

Introduction

Writing is perceived as a complex skill involving a number of steps as well as linguistic and nonlinguistic components (Murray & Moore, 2009). In spite of the form versus meaning debate lasting for more than a decade, many researchers maintain that both language and content are crucial components in writing. Isolating one of them leads to a rather distorted perception of the skill instead of a complete whole (Ferris, 2003). Instruction has been concerned about providing the most effective strategies to guide students improve both accuracy and organizational features of writing. One of those strategies is providing input through reading. Content-oriented methods are pertinent examples premised on the connection between reading and writing (Hyland, 2003). However, extensive exposure to input, reading materials, is not a guarantee of learning. Students need to activate their attentional abilities to notice all the elements embodied in the reading texts (Sharwood Smith, 1991, 1999). Pedagogical researchers appeal to textual enhancement as a form of input enhancement to reach optimal results from exposure to reading texts. Most textual enhancement studies have investigated the potential role of increasing noticing the linguistic and the propositional elements in texts (Alanen, 1995; Izumi, 2002; Jahan & Kormos, 2015; Shook, 1994; Wong, 2003). More empirical evidence is, however, necessary to understand the ways textual enhancement can benefit student writers in reducing their paragraph errors.

Literature Review

The importance of noticing to learning and writing

According to Schmidt (1990, 2001), noticing is *sine qua non* for input to be converted into intake. This idea was suggested to question the assumption that language can be acquired by mere exposure to input. In order for noticing to occur, not only do learners need to be aware of input, but also of the formal features included in it. Noticing is thus an attentional process responsible of the conscious registration of input. Although confusion has prevailed over the use of the related terms such as awareness, and attention, it led to zealous research in cognitive psychology (Truscott, 2014). The controversy over terminology did not prevent reaching a consensus on the importance of attentional resources in language learning (Nassaji & Fotos, 2011).

Noticing can be advantageous to writing instruction in that it provides alternative techniques to the ineffective ones adopted by teachers when handling students' errors. Writing instructors limit their classroom practices mostly to summative feedback without providing models of good quality writing. As learners need more than a verdict concerning the quality of their productions, providing models of good writing may be very helpful to students struggling to evaluate their writing (Couzijn 1999). To provide such models, reading can be integrated with writing as it represents the input to which student writers need to be exposed. As Ferris (2011) summarises it, "reading gives students ideas and content to write about, models rhetorical strategies and genre specifications, and provides extensive input for acquisition of vocabulary and syntax occurring within authentic discourse" (p. 161) . This contention asserts that reading materials represent more than vehicles of meaning. They provide opportunities to compare between the learners' texts and the enhanced texts to

discover the mismatches preventing the learner from having a target-like language(Vickers & Ene, 2006).

As exposing learners to written texts is not sufficient to guarantee learning, it is necessary to think about efficient methods for optimising learning. Foreign language students' sensitivity to target language features proves sometimes to be weak; they hence fail to eliminate their interlingual errors in spite of being continuously exposed to texts incorporated both in writing assignments and other modules. Augmenting the saliency of language features by means of input enhancement, a method suggested first by Sharwood Smith (1991, 1993), is a solution likely to trigger noticing and acquisition.

Textual enhancement as a type of input enhancement

The construct of input enhancement includes both phonologic and typographic modifications. To highlight a given form in oral medium, the speaker can appeal to a number of behaviours. He can perform alterations in stress or intonation, as he can repeat the target form or even use body gestures for this purpose. Similarly, textual devices can be used for the purpose of highlighting given elements (Nassaji & Fotos 2011). In this study, the term textual enhancement is used to refer to visual modifications brought to written texts.

