

ORIGINAL ARTICLE

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Plagiarism as an academic literacy issue: the comprehension, writing and consulting strategies of Portuguese university students

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Abstract

In aiming to frame plagiarism as an academic literacy issue, this paper focuses on the strategies used by firsts years Portuguese university students, when writing from sources, along with the relationship between these strategies and the way students view themselves as readers, writers and users of sources. The study was based on 44 short summary essays written by students as well as their responses to a questionnaire and checklist on citation rules. The evaluation of the essays revealed that students often use copying and *patchwriting*. In addition, we found that much of the time students changed the meaning of the content expressed in the source. In relation to the way students evaluated themselves, generally their view was they used appropriate strategies. The study did not reveal a relationship between perceptions of using appropriate strategies and the use of those same strategies. Nonetheless, we found an association between performance and perceptions of using copying. Perceived use of a *'think-then-do'* strategy was also related to changing the meaning when writing from sources. Concerning school achievement, stronger students evaluated themselves as using more appropriate strategies, and those who had not previously failed (a) school year(s) also displayed a better knowledge of citation rules. However, we failed to find any relationship between school achievement and the use of strategies for writing from sources. The main findings of the current research point to the existence of issues concerning how to address academic literacy, findings that go beyond plagiarism and, consequently, indicate the need for pedagogical responses.

Keywords Academic literacy, Writing from sources, Writing strategies, Plagiarism

Introduction

Given how academic integrity a broad-reaching and vital issue in higher education, it has been largely studied in the last decades (Bretag 2016). Besides collusion (McGowan 2016), commissioning, i.e., paying someone to do the work (Lancaster and Clarke 2012), and other forms of outsourcing behaviors, plagiarism is one of the most common dishonest practices used by students (Bretag et al. 2019). However, plagiarism can be perceived and examined as an academic literacy issue, indicating poor or inadequate



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writing on the part of the student, and not simply an ethical and moral problem (Howard 2016; Jamieson 2016). In effect, many students are poorly prepared for the rigors of higher education, (Bretag et al. 2019; Howard 2016; Pecorari and Petric 2014), and although some of them choose to commit plagiarism intentionally, many others may plagiarize because they did not know how to write properly (Bretag et al. 2014; Pecorari 2008, 2016).

Based on their studies of second-language writers (L2), Pecorari (2008) highlights the difficulties that these students have in writing from sources. More precisely, Pecorari states that many students use a writing strategy very similar to that observed in plagiarism, with both being grounded in a dependence on the language of the source. Because writers do not master the writing skills needed to produce academic texts, they adopt a strategy already observed in other college students, identified as *patchwriting* (Howard 1995). Defined as “copying from a source text and then deleting some words, altering grammatical structures, or plugging in one-for-one synonym substitutes” (Howard 1992, p. 233), patchwriting could be interpreted as resulting from insufficient linguistic skills. Students with difficulties mimic the texts they read by patchwriting (Abasi and Akbari 2008), changing some superficial textual features such as deleting or replacing words, and altering grammar and syntax (Jamieson 2016). As such, patchwriting reveals a deficiency in using sources, suggesting that if students write in a manner very close to the original it is because they are unable to express themselves in their own words (Howard 2016; Pecorari 2016).

Many students are also unable to paraphrase appropriately. Paraphrasing refers to a restatement of a few sentences written in one’s own words that while respecting the original ideas also involves the citation of sources and changes to the wording of the text (Jamieson 2008; Shaw and Pecorari 2013). Insufficient paraphrasing may be a consequence of student misconceptions about paraphrasing (Yoshimura 2015) and of inadequate literacy skills (Pecorari 2016). According to Jamieson and Howard (2011), the inability to paraphrase adequately is the source of patchwriting, the latter having been redefined as failed paraphrasing.

Paraphrasing is accepted and even recommended by many authors (Gibaldi and Aichert 1977; Hyland 2001; Yamada 2003), but this strategy could be confounded with patchwriting. Analyzing paraphrases elaborated by online paraphrasing tools, Rogerson and McCarthy (2017) found that many of the outputs could be identified as *near copy* (Keck 2006), a superficial form of paraphrasing grounded on the words of the original text and very similar to patchwriting. Although the taxonomy of paraphrases types of Keck (2006) could help to distinguish between different paraphrases, ranging from *near copy* to *substantial revisions*, it is not totally clear when a modified text must be classified as paraphrase or as patchwriting (Rogerson and McCarthy 2017). Furthermore, even paraphrases with substantial revisions of the original texts could be considered a strategy particularly dependent on the source, namely on the individual sentences. As Howard et al. (2010) state, the problem is that writing from individual sentences drives students to use the language of the source, giving rise to a text very close to the original that can easily be considered as plagiarism. Indeed, writing from sentences prevents writing based on the text as a whole through the use of a summarizing strategy. The problem for many students is their inability to summarize in a personal way by reducing the original text and identifying the main idea(s) (Foltýnek and Sivasubramaniam, 2018).

