Tapping Toulmin's Sound Argument: EL Undergraduates' Arguments Quality in the Research Discussion

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ARTICLE INFORMATION	ABSTRACT
  Author Correspondence: Adianto Restu Wicaksono English Education Universitas Negeri Malang Semarang St, Number 5, East Java, Indonesia E-mail: adiantorestu12@gmail.com	Rhetorical studies thus far have investigated the crucial rhetorical pattern in research discussion. However, those studies have not provided sufficient analyses on Toulmin's model as a framework to determine arguments' quality in research discussion. This study aims to investigate the ELE undergraduates' arguments' quality that manifested in research discussion. The finding of the study reveals undergraduates' tend to form almost-complete arguments that consist of four Toulmin arguments elements, namely "Claim", "Data", "Warrant", and "Back-Up" while "Qualifier" and "Rebuttal" are missing. This study provides interpretive elaboration of overall quality of the arguments and possible factors that led two elements being disregarded.

Studies on rhetorical moves in the discussion section have been the primary issue in recent years. There are growing studies focusing on analyzing the research articles' discussion (henceforth RAD). These studies thus far, tend to utilize Swales' (1990) "Move Analysis", and Yang and Allison (2003) model for result and discussion sections as the main frameworks to investigate the *RAD* rhetorical structures, such as research investigating the EFL students discussion rhetorical structure (Kheryadi & Suseno, 2016; Irawati, Saukah, & Suharmanto, 2018; Abdullah, 2020; Suherdi, Kurniawan, & Lubies, 2020), study focusing on the argument style in Indonesian language studies (Arsyad, Purwo, & Adnan, 2020), study focusing on the rhetorical structure of discussion in Malay ESL students (Loi, Evans, Akkakoson, Ahmed & Ahmed, 2015; Hussin & Nimehchisalem, 2018) study focusing on discussion rhetorical structure of Applied Linguistics research (Liu & Buckingham, 2018), studies investigating the discussion rhetorical structure of Psychology research (Mohammad, Adel, & Monghadam, 2015; Moyetta, 2016), and research investigating rhetorical differences of Chemical Engineering research articles (Jin, 2018). Studies that investigate the rhetorical structure written by professional writers are also conducted in order to enrich the body of knowledge in the contrastive rhetoric area; among them are studies focusing on the rhetorical structure of master thesis and dissertation (Nodushan & Khabaz, 2011; Wasito, Syah, & Harahap, 2017; Dastjerdi, Tan, and Abdullah, 2017).

RAD allows authors to provide their further elaboration and justification of the findings and also informs their arguments pertaining to the answers to the research questions (Kheryadi & Suseno, 2016, Irawati, et al., 2018; Abdullah, 2020; Liu & Buckingham, 2018; Suherdi et al., 2020). The clarity, and the logic of the arguments presented in the discussion section, particularly the argumentation related to the answer to the research questions, are very important so that there are weak and unconvincing arguments that invalidate the research result. Therefore, in RAD, authors must address their argumentation correctly in the most suitable rhetorical structure. Arsyad, Purwo, & Adnan (2020) assert that using correct rhetorical moves in writing RAD is evidently helping readers acquire the presented arguments better. However, one crucial point derived from previous research is that move analysis research does not necessarily assert that the presented arguments are well-reasoned. Moreover, in the scope of the argument's quality investigation on a research article and argumentative and persuasive essays, Toulmin's argument model remains a valid framework to be utilized as the primary instrument. As a primary instrument for writing a strong argument, this model is one of the most influential theories in constructing sound and structured argumentation. In the context, of academic writing, especially in writing RAD, Toulmin's model helps the authors to ensure that their argument is valid. By following this model, the authors gain a clear sense of presenting evidence, such as research data and previous findings, to prove that the argument is valid.

Toulmin (2003) elaborated that constructing an argument should consist of six elements, namely "Claim", "Data", "Warrant", "Backing", "Qualifier", and "Rebuttal". "Claim" is the writer's main argument that the writer intends to prove. "Data" is the facts or evidence that help support the main argument. "Warrant" is the statement that link the data/ground to the claim. "Backing" is an additional evidence that support the "Warrant". "Qualifier" is a statement that show the claim might not be valid

in certain other circumstances. It shows restrictions to the main point of the argument. It usually uses modal adjectives such as "possible", "probable", or quantifier such as "Most", "Some", "Many", and many more. Finally, "Rebuttal" is the statement that acknowledges another valid view of the writer's main argument or statements that shows the opposite view of the claim. Toulmin (2003) proposed that strong and valid arguments should be constructed by having all six elements of arguments. Related studies on Toulmin's Model are manifested in the form of empirical studies that focus on investigating the argument's quality of argumentative and persuasive essays at high school and tertiary levels. Stapelton & Wu (2015) researched the quality of arguments in high school persuasive essays. They discovered that even though, on the surface, the arguments in the essay were correctly constructed using simplified Toulmin's model of arguments which are claims, counterclaims, and rebuttals, the arguments themselves, are still categorized as weak-reasoned arguments. The arguments indicate that high school students' reasoning and critical abilities must be improved. Another study investigating the arguments' quality in an argumentative essay based on Toulmin's model of arguments at the high school level was conducted by Aswadi, Rafi'uddin, Dawud, and Basuki (2021) that revealed most of the students' arguments lack rebuttal. The arguments in the essay severely decrease the essay's quality. Another study that investigates the argument's quality in research articles is conducted by Bermani, Safnil, and Arono (2017). This study investigates the argument pattern in a research article's introduction and discussion section. Unlike the previous studies, this study's results show that all arguments, both in Introduction and discussion section, consists of a claim, ground, and warrant. The findings indicate that the arguments are sound and well-reasoned, with the claim being supported by facts, data, expert opinion, and previous related research articles. Other exploratory studies investigating Toulmin's Model's impact as a teaching strategy in writing courses are also gaining more attention. A study conducted by Sastrawati, Hambali, Mannong, and Bachtiar, (2021) focuses on analyzing the undergraduate' critical thinking after applying the Toulmin's Model in their argumentative essay. The results show that the student's critical thinking is clearly shown in the construction of their arguments by having a vivid claim, warrant, data, backing, and rebuttal. Magalhães (2020) conducted a study investigating the effectiveness of applying Toulmin's Model in Community Colleges English for Business Purposes. The study revealed that applying Toulmin's Model resulted in an improvement in argument quality in the undergraduate. Applying Toulmin's model of constructing an argument in a persuasive and argumentative essay at both high school and tertiary levels improves the quality of students' arguments' quality (Kristianti, Ramli, & Arianto, 2018; Suhartoyo, Mukminatien, & Laksmi, 2015; Syerliana, Muslim, & Setiawan, 2018).