The theoretical premises on the potential merits of textual enhancement inspired many researchers to test the usefulness of this technique using a variety of textual devices. Bolding, underlining, color highlighting, and circling are few examples of the typographical modifications thought to increase the saliency of language element in a text (Sharwood Smith 1991, 1993). The effectiveness of this technique is also associated to whether a single device is used or whether a combination of cues is employed instead. Grammar elements such as present perfect use, imperative form, relative clauses, and passive voice, to name few, are items on which textual enhancement was tested (Alanen, 1995; Izumi, 2003; Lee, 2007; Leow, 2001; Wong, 2003). Writing, which involves not only grammatical accuracy, but also a number of content-related elements including rhetorical pattern, adequate support, vocabulary choice, can benefit from this technique. Deep insights can be gained if the use of textual enhancement is extended to meaning-related elements instead of being restricted to form ones.

Errors and error treatment in writing

Achieving accuracy and content-related goals in writing have always been viewed as indicators of good quality composition. Hence, the primary objective of teachers and language practitioners has been to help student writers avoid errors in both aspects (Hyland, 2003). The necessity that arises then is to understand the construct of error in language production. Accuracy is defined as "morphological, syntactic, and lexical forms that deviate from rules of the target language, violating the expectations of literate adult native speakers"(Ferris, 2011, p.3). By extension, content-related errors are deviations from the rules of discourse organization, coherence, and rhetorical patterns. Such deviations cause a mismatch between the original intention of the

writer and his actual production (Kellogg, 1996). The objective of enabling learners to handle their errors requires understanding the factors contributing to their occurrence. Additionally, it is crucial to identify the patterns of error occurrence and their types.

Types of writing errors

A number of dyads can be distinguished when trying to categorise writing errors. One of the types is interlingual errors as contrasted to intralingual ones. This distinction is based on comparisons made between native language and target language rule systems on the one hand, on the other hand, comparisons between different states of the developing interlanguage of the same learner. Knowledge of the first language shapes the linguistic decisions of target language user, yet not all the influence is positive. When a language user appeals to the native language structures thinking they apply on the target language, negative transfer occurs resulting in interlingual errors. As a matter of fact, learners' interlanguage is developing towards a target language form that can be viewed as the extreme end of the learning continuum. Errors related to this developmental cause, reflecting an incomplete learning of the target rule system, are referred to as intralingual ones (Saville-Troike, 2012).

Another distinction related to error types is global versus local errors. Global errors occur when understanding the meaning of the text is impeded by a given misuse of language. If meaning is not affected by the writer's erroneous choice of linguistic element, the error is local. A faulty subordination can be an illustrative example of global errors while a misuse of prepositions or articles can exemplify local errors (Ferris, 2011).

'*Rule-governed errors*' is the term Van Beuningen (2011) used to refer to errors that can be treated through referring to a set of manageable rules. She contrasted this term to *non rule-governed errors* to avoid the term *untreatable errors*, suggested by Ferris (1999), referring to errors for which no handbook can be consulted. The dichotomy of rule-governed errors versus non rule-governed errors is a more optimistic designation of treatable versus non- treatable errors. It attempts to explain why some patterned errors can be corrected by simply consulting a grammar or punctuation handbook while others cannot. It is worthy to note that these distinctions are by no means comprehensive as there are different premises laying theoretical foundations to other types.

Error treatment in writing

Research on error treatment is marked by the daunting responsibility that teachers are assumed to take over handling the learners' errors. Although there are other sources of error treatment, namely peers and the learner himself, the onus is placed predominantly on the teacher (Lee, 2005). To achieve optimum effectiveness of error treatment, teachers may have to meet some requirements. A robust knowledge in both language and writing conventions is a key prerequisite. They also need to make the most convenient choices among a spectrum of possible pedagogical techniques and teaching materials (Ferris 2011). Because of these reasons and because of other constraints hindering full exploitation of teachers' assistance, other options have to be investigated. Assisting learners in becoming self-reliant editors is an idea that is

becoming more and more appealing to the advocates of learners autonomy (Hinkel 2003).

