	Backing (to facts, authorities, or explanations used to strengthen or support the warrant)	- Use of examples and facts without citation/authorities - All 15 or 100% participants employed ‘Backing’
M2	Rebuttal (specifies the conditions which might defeat the major claim)	- Almost not visible. Written one sided - 14 or 94% out of 15 participants employed ‘Rebuttal’
M3	Qualifier (modals, such as probably, possibly, perhaps etc. By qualifying or narrowing the claim, a qualifier serves as an indication that the claim is not absolute or universal)	- Used fairly widely - All 15 or 100% participants used ‘Qualifier’

Summary of findings

To identify the elements proposed by Toulmin, we observed the linguistic features and discourse

markers that occurred in the fifteen essays. The linguistic featured and discourse markers are indicators of each Toulmin elements. Table 5 identifies the linguistic features and discourse markers exhibited in the fifteen essays.

	Linguistic features and discourse markers	Findings	Extract from sample
S1	Phrases- In my	- Most common: In	<i>In my opinion, there are both positive</i>

Claim	opinion - As far as I am concerned...	my opinion (13/15 ss)	<i>impacts and negative impacts by the way how we use our smartphone (R8:Para1:Line3)</i> <i>In my opinion, modern technology helps people lifestyle to be more enjoyable and interesting (R12:Para1:Line5)</i>
S2 Grounds / Data	Auxiliary verbs – will, can, may, could, would...	- Used appropriately (15 / 15 ss)	<i>It will interferences their real life relationship with family and friends (R15:Para3:Line3)</i> <i>Business company will take advantage as an innovation to promote profit easily without having physical outlet (R12:Para3:Line 2)</i>
S3 Warrant	Firstly, to begin with, on one hand, in addition...	- Most common is numeral: firstly, lastly (15/15 ss)	<i>Firstly, advertisers creates a sense of urgency with limited time offer (R4:Para2:Line1)</i> <i>Lastly, people take risk because they want to achieve their goal. (R9:Para5:Line1)</i>
M1 Backing	Verbs – thinks, agree, support	- Common verb: think (15/15 ss)	<i>Many think technology enable creative people their own website and access unlimited information (R12:Para3:Line2)</i>
M2 Rebuttal	Verbs – thinks, agree, support	- Common verb: think and agree (1/15ss)	-
M3 Qualifier	Modals	- Common word: perhaps (15 / 15 ss)	<i>Internet is perhaps one of the best communication tools that allows internet users to communicate to anyone through access to the internet (R7: Para 2:Line 2)</i>

Table 5: Linguistic features and discourse markers

5. Discussion

As presented in the result section, the present findings prove that Toulmin's model does exist in ESL writing. The essential elements of Toulmin's model are: claim (S1), ground/data (S2) and warrant (S3). As summarised by Abdul Aziz and

Ahmad (2017), these elements are also thesis or statement being argued by Toulmin (2003).

Example 1: Excerpt from R8:Para1:Line3
In my opinion, there are both positive impacts and negative impacts by the way how we use our Smartphone.

The above excerpt is a claim as it is a claim or view that needs support and further explanation. A claim must be followed by grounds/data that explains and proves the claim or thesis.

Example 2: R8's excerpt: Para 2, Para 3, Para 4
Firstly, associated with Smartphone may impact the education (ground 1). Next, using Smartphone also may impact business (ground 2). Lastly, using Smartphone also may impact on social life (ground 3).

R8 used three supporting ideas or known as a ground to support how a Smartphone is used.

Example 3: R8's excerpt: Para 4.
Lastly, using Smartphone also may impact on social life (ground). The positive impact on social life is helps to stay integrated with society. For example, Smartphone provides application such as GPS which allow people easier to reach any destination. (warrant).

Examples 1, 2 and 3 demonstrate that a warrant functions as a justification for the ground to be linked to the claim. Toulmin mentioned that a logical and robust warrant helps validate the argument and thus persuade the reader to agree with the claim or thesis.

Besides the three main elements in the claim, ground and warrant, additional elements, such as backing (M1), rebuttal (M2) and qualifiers (M3) are employed to convince the reader of the argument further and persuade the reader to believe.

Example 4: R8's excerpt: Para 3
On the other hand, the negative impact on business is using Smartphone may interfere with the performance of workers (warrant). For example, workers don't pay attention during the meeting and keep doing something else and not listening (warrant). This can interfere with the company performance (backing).

Example 4 shows how the backing helps provide supports to the warrant by giving additional information to support the warrant.

Example 5: R8's excerpt: Para 3
The positive impact on business is perhaps (qualifier) smartphones can (qualifier) help many companies to gain competitive advantages.

Qualifiers are modals which are used to narrow a claim and also to make a claim less absolute or universal, which may lead to overclaiming.

A rebuttal is not found in all 15 samples. The absence may be because Toulmin has categorised this element as optional. In their paper, Abdul Aziz & Ahmad (2017) highlighted that "... this primary set of persuasive elements is required to form the foundation for an argument. On the other hand, the secondary set of persuasive elements is optional and can be used by the writers if they intend to strengthen or modify their argument." (p. 31)

The findings indicate that students can write an argumentative essay but utilised limited use of the primary features outlined by Toulmin. The insubstantial use of the Toulmin's primary features is evident as the students used restricted phrases or words demonstrating the elements of backing, rebuttal and qualifiers are very limited in terms of the phrases/words they use.

As mentioned by researchers such as Zainuddin & Rafik Galea (2016) and Abdul Aziz & Ahmad (2017), Toulmin's model can help develop critical thinking. They also attest that students can arrange their arguments in a clear and convincing order if teachers deliberately expose and teach them employing claim, ground and warrant in writing classes.

In the present study, utilising Toulmin's model to analyse the respondents' essays helps support what has been mentioned by other researchers. Unlike the respondents in the studies by Zainuddin & Rafik Galea (2016) and Abdul Aziz & Ahmad (2017), which were deliberately taught the Toulmin's model, the respondents in the present study were able to demonstrate some Toulmin's argumentative elements (Example 1 to 5).

6. Conclusion

This study is a case study examining students learning academic writing in an EAP course. It also centres on what contributes to a competent academic writer by identifying the rhetorical features and linguistic features used, and the issues behind becoming a competent academic writer. Analysing students' essays in the EAP course has provided some insights, and this understanding will serve as rooms for improvement in the academic writing modules at the university. This research will provide a guideline for ESL students and lecturers regarding what constitutes a piece of competent academic writing.

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