Thus, writing from sources without plagiarizing the original text involves summarizing, a competency that, in turn, depends on other academic literacy competencies. In effect, when writing from sources, students need to read and comprehend the texts they study, being comprehension and writing strongly related to each other (Horning and Kraemer 2013; Parodi 2007). Writing from sources also requires the mastery of multiple writing skills and strategies, involving, among others, planning and revision. At last, in order to write without plagiarizing, students must know how to consult sources and how to use citation and referencing rules (Tauginienė et al. 2019). In this context, we consider that, in addition to strategies for writing from sources, text comprehension, general writing, consulting strategies, and knowledge of citation rules are crucial literacy competencies to prevent plagiarism.

Text comprehension strategies

Text comprehension involves sophisticated processes such as selection, organization and integration of information (Kintsch 1998; Van Dijk and Kintsch 1983). By selecting and organizing information, the reader constructs a representation of the meaning of the text both at a local and global level – the *base of the text*. In order to construct a representation going beyond the text – the *situation model* – the reader must integrate text information with prior knowledge. Only through the *situation model* is it possible to achieve learning through the text, that is, to use text information in a new and personal way (Kintsch 2009). It is possible that the reader may not even be able to construct an adequate *base of the text*. By failing to make the necessary inferences to identify the referents and bridge coherence gaps, the reader cannot construct meaning at the micro- and macrostructure levels. This results in an inability to construct an adequate representation of the text and consequently the impossibility of writing faithfully from the source. Constructing a *situation model* is even more challenging because it involves linking the *base of the text* to background knowledge. In the case of technical or academic readings, it is necessary to activate and mobilize very specific knowledge and integrate it with the text. Students often fail to do this complex work and, as such, are unable to incorporate the knowledge required into a personal form of writing. Copying, patch-writing or even paraphrasing may occur because students do not understand the sources at a local or deep level and consequently fail to write in a personal way about the main idea(s) expressed in the text.

General writing strategies

Writing is a complex activity involving mechanics, conventional and linguistic abilities (Larsen 1987). Writing also involves cognitive strategies necessary for planning, composition and revision. Thus, writing is a problem-solving task (Flower and Hayes 1980; Scardamalia and Bereiter 1986) implying writer self-regulation (Harris and Graham 2009; Harris et al. 2009). During the writing process, students must regulate themselves in order to produce texts that are well written and respect the previously defined goals. In the same manner, mature writers use a *knowledge transforming strategy* (Bereiter and Scardamalia 1987). Through this strategy, the sources can be worked and transformed in a way that makes the writing of a new text possible, one that is different from the original. The written product thus obtained attends simultaneously to the meaning of the source and to rhetorical constraints. Kellogg (2008) states that good writers use an

even more sophisticated strategy, the *crafting knowledge strategy*, attending not only to the meaning of the source and to rhetorical constraints, but also to the future reader. Knowledge transforming and knowledge crafting strategies contrast with an immature one, known as *knowledge-telling strategy* (Bereiter and Scardamalia 1987). According to this latter strategy, writers develop their texts without planning, but simply by remembering or reading the source— a strategy also known as ‘*think-then-do*’ (Torrance and Thomas 2000) – demonstrating their inability to transform what they know or what they have read into a summarized new text.

Consulting strategies and knowledge of citation rules

In order to write without plagiarizing, students must also know how to consult sources, a challenging task particularly in a contemporary world dominated by the ubiquity of media and digital technologies. Students must know how to search for information critically, namely on the Internet, choosing academically credible sources by differentiating between general dissemination and scientific sources. An assessment of the sources and, in the case of the Internet, of the sites consulted is an essential competency in order to study and write good texts (Davies and Howard 2016). Nevertheless, many students fail to choose credible sources (Carpenter 2012).