A number of challenges impede learners to detect and correct their errors. Probably, the most significant difficulty could be that “student writers are not sufficiently advanced in L2 proficiency to self-correct errors” (Ferris, 2011, p.32). Limitations of the learner’s interlanguage should be compensated by other means in order for learners to be self-editors. Engaging learners in comparison endeavours to discover the mismatches between what their interlanguage enables them to write and what other experts can write is a plausible solution (Vickers & Ene, 2006). Such comparisons require substantial noticing skills either internally or externally activated. Therefore, much stress can be placed on the importance of noticing to the ability of error correction. According to Hinkel (2003), “if learners notice correct uses of structures, they can then compare them to those they produce and self-correct. Self-correction or editing are [*sic*] activities that undertake an analysis of errors that begins with noticing” (p.45). Empowering students to take more control over detecting errors and correcting them is becoming an increasingly urgent necessity. Textual enhancement could be one of the instructional devices to cater for it.

Research on textual enhancement

The bulk of studies conducted on TE can be placed within the context of explaining how to provide input rather than whether input should be provided or not. Different objectives from input provision were claimed to conduct studies in this context. Noticing, comprehension, intake, and production are steps involved in the process of second language acquisition. They represent as well some of the constructs that input enhancement aimed to increase, with input at the starting point and output as an end point (Shook 1999). In spite of the appealing insights provided by the theoretical premises about the textual enhancement technique, empirical studies are far from being conclusive regarding the effectiveness of this technique in promoting the aforementioned constructs. Studies conducted on the effectiveness of TE fall into three groups according to the results obtained.

Studies proving full effectiveness of TE

The group of studies that succeeded to prove the effectiveness of the technique includes Shook (1994) and Jourdenais, Ota, Stauffer, Boyson, and Doughty (1995). Shook’s study was one of the earliest researches in this field. It targeted two Spanish language features, namely the present perfect and the relative pronouns *que* and *quien*. To investigate the effects of bolding as an attention drawing device on the intake of the targeted items, the researcher selected a sample consisting of 125 Spanish learners and divided them into three groups: two treatment groups and a control one. The first two groups were exposed to enhanced versions of a reading passage and were given different instructions to increase their attentional resources while the third group was given the same reading passage without enhancing it with bolding. The significant effects noticed in the intake of the two language features among enhancement groups were attributable to the text enhancement according to the researcher. The author further confirms that more attention was paid to the language items in the enhanced material than in the unenhanced one.

Another study yielding fully positive results is the one conducted by Jourdenais et al. (1995). The authors investigated the way noticing Spanish preterit and imperfect verbs can be promoted through a number of typographical cues like bold, shadowed, and underlined parts. To facilitate the comparison of the control and enhancement groups' performances, the researchers used think-aloud protocols and a picture-based written production task. The authors concluded that introducing textual manipulation not only had been effective in drawing the learners' attention to the language forms, but it assisted them in subsequent productions of the same features.

Studies proving partial effectiveness of TE

Studies indicating partial effectiveness outnumbered those claiming substantial impact on language development. Alanen (1995) used italics in two passages to increase the salience of the locative suffixes and consonant changes. For measuring the impact of the treatment, he assigned an online think-aloud protocol in addition to a recognition task and a production task. The researcher observed some gains in the learners' grammatical development, especially for the locative suffixes. The effectiveness could be attributed to the nature of the target form, for it is regarded more semantically significant than the consonant alternation.

Izumi (2002) examined, in addition to the role of producing output, the facilitative impact input enhancement may have on noticing the target language feature. In this study, output production is considered an internal attention drawing device while the enhanced input is regarded as an externally manipulated device. The 61 subjects were assigned to five groups: four treatment groups and one control group. The treatment consisted of varied manipulations including a combination of output and input enhancement, output alone, enhanced input alone, unenhanced input alone, while the control group did not receive any of these manipulations. Izumi found that the gains of input enhancement could be limited to the detection of the targeted features but not necessarily in its cognitive processing. He concluded then that combining input enhancement with other instructional tools, such as output in this study, is more likely to facilitate learning.

Working with a larger sample, 259 subjects, Lee (2007) used both input enhancement and topic familiarity in a study integrating the acquisition of language forms with meaning comprehension. The treatment consisted of meaning focused reading sessions and exposure to texts incorporating target grammatical elements. Lee used a free recall task, along with a form correction task, to measure the effectiveness of the treatment. He found that input enhancement has a facilitative role in learning the targeted features, yet it inhibits the comprehension of the text meaning.

