THE ARGUMENT STYLE OF RESEARCH ARTICLE
DISCUSSIONS BY NON-NATIVE AUTHORS OF
ENGLISH PUBLISHED IN INTERNATIONAL JOURNALS

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Abstract
The argument quality in the discussion section of research articles determines the quality of the article but authors often find it very difficult to write especially when writing it in a foreign language. This study is aimed at investigating how Indonesian authors in multi-disciplines as non-native speakers of English discuss their research results in their English RAs. Fifty English RAs written by Indonesian authors in multi-disciplines published in Indonesian-based journals were analysed on the ways the authors discuss their research results and justify their new knowledge claims. The results show that, like international authors, Indonesian authors in multi-disciplines consider statement of results (Move-2), reference to previous research (Move-4), explanation (Move-5), and exemplification (Move-6) conventional or obligatory. They also consider explanation of the findings (Strategy-2), illustrating or exemplifying the findings (Strategy-4), and relating the findings with those in previous studies obligatory or conventional. The implication of these findings is for teaching Indonesian young faculty members and postgraduate students in writing convincingly argumentative discussion sections when writing RAs in English for international journal publication by including necessary moves and strategies.

Keywords: argument quality, discussion section, new knowledge claim, rhetorical style

INTRODUCTION
Students and faculty members in Indonesia as in other countries in the world are encouraged to publish their research results in indexed international journals, such as those published in English (Adnan, 2014; Arsyad & Adila, 2018; Coleman, 2014; Day, 2007 & Dujsik, 2013). However,
according to Adnan the push to publish in international journals in Indonesia is not as strong as it is in more developed countries such as the USA, Canada, Australia or countries in Europe because the academic tradition in Indonesia is relatively newly established. For Indonesian authors, the most possible language for international publication is English which is a foreign language while Indonesian as the national language is not an international language and other foreign languages such as Arabic, Chinese, French and Russian, are not widely used in academic practices in Indonesia.

The majority of Indonesian academics are unsuccessful in international publication in English although they frequently publish articles in Indonesian journals (Kemristekdikti, 2016). This is probably because writing an academic text, such as journal articles in a foreign language or additional language is very hard (Arsyad & Arono, 2016 & Moreno et al., 2015). Therefore, in order to be successful in publishing in international journals in English, university students or new authors must learn and be familiar with the writing style of RAs in English including the move variations in the text structure among RAs in different disciplines as expected by international journal readers (Fazilatfar & Naseri, 2014 & Loi et al., 2015).

The discussion section of an RA is very important since in this section authors claim their research findings and argue for their validity, reliability and importance using an argumentative rhetorical style (Dobakhti, 2013 & Liu & Buckingham, 2018). According to Liu & Buckingham, the central function of the discussion section is to report and argue for the importance of the research findings. Similarly, Dobakhti suggests that in the discussion section, RA authors are expected to address and support their research findings so that readers accept them as new knowledge; however, the new knowledge claim will not be accepted without a convincing discussion on the data (Loan & Pramoolsook, 2015). Parkinson (2011) suggests that, in the RA discussion, authors are expected to ‘demonstrate to readers how the data collected prove the author’s knowledge claim’ (p. 164). Authors are also expected to interpret and explain their findings in the discussion (Hess, 2004 & Hagin, 2009) and this can be done by responding and commenting on every issue in the research questions (Branson, 2004 & Thyer, 2008). Thus, the discussion section of an RA must be argumentative in nature and for this purpose authors must use the appropriate or acceptable rhetorical style and linguistic features in order to be convincing to prospective readers.

Because the discussion section of an article must be convincingly argumentative and persuasive, it makes this section very difficult to write not only for university students but also for faculty members and writing it in a foreign or second language is even more difficult (Dujsik, 2013 & Lim,
According to Flowerdew (2001), one of the main problems causing articles to get rejected by reputable international journals is that the introduction and discussion sections are written using an inappropriate rhetorical style. Belcher (2009) states that, the discussion section is not only the most important section in an RA but also the most difficult one to write even if the authors have strong data. According to Belcher, authors must have the appropriate interpretation of their data and be able to structure the discussion around an argument so that readers can understand the significance of the findings. Thus, the more convincing a discussion section the better the quality of the paper; therefore, authors when writing in English must write this section rhetorically appropriate following the acceptable discourse style as it is expected by international readers.