Writing adequate texts also involves knowing how to use citation and referencing rules (Tauginienė 2016; Tauginienė et al. 2019). First of all, students should recognize what are their own ideas and language and distinguish them from the ideas and the language of the authors consulted (Vaccino-Salvadore and Buck 2021). Writers must also acknowledge ideas from original texts, quote passages written by someone else, credit the source, include references, cite correctly and use the right citation style (Bailey 2017). The latter may indeed differ across academic areas, with each stipulating its own conventions and rules. Many university students experience difficulties in referencing (Hutching 2014), as well as in attending to the different conventions for citation styles (Power 2009). These difficulties are another factor contributing to a writing style very close to plagiarism.

As we have seen, writing through summarizing requires literacy competencies related to the comprehension of the texts read, to the mastery of writing skills, to consulting skills, and to citing and referencing knowledge. From the standpoint of literacy, plagiarism research should focus on student academic development, more precisely on how students understand, write, consult and cite the references (Howard and Jamieson 2021). Simultaneously, while many studies centered on plagiarism as a moral issue have been carried out to know how students view plagiarism, from a literacy perspective, it would be essential to examine how students perceive themselves as authors, i.e., as readers, writers and source consulters (Adam 2016; Elander et al. 2010; Pittam et al. 2009).

The study

Aims

Viewing plagiarism as an academic literacy issue, the main goal of this study was to investigate not only college students’ writing competencies but also how they perceived themselves in relation to those competencies. More precisely, we wanted to know how a group of firsts years Portuguese university students who are studying Education write from sources and also how they evaluated themselves as readers, writers and source consulters. Some studies centered on literacy perceptions have shown that many times

students express confusion regarding referencing rules (Gullifer and Tyson 2010), and report their difficulties in paraphrasing, in summarizing (Devlin and Gray 2007), in using an appropriate language, and in text comprehension (Ramos and Morais 2021). Nevertheless, most of the research on literacy competencies focused only on perceptions or on practices. The few studies focusing simultaneously on perceptions and practices have revealed mixed results. Some of them showed a relationship between performance on writing tasks and writing perceptions (Villalón et al. 2015; White and Bruning 2005; Yoshimura 2018). However, other studies, namely in comprehension area, demonstrated that students have erroneous ideas about the way they understand the texts they read (Dunlosky and Lipko 2007). Given the scarcity of research centered on the relationship between practices and perceptions, and also considering the mixed results obtained, we wanted to deepen the understanding of these issues. The major goal led us to five specific research objectives.

The first specific objective was to examine how college students write from sources. We wanted to know what the strategies they used were – copying, patchwriting, paraphrasing or summarizing – when asked to write a synthesis requiring the identification and presentation of the main ideas of a short text they had read.

The second specific objective was to examine how students perceived themselves as readers, writers, source consulters and users of citation rules. Moreover, was there a relationship between perceptions regarding comprehension, writing, consulting and citation strategies?

The third specific objective was to investigate how student perceptions were related to the way they wrote from sources. Were student perceptions as good readers, good writers, good consulters and as knowing citation rules associated with writing texts through summarizing the sources consulted? And were student perceptions of themselves as poor readers, poor writers, poor consulters and as not knowing citation rules related to writing texts very close to the original, through copying and/or patchwriting and paraphrasing?

The fourth specific objective was related to knowledge of citation rules. We wanted to know whether knowledge of citation rules was associated with the way students write from sources, i.e., if those students who know better how to cite also wrote texts that were more autonomous of the sources through summarizing. We also sought to discover whether knowledge of citation rules was related to perceptions about literacy competencies, i.e., if students who have a better understanding how to cite view themselves as good readers, writers and consulters.

Finally, the fifth specific objective was to test if school achievement, evaluated by academic marks reported by students, and whether students had previously failed (a) school year(s) or not, had some influence on perceptions about literacy competencies, writing strategies used by students and knowledge of the rules for citation.

Participants

Through a selection process using convenience non-probability sampling, 44 university students participated in the study out of a total of 50 enrolled on a degree course in Education in a Portuguese city. The class was comprised of first-year university students but included some who were in their second and third years. Thirty-six (83.7%) of them were in the first year, four (8.2%) in their second year, and four (8.2%) in their third year. Of

these participants, 37 (84.1%) were female and seven (15.9%) were male. The age range extended from 18 to 23 (with one student aged 36) ($M=20.68$; $SD=2.73$). Twelve of them (28.6%) had previously failed at least one school year. The self-reported average mark of the grades obtained by the students at the time of the study ranged from 11 to 16 ($M=13.61$; $SD=1.09$), on a grading scale from 0 to 20, with 10 being the pass mark.

