Paragraph Boundaries: Examining Identification and Production Performance of Iranian EFL Learners

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Abstract
This study investigates the effect of Iranian EFL students' proficiency level on their ability in identifying paragraph boundaries of unparagraphed expository texts and in producing paragraph boundaries in their own L2 expository writings. Further, this study seeks the correlation between advanced and intermediate learners' ability to identify and produce paragraph boundaries. On the basis of their scores on the general proficiency test of Michigan, intermediate and advanced EFL students studying in the English department of University of Isfahan participated in receptive and productive tasks. The results of data analysis indicate that proficiency is connected with paragraph perception, a fact more observable in productive performance; at advanced levels, students seem to be more skillful in the appropriate boundary placement. Moreover, identification performance has a positive medium correlation with production in the case of both advanced and intermediate groups of EFL learners.

Keywords: Paragraph, Paragraph boundary, Identification of paragraph boundaries, Expository writing, Topic

1. Introduction
In order to divide up a lengthy piece of writing into chunks which could be comprehensible to readers, the writer is often forced to depend on some vague intuitive notions about where one part of a written text ends and another begins. Partitioning of complex discourse into paragraphs might occur as a result of diverse reasons. There has been controversy over which specific cues are guidelines to help the writer set one chunk of discourse off from the rest. There could be varying degrees of change in semiactive consciousness. The most primary reason is mentioned by Chafe who believes: “Writing makes use of paragraph boundaries, associated at diverse levels with changes in semiactive consciousness: changes in space, time, character configurations, event structure, and/or modes of consciousness” (Chafe, 1994, p. 300). Clyne (1987) investigated paragraph structures in English and German. He concludes that English and German writers have different styles of paragraph organization. In addition to cognitive constraints which are universal, there are some culture-specific differences arising from typological differences between languages and among writers of different languages. Given the fact that paragraph organization skill is a universal cognitive one and develops in most part through one's trainings in one's L1 writing programs, the assumption in this article is that Iranian learners have to invest more in order to learn the trends used in English paragraph segmentation. Persian is a language whose writers' perception of paragraph is less a logical semantic representation of thought and more a board of related ideas small enough in size for the ease of processing. From the point of view of Persian writers, the structure of a paragraph is simple and fairly unconscious which is determined mainly by paragraph size, so much as educated Persian writers prefer to divide their written discourse when the size of the unit is sufficient for mental processing. This fact is observable clearly when we examine some genres such as informal friendly letters written by Persian educated individuals in which paragraphs often correspond to the condition of size as a major issue rather than displaying the conditions for coherence.

Studies on written paragraphs have been mostly prescriptive dictating to writers how their writing should be segmented into paragraphs, not at observing how they actually do it. Based on recommendations of most of paragraph writing
books for the use of topic sentences, each new paragraph should be a point of topic shift. But, when it comes to practical usage, it is no longer as simple as that. While topic shifts often correspond to paragraph boundaries, not all paragraph boundaries indicate a topic change (Sporleder & Lapata, 2004). The important question to consider is: Are readers capable to reinstate paragraph boundaries, when boundaries have been removed, with a fair degree of accuracy higher than chance? Regardless of typological differences attributing to cultural variation across languages, there are two aspects to paragraph segmentation: a) style which reflects optionality when decisions at minor breaks are to be made and as a result of differences in genres of writing which demand varying stylistic preferences, and b) cognitive constraints indicating necessity when genres of writing require expository or explanatory units in which breaks are likely to be more semantic and logical. Agreement on paragraph structure shown in tasks involving identification of boundaries indicates that texts are structured logically according to mental constraints and that students have developed the skill required; and skill in recognizing breaks in pieces of coherent texts develops with Persian individual's greater proficiency which can potentially make up for the lack of the same required training which they did not develop in their L1 writing programs. Such breaks are facilitated with, in addition to one's pragmatic judgment of the rhetorical structure of the text as a hierarchical unit based on some general information from types of context, paragraph insertion cues including repeated content words, pronoun coreference, and the use of discourse markers. On the other hand, boundary placement depends in part on the author’s style and taste, in the sense that some breaks might not be predictable and might vary from writer to writer (Genzel, 2005).