In the discussion section, RA authors are expected to address and support their new knowledge claims by explanation, interpretation, illustration and deduction and these often need citations to other author’s work (Dudley-Evans, 1994 & Swales, 1990). However, authors in a particular discipline may not or rarely support their knowledge claims in their RA discussion section with references for various reasons. For example, RA authors in History rarely support their findings with references even when writing in English (Holmes, 1997). This is because, according to Holmes, there is no standard format of knowledge production and expression among authors in History since research in this discipline is not yet well developed. Another possible reason for the lack of knowledge claim justification in History RAs, as Holmes further suggests, is the limited development of cumulative research programs and the absence of a theoretical convention in that discipline. Thus, the lack of support from relevant references may make a discussion section of an RA less argumentative or less convincing in the eyes of journal readers.

Another genre-based study on discussion section of RAs was conducted by Salimi & Yazdani (2011) when they analysed the discussion sections of 80 articles written in English in two different disciplines: 40 articles in Sociolinguistics and 40 articles in Language Testing. Salimi & Yazdani used nine-move structure model of discussion section of RAs suggested by Dudley-Evans (1994) to analyse their data and found that there was no important difference between the two groups of RAs in terms of their macro structure but there was a significant difference on the frequency of absence of important moves in the discussion section of the two groups of RAs. According to Salimi & Yazdani, compared to the ones in Sociolinguistics, the articles in Language Testing are much better in terms of utilizing the important moves in their discussion section. In their conclusion, Salimi & Yazdani stated that writers of RAs in Sociolinguistics did not
follow the standard nine moves pattern as suggested by Dudley-Evans as religiously as the writers of testing articles did.

In the Indonesian academic context, studies on the rhetorical style of RAs in Indonesian and/or English by Indonesian authors have been conducted such as by Safnil (2001), Mirahayuni (2002), Basthomi (2009), Adnan (2009 & 2014), Arsyad (2013a. & b.), Arsyad & Wardhana (2014), Arsyad & Arono (2016) & Arsyad & Adila (2018); however, the majority of these studies focused on the analyses of rhetorical style in the introduction section of the RAs. The only study focusing on the discussion section of Indonesian RAs, as far as these authors are aware, is the one by Arsyad (2013b.) who investigated the rhetorical moves in the Indonesian RA discussions in Social Sciences and Humanities. Arsyad found that Indonesian authors in the Social Sciences and Humanities (i.e., Religious Study, Education, Economy and Management, Language and Literature, Psychology and Social and Political Sciences) rarely support their research findings with related references when writing in Indonesian. This is because, according to Arsyad, Indonesian authors think that they do not need to justify their research findings; it is readers who must accept whatever finding is claimed by an author/s in a particular study. What is important, as Arsyad explains further, is elaboration, explanation and illustration or exemplification of the findings so that readers can understand and use them for their own studies. Similarly, Adnan (2014) found that the rhetorical style of Indonesian RAs by Indonesian authors is different from one discipline to the others. According to Adnan, RAs in hard sciences (e.g., Agriculture, Biology, and Medical sciences) have rhetorical style similar to the one in English RAs published in international journals not to the ones in Social Science and Humanities (i.e., Education, Linguistics and Social and Political Sciences). Adnan further suggests that, compared to those in the Social Sciences and Humanities, Indonesian authors in the hard sciences need less adjustment of their RA rhetorical style in order to publish in international journals in English.

Although studies on the rhetorical style of RAs written in Indonesian and/or English by Indonesian authors in a particular or group of disciplines have been conducted by several discourse analysts, research on the rhetorical style of English RA discussions by Indonesian authors in multi-disciplines has been neglected and hard to find in the literature. A similar claim has been addressed by Salimi & Yazdani (2011) and Cotos et al. (2017) who suggest that much attention has been given to the rhetorical moves or a unit of language such as one or several sentences which has a particular distinct communicative purpose in RA introductions but not on the discussion sections. This is the motivation for this study, which explores how Indonesian authors in multi-disciplines justify their research findings in
their English RA discussion. This study attempted to answer the following questions:

1) What rhetorical moves are commonly found in the discussion section of English RAs by Indonesian authors in multi-disciplines?

2) How do Indonesian authors in multi-disciplines justify their new knowledge claim in their RA discussion when writing in English? and

3) What are the differences (if any) on how Indonesian authors uphold their knowledge claim in their English RAs among the different disciplines?