The aforementioned studies above show that Toulmin's model has been used as the primary framework for evaluating and analyzing argument quality, investigating arguments' patterns in argumentative and persuasive essays, and research articles. The Toulmin's model has been used as an effective approach to teaching argumentative essays in high school and tertiary levels. Regarding the argument's quality, the researchers seem motivated to develop teaching scenarios on improving students' argument quality using Toulmin's model. The previous studies also try to find more empirical evidence asserting why Toulmin's model is still relevant and valid as a framework for constructing arguments in essays. Pertaining to the investigation of the arguments' quality on RAD, even though this gap has been identified and the research on this subject has been conducted, it still gets very little attention. Bermani et al. (2017) asserted that on the tertiary level, especially in the context of published research articles, the construction of the arguments in the Introduction and Discussion sections follows Toulmin's logical reasoning for strong arguments.

.Previous studies evidently has not provided sufficient elaboration on the extent of arguments quality that implemented Toulmin's model as primary framework in tertiary level. This research gap unequivocally should be filled. First and foremost, to provide empirical evidence toward the arguments' quality in RAD written by undergraduates. Further research on the aforementioned issue above is also able to enlighten the undergraduate student to write sound and well-reasoned arguments that apply Toulmin's Model. Thus this study aims to investigate the argument's quality written by ELE undergraduate students in the research article discussion (RAD) based on Toulmin's model

METHODS

In accordance with the objectives of this research which are explore and describe; the arguments' quality of ELT undergraduate students in the research article discussion thus descriptive qualitative research method is chosen. In this design, a content analysis technique is employed. This research design is a corpus-driven study where the research fully analyzes the particular learner corpus to investigate a certain aspect of the corpus. The gathered analyzed result then produces a general theory or idea of the arguments' quality. Latief (2019) clearly asserts that qualitative research is intended to investigate human behavior in an elaborate and holistic way in a certain context where the behavior occurs. Thus, analyzing words, behaviors, and attitudes in a detailed way occurs rather than solely investigating numbers. Constructing a hypothesis and testing the hypothesis in order to formulate the generalization is the core of descriptive qualitative research (Latief, 2019).

Learners' Corpus

Depending on the linguistic phenomenon or specific objective that was previously determined in the process of document analysis, the process of corpus data compilation should be careful and meticulous, not merely randomly selecting documents from the internet and then compiling them. Granger (2012) vividly express that the process of compiling the corpus data has a major drawback in term of time consumption, where generally compiling accurate learner corpus takes a lot of time. In this research specifically, the process of compiling the learner corpus from the available documents that exist in the library undergoes careful

selection process based on the variables below (1) the documents are academic essay; (2) the documents are the research discussion section of ELE undergraduate; (3) the research discussion sections were submitted as open repository in 2018, 2019, and 2020; (4) the documents are written in English; (5) the research articles are unpublished research articles which are in-brief version of the ELE undergraduate thesis (*skripsi*). After manually compiling the learner corpus, the total of 130 research discussion sections is gathered. Every research discussion are matched with the determined variables. The detailed demography of the learner corpus is depicted in table 1.

Table 1. Description of the Learner Corpus

Year	Type of Discussion Section		Total
	Finding and Discussion	**Discussion**	
2018	13	32	45
2019	15	39	54
2020	10	21	31
Total	38	92	130

Data Collection

The data collection first step is collecting the corpus data. This step started by manually collecting the research discussion from research articles available in the University library. Here human instrument was implemented. I manually selected the research articles that fall into the criteria that had been created. This step required observation and note-taking activity. Every research discussion would be noted and coded to ease the data analysis purposes. This process was then repeated until the number of research discussions was obtained.

Data Analysis

In general, data analysis in qualitative research consists of four pivotal steps. The first was collecting the data. The second is categorizing the data. The third was displaying the data in a narrative or table form. The fourth was drawing the conclusion. Therefore pertinent to the second step of data analysis, to investigate the arguments' quality of the research article's discussion based on the Toulmin Model, the following categories are utilized.

1. Complete: Argument consists of all six argumentative elements which indicating the quality of the argument is very strong
2. Almost Complete: Argument consists of four or five argumentative elements which indicating the quality of the argument is strong. The argumentative element are: Claim, Data, Warrant, Backing, and Qualifier.
3. Semi Complete: Argument consists of three argumentative elements which indicating the quality of the argument is acceptable. The argumentative element are: Claim, Data, and Warrant.
4. Incomplete: Argument consists of two argumentative elements which indicating the quality of the argument is acceptable. The argumentative elements are: Claim, Data.

The categories is adapted from Bermani, Safnil, and Arono (2017). Table 2 depicts the note-taking table for evaluating the arguments' quality.