The present study focuses on a) the effect of EFL proficiency on paragraph boundary identification and production skill, and b) the correlation which might exist between the ability to identify paragraph boundaries and the ability to produce them.

2. Method

2.1 Participants

Thirty-one intermediate and thirty advanced EFL students were chosen from among one hundred ninety-seven junior and senior students majoring in English translation and literature of University of Isfahan based on the results of a Michigan language proficiency test (Table 1). Having assumed that sex is not a variable effecting in the results; the data of the study were collected through the participation of both male and female students. The age range was from 21 to 25, with an average age of 22.4. Students were all Iranians, having come from different cities with an educational background common among all of them. Students who knew a third language by being bilingual, who had lived in English speaking countries, or those who had done a degree in an overseas university for at least a semester were screened out. The only variable in focus was proficiency level which could divide participants into two homogeneous groups.

2.2 Instruments

2.2.1 General proficiency test

Michigan proficiency test consisting of 30 Grammar, 30 Vocabulary, 20 cloze, and 20 reading comprehension questions, was administered in 80 minutes. The number of participants who took part in the test was 197 attending different courses in the English department, so we had to attend four classes for data collection. The ones selected for our purpose were those who were judged to be intermediate by the result of their achievement test, and advanced if their score was higher than the average, two standard deviations above the mean.

2.2.2 Passages

Expository passages, about familiar topics and with a fairly equal degree of difficulty, were chosen to be used in collecting identification data. Two were taken from Paragraph Development (Arnaudet & Barrett, 1990) and the third one from Becoming a Writer (Wong, Glendinning, & Mantell, 1987). Both are sources used as guides for developing practical EFL writing skills representing accurate paragraph organization.

2.2.3 Writing topic for eliciting productive performance

For collecting production data, an expository topic was taken from paragraph Development (Arnaudet & Barrett, 1990). The topic for the writing task demanded that in one session students write whatever they could about the advantages of being able to use a computer. In order to prepare a relaxing atmosphere and for the students to be able to display their full capacity in writing, they were allowed to use a dictionary, take their time as much as they wished to organize their thought and feel free to interrupt their writing for having a brief rest. The topic chosen was, according to the judgments elicited from experienced writing instructors, familiar for the students to write about.

2.2.4 Procedure

First the proficiency test was administered in an 80 minute session. The second stage was administration of the paragraph boundary identification test which involved comprehending three authentic expository passages. Participants were exposed to the unparagraphed versions and were asked to identify the location of paragraph boundaries (Appendix
1). The time duration needed for the identification task was not more than 35 minutes; students completed their writing task in a period of 90 minutes. They were encouraged to limit their texts to four or five paragraphs, so that they ended up with texts having almost the same length. The procedures of data collection and analysis were examined for adequacy and validity in a pilot project the details of which are not mentioned here for brevity.

2.2.4.1 Paragraph boundary identification scoring schemes

The passages selected from writing manuals all contained five paragraphs. The first was about comparing American and British English which contained two paragraphs, the second, living styles of Americans, with three paragraphs, and finally the third, sources of power, with three paragraphs. Participants were given the unparagraphed versions of the passages and were asked to reinstate the boundaries. For each correct paragraph boundary placement, they would receive 1 point, so the scores ranged from 0 to 5, and then equaled to a scale of 0 to 100. In order to be objective, subjects did not receive any points for identifying optional boundaries.

2.2.4.2 Paragraph boundary production scoring schemes

The rating scale was based on Pongsiriwet's (2001) discourse scale, Bailey and Brown's (1984) analytic scale, and Cheng's (2003) multi-trait assessment scale which was modeled after the Michigan writing assessment scoring guide. They were adopted to fit the purpose of the study. The rating scale applied for the purpose of data analysis considers 10 writing features in the examination of written passages (Appendix 2).