To answer the above questions, a discourse analysis study was conducted on authentic discourse samples (i.e., RAs written in English by Indonesian writers published in Indonesia and targeted for Indonesian and the international academic discourse community in the same or related disciplines). Khorramdel & Farnia (2017) suggest that a major problem for university students and non-native speakers when writing RAs in English is insufficient knowledge of rhetorical conventions in English academic writing. Indonesian writers are strongly encouraged by the Indonesian government to publish in international journals in which the language is mainly English, and if the rhetorical style of knowledge claims in their English RA discussions are known it will be easier to advise and guide Indonesian writers to adjust their English RA discussion into the one rhetorically and linguistically acceptable in English. As a result, the chance for Indonesian authors to successfully publish their RAs in reputable international journals in English will increase.

METHODS
The Corpus of the Study

For this study, 50 RAs were chosen from five English-research journals published in Indonesia in multi-disciplines (i.e., Applied Linguistics, Geography, Medical, Chemistry and Animal Science). These five different journals may represent main-stream English journals published in Indonesia in two different fields: social sciences and sciences. Adnan (2004) claimed that Indonesian scholars in hard and medical sciences write rhetorically better English RAs than those in social sciences do. According to Adnan, this is partly because scholars in hard and medical sciences have a better access to English references. However, this may not be the case since Indonesian scholars from social sciences may have the same access to English references such as from open access journals available in the internet. The distribution of the research articles in the corpus of this study is given in Table 1 below.
Table 1. The Distribution of Research Articles in the Corpus of this Study

<table>
<thead>
<tr>
<th>No.</th>
<th>Journals</th>
<th>Disciplines</th>
<th>Code</th>
<th>Number of RA Discussion</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>TEFLIN Journal: Applied Linguistics Journal of Indonesia</td>
<td>Applied Linguistics</td>
<td>Apl.</td>
<td>10</td>
<td>20%</td>
</tr>
<tr>
<td>2.</td>
<td>Indonesian Journal of Geography</td>
<td>Geography</td>
<td>Geo.</td>
<td>10</td>
<td>20%</td>
</tr>
<tr>
<td>3.</td>
<td><em>Acta Medica Indonesiana</em>: The Indonesian Journal of Internal Medicine</td>
<td>Medical</td>
<td>Med.</td>
<td>10</td>
<td>20%</td>
</tr>
<tr>
<td>4.</td>
<td>Indonesian Journal of Chemistry</td>
<td>Chemistry</td>
<td>Che.</td>
<td>10</td>
<td>20%</td>
</tr>
<tr>
<td>5.</td>
<td><em>Media Peternakan</em>: Journal of Animal Science and Technology</td>
<td>Animal Science</td>
<td>Ani.</td>
<td>10</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>50</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

The articles chosen from the selected journals as the corpora for this study were taken from the latest issues of the journals in order to represent the most recent features of the research papers published in the journals. The articles were taken from these five journals because of the followings: 1) the articles are written in English by Indonesian authors for Indonesian and international readers; 2) the journals publish articles in the fields of Sciences and Social Sciences; 3) the articles can be easily downloaded since the journals are open-access; 4) in Indonesia, these journals are reputable journals (i.e., national accredited or Scopus-indexed journals) and have become important references for Indonesian authors and 5) the articles published in these journals are written following a standard format of introduction, methods, results and discussion (IMRD). As to why 50 articles were included in the corpus of this study (i.e., ten articles from each journal), it is believed that with this size of corpus the articles can represent the rhetorical style adopted by the journal organizers, the discourse community and the authors in writing their discussion sections in Language and Literature Studies in Indonesia. The minimum requirement for the number of texts to be included in a quantitative analysis is 30 texts (Corder & Foreman, 2009). For example, a study on the language used to prove knowledge claims in high-impact Physic journals by Parkinson (2011) included 30 texts. However, it was decided to include 50 research articles in this study in order to ensure a more comprehensive coverage of the discourse style in the discipline in terms of both content and language choices.
The Rhetorical Moves in Research Article Discussion

The first analysis was on the rhetorical moves found in the discussion section of the RAs in the corpus of the present study. Swales (1990) suggests that, RA authors may address up to eight different rhetorical moves or communicative units in their discussion section which together convey the main communicative units of the discussion section; these are ‘background information, ‘statement of results’, ‘un/expected outcome’, ‘reference to previous research’, ‘explanation’, ‘exemplification’, ‘deduction and hypothesis’ and ‘recommendation’ (p. 172-173). According to Swales, in each move RA authors are expected to provide a different rhetorical work as in the followings:

In Move 1, authors are expected to reassert the necessary information in order to remind readers about the research bases and processes;
In Move 2, they are expected to declare the research results by referring to the research question/s;
In Move 3, they are expected to claim whether or not the research findings are as they are previously assumed;
In Move 4, authors are expected to support, compare or contrast their research findings to those in previous studies found in the literature;
In Move 5, authors are expected to interpret and argue for their current research results;
In Move 6, they are expected to show some examples to illustrate the research findings;
In Move 7, they are expected to relate the research findings to a wider research prospectus; and
In Move 8, authors are expected to recommend how to implement the research findings in practices and/or suggest further studies in the related areas.

