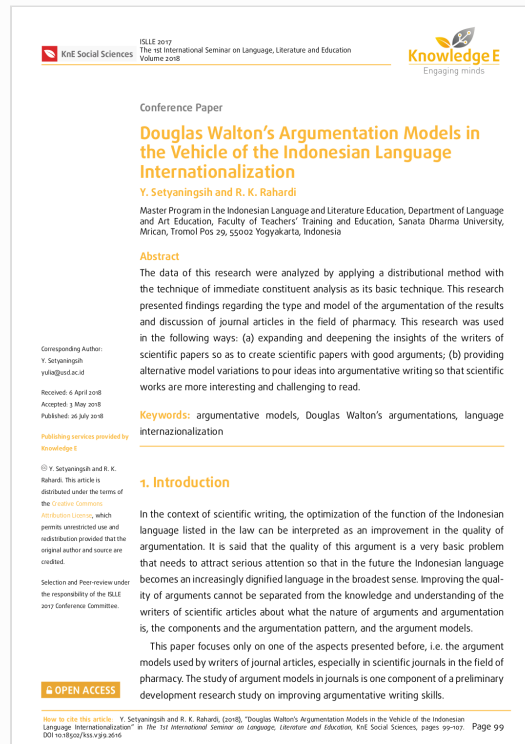# Digital Receipt

This receipt acknowledges that Turnitin received your paper. Below you will find the receipt information regarding your submission.

The first page of your submissions is displayed below.

| | |
|---|---|
| Submission author: | Yuliana Setyaningsih |
| Assignment title: | Periksa similarity |
| Submission title: | Douglas Walton's Argumentation Models inthe Vehicle of the... |
| File name: | nthe_Vehicle_of_the_Indonesian_Language_Internationalizati... |
| File size: | 343.69K |
| Page count: | 9 |
| Word count: | 3,271 |
| Character count: | 18,409 |
| Submission date: | 16-Mar-2023 11:17AM (UTC+0700) |
| Submission ID: | 2038310748 |

# Douglas Walton's Argumentation Models inthe Vehicle of the Indonesian Language Internationalization

*by* Setyaningsih Yuliana

**Knowledge E**
Engaging minds

Conference Paper

# Douglas Walton's Argumentation Models in the Vehicle of the Indonesian Language Internationalization

Y. Setyaningsih and R. K. Rahardi

Master Program in the Indonesian Language and Literature Education, Department of Language and Art Education, Faculty of Teachers' Training and Education, Sanata Dharma University, Mrican, Tromol Pos 29, 55002 Yogyakarta, Indonesia

## Abstract

The data of this research were analyzed by applying a distributional method with the technique of immediate constituent analysis as its basic technique. This research presented findings regarding the type and model of the argumentation of the results and discussion of journal articles in the field of pharmacy. This research was used in the following ways: (a) expanding and deepening the insights of the writers of scientific papers so as to create scientific papers with good arguments; (b) providing alternative model variations to pour ideas into argumentative writing so that scientific works are more interesting and challenging to read.

**Keywords:** argumentative models, Douglas Walton's argumentations, language internazionalization

**⌂ OPEN ACCESS**

## 1. Introduction

In the context of scientific writing, the optimization of the function of the Indonesian language listed in the law can be interpreted as an improvement in the quality of argumentation. It is said that the quality of this argument is a very basic problem that needs to attract serious attention so that in the future the Indonesian language becomes an increasingly dignified language in the broadest sense. Improving the quality of arguments cannot be separated from the knowledge and understanding of the writers of scientific articles about what the nature of arguments and argumentation is, the components and the argumentation pattern, and the argument models.

This paper focuses only on one of the aspects presented before, i.e. the argument models used by writers of journal articles, especially in scientific journals in the field of pharmacy. The study of argument models in journals is one component of a preliminary development research study on improving argumentative writing skills.

Furthermore, it should be said that in line with the views of Toulmin et al. [1, 2], a good and complete argument has six components, namely: (a) claims, (b) data, (c) warrant, (d) backing, (e) rebuttal, and (f) capital qualifier [3]. The first three components are the main components, while the next three are complementary compounds or additional components.