In addition to the examination work that we did on the produced passages, two EFL university professors were asked to duplicate our assessment; their views were used as a measure taken for higher objectivity. A meeting with the two raters prior to rating the compositions was held for clarification of how to apply the rating scale. The raters assessed the compositions at their leisure and returned them after completing their assessment. For each participant, an average score was calculated, turned into a scale of 100, and was taken as the paragraph boundary production score. The results of the analytic examinations did correspond with additional holistic measurements.

3. Results

Inferential statistical measurements were applied to discover if differences reveal theoretical significance. Details of data analysis are discussed in the following section.

3.1 The results of data analysis: is the role of proficiency reflected in the receptive task?

The first hypothesis reads: there is a significant difference between the performance of intermediate and advanced EFL students in identifying paragraph boundaries. In order to investigate the hypothesis, an independent-sample t-test was conducted to compare paragraph boundary identification (PBI) scores for intermediate and advanced students (Tables 2 and 3). The assumption of equal variances has not been violated in this case. Therefore there is no theoretically significant difference in the performance of intermediate as opposed to advanced group considering paragraph boundary identification scores. The magnitude of the difference in the means is small (Eta squared= 0.001711).

3.2 The results of data analysis: is the role of proficiency reflected in the productive task?

The second hypothesis predicts there will be a significant difference between the performance of intermediate and advanced EFL students in the production of paragraph boundaries. To examine it, the second independent-samples t-test was run to compare the boundary production scores (Tables 4 and 5). In the independent-samples t-test output box, the variances for the two groups are not the same. There is a statistically significant difference in the performance of intermediate and advanced groups considering paragraph boundary production in expository written texts. The Eta squared statistics (0.0736605) indicates a large effect size.

3.3 The results of data analysis: do the receptive and productive performances compare?

The third hypothesis predicted correlation between identification and production of paragraph boundaries across the two groups of EFL learners. To be able to verify the third hypothesis, two separate Pearson correlations were run. The first one was conducted to explore the relationship between identification and production of paragraph boundaries among advanced participants of the study (Tables 6 and 7). There is a positive medium correlation between scores gained in paragraph boundary identification and production tasks, with an intermediate level of paragraph identification ability being associated with an intermediate level of ability in accurate production of paragraph boundaries among advanced participants. The relationship between identification and production of paragraph boundaries among intermediate participants was also investigated using Pearson product-moment correlation coefficient (Tables 8 and 9). There is a positive medium correlation between scores gained in paragraph boundary identification and production tasks, with an intermediate level of paragraph boundary identification ability being associated with an intermediate level of ability in accurate production of paragraph boundaries.
4. Discussion, implications, and conclusion

A long time ago, Koen, Becker & Young reported that often the degree of agreement with which readers identify paragraph boundaries in unparagraphed prose passages depends to a significant extent on both formal as well as semantic cues (1969). In their study, Sporleder and Lapata (2004) observed, in judging paragraph segmentation, the least agreement existed for some genres including fiction, news, and parliamentary proceedings. Bond and Hayes (1984) compared participants' performances who had to reinsert paragraph markers in a 17-sentence unparagraphed text on the basis of their own definition of the paragraph and discovered that segmentation differed in many ways from the initial author segmentation. Stark (1988) obtained similar results in a study in which university students had to reinsert paragraph boundaries into three unparagraphed texts. A mean score of accuracy was computed which revealed that agreement was only above the chance level. Readers reported that they responded mostly “to topic changes or to the introduction of new topics” (Stark, 1988: 284).

Several studies could be mentioned in support of the claim that L2 proficiency exerts an effect on L2 writing ability (Whalen & Menard, 1995; Sasaki, 2000; Woodall, 2002; Cheng, 2003) and accordingly on the quality of written paragraphs (Pennington & So, 1993; Rowshan Zamir, 1995; Sasaki & Hirose, 1996; Ryu, 1997; Cheng, 2003). These studies underline the importance of acquiring a certain threshold level of L2 proficiency in order to utilize effective writing strategies required for creating well organized paragraphs. Sasaki and Hirose (1996) investigated factors that might influence Japanese EFL university students’ skill in writing expository paragraphs (e.g., L2 proficiency, L1 writing ability, writing strategies in L1 and L2, metaknowledge of L2 expository writing, past writing experiences, and instructional background). They reported that among all variables, L2 proficiency explained the largest portion (52%) of variance observed among L2 writings.