Table 2. The Arguments Quality of Elt Undergraduate Research Discussion

Category	Arguments' Element	Description of the Arguments Quality	Frequency	Percentage
Complete				
Almost Complete				
Semi Complete				
Incomplete				

FINDINGS

ELE Undergraduates Research Discussion Arguments' Elements

After analyzing the learners' corpus and identifying the manifestation of arguments' elements, all the arguments elements based on Toulmin's Model occur in the undergraduates' research discussion. Out of six elements, there are three that have the most occurrences. These elements are "Claim," "Data", and "Warrant". These three are found in all 130 research discussions and serve as the main element of the argument construction. Meanwhile, the second most occurrences belong to "Back-Up," with 112 occurrences. Only a handful of research discussions do not implement "Back-Up." On the other hand, "Qualifier" and "Rebuttal" has the lowest occurrences with 6. This finding signifies the base knowledge of the undergraduate student in what they consider the content of their argument in research findings and how each element manifested in the research discussion. This finding showcases how the undergraduates priorities each argument and the function of each element towards the argument.

"Claim" is the first element that manifests at the beginning of the discussion. The data shows that most of the undergraduates open their discussion by stating the main claim of their research has found. "Claim" is intended to provide a concise premise of what the discussion is about and convince the reader of valid discovery they found in their research. In writing the "Claim", undergraduate students referred to their research findings as the main source in which the "Claim" is concluded. It shows that the undergraduate students confidently believe in their research and are ready to elaborate their "Claim" with sufficient support and evidence. "Claim" interestingly occurs in one or two sentences. It serves as the vocal point of what their argument is going to be elaborated in the research discussion. However, the data shows that "Claim" occur in the majority of the undergraduates'' research discussions. How the "Claim" is written varies based on the variety of research the undergraduate conducted. Across the learner corpus, the majority of "Claim" has a positive and convincing tone which is intended to assure the reader because the research finding confirms the research assumption was correct.

"Data" manifests as concrete evidence to support the claim. The "Data" refers to the specific or discovery on which the "Claim" is based on. To support their "Claim", the primary fact the undergraduate used are their specific research finding. The way the undergraduates elaborate the research finding interestingly differ according to the research method they applied. Depending on the research method they applied, how the students wrote the "Data" surprisingly varied. In the Classroom Action Research, which is fittingly the preferred research method chosen by the ELE undergraduates, shows the "Data" emphasizing on the increased amount of the students who passed the test and a specific score that indicates the passing grade. Data" at its core manifested as convincing statements that present the research result. How the undergraduates form their "Data" is unequivocally influenced by the research result that serves as a ground to form the "Claim". Hence, the "Data" vary based on the research method.

"Warrant" often manifested as elaboration that explains and links the "Data" to the "Claim". "Warrant" is the researcher's rationale and justification about how the presented "Data" can establish a firm "Claim" at the opening of the argument. It is a logical backbone where the researcher can assert their persuasive reasoning. From the learner corpus analysis, this research finds that most undergraduates apply warrant-based causality and warrant-based generalization. Warrant-based causality is mainly found in Classroom Action Research. It explores the impact of specific teaching method implementation on students' scores and performance. It shows explicit facts that provide more detailed proof in addition to the statistical and empirical numbers that "Data" provided. The undergraduates'' write their "Warrant" by emphasizing how the implemented teaching method helped the students improve their language skills. Their "Warrant" shows how the teaching method accommodates students who learn easier and achieve the learning goal more effectively. The "Warrant" focuses on presenting detailed facts regarding the teaching method's effect on the students and how the students respond to the teaching method. The key operatives' words that the undergraduates mostly choose to highlight how the teaching methods effectively work are "help", and "provide". These words assure the reader that the students easily improve their skills when implementing the teaching method.

Another manifestation of "warrant-based causality" also occurs in descriptive qualitative research. Even though compared to "Warrant" in Classroom Action research that provides definite signs of causality where the implementation of teaching scenario causes a significant change in students' scores or skill, this manifestation of "Warrant" in qualitative research serves more contextual reasoning on the conditional causality. This research finding discovers another type of "Warrant" manifestation. Warrant-based generalization which are manifested in the research discussion of survey research. Warrant-based generalization presents a rationale of the "Claim" that applies to a particular sample, which also applies to the population. In survey research, the undergraduates provide logical reasoning pertaining to what the sample believes, which is presented in the "Claim".

To strengthen the argument, following the "Warrant" the undergraduate presents a strong "Back-Up" that provides elaboration that resonates with the "Warrant". This study discovered that "Back-Up" manifested in the same form, referencing the previous study that had similar findings. Based on the analysis of the learners' corpus, it is vivid that undergraduates strongly believe that the efficient way to support the "Warrant" is assuring the reader that their research findings support the previous study. This "Back-Up" serves as evidence to assert that their "Claim" is valid because, in the larger context of their research topic, their findings support the existing theory. Several vital sentences indicate the "Back-Up." For example, "This finding supports", "This is in line with", and "This finding was similar to". By referencing valid previous research, the undergraduates' are able to assure the reader that their "Warrant" is indeed true. The undergraduates'' reasoning on explaining the connection between "Claim" with "Data" are confirmed with that their findings support the existing theory and findings of previous research in the same topic of their research. It gives the "Warrant" a strong degree of certainty and truthfulness because the reader can confirm the "Back-Up" by checking the previous study the undergraduate cited. "Back-Up" emphasizes on the validity of the "Warrant". It shows that the "Warrant" is not an empty assumption, instead, it is a well-reasoned logical explanation. "Back-Up' serves as the answer to the question "Why the warrant is true?" that the reader might think upon the reader the research discussion. The "Back-Up" that the undergraduate developed generally possess the excellent quality to affirm their "Warrant". By using previous research findings to prove the "Warrant", the reader would perceive the "Back-Up" as credible and accurate evidence. The number of "Back-Up" that follows the "Warrant" is quite diverse depending on the individual undergraduates. This study finds that each "Warrant" would be followed by 2 to 3 "Back-Ups". The number of "Back-Up" is not definite. Each undergraduate presumably has preferences regarding how many "Back-Up" they need to prove the "Warrant". However, based on the analysis of the argument in this learner corpus, 2 or 3 "Back-Ups" are generally sufficient to present clear elaboration and prove the "Warrant".