Peacock (2002) suggests a similar structure for a RA discussion; the only differences are that in Move 6, authors are expected to address a claim of the contribution of the research and in Move 7, authors are expected to state the limitation of the research.

Although previous studies such as those of Peacock (2002), Yang & Alison (2003), and Basturkmen (2012) have suggested some slightly different rhetorical models for RA discussion, in this study the Swales (1990)’s eight-move model was used because of several important reasons. First it is the first model which suggests the rhetorical framework for RA discussions. Second, it is one of the most frequently used by other researchers across disciplines and across languages. Third, it is simple to use with clear description of the communicative purpose in each move. Finally, a similar
A study on Indonesian RA discussions in social sciences and humanities by Arsyad (2013b) found that this rhetorical framework was effective enough to capture the important communicative units or moves and steps in the RA discussions.

The second analysis was a further analysis of Move 4 (the way authors support, compare or contrast their research findings to those in previous studies found in the literature) and Move 5 (the way authors interpret and argue for their current research results) in the first analysis; this was about how authors rhetorically convince journal readers and the research community at large on their new knowledge claim. Yang & Alison (2003) suggest that, in their Move 4 (commenting on results) of an RA discussion authors are expected interpret the results, compare results with literature, account for results and evaluate results in order to convince readers that their research findings are important and interesting. Similarly, Parkinson (2011) suggests that authors must explain their findings in the light of accepted knowledge and extend this knowledge and therefore authors may ‘hedge more because the information is new and not yet endorsed by the community’ (p. 165). Thus, in the discussion section authors are required to strongly argue for the importance of their research findings using available literature so that readers may accept and use it for their own work.

In this second analysis, authors’ statements of research findings became the starting point and then what they say about the findings was identified and categorized based on its communicative strategies. The possible communicative strategies of this rhetorical work, following Yang & Alison (2003) were interpretation of the findings (Strategy 1), explanation of the findings (Strategy 2), stating the cause of the findings (Strategy 3), illustrating or exemplifying the findings (Strategy 4), and relating the findings with those in previous related studies (Strategy 5). Thus, this second analysis was more focused than the first one and only looked at the authors’ arguments in order to gain readers’ acceptance on their research findings or new knowledge claims.

The third analysis was conducted in order to see whether or not there was a significant difference on the average frequency of strategies found in the five different journals. For this purpose, an analysis of Variance (ANOVA) was conducted with Null Hypothesis (H0) was rejected if the F value < F (0.05, df.) while the Null Hypothesis (H0) was accepted if the F value > F (0.05, df.)

**Methods and Procedures of Data Analysis**

This study used a text analysis, in which the major source of data is a single text or a collection of texts as an outcome of language activity (Hyland,
2016). According to Hyland, text analysis can be ‘descriptive’, ‘analytical’ or ‘critical’ (p. 119). The analysis was based on the smallest syntax unit of language i.e. clause or a simple sentence because one communicative unit of a move cannot be addressed in a unit smaller than a clause or a sentence; this is because a clause or a simple sentence should have only one topic or subject and one comment or predicate. In addition, linguistic and discourse clues such as formulaic expressions, particular lexical items and cohesive markers were used in the identification of the communicative units or by inferring from the information contained in the text. Other kinds of discourse clues, such as sub-titles or sub-section titles, paragraph as a unit of ideas, and other possible linguistic and discourse clues available in English which might help chunking the text into moves and strategies and identifying the communicative unit boundaries were also used in the text analysis.

Following Dudley-Evans (1994), we identified the rhetorical moves and the argument strategies in the RA discussion section through several steps. First, we read the beginning parts (i.e., title, abstract and key terms) of each article to obtain general information about the study published in the articles. Second, we read the whole article to determine its main parts (i.e., introduction, methods, results and discussion and conclusion). Third, we looked at the linguistic and/or discourse evidences to determine the possible rhetorical units of moves and strategies in the discussion section of each article. Fourth, we validated data analysis processes and results validation with the help of an independent rater who was asked to determine the moves and strategies in sample texts. Finally, the frequency of moves and strategies in the RA discussions was categorised into obligatory, conventional or optional. Following Kanoksilapatham (2005), if the moves and strategies appeared in all RAs they were categorized as obligatory, if they appeared between 60-99% of the RAs, they were categorized as conventional and if they appeared in fewer than 60% of the RAs, they were categorized as optional. The main purpose of categorizing the moves and strategies into three categories, according to Kanoksilapatham, is to establish which rhetorical moves and strategies are more conventional than the others.