A number of studies have been carried out on the correlation between various aspects of productive and perceptive proficiency; they report a low to a moderate correlation between the two (Shanahan, 1980; Stotsky, 1983; Flahive & Bailey, 1993, cited in Kroll, 2003). Shanahan (1988) suggested that hardly was the correlation observed to be as high as 0.60. Improvement in perception leads to an improvement in production, and an improvement in production leads to an improvement in perception.

There are a number of important issues to consider dealing with the findings mentioned above. The potential factors which effect students’ perception of paragraph organization are several, three of which are essential and worth a mention. One major interfering factor is students’ L1 writing conventions, as mentioned earlier. It is assumed that Persian writers are less topically oriented compared with native English writers; paragraphs are spaces on blackboards in the writer's mental system. When the board is filled with sentences which are semantically related, then another board should be ready to be filled out: another paragraph. How much is it the decision to have logical organization compared with black boards filled with writings? We assume for Persian writers paragraphs are reflections of one fairly small size board of sentences which are semantically as well as pragmatically related; this understanding is the major reason for paragraph divisions. Paragraphs are often less likely to be units in the sense of logical organization. This fact makes Persian EFL learners predictably different from English native writers, in the sense that they could grow, for the first time, the ability to think organizationally logical in their EFL productions. This effect can leave us with prototypically acceptable writing production results which are often less than perfect bearing in mind the high proficiency level of the EFL learner. We observed differences between the two groups of writers, the higher the proficiency and exposure to the English language, the better the ability to discover the logical organization. Consequently, lower level students did face relatively greater difficulty in the tasks given to them.

The second issue to consider here is that writing skill is not a matter of proficiency in English as an FL, organization of thought is in parts a universal cognitively oriented development; in the sense that students’ organizational ability in L1 can definitely be reflected in their organizational ability in L2, in our case EFL. So writing a well paragraphed piece of text is dependent on some organizational ability which can be developed concurrent with general cognitive development involving greater world knowledge, ability to think and organize ideas into logically understandable units through applying contextual input. This skill is not language-specific, rather it is a universal skill developable by general intellectual practice and training. Having taken into consideration that Persian is culturally more a language of approximation rather than absolute precision, Persian students need to work harder to develop the skill of organizing paragraphs as skillfully as native English writers do. This fact is demonstrated in the weaker outcome of intermediate students' writings compared with more competent high level proficiency participants in our study who demonstrated a fairly acceptable understanding of paragraph divisions as per instructions by EFL paragraph writing books.

The third factor which is relevant and can affect results of such a study is text type. Different genres of texts require different organizational styles. Narratives vary in the sense that change of paragraph happens with change of character, scene, or time; while, in journalistic writings, one might see paragraphs as long as a whole sentence, and that’s the style part of organization of discourse. Breaks in paragraphs are reflections of pieces of news related to a topic separated because of emphasis and attention which small units can attract; this is a different definition of paragraph organization.
from the one taught in writing instruction textbooks. In expository writing, on the other hand, organization is more likely to be logical, and in paragraphs with an explanatory nature, it is the semantic hierarchy of ideas that are logically related, less is it the writers’ stylistic preferences.

What is emphasized in this study is that paragraph writing books are instructions for logical structures mostly utilizable in expository and explanatory writings. They are guidebooks for writing ideally about issues which are logically classifiable. We can design studies to see how Persian writers, whose native language is not a similar one with English when paragraph development is concerned, compare to English native writers. The three factors, namely the students’ L1 conventions of paragraph development, the cognitive non-language specific aspect of paragraph development, and finally the most problematic and interfering one which is the stylistic optional aspects as a result of text types in different genres of language are worth greater research. The style of the writer is a reflection of optionality when breaks are not major as opposed to obligatory; therefore, some breaks are more predictable compared with those which are less predictable and more stylistically oriented. What is implied from these assumptions is that writing instruction guides a) require to deal with texts of varying genres, b) need to take into consideration the fact that some EFL students with different L1 backgrounds need greater training than assumed by writers, and c) should make a distinction between that part of writing ability which depends on students’ general intellectual development and the part which is dependent on the ability to use linguistic cues and discourse markers as signs of cohesion.