In the same vein, Jahan and Kormos' (2015) assessment of input enhancement did not prove total effectiveness in fostering learners' grammar knowledge. Their study explored the way visually enhanced texts can assist the processing of future intentions' modals among 97 tertiary level students in Bangladesh. The five-week exposure to enhanced input was preceded by a pretest and followed by a post test for the two treatment groups. The control group underwent the same tests, however, without being exposed to the typographical clues. The tests involved grammar tasks requiring from students to fill in the gaps with either 'will' or 'going to' depending on the contexts in which they occurred. The findings revealed a positive effect, in terms

of noticing, among both treatment groups as opposed to the control group. Nevertheless, in terms of detailed understanding of form-function mapping, experimental groups showed limited gains. According to the researchers, input enhancement should be combined with explicit instruction to be fully effective.

Studies resulting in no effectiveness of TE

Other studies doubted the potential benefits of textual enhancement and provided empirical evidence to support their claims. Leow (2001) wanted to assess the effectiveness of bolding and underlining on noticing and learning the Spanish imperatives. After exposing his 38 adult learners to enhanced texts, he assigned a recognition task and an on-line think-aloud protocol. No benefits were noticed among the subjects who received enhanced material neither in terms of noticing, comprehension, nor intake.

Leow, Egi, Nuevo and Tsai (2003) used think-aloud protocols to compare the noticing abilities among treatment and control groups. The targeted features were the Spanish present subjunctive and the present perfect. The researchers found that the 41 subjects exposed to enhanced material did not report a greater amount of noticing than the 31 subjects exposed to unenhanced material. Nor did they show any improvement in the intake of the target features and the comprehension of the reading material. The researchers in this study did not reach any empirical evidence about the benefits of input enhancement. They stressed, however, the importance of promoting learners' noticing, as a pedagogical choice, when teaching grammar.

Reasons of findings dissimilarity

A number of explanations have been advanced to account for the dissimilarity of findings yielded by the body of empirical studies conducted on the present topic. Probably, the strongest reason is the significant difference in the construct under study. The efficacy of TE is linked to varied abilities, not to a single one, including but not limited to noticing, comprehension, and intake. It can be concluded then that there is no agreement whether noticing is an end for TE or a means to achieve other abilities like production. Han, Park and Combs (2008).

According to Jahan and Kormos (2015), the semantic value and the communicative function of the target form may have connections with the contradictory outcomes. In Alanen's (1995) study for instance, more gains were reported in noticing locative suffixes than in consonant alternation. Seeing that locative suffixes have a semantic value while consonant alternation has not, it could be inferred that the treatment effectiveness is related to the selected target form. Beside semantic content and communicative function, other features bearing on the nature of the target form may include perceptual salience, difficulty and learnability (Han et al. 2008).

The duration and mode of exposure are additional elements interfering in the variation of studies' results. Alanen (1995) exposed his subjects to enhanced input for two sessions; Jourdenais et al. (1995) provided one-session treatment, whereas Izumi (2002) extended his treatment period over six sessions and Jahan and Kormos (2015) over four sessions. It is worthwhile to note that repeated exposure to enhanced input is likely, according to Sharwood Smith (1993), to promote the noticing abilities. As

regards the mode of exposure, researchers used either printed texts or computer-mediated texts.

Another parameter with potential impact on the incongruous findings is the prior knowledge of the subjects. The participants in Shook (1994) and Jourdenais et al.'s (1995) studies for instance, had previous knowledge about the target items. In Leow et al.'s (2003) study, the participants had little knowledge about the target form. It can be inferred thus that the subjects' previous knowledge is a determining factor of the TE efficacy.