**Inter-Rater Reliability Analysis**

In order to show that a unit of text, such as a clause or a group of clauses, can be coded into a particular move and/or strategy an inter-rater reliability was conducted so that different individuals can identify the boundary of communicative units at a sufficiently high level of agreement. An independent co-rater involved in this study was a lecturer at the English department of the education faculty of Muhammadiyah University of
Bengkulu who has an MA degree in Applied Linguistics. The co-rater was trained how to code the text into its possible communicative units or moves and strategies in order to assure that the co-rater clearly understood how to code the RA discussion on the moves and strategies. Then, the co-rater was asked to identify the possible moves and strategies in a sample of ten RA discussions (two RA discussions were taken randomly from the five groups of RA discussions in the corpus of the study) and if any miscoding act occurred then a discussion, negotiation and clarification was held in order to reach an agreement between the researcher and the co-rater. Finally, the co-rater worked independently to code the sample texts on the moves and strategies.

In this study Cohen’s Kappa coefficient analysis was used to evaluate the inter-rater reliability of the moves and strategies in the discussion section of the RA samples. According to Brown (1996), the maximum score in Cohen’s Kappa statistical analysis is 1.00 and the lowest is 0.00. Then, following Kanoksilapathan (2005), if Cohen’s Kappa score is less than 0.40 it was considered ‘poor’, between 0.40–0.59 ‘fair’, between 0.60–0.74 ‘good’, and 0.75 or above ‘excellent’. After comparing the move and strategy identification results from the researcher and the co-rater on a sample of ten RA discussions, the Kappa coefficient value was calculated. The Cohen’s Kappa value obtained was 0.81, an excellent overall inter-rater reliability implying that the processes of coding moves and strategies in the RA discussions was already reliable.

**FINDINGS**

The first analysis was on the identification of rhetorical moves found in the discussion section of the RAs. The results are shown in the following table.

<table>
<thead>
<tr>
<th>No</th>
<th>Moves</th>
<th>Ani n=10</th>
<th>Apl n=10</th>
<th>Chem n=10</th>
<th>Geo n=10</th>
<th>Med n=10</th>
<th>Total N=60</th>
<th>%</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Move 1</td>
<td>6</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>8</td>
<td>29</td>
<td>58</td>
<td>Optional</td>
</tr>
<tr>
<td>2.</td>
<td>Move 2</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>100</td>
<td>Obligatory</td>
</tr>
<tr>
<td>3.</td>
<td>Move 3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Optional</td>
</tr>
<tr>
<td>4.</td>
<td>Move 4</td>
<td>10</td>
<td>10</td>
<td>9</td>
<td>7</td>
<td>9</td>
<td>45</td>
<td>90</td>
<td>Conventional</td>
</tr>
<tr>
<td>5.</td>
<td>Move 5</td>
<td>9</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>9</td>
<td>48</td>
<td>96</td>
<td>Conventional</td>
</tr>
<tr>
<td>6.</td>
<td>Move 6</td>
<td>0</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>12</td>
<td>24</td>
<td>Optional</td>
</tr>
<tr>
<td>7.</td>
<td>Move 7</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>10</td>
<td>Optional</td>
</tr>
<tr>
<td>8.</td>
<td>Move 8</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>6</td>
<td>Optional</td>
</tr>
</tbody>
</table>

As can be seen in Table 2, there is only one move which can be categorised as an obligatory move (Move 2 or statement of results) and two moves are conventional (Move 4 reference to previous research and Move 5 or explanation or the writer’s rhetorical attempt to logically convince readers of
the findings) while the other moves (Move 1 or background information, Move 3 or un/expected outcome statement, Move 6 or illustration or samples to strengthen or support the explanation and Move 8 or recommendation or writer’s suggestion on the application or implementation of the research findings in practical ways and/or suggestion for further studies in the same or similar topic) are optional. Below are examples of obligatory and conventional moves taken from the data of this study.