Instruments

Questionnaire

A questionnaire aimed at assessing how students view themselves as readers, writers, source consulters and users of citation rules was distributed among the students (Appendix 1). This questionnaire (Festas et al., 2020) included five scales, each one addressing five literacy issues: comprehension strategies; general writing strategies; strategies for writing from sources; consulting strategies; knowledge of citation rules. For how to use citation, the participants responded to the instrument on a 5-point Likert scale, where 1 corresponded to *no knowledge* and 5 to *complete knowledge*. For the four other scales, the participants also responded on a 5-point Likert scale, where 1 corresponded to *never* and 5 to *mostly*.

The comprehension strategies scale was designed to measure how students perceived themselves as readers. It included 12 items divided between selection strategies (items 3, 9, 12), organization strategies (items 6, 7, 8, 11) and integration strategies (items 1, 2, 4, 5, 10).

The writing strategies scale consisted of a total of 15 items and included: planning (items 1, 3, 4, 6, 13), revision [items 2, 5 (reversed), 7, 8, 10, 14, 15 (reversed)], and 'think-then-do' strategies (items 9, 11, 12).

The scale for strategies for writing from sources included 16 items divided into three strategies: copying (items 3, 7, 14, 16), paraphrasing/ patchwriting (items 1, 5, 6, 8, 9, 11) and summary (items 2, 4, 10, 12, 13, 15). In a previous study (Festas et al., 2020), data obtained from the factorial analysis showed that patchwriting (items 1, 6, 8, 9) and paraphrasing (items 5, 11) are very closely linked, with both included in a single factor. The difficulty of classifying and distinguishing between paraphrasing and patchwriting (Rogerson and McCarthy 2017 could help to explain this result.

The consulting strategies scale was divided between more elaborate source consulting strategies (items 1, 2, 3, 5, 6, 8, 9) and less appropriate strategies (items 4, 7).

The citation rules scale was designed to measure how students perceived themselves as users of citation rules and included 13 items, some of them dealing with in-text citation while others dealt with reference lists.

Finally, the questionnaire included questions to gather information about gender, age, general school achievement measured by the average mark for all the subject grades obtained by the student at the time of the study, and the number of any school years failed.

In a previous study including 202 university students (Festas et al., 2020), data obtained from the factor analysis confirmed the dimensions of each one of the five scales. For the comprehension strategies scale, the internal consistency measured by Cronbach's α was 0.81, 0.72, and 0.73 respectively for the dimensions of integration, organization and selection. For the writing strategies scale, Cronbach's α was 0.81, 0.77, and 0.66 respectively for revision, planning and 'think-then-do' strategies. For the scale for writing from

sources strategies, Cronbach's α was 0.72, 0.65, and 0.62 respectively for copying, paraphrasing/ patchwriting and summary strategies. For source consulting strategies, Cronbach's α was 0.71 and 0.64 respectively for more elaborate source consulting and less appropriate strategies. Finally, the internal consistency of the citation rules scale with one single dimension was 0.89.

Citation rules checklist

In order to assess student knowledge of citation rules, a checklist referring to citation rules was elaborated (Appendix 2). The list included a set of 18 items dealing with the way in which sources are cited and referred. Nine items were related to in-text citation (e.g., item 1), while nine assessed the knowledge of how to produce the final reference list (e.g., item 5).

Students were asked to respond *yes*, *no*, or *don't know* to each one of the 18 items. Since the style manual used in the courses of our participants is APA (American Psychological Association 2010), students were told to answer with this system in mind. Each item correctly answered scored 1 point. The incorrectly answered items along with those marked *don't know* scored 0 points. A total score was obtained by determining the sum of all the correct responses.

In a previous study (Festas et al., 2020) including 208 university students, we analyzed the citation rules checklist for their level of difficulty and for power discrimination. The citation rules checklist included 19 items that revealed a continuous difficulty. Except for two of the items, all the other items discriminate between the better performers and those who perform worse ($p < .05$, for two items, and $p < .01$ for the other 15 items). One of the items was excluded, while the other (item 1) was very easy to answer correctly (98%). The latter was maintained so as to ensure these items represent a knowledge level accessible to all. As such, the final checklist included 18 items.

Procedures

Students were asked to read a short text and to write a synthesis requiring the identification and the presentation of its main ideas. The text was a short academic essay (two pages) by a known author and addressed the *role of effort in learning*, a theme related to *memory, cognition and learning*, a subject included in the course. At the same time, students answered the questionnaire about the way they view themselves as readers, writers, source consultants and users of citation rules. They also filled out the citation rules checklist. The study was conducted in the 2018/2019 school year, and the data was collected within the classroom context, following all ethical procedures required of this type of research. The necessary consent was obtained from all the participants. Voluntary participation, informed consent, anonymity and confidentiality were respected. Participants could withdraw at any time, and participation did not influence the status of the participants on the course.