Post treatment measurements as well were features that differed from one study to another. By considering two illustrative examples, it will be possible to examine not only the variation in the research instruments but also in the type of the assessed knowledge. Alanen's (1995) study relied on controlled production and recognition tasks to assess the grammatical development among the participants. A picture-based production, however, was the measurement tool that Jourdenais et al. (1995) appealed to. Jahan and Kormos (2015) explained that Alanen's instrument assessed the learners' explicit knowledge whereas Jourdenais et al. assessed the procedural and automatic knowledge.

Research on textual enhancement as an input-based approach is clearly far from being scarce; nevertheless, the question of its effectiveness has not been settled yet. Reaching conclusive results does not only lead to theoretical consensus. It also would provide valuable insights to writing instructors (Wong, 2003; Han et al., 2008).

Methodology

Aims of the present study

The present article is guided by the objective of exploring the facilitative role of input enhancement on reducing errors in a number of features including, besides accuracy, content related features. The main research questions, therefore, are

1- Does textual enhancement have any role on enabling students to minimise their errors?

Given that the study involved students of different levels and varied targeted features, other questions were posed:

2- Could improvement of the ability to minimise errors, if any, be associated to the level of students?

3- Could improvement of the ability to minimise errors, if any, be associated to the nature of the target feature?

Participants

The present study was conducted in the English department of Mohamed Lamine Debaghine, Sétif 2 University, during the 2014/ 2015 academic year. Nine undergraduate students were selected to take part in this study. They are aged between

20 and 23 having Arabic as first language and French as first foreign language and English as second foreign language. The selection of the group was based on the quality of their performance in a standard writing test. The nine subjects belonged to three equal categories: three good achievers, three average achievers, and three poor achievers. The motivation behind selecting these nine students from a total number of 50 students divided on two intact groups and receiving the same instruction and training on the use of attention-enhancing techniques was the attendance record during the second semester of the same academic year 2014/ 2015. The study required regular attendance to the 14 weeks of instruction, which ensured an equal number of paragraphs written by each student representing the corpus of the study.

Subjects had sufficient prior instruction on sentence level accuracy as well as on larger issues related to paragraph writing including structure, rhetorical pattern, coherence, and unity. They were also familiar with feedback codes since they were presented during the first semester of the same academic year.

Target linguistic features and reading materials

In order to select the linguistic elements for this study, a corpus of 27 paragraphs representing the productions of an intact group in the first semester writing test was studied. The errors were categorised according to their nature then computed to obtain percentages facilitating the identification of most frequent errors. Table 1 displays the percentages of the different types of errors occurrence.

Table 1 Percentages of the Different Types of Errors Occurrence

Error Type	Error Percentage
Content elements (rhetorical pattern, use of cohesive devices, support)	06.63%
Sentence level problems (fragments, subject/verb agreement, pronoun/ antecedent agreement, verb/ tense problems)	22.61%
Vocabulary problems (word choice, prepositions use, word class)	15.25%
Mechanics (spelling, punctuation, capitalisation, format)	51.56%
Other aspects (shift, number, use of L1 or L2,)	03.95%

To meet the objectives of the study, 12 paragraphs were used as reading passages. They were produced by the teacher/ researcher to include the selected language features and to bear on topics that fit the interests of the students. Sugar craving, time management, beauty contests, writer's block, and planning for a trip are examples of the included topics. The average length of texts was 109 words; they all ranged between 78 and 137 words. The targeted features related to accuracy included among others subject verb agreement, fragments, and sentence subordination. The features related to content were the use of transitional elements, provision of sufficient support, and conformity to rhetorical pattern. To the reading passages were introduced some textual enhancement techniques including bold face, italics, underlining, circling, change in font or size, and colour highlighting. In most of the reading

passages, only one technique was used, yet a combination of two techniques was used as well to fulfil the purposes of some sessions.