"Qualifier" refers to specific words that serve as the limitation to the "Claim". The limitation, in a sense, gives the "Claim" more specificity and nuance. "Qualifiers" in this study manifested in words such as "most", "majority", and "usually". These words specify the "Claim" to the point that the "Claim" cannot be applied to all situations and contexts. "Qualifiers" do not necessarily give uncertainty and a doubtful tone to the "Claim". On the contrary, it helped the "Claim" to have more reasonable assurance and truthful conclusions of their data. Generally, an undergraduate who implemented classroom action research would repeat their "Cycle" until the classroom problem is solved and the objectives are achieved using their developed teaching scenario. They would not satisfy until all students acquire a comparable level of skill improvement. However, in the actual implementation of the "Cycle", it is possible that their teaching scenario only significantly improved most of the students, while the rest acquired less significant improvement, but still, they got improvement nonetheless. Therefore, they felt the necessity to specify their "Claim".

"Rebuttal" is an argument element that acknowledges the counter-claim and opposition toward the "Claim". It is a potential objection to the claim that needs to be addressed and rebut to defend the "Claim". In the outside layer, the "Rebuttal" might seem to denounce, weaken, or invalidate the "Claim", which seems counterintuitive even to address the counter-argument. However, the argument would be significantly more robust if the undergraduates could point out the counterpoint and refute it. The reader would be even more convinced of the arguments presented in the research discussion if the argument notices the counter-claim and can refute it. This study discovers six rebuttals found in the learners' corpus. "Rebuttal" manifested in referencing an opposite previous studies, which significantly contrasts their finding.

ELE Undergraduates Arguments' Quality

This sub-section elaborates on the manifestation of undergraduates' argument's quality in research discussion. The findings of this study show that the majority of the arguments in the research discussion fall into the "Almost Complete" category, which consists of four arguments' elements, namely "Claim", "Data", "Warrant", and "Back Up". A total of 101 discussions are structured with those four argument elements. On the other hand, 23 discussions fall into "Semi-Complete", while "Complete Argument" only occur in 6 discussions. Table 3 provides the distribution of arguments; quality of undergraduates' research discussion.

Table 3. The Distribution of Arguments' Quality of Undergraduates' Research Discussion

Category	Arguments' Element	Description of the Arguments Quality	Frequency	Percentage
Complete	Claim Qualifier Data Warrant Back up Rebuttal	The discussion contains sentences that describe the main arguments derived from the research data. The author mentions the pivotal research data to give clear context and support of the claim. The claim contains words that suggest specificity of the context. After the data is elaborated, then the author provides strong arguments that interpret the data which make the claim is valid. The warrant shows how the evidences gathered from the research findings support the claim. Then the author continues to gives more evidence by providing pivotal back up. The backup can be elaborates how previous studies support the author main claim. The argument also contains elaboration of counter-claim that opposed the main point.	6	4.6
Almost Complete	Claim Data Warrant Back up	The discussion contains sentences that describe the main arguments derived from the research data. The author mentions the pivotal research data to give clear context and support of the claim. After the data is elaborated, then the author provides strong arguments that interpret the data which make the claim is valid. The warrant shows how the evidences gathered from the research findings support the claim. Then the author continues to gives more evidence by providing pivotal back up. The backup can be elaborates how previous studies support the author main claim	101	77.8
Semi Complete	Claim Data Warrant	The discussion contains with sentences that describe the main arguments derived from the research data. The author mentions the pivotal research data to give clear context and support of the claim. After the data is elaborated, then the author provides strong arguments that interpret the data which make the claim is valid. The warrant shows how the evidences gathered from the research findings support the claim	23	17.6

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Based on table 3, most undergraduates constructed almost complete arguments. It indicates that most of the undergraduates believe that the arguments in research discussion should contain "Claim", "Data", "Warrant", and "Back-Up." The undergraduates tend to open their argument by asserting the main point of what they have found in their research. The interesting finding of this research reveals that the undergraduates' "Claim" is heavily influenced by the research design they

applied and the research question they proposed. Since most of the undergraduates employed classroom action research, the "Claim", the main point summary of the opening of the arguments, is the assertion of the successful teaching method. The "Claim" can be identified by several key phrases such as "helped the student", "facilitated students", "help the students to comprehend", and "students score gradually improved". These key phrases set the tone of the arguments, which intended to persuade the reader and convince them that their developed method successfully helped the students improve their skills. Therefore, the "Claim" is presented with a strong feeling of certainty of validity which constitutes a pivotal element of sound argument.

Following the "Claim", the undergraduates then present their "Data" by stating their research findings that were used as the main ground for formulating the "Claim". As stated in the previous elaboration, in the context of Classroom Action research, the undergraduates elaborate their "Data" by assuring that their teaching scenario improved the students' scores. The undergraduate tends to emphasize the success of the teaching scenario by providing the data on the student's score improvement and how many students passed the test. The "Data" has a role in answering the question "How come?" or "Prove it" that reader has. This type of "Data" has solid factual evidence to support the "Claim". The "Data" manifest as the fact taken from valid research findings, such as the students' increased score and the number of students who pass the test indicating the students' skill improvement. It gives strong assurance that their selected teaching strategy was proven to be practical to use. It shows the reader that the "Claim" has a strong foundation based on a valid study. Stating the fact on how much the students' score improve and how many of the students are able to pass the test give evidently make the undergraduate argument sounder. It generally makes the argument harder to refute, and the reader will believe what the argument tries to convince. The "Data" enhance the depth of the arguments that serve as supporting evidence which convinces the reader pertaining to the accuracy of the "Claim".