Extract 1

A number of patients died (80%) with 3.3% and 6.7% experienced local recurrence or complication, respectively. The percentage of patients in stage III with metastases who had good and excellent functional status (66.7%) were lower than patients in stage IIB (85.7%). Unfortunately, most of patients died and only 21.6% survived. On the contrary, only 35.1% patients experienced metastasis compared to those who did not (64.9%). (M.2-Med.1)

Extract 2

Figure 2 shows one of the forms of agricultural land use was wetted land. The wetted land in the research location was dominantly used for agricultural purpose with sufficiently various widths of land. The wetted land in the five research villages were continuously under the pressures of urban area, so that the ownership of such land continuously decreases annually. (M.2-Geo.5)

Extract 3

The increased dry matter intake in the Madura beef cattle fed complete ration containing soybean pod at the level of 15% indicates that soybean pod has a good palatability at this level. ... A previous meta-analysis showed that the content of crude fibre influenced the dry mater intake of ruminant cattle (Riaz et al., 2014). (M.4-Ani.5)

Extract 4

The paucity of hedging devices in the Indonesian research articles strongly suggests that, unlike their English counterparts, the Indonesian applied linguists may perceive things in the world as either black or white... Adnan (2008) showed that none of the 63 article introductions she analyzed contained critical evaluation of the previous studies. Adnan argued that such absence of critical comments on previous studies is the upshot of the Indonesian cultural values which consider criticism as unethical. (M.4-Apl.1)

Extract 5

Fig. 4 shows the typical TEM images of WMCG-2 samples, it can be obviously visible that the microstructure of the obtained samples is disordered, which can
be attributed to the strong effect of infiltration to the rapid process of filling pore. (M.5-Chem.2).

Extract 6
The IBCSG (International Breast Cancer Study Group) study involving 6,792 breast cancer patients revealed that 55.6% were above 50 years, whereas 25.6% were above 60 years. The result implies that our study showed tendency to a younger age distribution, ... The reason for difference in age distribution is not known, but it is suggested that ethnic, geographic nutrition, and genetic factors could possibly be the underlying factors. (M.5-Med.5)

Extracts 1 and 2 above were coded as Move 2 (statement of results) which may have been stated in the results section of the RA if the Results and Discussion are separated into two sub-sections. The statement of results in the discussion is usually stated in a simple way in order not to repeat what was stated in the results previously. Some important features of this move is the use of specific lexicon, such as ‘data’, ‘reveal’, ‘Table’, ‘Figure’, ‘demonstrate’ or the use of numbers. Extracts 3 and 4 are coded as Move 4 (reference to previous research). This is a straightforward move with the feature of reference of other authors’ work in the literature. Extracts 5 and 6 as underlined in the above examples are coded as Move 5 (explanation or the writer’s rhetorical attempt to logically convince readers of the findings). Moves 4 and 5 are usually addressed after Move 2 because the main purpose of these moves is to elaborate and justify the findings of the research.

The second question addressed in this study is how Indonesian authors in multi-disciplines justify their new knowledge claim in their English RA discussion. The analysis results are given in the following table.

Table 3 Authors’ Strategies in Convincing Readers on their New Knowledge Claim

<table>
<thead>
<tr>
<th>No</th>
<th>Moves</th>
<th>Ani n=10</th>
<th>Apl n=10</th>
<th>Chem n=10</th>
<th>Geo n=10</th>
<th>Med n=10</th>
<th>Total N=60</th>
<th>%</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Strategy 1</td>
<td>6</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>8</td>
<td>29</td>
<td>58</td>
<td>Optional</td>
</tr>
<tr>
<td>2.</td>
<td>Strategy 2</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>50</td>
<td>100</td>
<td>Obligatory</td>
</tr>
<tr>
<td>3.</td>
<td>Strategy 3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Optional</td>
</tr>
<tr>
<td>4.</td>
<td>Strategy 4</td>
<td>10</td>
<td>10</td>
<td>9</td>
<td>7</td>
<td>9</td>
<td>45</td>
<td>90</td>
<td>Conventional</td>
</tr>
<tr>
<td>5.</td>
<td>Strategy 5</td>
<td>9</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>9</td>
<td>48</td>
<td>96</td>
<td>Conventional</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>35</td>
<td>34</td>
<td>32</td>
<td>36</td>
<td>172</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3 shows that, there is only one strategy which can be classified as obligatory (Strategy 2 or explanation of the findings); two strategies (Strategy 4 or illustrating or exemplifying the findings and Strategy 5 or relating the findings with those in previous related studies) are conventional while one strategy (Strategy 1 or interpretation of the findings) is optional.
and one strategy (Strategy 3 or stating the cause of the findings) is not used at all by the Indonesian authors in supporting their new knowledge claim in their English RA discussions. Below are examples of obligatory and conventional strategies taken from the data of this study.