Procedure

The study has lasted for 14 weeks. In the first week, a writing test was administered. In the view of fulfilling the requirements of a standardised test, all test takers were assigned the same prompt, writing a paragraph. The productions were scored using an identical marking scheme to gauge the students' abilities on the same criteria and to identify the areas of weaknesses that students have. This test was not preceded by any reading passage. The first tutorial was meant to introduce the technique to the students. It also provided, however, the first production ready for comparison with subsequent ones. The comparison of students' ability to minimise errors before and after the tutorials started in the third prompt, lasted for 12 prompts, and stopped before the last prompt. The last paragraph was left to contrast error occurrence in the last feature, conformity to rhetorical pattern, with the previous paragraphs.

The technique of textual enhancement was accompanied by two other techniques, namely self-monitoring through marginal annotations and self-correction either initiated by the teacher or initiated by the student. Self-monitoring was introduced to increase the students noticing of the different strategic and linguistic aspects involved when writing. Self-correction, however, was meant to provide students with opportunities to handle their writing difficulties and to reflect on their language choices. Students received after each of the first four tutorials feedback in the form of reformulation. During the next four tutorials, they were guided by some clues and error codes to correct the indicated errors. In the remaining tutorials, the clues were less guiding to leave more room for the writer to take control over detecting and handling the problematic use of language.

The analysis of the students' corpus started at the end of the 14-weeks instruction. It consisted of comparing the error occurrence related to one particular feature before the tutorial targeting the planned feature and after the tutorial. The number of occurrence was then converted into a percentage allowing better identification of changes.

Results and discussion

The error analysis of the corpus including 126 paragraphs yielded some numerical data revealing the extent to which the utilisation of textual enhancement has been efficient in reducing students' errors. To investigate broadly the efficiency of TE, a comparison was held between the percentage of errors in the 12 features before applying the technique and after it. Overall, the numerical data revealed a slight reduction of errors in the targeted features (14.35%). Besides computing the total percentage of error reduction, the cases indicating an improvement in the target feature were worked out. The study of the nine students' assignments involved the examination of the 12 target features, resulting in a total number of 108 cases to compare. In 49 of those cases, a decrease in the percentage of the target features errors was noticed; in 18 cases, students maintained an error-free writing (in the targeted feature); in the remaining 41 cases, an increase was noticed instead.

Table 2 Error Occurrence Changes Before and After the Tutorials

Language feature	Student								
	Rahma	Rym	Racha	Mona	Nihad	Aya	Rania	Nour	Douaa
S/v agr	-	=	-	+	-	-	+	-	-
Frag	-	+	+	+	=	-	=	+	-
W F	-	+	+	+	-	+	-	-	+
Mod.v	-	=	+	-	+	-	+	-	+
Snt. Sub	=	=	-	+	-	+	+	-	+
P.	+	+	+	-	-	-	-	-	-
Cap	+	-	-	-	-	-	+	-	+
Sp	+	-	+	-	-	+	-	-	-
Trans	=	-	=	+	=	=	=	+	-
Sup	+	-	=	+	=	-	-	=	+
W.C	-	-	-	+	+	+	+	+	+
R.p	+	=	=	+	+	=	-	=	+

Note. (+) = an increase in error percentage after the tutorial; (-) = a decrease in error percentage after the tutorial; (=) = maintaining an error-free situation after the tutorial; S/v agr= subject verb agreement; Frag= fragment; WF= word form; Mod.v = model verb use; Snt.Sub = sentence subordination; P= punctuation; Cap = capitalisation; Sp = spelling; Trans = transitions between sentences; Sup = provision of sufficient support; W.C = word choice; R.p = rhetorical pattern.

In order to draw some conclusions or to evaluate thoroughly the effectiveness of the technique, it does not suffice, however, to rely solely on a comparison between the sum of errors before TE tutorials and after them or the cases in which a reduction of error occurrence is noticed. The obtained data needed to be further processed in two ways. First, understanding whether TE could bring any effects on the students' ability to reduce the amount of errors required aggregating the total number of errors made by all the students in different features, both before the tutorials and after them. The numbers were then converted into percentages to facilitate the comparison. Second, investigating whether the effects, if any, could be associated to the level of students required calculating all the errors made by each category of students. Likewise, the calculation of all errors made by students in each particular feature allowed associating the change to the nature of the target language feature. In both cases, the data obtained before the tutorial had to be compared with the data obtained after the tutorials.