In sum, EFL Proficiency is strongly connected with Persian writers’ paragraph perception ability, a fact more observable in productive performance. At advanced levels, students seem to be more skillful in the way they decide on appropriate paragraph boundary placement as a consequence of EFL writing instruction. Identification has a positive medium correlation with production of paragraph boundaries among both advanced and intermediate groups of EFL learners; this is true when expository paragraphs are used containing major obligatory breaks. The development of skill in L2 boundary production and boundary identification skill is, to some fair degree, correlated, although in production students have a better chance of revealing their skill of creating breaks. In a task involving reading the expository passage and judging the breaks, students’ comprehension success might affect their performance, this problem is not effective in a productive task in which students enjoy the freedom of choosing the structure of their written units.

In conclusion, the motivation for this study was the assumption that educated Persian writers who are EFL learners need to be trained to overcome the difficulty of writing organizationally accurate paragraphs to the standards acceptable to English, a skill which they did not develop fully while getting more advanced in L1 writing. The major finding regarding this assumption did reveal that advanced learners of English had developed a fair degree of skill required for organizing acceptable English paragraphs, a skill that is not required by their L1 which considers paragraphs as related ideas in the size of small boards of sentences semantically related rather than a hierarchy of semantically related ideas with a clear logical organization.

References


Appendix 1: A sample of paragraph boundary identification test

Read the following passage and put a check mark (✓) where a new paragraph should get started.

Since we Americans are a blend of people from many countries, we have a very short history which can properly be called American. Therefore, it is hard to find characteristics which apply to all Americans. We combine many extremes from many different cultures. Nevertheless, we can make some generalizations. Our main characteristics include individuality, a combination of idealism and practicality, materialism, and a lack of parental influence, all of which permeate our lives. We Americans value individuality. Our country was founded by strong individuals, and we do not like to be forced into conformity. Therefore, we insist on having a great deal of freedom to behave very much like most other Americans, and we are suspicious of those who do not conform. Hippies are individualists, for example, but most Americans do not like them. By the same token, we consider ourselves very faithful to the laws of our country, but there are few among us who would not break one if it was felt that no harm would be done by doing so—such as by exceeding the speed limit or failing to report informally-received cash income on tax forms. Secondly, we Americans are both practical and idealistic. We place great value on doing things for ourselves, for this is what our pioneer forefathers were forced to do. Many foreign visitors are surprised to find that many couples of comfortable means do their own yardwork, their own housework, their own repairs. On the other hand, we are very idealistic: we think we have the best political, social, and economic system yet devised, and we therefore expect everything to go smoothly. As a result of our idealism, we are easily disillusioned. This is why so many marriages end in divorce—young couples' expectations from marriage are often unrealistically high. Similarly, it helps explain the dissatisfactions and protests of many young people, and even older people who enjoy one of the highest standards of living in the world.

Appendix 2: Paragraphing rating scale for scoring written compositions

Please circle the number that reflects the degree to which you agree with the statement about the composition.

4 = Strongly Agree 3 = Agree 2 = Disagree 1 = Strongly Disagree

4 3 2 1 A. The beginning section is effective in introducing the subject.

4 3 2 1 B. The ideas in the composition are relevant to the topic. (Essay addresses the assigned topic.)

4 3 2 1 C. The ideas are well-related to one another. The essay is clearly and logically ordered without digressions. The Ideas are concrete and thoroughly developed.
Appendix 3: Sample written composition: advanced

Discuss the advantages of being able to use a computer.

Welcome to the virtual world of computers. Nowadays, computers have become another member of families, just as TVs have become such—they are cared for, and even fed, however, with electricity. And though one may not know how it has become his child, he can't dispense with it. Nevertheless, there are still those who consider it as a mere tool, and nothing more. Now the question is what good it can offer to us.