An argument must contain at least three main components, namely claim, data, and warrant components. The absolute claim component must be present in an argument. Without the presence of such a claim, an article cannot be called an argument. The presence of a claim component in an argument must be supported by a data or facts component. Furthermore, an argument will become more qualified if the claim and data components are followed by the warrant component. Additional components such as backing, rebuttal, and capital qualifier will make an argument more complete and powerful. However, rarely are the six components of the argument present together in an argument construction.

It should be pointed out that the components of the argument presented by Toulmin et al. in the construction of argumentative writings will form certain patterns in accordance with the order of its components [1, 2]. In addition to pointing to the patterns of argumentation, the components of the argument can also indicate the degree of sharpness of its argument in accordance with the completeness of its argument components. In other words, the presence of the argument components also presents the pattern and degree of argumentation acumen.

Furthermore, in relation to the argument models, Walton has mentioned that these can be distinguished by the type of argument used to initiate an argumentative text [4]. In general, arguments can be divided into three major groups, namely (1) arguments with components of the argument in the form of a witness's testimony, (2) arguments with argument components in the form of verbal classification, and (3) argumentation with argument components in the form of rules.

From these three major groups of arguments, various argument models can be presented, namely (a) arguments from expert opinion, (b) arguments from analogies, (c) arguments from precedents, (d) practical reasoning, (e) arguments from evidence, (f) arguments of ignorance, (g) arguments of appearances/perceptions, (h) the argument of the positive consequence, (i) the argument of the negative consequence, (j) the argument of the circumstantial *ad hominem*, (k) abductive reasoning, (l) the argument of *sunk costs*, (m) the argument of the threat, (n) the argument of the general opinion, (o) the argument that personally attacks the person, (p) the argument from correlation to cause, (q) the argument of commitment, and (r) arguments from the slippery slope.

These argument models from Douglas Walton's perspective are what will be used as reference frameworks in conducting this preliminary study [4].

## 2. Methods

This research was a preliminary study aimed at getting an idea of the argument models that have been used by the authors of journal articles. The sources of data for this research were articles from the *Journal of Pharmaceutical Sciences*, Indonesia (Volume 12, Number 1, April 2014), which amounted to 19 articles. The data of this study were argument models contained in pharmaceutical journal articles. The data were collected by applying a method of observation using the involved conversation observation technique. Data analysis was done by applying the distribution method with the immediate constituent analysis technique [5].

## 3. Results

From the research that had been done, information was obtained from 19 articles contained in the journal of pharmacy as a source of data, and only eight articles included an argumentative paragraph. Thus, it can be said that only 23% of the writing replaces the argumentative paragraph in the discussion section. From the 23% of argumentative paragraphs, 20% are argued by rule and 3% are arguments based on expert testimony. Furthermore, the rule-based arguments comprise 20% of the arguments based on the results of causal correlations, while 3% are arguments based on experts' opinion. Meanwhile, as many as 77% of the writings replace descriptive and expository paragraphs in the section on journal articles in the pharmaceutical field.

The results of this study are in line with the findings of researchers in previous years of research in the field of social humanities and in socioeconomic fields [6], i.e. that most parts of the discussion on journal articles in the field replaced descriptive paragraphs and expository paragraphs, not argumentative paragraphs. The low argumentative literacy of accredited journal article writers in Indonesia is suspected to be one of the main causes [7]. The sociocultural aspect of the author has also contributed in determining the low usage of argumentative paragraphs in the results and discussion section, although the contribution is not too significant.

In the field of pharmacy, the dominance of description and exposition paragraphs may also be due to the low level of argumentative literacy, as mentioned before. This

confirms that the development of argumentative writing skills, especially in journal article writing, becomes important for immediate implementation.

From the 61 argumentative paragraphs found in the results and discussion section of pharmaceutical journal articles, 54 are developed based on rules. There are only seven argumentative paragraphs that use a type of argument based on expert testimony.

The indication that arises from this is that it is likely that pharmaceutical writings are riddled with rules that have been found before as propositions or as theories. In other words, research in the pharmaceutical field tends to be a confirmation of a theorem or theory. The researches in the exact sciences field are pointed out by this model because generally this field is more in favor of a quantitative approach in the implementation of the research, unlike the social fields of humanities, which generally do not depart from the proposition in conducting research.

There is even a tendency for research beyond the realm of sciences to overlook a qualitative approach because it is not the ultimate aim to prove the proposition or hypothesis. Thus, the dominance of argumentative types based on the rules in the argumentative paragraphs can be explained by the tendency of the field of knowledge as presented before.