The "Warrant" further enriches the arguments. In this element, the undergraduates evidently are able to showcase their argumentative ability to justify their "Claim". The "Warrant" presents the undergraduate logical reasoning by elaborating the connection between the "Data" and the "Claim". "Warrant-based causality" are utilized the most in classroom action research since most of the research chose this method. The undergraduates' are able to explain how the implementation of the developed teaching scenario successfully improves the student's performance. The "Warrant" elaborates on the teaching scenario's effect, specifically how it impacted the students' scores and performances, how it helped the students learn the topic more efficiently and how the students' overall attitude when implementing the particular learning method. It serves as a valid justification for the "Claim".

Meanwhile, "Warrant based on generalization" primarily manifested in Survey research. It presents the undergraduates'' interpretation of the survey data, including the possible reason for particular sample perspectives. Lastly, "Back-Up" enhances the soundness of the argument by giving validity to the "Warrant". It presents evidence from previous research references that support the "Warrant". In the context of the Classroom Action Research's research discussion, the "Back-Up" provide factual evidence for the "Warrant" that contains undergraduates'' logical reasoning regarding how the developed teaching scenario would effectively help the students improve their skill. Overall, the majority of the undergraduates successfully implemented the core of Toulmin's model of argument. Based on the analysis, the undergraduates were able to construct a well-reasoned argument that consists of at least three main arguments elements that Toulmin proposed, "Claim", "Data", and "Warrant". It indicates that the arguments in the research discussion are sound, with a solid main point, sufficient evidence, and vivid logical reasoning.

Based on Table 3 above, there is one distinct difference in the manifestation of a complete argument compared to an almost complete and semi-complete argument, namely the manifestation of "Qualifier" and "Rebuttal." Complete arguments imply that the "Claim" does not apply to all populations because of the limitation set by the "Qualifier", which manifested in words like "Most", "Majority", and "Usually". The "Claim" acknowledges the possibility that the "Claim" might not be applicable in specific conditions as well as invites the reader to rebut the "Claim" openly. Even though the "Claim" has a limitation, it remains presents strong conviction and assertion. The complete argument also provides the potential objection to the "Claim" in the "Rebuttal". The "Rebuttal" usually presents another context that may explain the "Claim", but some "Rebuttal" also divulges the counterclaim that has the potential to invalidate or weaken the "Claim". The "Rebuttal" usually points out the limitation the "Claim" has and shows other possibilities or factors that may oppose the "Claim". Since the "Rebuttal" has the potential to denounce the "Claim", some complete arguments also provide a refutation to the "Rebuttal", which can increase the readers' conviction and beliefs in the argument. As a whole, complete arguments arguably has the most robust quality compared to almost and semi-complete argument. The complete argument has a distinct edge in acknowledging the opponent's "Rebuttal" and effectively refuting the counterclaim from "Rebuttal" to make the argument more cogent. These findings indicate that some undergraduates had a great understanding of efficiently constructing the argument that encapsulates all six elements. Complete argument demonstrates a small number of undergraduates' grasp on the importance of presenting the main ideas, evidence, limitation, and objection in the argument and understanding how the elements influence the quality of their argument. .

In semi-complete arguments, the finding analysis revealed that the arguments start from presenting the "Claim", followed by elaborating the "Data", and fact-based "warrant" that elaborates the undergraduate rationale on the connection between "Claim and "Data". Semi-complete arguments has a convincing tone that evokes the readers trust to believe on the "Claim" that the undergraduate proposed. However, compared to the complete and almost complete argument, which has additional reasoning in the form of the "Back-Up", the semi-complete argument felt like an abridged argument with a harder aim to convince the reader. The semi-complete argument is mainly found in the research discussion of the RnD approach, where the undergraduates present their arguments to assure the reader that their invention is functional and has a great theoretical and practical contribution. A small

amount of semi-complete arguments, however, interestingly also found in other research with the Classroom Action Research approach that evidently is less sound compared to the arguments with the same research design that implemented "Back-Up". In the research discussion of RnD, the semi-complete argument starts by presenting the "Claim" that states the readiness and completeness of the developed media to use and how the developed media is useful to help the teacher conduct successful teaching. The "Claim" is supported by the "Data" that elaborates the result of validation and tryout of the developed media. The "Data" explain how the validation and tryout received outstanding scores and assessment. It infers that the media pass the test and contains many positive traits. After that, the undergraduates continue to present their logical reasoning on how their developed media would efficiently solve the teaching problem usually found. Here, the undergraduate successfully delivered a strong "Warrant" by elaborating on the strength of their developed media, including its features, design, content, and overall quality. The "Warrant" also explains logical reasoning based on the students' positive tryout results. The "Warrant" explains in great detail how the "Data" elaborate the pivotal fact that was used to derive the "Claim". The "Warrant" interestingly consists of two types of "Warrant", namely "Warrant based on authority" and "Warrant based on generality". "Warrant based on authority" means that the undergraduates' elaboration on how the strength of the media can evidently help the teacher to conduct effective teaching activity is based on the "Data" from an expert authority, namely validators and the teachers who have professional knowledge on the media and its implementation. . This warrant presents the undergraduate reasoning on the how the developed media achieved the aimed objectives and quality based on the expert validators assessment. The undergraduates elaborate their rationale regarding the media usefulness in real-life implementation based on media strength that the expert validators pointed out. The undergraduates are able to deliver convincing reasoning that can be proved, which makes the reader believe the "Claim" presented. Meanwhile, the "Warrant based on generality" explains how the media is effective because the sample students successfully received a good score and showed good improvement in various skills.

In this finding, "Back-Up" has a significant role in amplifying the level of assurance regarding the logical reasoning the undergraduates presented. Hence, the missing "Back-Up" makes the argument's quality slightly weak. The purpose of the argument is to persuade and convince the readers. The semi-complete argument might not be as efficient as the complete and almost complete argument in this matter. This phenomenon indicates that a small amount undergraduates arguably sees "Back-Up" as an unnecessary element to write in their writing process.