Extract 7

By comparing different phases of the ovarian reproductive status, we found that IGF-I concentrations in all follicles diameters during the luteal phase was higher than during the follicular phase (P<0.05). These results might be due to the contributions of the corpus luteum and the follicles to secrete IGF-I during the luteal phase of reproductive cycle. (S.2-Ani.2)

Extract 8

One of the interviewees stated clearly that she did not want to be a civil servant teacher (a profession which is generally believed to offer secure employment and a good retirement scheme by the government), because the profession is too restricted... The participants’ decisions to choose English in particular were mostly influenced by integrative factors. (S.4-Apl.4)

Extract 9

The result showed that the highest concentration of Zn (6.76 ppm), Cu (3.40 ppm) and Cd (0.07 ppm) occurred at acidic soils with pH 5.5 and pH 5.3 respectively. This finding was in agreement with Pan et al, [2015], where under acidic soil condition, concentration of trace metals raised due to the high solubility of mineral; meanwhile at high soil pH, the concentrations were low due to presence of carbonate material that strongly bind trace elements. Furthermore, soil organic matter (SOM) content also influences the concentration of trace metals in soil because it provides surface for trace metals adsorption, complexion or chelation. (S.5-Geo.10).

Extract number 7 above shows an example of Strategy 2 or how RA authors explain or elaborate their research findings, and in this case they suggest the possible cause of the result. To convince readers that their explanation or elaboration is correct, the RA authors may cite a reference. Another possible elaboration of the research result is that the authors suggest an interpretation of their findings. Extract number 8 above is an example of Strategy 4 or illustration or exemplification of the findings; in this example, the authors give an example of an interviewee’s statement from the data to support the research finding. Extract number 9 is an example of Strategy 5 or how authors relate their research findings with those in previous studies. In this example, the RA authors claim that their finding is in line with that of previously cited study. Authors may also claim that their findings are
different or contradictory to those of previous studies on the topic that they cite.

The final question addressed in this study is whether or not there is a significant difference between the Indonesian authors in multi-disciplines in the ways they justify their new knowledge claim in their English RA discussions. The results of analysis of variance (ANOVA) on the average frequency of strategies found in each different journals at significant level of 95% shows no significant different \[F\text{-value } 0.61\] compared to \[F_{0.05,4,16} 3.01\]. This implies that, there is no significant difference between the Indonesian authors in multi-disciplines in the ways they convince readers about their new knowledge claim in their English RA discussions. Strategy 2, Strategy 4 and Strategy 5 are used by almost all Indonesian authors while Strategy 1 is used by some authors and none of them used Strategy 3. In other words, the majority of Indonesian authors in multi-disciplines support their new knowledge claim in their English RA discussions by elaborating and illustrating their findings and relating them to the findings of other authors available in the literature.

DISCUSSION
The first finding in this study is that Move 2 (statement of results) is considered obligatory; Move 4 (reference to previous research) and Move 5 (explanation or the writer’s rhetorical attempt to logically convince readers of the findings) are conventional while Move 1 (background information), Move 3 (un/expected outcome statement), Move 6 (illustration or samples to strengthen or support the explanation) and Move 8 (recommendation or writer’s suggestion on the application or implementation of the research findings in practical ways and/or suggestion for further studies in the same or similar topic) are optional. This implies that, as for international authors the main purposes of RA discussions for the Indonesian authors are to announce their research results, to relate them with the findings of other authors on the same topic and to convince readers that their research results are important and interesting. This is in line with Dobakhti (2013) and Parkinson (2011) who suggest that in the discussion section of an RA, authors are expected to address and support their research findings so that readers accept them as new knowledge. Swales & Luebs (cited in Swales, 2004) also found that the majority of RA authors in Journal of Personality and Social Psychology used the discussion section to announce and strongly support the importance of their research findings. This implies, among other things, that Indonesian authors in multi-disciplines are already familiar with and able to use the rhetorical styles of RA discussions when writing in English as international authors in the same disciplines do and as international readers expect it.
The second finding in this study is that the majority of Indonesian authors in multiple-disciplines use the same strategies in convincing readers about their new knowledge claim in their English RA discussions; these are explaining the findings, illustrating or exemplifying the findings and relating them with the findings of other studies on the same topic. This is already in line with Parkinson (2011) who suggests that, authors’ statement of research findings can become the starting point of their discussion and the findings should be identified and categorized based on their communicative purposes or strategies. Similarly, Hess (2004) claims that, in order to write an effective discussion authors should ‘... explain the meaning of their findings, why the findings are important and relate the findings to those of similar studies’ (p. 1239). Thus, the ways Indonesian authors in the corpus of this study justify their new knowledge in their RA discussions are already rhetorically acceptable. Parkinson (2011) suggests that the discussion section of RAs is an important place where authors argue for the importance of their research findings and to convince readers that they should accept it with the proof of the research data. According to Parkinson, readers cannot inspect the truth of the data themselves; therefore, they rely on the author’s explanation and exemplification about the cause of the results, and the conditions required for the results. Similarly, Kuhn (cited in Lam et al., 2018) suggests that, the processes of an argument are ‘... making a claim, challenging it, supporting it with reasons, questioning the reasons, rebutting them, and finally reaching a conclusion’ (p. 97). Thus, the success of an argument depends not only on the components of the argument employed but also the appropriate choice of lexicon to convey the points.