Judging from the argument models, the authors found that 54 paragraphs apply argument models based on cause-and-effect correlations. There are only seven paragraphs based on expert testimony. The dominance of the argument model based on such a rule indicates other argument models that need to be understood and mastered in order to write a scientific article in the pharmaceutical field, the argument paragraph is not present monotonically.

In general, it can be said that through a preliminary study of journal articles in the pharmaceutical field, the awareness that the results and discussion should be argumentative should still be improved. Through the development of awareness of argumentative writing for the discussion of journal articles, it is expected that the quality of journal articles in Indonesia will be better than at present. Competition with reputable international journals is expected to be further supported by the habit of argumentative writing with such varied arguments.

More information about the types and models of arguments found in this preliminary study are summarized in Table 1 below.

TABLE 1: Argument, type, and model of argumentation.

| Article Code | Arguments | Types of Argumentation | Model of Argumentation |
|---|---|---|---|
| V12/1/A2, page 14 | *… Dengan demikian, herba benalu batu memiliki peluang yang besar untuk dikembangkan menjadi bahan obat antikanker.* (… Thus, stone parasite herbs have a great opportunity to be developed into an anticancer drugs.) | Rule-based argument | Arguments based on the results of cause and effect correlation |
| V12/1/A3, page 23 | *… Mengingat bahwa fraksi heksan memiliki nilai IC50 yang hampir sama dengan fraksi aktif ekstrak etanol, maka diduga bahwa komponen minyak atsiri rimpang temu putri merupakan komponen yang bertanggung jawab terhadap aktivitas antibiofilm pada ekstrak etanol dan fraksi heksan.* (… Given that the hexane fraction has an IC50 value which is similar to the active fraction of ethanol extract, it is suspected that the essential oil component of the turmeric rhizome is the component responsible for the antibiofilm activity in the ethanol extract and the hexane fraction.) | Rule-based argument | Arguments based on the results of cause and effect correlation |
| V12/1/A4, page 29 | *Kelarutan suatu senyawa terhadap fungsi pH dapat diprediksi nilainya dengan menggunakan Least-Square Fitting Analysis*[14]. … (The solubility value of a compound towards the pH function can be predicted by using least-squares fitting analysis[14]. …) | Argument based on expert testimony | Arguments from expert opinion |
| V12/1/A5, page 34 | *… Oleh karenanya, berdasarkan nilai stokastik dari PLANTS_{CHEMPLP} (skor fungsi yang digunakan di software PLANTS) dan untuk menghindari nilai bias, digunakan ligan dengan lima konformasi untuk proses docking*[13]. (… Therefore, based on the stochastic value of PLANTSCHEMPLP (the functional scores used in the PLANTS software) and to avoid the bias value, a ligand with five conformations is used for the docking process[13].) | Rule-based argument | Arguments based on the results of cause and effect correlation |
| V12/1/A6, page 39 | *Pelarut air maupun etanol dapat mengekstraksi gula dari kunyit dengan efisiensi yang berbeda.* … (Water solvents and ethanol can extract sugar from turmeric with different efficiencies. …) | Rule-based argument | Arguments based on the results of cause and effect correlation |