Different Qualities in Complete and Semi-Complete Arguments

Based on Table 3 above, there is one distinct difference in the manifestation of a complete argument compared to an almost complete and semi-complete argument, namely the manifestation of "Qualifier" and "Rebuttal." Complete arguments imply that the "Claim" does not apply to all populations because of the limitation set by the "Qualifier", which manifested in words like "Most", "Majority", and "Usually". The "Claim" acknowledges the possibility that the "Claim" might not be applicable in specific conditions as well as invites the reader to rebut the "Claim" openly. Even though the "Claim" has a limitation, it remains presents strong conviction and assertion. The complete argument also provides the potential objection to the "Claim" in the "Rebuttal". The "Rebuttal" usually presents another context that may explain the "Claim", but some "Rebuttal" also divulges the counterclaim that has the potential to invalidate or weaken the "Claim". The "Rebuttal" usually points out the limitation the "Claim" has and shows other possibilities or factors that may oppose the "Claim". Since the "Rebuttal" has the potential to denounce the "Claim", some complete arguments also provide a refutation to the "Rebuttal", which can increase the readers' conviction and beliefs in the argument. As a whole, complete arguments arguably has the most robust quality compared to almost and semi-complete argument. The complete argument has a distinct edge in acknowledging the opponent's "Rebuttal" and effectively refuting the counterclaim from "Rebuttal" to make the argument more cogent. These findings indicate that some undergraduates had a great understanding of efficiently constructing the argument that encapsulates all six elements. Complete argument demonstrates a small number of undergraduates' grasp on the importance of presenting the main ideas, evidence, limitation, and objection in the argument and understanding how the elements influence the quality of their argument. .

In semi-complete arguments, the finding analysis revealed that the arguments start from presenting the "Claim", followed by elaborating the "Data", and fact-based "warrant" that elaborates the undergraduate rationale on the connection between "Claim and "Data". Semi-complete arguments has a convincing tone that evokes the readers trust to believe on the "Claim" that the undergraduate proposed. However, compared to the complete and almost complete argument, which has additional reasoning in the form of the "Back-Up", the semi-complete argument felt like an abridged argument with a harder aim to convince the reader. The semi-complete argument is mainly found in the research discussion of the RnD approach, where the undergraduates present their arguments to assure the reader that their invention is functional and has a great theoretical and practical contribution. A small amount of semi-complete arguments, however, interestingly also found in other research with the Classroom Action Research approach that evidently is less sound compared to the arguments with the same research design that implemented "Back-Up". In the research discussion of RnD, the semi-complete argument starts by presenting the "Claim" that states the readiness and completeness of the developed media to use and how the developed media is useful to help the teacher conduct successful teaching. The "Claim" is supported by the "Data" that elaborates the result of validation and tryout of the developed media. The "Data" explain how the validation and tryout received outstanding scores and assessment. It infers that the media pass the test and contains many positive traits. After that, the undergraduates continue to present their logical reasoning on how their developed media would efficiently solve the teaching problem usually found. Here, the undergraduate successfully delivered a strong "Warrant"

by elaborating on the strength of their developed media, including its features, design, content, and overall quality. The "Warrant" also explains logical reasoning based on the students' positive tryout results. The "Warrant" explains in great detail how the "Data" elaborate the pivotal fact that was used to derive the "Claim". The "Warrant" interestingly consists of two types of "Warrant", namely "Warrant based on authority" and "Warrant based on generality". "Warrant based on authority" means that the undergraduates' elaboration on how the strength of the media can evidently help the teacher to conduct effective teaching activity is based on the "Data" from an expert authority, namely validators and the teachers who have professional knowledge on the media and its implementation. This warrant presents the undergraduate reasoning on the how the developed media achieved the aimed objectives and quality based on the expert validators assessment. The undergraduates elaborate their rationale regarding the media usefulness in real-life implementation based on media strength that the expert validators pointed out. The undergraduates are able to deliver convincing reasoning that can be proved, which makes the reader believe the "Claim" presented. Meanwhile, the "Warrant based on generality" explains how the media is effective because the sample students successfully received a good score and showed good improvement in various skills.

In this finding, "Back-Up" has a significant role in amplifying the level of assurance regarding the logical reasoning the undergraduates presented. Hence, the missing "Back-Up" makes the argument's quality slightly weak. The purpose of the argument is to persuade and convince the readers. The semi-complete argument might not be as efficient as the complete and almost complete argument in this matter. This phenomenon indicates that a small amount undergraduates arguably sees "Back-Up" as an unnecessary element to write in their writing process.

DISCUSSIONS

This study intends to investigate the ELE undergraduates' argument quality in their discussion based on Toulmin's model. It is crucial to point out that all ELE undergraduates constructed their arguments using three main arguments' element proposed by Toulmin, namely "Claim", "Data", and "Warrant". In all 130 research discussion, the manifestation of the three aforementioned arguments' elements contributes as the main portion of the research discussion. "Back-Up" has the second highest occurrences with 107 out of 130. Meanwhile, "Qualifier" and "Rebuttal" only manifested in six research discussions. The manifestation of these four argument's element, "Claim", "Data", "Warrant", and "Back-Up" in the majority of research discussions suggest the main aim of ELE undergraduates research discussion is presenting logical argument that successfully assure the reader, their finding is valid and has strong justification based their reasoning and its supporting evidences to previous research findings.