The first thing which flashes in ones mind is that it can make every work done faster and more convenient, these two are correlated: the faster, the more convenient, and vice versa. Advantages of computers range from writing this very essay to sending a spacecraft into space. By learning how this set of 0s and 1s works, one can speed up his work and thus save time and money. Yet this may also turn into a disadvantage, as the saved money might be used to wander around during the saved time.

The other advantage shows itself when the computer is connected to the internet. This simple connection makes the world so small that it takes one a blink of eye to start communication with not only one, but several persons simultaneously. Data, which range from some information to help writing an essay (not this one, of course!) to co-working with one's colleagues at home, can also be exchanged from every online computer across the planet. Yet again, there are problem. One is that this virtual closeness may affect one's desire to have a face-to-face communication. The other maybe that due to this massive amount of available information, one may forget that he's to find the answers to his own questions, not the answers of others.

Other merits could be fittingly mentioned, but by a deeper look, most of them are other aspects of those suggested above. So this little kid is now fully grown up, and its abilities can be of much help, both for good and bad guys.

Average score: 35

40

Appendix 4: Sample written composition: intermediate

Discuss the advantages of being able to use a computer.

Many years ago, someone who could simply read and write was called a literate person, but little by little as technology made a great jump forward, a literate person is defined as someone who has the ability to speak English and use computers.

These days computers are found everywhere in all aspects of human life. You can't find a house not having a computer since most tasks are done with computers.

There are two opposite ideas; some believe computers hinder people from their work while others think they help to do jobs easily.

Computers save much of our time, money, and energy. That's why human forces are replaced by computers in most companies. Data and Information are easily processed and protected. We can pay our bills by using computerized systems so that we don't have to go out and spend a lot of time and money. We can buy all our products through internet system and introduce our products to the world. So computers play an important role in everyday life.

These were some advantages of computers. Of course, it doesn't mean there aren't any disadvantages. Sometimes computers can even hurt people's lives in some ways.

Average score: 18.33

40
Table 1. Descriptive tabulation of the Michigan language proficiency test results

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<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
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<td>92</td>
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Table 2. Descriptive statistics of paragraph boundary identification test

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<th>Mean</th>
<th>Std. Deviation</th>
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<tr>
<td>PBI</td>
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<td>Advanced PBI</td>
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<td>72.2581</td>
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<td>Intermediate PBI</td>
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Table 3. Independent sample t-test for paragraph boundary identification test

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<thead>
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<th>t</th>
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<th>Sig. (2-tailed)</th>
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<tr>
<td>PBI Equal variances assumed</td>
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<td>.318</td>
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Table 4. Descriptive statistics of paragraph boundary production test

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<tr>
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<td>30</td>
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<tr>
<td>Advanced PBP</td>
<td>31</td>
<td>83.3226</td>
<td>20.40488</td>
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<tr>
<td>Intermediate PBP</td>
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Table 5. Independent sample t-test for paragraph boundary production test

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<th>t</th>
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<td>.001</td>
<td>2.147</td>
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<td>2.166</td>
<td>47.988</td>
<td>.035</td>
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Table 6. The mean score and SD of the scores gained in both identification and production tasks: advanced participants

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Table 7. Pearson correlations of the identification and production of paragraph boundaries among advanced participants

<table>
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<td>Pearson Correlation</td>
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<td>Pearson Correlation</td>
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**Correlation is significant at the 0.01 level (2-tailed)**

Table 8. The mean score and SD of the scores gained in both identification and production tasks: intermediate participants

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Table 9. Pearson correlations of the identification and production of paragraph boundaries among intermediate participants

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<td>PBI</td>
<td>Pearson Correlation</td>
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<tr>
<td>PBP</td>
<td>Pearson Correlation</td>
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</table>

**Correlation is significant at the 0.01 level (2-tailed).**

**Notes**

Note 1. PBI: Paragraph Boundary Identification

Note 2. PBP: Paragraph Boundary Production