| Article Code | Arguments | Types of Argumentation | Model of Argumentation |
|---|---|---|---|
| V12/1/A7, page 48 | *... Dengan demikian, malondialdehid secara tidak langsung dapat dipakai untuk mengukur peroksidasi lipid[19].* (... Thus, malondialdehyde can indirectly be used to measure the lipid peroxidation[19].) | Rule-based argument | Arguments based on the results of cause and effect correlation |
| V12/1/A8, page 54 | *IDO mempunyai efek parakin[23].* (IDO has a parakin effect[23]. ...) | Argument based on expert testimony | Arguments from expert opinion |
| V12/1/A9, page 65 | *... Pada umumnya, ekstrak kasar enzim akan memberikan nilai Km yang tinggi. ...* (... In general, the crude extract of enzyme will result in a high Km value. ...) | Rule-based argument | Arguments based on the results of cause and effect correlation |
| V12/1/A10, page 71 | *Berdasarkan ketiga metode evaluasi kualitas model (Sequensial Model Sum of Squares, Lack of Fit Test, dan Model Summary Statistics) dapat disimpulkan bahwa prediksi model kuadratik adalah tepat. ...* (Based on the three methods of model quality evaluation (sequential model sum of squares, lack of fit test, and model summary statistics), it can be concluded that the prediction of the quadratic model is accurate....) | Rule-based argument | Arguments based on the results of cause and effect correlation |
| V12/1/A11, page 78 | *... Dibutuhkan sistem pelarut dengan polaritas tertentu yang dapat menghasilkan ekstrak daun sirih merah dengan aktivitas antioksidan terbesar.* (... It takes a solvent system with a certain polarity that can produce red betel leaf extract with the largest antioxidant activity.) | Rule-based argument | Arguments based on the results of cause and effect correlation |
| V12/1/A12, page 90 | *Secara keseluruhan, semua formula memiliki laju disolusi andrografolid yang lebih tinggi jika dibandingkan dengan fraksi etil asetat dan andrografolid standard pada ketiga medium.* (Overall, all formulas have higher andrographolate dissolution rates than standard ethyl acetate and andrographolate fractions on the three mediums.) | Rule-based argument | Arguments based on the results of cause and effect correlation |
| V12/1/A13, page.97 | *.... Hal ini memperkuat dugaan senyawa ini adalah golongan flavonol dengan adanya gugus OH pada posisi 3 dan tidak ada gugus OH pada posisi 4.* (.... This strengthens the allegation that this compound is included in a flavonol group due to the presence of OH formation at position 3 and no OH formation at position 4.) | Rule-based argument | Arguments based on the results of cause and effect correlation |

| Article Code | Arguments | Types of Argumentation | Model of Argumentation |
|---|---|---|---|
| V12/1/A14, page 102 | *Dengan demikian dapat dipastikan bahwa senyawa ini adalah 4,4²-biguaikol, yang juga diperkuat dengan adanya korelasi jarak jauh antara H-2 dan C-1², seperti diilustrasikan pada Gambar 4.* (Thus, it can be ascertained that this compound is 4.42-biguaicol, which is also supported by the long-range correlation between H-2 and C-12, as illustrated in Figure 4.) | Rule-based argument | Arguments based on the results of cause and effect correlation |
| V12/1/A15, page 106 | *... Dengan demikian metode spektrofotometri ultraviolet-visibel yang digunakan pada penelitian ini mempunyai ketelitian yang baik untuk penetapan kadar rhodamin B.* (... Thus, the ultraviolet-visible spectrophotometry method used in this study has a good accuracy for determining the rhodamine B level.) | Rule-based argument | Arguments based on the results of cause and effect correlation |
| V12/1/A16, page 115 | *Pada Gambar 6 dapat dipastikan bahwa preparasi urin menggunakan teknik ekstraksi cair-cair yang dilakukan dapat menghasilkan larutan sampel yang cukup baik, karena beberapa puncak yang terdapat dalam urin sampel tidak mengganggu respon ketiga senyawa yang dianalisis.* (Figure 6 confirms that the urine preparation using the liquid-liquid extraction technique performed can produce a fairly good sample solution, since some peaks that are present in the urine sample do not interfere with the response of the three compounds being analyzed.) | Rule-based argument | Arguments based on the results of cause and effect correlation |
| V12/1/A17, page 122 | *(... Oleh karena itu, diperlukan sebuah senyawa pembanding dengan nilai MCC (Matthews Correlation Coefficient) tertinggi/$MCC_{max}^{(5)}$....)* (... Therefore, it requires a compound that can be compared with the highest MCC (Matthews correlation coefficient) value$_{max}^{(5)}$....) | Rule-based argument | Arguments based on the results of cause and effect correlation |
| V12/1/A18, pagec135 | *Dengan demikian dapat disimpulkan bahwa walaupun dosis masing-masing ekstrak diberikan yang diberikan tidak sama, tidak terlihat memberikan efek immunomodulasi. ...* (Thus, it can be concluded that even though the doses of each given extract are not the same, it does not appear to have an immunomodulation effect. ...) | Rule-based argument | Arguments based on the results of cause and effect correlation |

| Article Code | Arguments | Types of Argumentation | Model of Argumentation |
|---|---|---|---|
| V12/1/A19, page.143 | [6] *Secara keseluruhan hasil penelitian mengenai pengetahuan guru tentang perawatan asma ini adalah lebih rendah dibandingkan penelitian sebelumnya*. ... (Overall, the results of the study on teachers' knowledge about asthma treatment are lower than in the previous study...) | Rule-based argument | Arguments based on the results of cause and effect correlation |