The Missing Elements in ELE Undergraduates' Arguments

The most surprising finding is the missing "Qualifiers" and "Rebuttal" in ELE undergraduates' argument. It is quite unexpected because, if we compare this type of argument construction with the Toulmin model, the missing "Qualifer" and "Rebuttal" would imply that the ELE undergraduates' argument did not constitute as an ideal argument. In his concept, Toulmin (2003) assert that an argument ideally should contains sufficient elaboration of "Rebuttal", presenting the possible objections that may occur. Only after they provide the possible opposing view or counterclaim and present the refutation to the opposing view in the argument, they constructed strong arguments that's harder to refute. By putting aside the "Rebuttal", arguably resulted in the arguments become one-sided argumentation. Sadly, this one-sided argumentation is noticeable trait in undergraduate level arguments. Undergraduate students mostly tend to write one-sided argumentation in both academic and argumentative writings. Yang (2022) discovers that undergraduates usually produce one-sided argumentation in their argumentative writing because their argument lacks of different view elaboration and contains lengthy warrant that support the "Claim". Undergraduates mostly gravitate in presenting their reasoning and justification of the "Claim" which makes the "Warrant" to be unnecessary lengthy. This tendency and urge of the undergraduates to justify and proof their "Claim" arguably limit them to consider providing "Rebuttal" element on their argument.

This finding confirms another study authored by Bermani, Safnil, and Arono (2017) reports that research discussion mostly constructed with "Claim", "Ground", and "Warrant" which commonly dismiss the elaboration of possible objection to the "Claim". This construction of arguments reflects the undergraduates' concern to provide the readers sufficient proof for their research finding. Germane to this discussion, even though the ELE undergraduates' almost-complete arguments seems to resemble one-sided argumentation, I am not saying that the argument itself is not compelling. By considering the main objective of the ELE undergraduate which was to assure the reader on that their finding is valid, evidently the ELE undergraduates' were able to construct coherence and compelling argument with strong conviction. ELE undergraduates were able to summarize their main findings in their "Claim". Their "Claim" then sufficiently supported by "Data", and followed by strong logical reasoning and findings implication in their "Warrant". To seal the reader trust, the ELE undergraduate also able to present and elaborate supporting evidence in their "Back-Up" by providing comparison to similar previous studies. Toulmin (2003) asserts that an argument should at least consist of three basic elements, "Claim", "Data", and "Warrant". The manifestation of the other elements should be assessed on its relevancy to the strength of the argument. He suggests that the authors should be able assess the strength of the arguments by deciding which arguments element they need to implement. In that regard, I believe that most ELE undergraduate who produced almost complete argument decided that all four arguments elements were sufficient to present their best-form argument. They were certain that it would weaken the arguments if they implemented "Qualifier" and "Rebuttal". On the other hand, small number of ELE undergraduate who produced complete arguments were certain that the best-form of

arguments should be consist of all six arguments element. It was in their best interest to provide clear "Qualifier" and present the "Rebuttal" to assure that their argument is sound and compelling to the readers.

Their motivation in writing the research articles as part of graduation requirement also exacerbate their tendencies to disregard "Rebuttal" element in their argument. Basthomi, (2009) explains this "positive justification" tendencies also occurs in Indonesian writers as they present their literature reviews in introduction sections. Indonesian writers tend to not display any negative attitude and overly oppose other research. I would argue the same tendency also apply to their own research. This research findings shows that ELE undergraduates set their mind to present positive justification of their findings. The interview results suggest that ELE undergraduates' either were not familiar with the concept of rebuttal or the thought of rebutting their claim by incorporating any elaboration that points out their research might not have the same successful result in other contexts or mentioning previous study that differ from their findings automatically weaken their argument. This being the case, I would argue that their chosen research method might also constitute as contributing factor in their tendency to present positive justification.

Most of ELE undergraduate employed classroom action research. This research method hinges on ELE undergraduates' teaching scenario successfully overcome the classroom problem. Thus, it is possible that in their research discussion, ELE undergraduates' put their effort to present why their proposed teaching scenario can be effectively used and how their selected teaching method successfully improve the students score. These urges somehow made them think that elaborating possible constraints that can affect the implementation of the teaching scenario, elaborating contrasting findings from previous research, or mentioning other context in which this teaching scenario might not suitable to use means they undermine their positive result they obtain in their research. It indicates that ELE undergraduates' were certain if they chose to conduct classroom action research, they had responsibility to convince the reader that their proposed teaching scenario is flawless and reliable by not mentioning any negative attitude or even a shred of doubtless in their research discussion. Thus, their decision to disregard "Rebuttal" element is justified. Granted, their arguments arguably able to convince the reader, however it is important to note that this type of arguments arguably did not fulfill the objective of research discussion. One of objective of research discussion is presenting different possible explanation that oppose the claim, and elaborating to what extent the findings differ to the previous study in order to showcases fair and unbiased argument. (Taherdoost, 2022; Vieira, Lima, and Mizubuti, 2019).

However, with the above point, I am not saying all ELE undergraduates who employed classroom action research have the tendency to disregard the "Rebuttal" element. The findings show two "Rebuttal" element manifested in research discussion that implemented classroom action research. The arguments successfully mentioned several possible constrain that may affect the implementation of teaching scenario. What I implied is that in the context of presenting their successful teaching scenario, the desire to deliver sound and positive justification might distract them to consider mentioning opposing view or possible restriction or limitation that are possible in their research discussion.

Toulmin's Model as Framework in Constructing Research Discussion

The aforementioned discussions point out the only four elements of Toulmin models were implemented and the majority of ELE undergraduates has the tendency to disregard the "Rebuttal". Those discussions rise one compelling concern on how well the Toulmin model able to accommodate undergraduates to construct the research discussion compare to other prominent discussion model. To answer the question, this section argue that Toulmin's Model is still relevant framework that helps undergraduates construct strong research discussion.