The last finding of this study is that there is almost no difference between the Indonesian authors in multi-disciplines in the ways they argue for the importance of their new knowledge in their English RA discussions. This implies that, although the authors come from different disciplines (i.e., Applied Linguistics, Geography, Medical, Chemistry and Animal Husbandry), the ways they argue for the importance of their research findings in their English RA discussions are similar. However, this finding is contradictory to that of Adnan (2014) who found that the rhetorical style of Indonesian RAs written by Indonesian authors in the social sciences and humanities (i.e., Education, Linguistics and Social and Political sciences) is different from that of hard sciences (Agriculture, Biology and Medical sciences) in which the rhetorical style of Indonesian RAs in the hard sciences is closer to that of international research articles. Therefore, according to Adnan, Indonesian authors in the hard sciences are expected to be more successful in international journal publication than those in social sciences and humanities. Similarly, Arsyad (2013b) found that Indonesian authors in the social sciences and humanities rarely used references in their RA
discussions to support their findings because they think that readers must accept whatever finding is claimed by an author/s in a particular study. This is probably because, unlike Adnan (2014) and Arsyad (2013b) who analysed Indonesian RAs written by Indonesian authors, the corpus of this study consisted of English RAs written by Indonesian authors in multiple-disciplines and published in Indonesian journals. This implies that, the Indonesian authors in Applied Linguistics and Geography in the corpus of this study, although belong to social science disciplines have successfully adjusted the rhetorical style of their RA discussions when writing an article in English.

CONCLUSIONS AND SUGGESTIONS

Conclusions
This study investigated the rhetorical style of English RA discussions written by Indonesian authors in multi-disciplines published in Indonesian-based journals. The findings show that like international authors, Indonesian authors consider statement of results (Move-2), reference to previous research (Move-4), explanation (Move-5), and exemplification (Move-6) obligatory or conventional. They also consider explanation of the findings (Strategy-2), illustrating or exemplifying the findings (Strategy-4), and relating the findings with those in previous studies obligatory or conventional. This implies that Indonesian authors in multi-disciplines have learned and comply with the rhetorical style of RA discussions when writing in English. However, unlike the finding of Adnan (2014), there is no significant difference between Indonesian authors from two different groups of disciplines (hard sciences and social sciences) in their ways of convincing readers for the importance of their research findings in their English RA discussions.

Implication and Future Research
Although the rhetorical style of discussion sections of English RAs written by Indonesian authors in multi-disciplines published in Indonesian-based journals has been found similar to that of English RAs written by international authors published in international journals, it is suggested that Indonesian authors be aware of other linguistic features of English RAs published in reputable international journals such as, the use of appropriate tenses, appropriate type of sentences, appropriate discourse markers, appropriate ways of reviewing relevant literature and so on. This is for the purpose of increasing the possibility of English RAs written by Indonesian authors in any discipline to be accepted in reputable international journals.

This study only looked at the discourse features of English RA discussions written by Indonesian authors in multi-disciplines. Other
aspects such as the newness and relevance of references cited in the articles, the news value or novelty of the findings claimed in the RAs and the importance of the research topic addressed in the research should also be investigated and compared between English RAs written by Indonesian authors and those by international authors in the same disciplines or groups of disciplines for further studies. This is important in order to see the difference and similarity between English RAs written by Indonesian authors and published in Indonesian journals and those by international authors published in international journals in the same disciplines.

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