Textual enhancement and students' level of proficiency

The examination of the errors' amount made after exposing students to enhanced reading passages revealed an improvement in the overall students' ability to avoid errors. Out of 906 errors, the total number of errors in the 126 paragraphs, 349 errors

(38.52%) were made before each tutorial was presented in the targeted features. This number has dropped to 218 errors (24.17%) after the tutorials. However, when examining the figures of the three categories, high achievers, intermediate achievers, and low achievers, it can be concluded that the influence of TE did not increase with higher language proficiency or vice versa. Interestingly, the category of intermediate achievers outperformed the two others by reducing 20.71% of the amount of errors as compared to 10.58% for high achievers and 11.97% for low achievers. Hence, it cannot be inferred that the efficacy of the TE can be related to the level of competence.

A closer look at each student's results in the three categories confirms the aforementioned claim. Mona and Aya, who are intermediate achievers, managed to reduce the highest percentage of errors, 24.27% and 24.66% respectively. Mona's significant achievements in reducing errors were, however, limited to four features, modal/verb use, punctuation, capitalisation, and spelling. She failed to reduce errors in the remaining eight features. Conversely, Aya, whose results indicated a more balanced situation, failed in only four features. As regards the least significant achievements, they were demonstrated by Rahma and Rania, a high achiever and a low achiever respectively. Such findings imply that learners with varying levels of proficiency are likely to benefit from TE.

Textual enhancement and the nature of the target feature

To ascertain whether the efficacy of TE can be associated to the nature of the target feature, the investigation of the subject at hand has to be conducted from another perspective. If the treatment was noticed to entail increased grasp of one feature as compared to another, it might be possible to infer that TE works better with some language features than others. Identifying the features that can be more learnable through TE and the reasons that make them so would be of great importance as it sheds more light on some sides of the research area. The figure below illustrates the differences in errors percentages before and after the treatment sessions.

Note. Pre T. data= pre- tutorial data; Post T. data= post- tutorial data; S/v agr= subject verb agreement; Frag= fragment; WF= word form; Mod.v = modal verb use; Snt.Sub = sentence subordination; P= punctuation; Cap = capitalisation; Sp = spelling; Trans = transitions between sentences; Sup = provision of sufficient support; W.C = word choice; R.p = rhetorical pattern.

The analysis of the numerical outcomes in the form of percentages demonstrated that spelling is the feature in which students have displayed the most significant reduction in errors occurrence. While before introducing the tutorial including TE and targeting this feature, spelling represented 24.27% of the total errors, this percentage was

reduced to the half (12.19%) after the tutorial. The achievements made in this feature are not only demonstrated by the total percentage of error occurrence, but also by the number of students benefitting from the technique. Six students out of nine made fewer errors after the tutorial whereas only three did not succeed to drop their error rate.

Other features showing a less significant effect were punctuation and subject/verb agreement as demonstrated in Figure 3. Fewer gains were noticed in the aspects of conformity to the rhetorical pattern and word choice; as a matter of fact, errors percentages after the tutorials surpassed those reported before the tutorials

In an attempt to account for the variance in the efficacy of TE, the nature of each feature needed to be placed under scrutiny. Put in different words, the focus should be placed on the possible factors that make some errors more treatable than others through the use of TE. The selected target features and the way they can be treated differ in a number of points: the source of error in each feature, the complexity of the rule regulating the error occurrence, and the way the error in a given feature can be corrected.

The first point, the source of error, has a connection with the factors that lead to producing errors. Mistakes due to a lack of attention because of fatigue or absence-mindedness do not reveal a gap in the linguistic competence or in the knowledge of paragraph writing conventions; hence, such a type of errors is not likely to recur. As regards the second point, rule complexity, students' ability to recognise errors in their writings is strongly connected to their understanding of the target feature rules. The last point bears on the steps taken to handle a flaw in paragraph writing such as the amount of the required effort and/ or time, in addition to the availability of materials, whether print or digital, to consult in the classroom setting.