Research discussion arguably is one of the most important part of research article. One important aspect of research discussion is allowing the author present their argument that show their critical thinking and profound understanding of the issue. (Thakur, 2014; Young, 2017; Vieira et al., 2019; Taherdoost, 2022). In the process of constructing research discussion, granted, the prominent competing models such as, Swales' CARS (Create a Space for Research) rhetorical framework, Yang and Allison (2003) framework, Rogerian argument, and Aristotelian argument, all provides the guidelines on how the authors develop their argument that able to present main finding, indicating unexpected finding, comparing with related previous research, contrasting the opposing view presented in the previous research, limitation of the research, implication of the finding, and suggestion to future researcher. Among those models, arguably Swales' CARS established as the staple model in constructing and organizing the research discussion. This framework has been utilized to check the research discussion quality over the years. (For example Kheryadi & Suseno, 2016; Irawati et al., 2018; Abdullah, 2020; Suherdi at al., 2020; Arsyad et al., 2020).

Nevertheless I would argue Toulmin model offers complete and straightforward concept that accommodate the purpose of research discussion. Toulmin model break downs the argument into six elements that easy to understand and arguably also easy to implement. Each element is self-explanatory and hold important role to construct strong and irrefutable argument. One crucial benefit of Toulmin models, it also highlight the importance of refuting the counterclaim of the main claim. The analysis results of my learner corpus affirms each element of Toulmin model form well-reason arguments that fulfill the objective of the research discussion. "Claim" guide the author to present interpretation of key finding. "Data" helps the author to shows their main finding that serves as evidence. "Warrant" helps the author highlights the explanation of the findings, and shows the strength of the study. "Back-Up" help strengthen the explanation and guide the author to compare to previous study. "Qualifier" helps the author to limit the Claim, and acknowledge the contrasting view in previous research. "Rebuttal" help the author to point out the limitation and the study, validate the opposing view and present their counter argument to the rebuttal.

Pertinent to the use of Toulmin model, Reed & Rowe (2006) established efficient way to utilized Toulmin model as a guideline in practical writing of argument. They explained how to translate the traditional box and arrow diagram that elaborate the relationship of Toulmin argument elements. Their mechanism in translating the Toulmin diagram helps authors to glue the all argument's elements to be a coherence argument. The Toulmin model that traditionally describe in a box and arrow diagram, however simple it might seems, accommodate the author to present arguments that has multiple warrant. It allows the reader to develop rather complex argument with multiple premises that supported with multiple warrant. Depending on the arguments, some author might have the urgency to present their arguments that contains multiple warrants. In the research where the author intend to presents several points with the points has its own premise, the Toulmin model can be adjusted into several type of design in organizing the argument's elements. These design allows the authors to adjust how they want to incorporate the "Rebuttal" element. The "Rebuttal" can be introduced in the elaboration of "Claim", or after the authors presents their "Warrant".

Another important point to note is that Toulmin model promotes the two-sided argumentation which is crucial in constructing a research discussion. The concept of "Qualifer" helps the author to be more aware to not over-generalize their claim to all population, especially in small sampled research, and allows the author to acknowledge other opposing view that equally valid. Furthermore "Rebuttal" elements not only allows the author to present the contrasting research findings that oppose their findings, "Rebuttal" also guide the authors to refute the counterclaim with the intention to show their argument is not biased and also strengthen their claim. The manifestation of two-sided argumentation to some extent depend on the authors understanding of the Toulmin argument model. As confirmed with the findings of this study, the missing "Rebuttal" can cause the argument to be one-sided arguments and make the ELE undergraduate to present overly lengthy "Warrant". It also signifies that Toulmin model only accommodate the authors to build complete argument only if all six elements are incorporated.

CONCLUSION

This present study prevails in the scope of academic writings in English Language Education (ELE), particularly in the context of academic research writing in university level. This study set to investigate ELE undergraduates'' arguments quality in their research discussion The significant finding arise from of this study is that ELE undergraduates constructed almost-arguments by implementing three main arguments element out six element proposed by Toulmin, namely "Claim", "Data", and "Warrant", the majority of them also implemented "Back-Up" to support their logical reasoning. The unexpected findings showcases the missing "Qualifier" and "Rebuttal" in ELE arguments and their affirmation on that assert "Rebuttal" is deemed unnecessary. This study has reported that ELE undergraduates has strong tendency to present positive justification in their argument by disregarding the "Rebuttal" element. This tendency resulted in the arguments being one-sided and fail to mention to opposing view as an attempt to show fair argument. Thus, it can construed that ELE undergraduate's objective in writing their research discussion is convincing the readers by presenting their positive justification that elaborate how their research findings is true and valid. Their arguments arguably still able to fulfill their objective, however ELE undergraduates'' arguments has not demonstrated their expected writing ability to construct complete arguments in their research discussion.

This study has confirmed the findings of Bermani, Safnil, and Arono (2017) and Yang (2022) which found that undergraduates' tend to construct their argument in research discussion by using only "Claim", "Data", and "warrant". This type of arguments then produce one-sided argumentation that overly focus on having lengthy "Warrant". This insight gain from this study may be useful for ELE undergraduates' study who are in process of developing their research discussion to pay more attention in presenting fair two sided-argumentation. This study also hopefully rise more attention in the scope of academic writing in familiarizing undergraduates' to Toulmin model of argument.

This study only limited to investigate the arguments' quality in research discussion of ELE undergraduates. It was not possible to generalize the "positive justification" is occurred in all undergraduate across all disciplinary. This studies also limited in research discussion arguments. Further researcher in this area is highly recommended to investigate the possible factors that cause undergraduate have tendency to disregard "Rebuttal". Future study should inquire how undergraduate construct their arguments in introduction section of their research article, not only in ELE discipline but other disciplinary studies as well. This study is conducted by one individual, therefore future research that involves more than one researcher is highly recommended to minimize the possibility of individual bias. Future research on how the authors perceives Toumin models as their primary framework in constructing their research discussion is highly recommended. Investigation on the accuracy of Toulmin's model manifested in the research discussion' argument in other disciplinary also needed to contribute the body of knowledge in argument model. Future research can examine the undergraduates understanding of Toulmin models, analyze what kind of argument model they prefer.

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