## 4. Conclusion

In conclusion, several things can be emphasized as a result of this preliminary study. First, the authors of journal articles in the pharmaceutical field were still dominant in keeping with the descriptive paragraphs and exposition paragraphs in writing out the results and discussion of their journal articles. The argumentative literacy in relation to the writing of argumentative paragraphs is urgent to do in relation to the scarcity of argumentative paragraph models in the section on journal articles. Second, the dominant type of argumentative paragraph used is an argumentative paragraph based on rules. Another type of paragraph, which is based on expert testimony, is still rarely used. In this regard, it is necessary to increase the argumentative literacy to the authors of pharmaceutical journal articles, particularly those relating to the types of arguments. Third, the cause-effect argument model is predominantly found in argumentative paragraphs in the pharmaceutical field. If the above argumentative paragraphs are well-preserved by journal article writers in pharmaceutical journals, they will be able to vary the argumentative paragraph models they use. In other words, it is extremely important to implement argumentative literacy in relation to the argument models.

## Acknowledgement

## Conflict of Interest

Authors declare that there is no conflict of interest in this research.

# References

[1] Toulmin S, Rieke R, Janik A: An Introduction to Reasoning. New York: Macmillan Publishers; 1979.

[2] Watson JA, Arp R: Critical Thinking: An Introduction to Reasoning Well. New York: Bloomsbury Academic; 2011.

[3] Herlanti Y: Analisis argumentasi mahasiswa pendidikan biologi pada isu sosio-saintifik konsumsi Genetically Modified Organism (GMO). Jurnal Pendidikan IPA Indonesia, JPII. 2014; 3(1), 51-59.

[4] Walton D: Methods of Argumentation. Cambridge: Cambridge University Press; 2013.

[5] Sudaryanto: Metode dan Aneka Teknik Analisis Bahasa [Methods and Language Technical Anaysis]. Yogyakarta: Penerbit Universitas Sanata Dharma; 2015.

[6] Setyaningsih Y, Rahardi RK: Peningkatan kadar ketajaman argumen paragraf-paragraf argumentatif artikel jurnal dalam perspektif Stephen Toulmin. Proceeding of KOLITA 15. Jakarta: Pusat Kajian Bahasa dan Budaya Universitas Katolik Indonesia Atma Jaya; 2017.

[7] Setyaningsih Y, Rahardi RK: Argumentative literacy in Toulmin perspective in developing argumentative paragraphs for journal article writers with various cultural background. In Attas SG, Asih NSF, Santiah, Purbasari R, Ratna, Sumiati A, Wahyu AAP, (Eds.). Proceeding of the ICELA: Intercultural Communication through Language, Literature, and Arts. Jakarta: Facuty of Art and Language, State University of Jakarta; 2017.

# Douglas Walton's Argumentation Models inthe Vehicle of the Indonesian Language Internationalization

**8** Wasino Wasino, Endah Sri Hartatik. "Rice Policy in Java from Traditional Kingdoms to Dutch Colonial Time", KnE Social Sciences, 2019
Publication

1%

**9** www.readbag.com
Internet Source

1%

**10** Submitted to Universitas Tadulako
Student Paper

<1%

**11** Submitted to University of Huddersfield
Student Paper

<1%

**12** jurnal.uii.ac.id
Internet Source

<1%

**13** microbiologyjournal.org
Internet Source

<1%

**14** Submitted to Udayana University
Student Paper

<1%

**15** artsdocbox.com
Internet Source

<1%

**16** www.mdpi.com
Internet Source

<1%

**17** repository.ub.ac.id
Internet Source

<1%

18  Stuart S. Yeh. "Validation of a scheme for assessing argumentative writing of middle school students", Assessing Writing, 1998
Publication

<1 %

19  flex.flinders.edu.au
Internet Source

<1 %

20  repository.unair.ac.id
Internet Source

<1 %

21  s3-ap-southeast-1.amazonaws.com
Internet Source

<1 %

22  repository2.unw.ac.id
Internet Source

<1 %

Exclude quotes        On
Exclude bibliography  On

Exclude matches    < 5 words