To illustrate the aforementioned points, a number of examples can be considered. Errors of subject verb agreement, for instance, may not result from a gap of language knowledge, but instead they may be due to the reluctance to reread the sentence, particularly long ones, and to verify the subject with which the verb has to agree. However, in some rare cases where the subject is not a single word but a gerund phrase or a long noun phrase including more than one noun, students fail to achieve agreement. The source of error this time is not inattention but a gap in the knowledge of subject verb agreement rules. This explains the reason why most (seven) students succeeded in reducing subject verb agreement errors or maintained the ability of not making errors altogether. For word choice errors, in which most students (six) failed to reduce errors, the case is different. Avoiding errors in this feature cannot be achieved though a single tutorial as it requires a rich vocabulary that can only be gained in a considerable number of sessions.

The features related to mechanics can be considered examples of areas where rule-governed errors can occur. The conformity to the rhetorical pattern is a case in point for possible non rule-governed errors. Spelling errors were avoided by the participants in this study through dictionary use; punctuation was avoided by referring to a set of rules explained in the tutorial. Fixing the error in such case requires consulting either a set of rules or a dictionary. Given the easiness with which students could avoid the errors, only three students out of nine did not demonstrate any gains after the tutorials.

The case is different with the conformity to rhetorical pattern, where only one student showed an improvement. This feature of writing is not related to grammar or mechanics, but it bears on the ability to think critically and to analyse the rhetorical situation. Honing one's abilities in thinking critically cannot result from a single tutorial or from consulting a handbook. Moreover, in the last assignment, students were required to provide an evaluative account on a television channel. Their performance revealed a deficiency in their evaluative skills which only guided and extensive practice can solve.

Comparing the results of the present study with the previous ones seems unfeasible because of the differences in the objectives of the studies as well as in the target features and the measurement instruments. Nevertheless, it can be stated that as the present findings showed a slight improvement in the students' ability in learning and in reducing their errors, they corroborate then the studies of Alanen (1995) and Simard (2009). Alanen's study yielded positive effects that did not show a significant superiority in the performance of the experimental group over that of the control group. Additionally, the positive results were most noticeable in the target form bearing more semantic content, locative suffixes. Less impact was noticed in learning of other targeted feature, consonant alternation. Simard's study showed that the participants' were differentially impacted by the format of TE involving both the type and the number of typographical cues employed in her treatment.

Limitations and suggestions for further research

In the present study, each tutorial including TE dealt with one feature related to paragraph writing, resulting into 12 features. In so doing, the objective of comparing the efficacy of TE across different features was hoped to be fulfilled. However, one single treatment session does not suffice to get learners process thoroughly the enhanced input and the feature it comprises. Most studies conducted on TE involved treatments involving the exposure of students to a more salient input provided by an outsider, the teacher or researcher in most cases. The learner, who is a recipient and a processor of input, had no role in increasing its perceptual salience. One suggestion for future investigations is to deal with the efficacy of the TE that is generated by the learner himself with the guidance of a more expert person. Investigating the way an increased degree of learner involvement in the task of TE may increase the efficacy of TE adds a new perspective from which TE effectiveness can be considered. In classroom settings, techniques like circling, colour highlighting, underlying, and framing seem to be the most convenient, yet with the proliferation of digital devices, students can use as well techniques like boldfacing or using different font or size.

Conclusion

The objective of this study was to investigate the effectiveness of typographical cues on the students' ability to reduce errors related to accuracy and content related issues of writing. Other secondary aims were to associate improvement, if any, to either the level of students or to nature of the target feature. The findings demonstrated an improvement in the performance of students after the instructional sessions; however, the positive effects were not significantly enough to claim full effectiveness. The degree of effectiveness could not be associated to the level of students, but it could be related to the nature of the target feature. Rule- governed errors were more likely to be

treated than non rule-governed ones. The implication of these findings is that textual enhancement can be advantageous to learners of different levels as it facilitates the learning of some writing related aspects and the treatment of rule-governed errors.