Data analysis

All descriptive and inferential statistical analyses in this study were performed with IBM SPSS Statistics (version 26.0) and the significance level of 5% ($\alpha = 0.05$) was considered.

Table 1 Citation Strategies

Citation Strategy	Definition
Copying without quotation marks	Reproducing the text exactly, without quotations marks
Copying with quotation marks	Reproducing the text exactly, with quotations marks
Patchwriting	Restating a phrase, a clause, or a sentence using a language or syntax very close to the text read, including superficial changes, such as changes in morphology (e.g., a change in verb tense) and syntax (e.g., a change from an active to a passive sentence)
Paraphrasing	Restating a phrase, a clause, or one or two sentences in fresh language, while interpreting the source correctly, including the integration of two sentences using new language
Summarizing	Presentation of the main ideas of the text as a whole or at least of three consecutive sentences in the text, implying reducing the source and restating the passages in fresh language

The syntheses written by students

All the syntheses written by students were scored for the citation strategy used. By reading the source and the texts written by students, scorers classified each citation, i.e., if it was a copying (with or without quotation marks), a patchwriting, a paraphrasing or a summarizing of the source information. By following the work developed by the authors of the Citation Project very closely (Howard et al. 2010; Jamieson 2018), we defined each of these categories as seen in Table 1.

Reproducing keywords, technical terms, proper names, articles or prepositions is not categorized as copying or patchwriting.

Two raters scored all the papers independently. The raters were Portuguese language arts teachers who received training in applying this scoring system. The raters were also instructed on how they should code the texts. To assess inter-rater reliability, an intra-class correlation coefficient was performed. The ICC estimates and their 95% confidence intervals were calculated based on a mean-rating ($k=2$), consistency, 2-way random effects model. Inter-rater reliability regarding each category/strategy was 0.99. A third rater analyzed the few texts where there had been disagreements, assigning a final score.

Correlations between questionnaire, strategies used in the synthesis and average grade mark

To analyze the relationship between the scores on the questionnaire, those in the syntheses written by students and their average grade mark we used the Spearman correlations, given that several categories had standardized kurtosis greater than 2.

The distribution of missing data was studied, by subject and variable, and showed that in none of the cases the proportion of missing values was greater than 10%. The missing data is distributed at random [Little's MCAR test: $\chi^2(198)=124.214, p=.1$], with estimated missing values calculated using the expectation-maximization (EM) method.

Results**Strategies used by students when writing from sources**

In relation to the first specific objective of this study, i.e., to examine how college students write from sources, when asked to write a synthesis requiring the identification and presentation of the main ideas of a short text read previously, almost all used more than one strategy. Copying with quotation marks and patchwriting were the most widely used, while the summary technique was utilized to a much lesser extent (Table 2). The results also revealed some new categories in addition to those expected. In fact, besides

Table 2 Descriptive Statistics for Strategies Used by the Students in Their Syntheses

	<i>N</i> = 44			
	<i>Minimum</i>	<i>Maximum</i>	<i>M</i>	<i>SD</i>
Copying without quotation marks	0	14	1.93	3.40
Copying with quotation marks	0	12	3.41	3.41
Patchwriting	0	15	2.43	3.43
Paraphrasing	0	5	0.59	1.28
Summarizing	0	9	1.93	2.81
Changing the meaning through a paraphrasing strategy	0	6	0.50	1.25
Changing the meaning slightly through summary	0	6	1.57	1.65
Changing the meaning substantially through summary	0	8	1.95	2.47

Table 3 Descriptive Statistics for the Dimensions of Each of the Five Scales of the Questionnaire

Strategies	<i>N</i> = 44	
	<i>M</i>	<i>SD</i>
Comprehension Selection	4.20	0.70
Comprehension Organization	3.41	0.83
Comprehension Integration	4.09	0.58
Writing – Planning	3.88	0.59
Writing – Revision	4.45	0.41
Writing – ‘Think-then-do’	3.37	0.64
Writing from Sources – Copying	2.67	0.62
Writing from Sources – Paraphrasing/ Patchwriting	3.71	0.49
Writing from Sources – Summarizing	3.91	0.57
Source Consulting – Less Appropriate	2.90	0.90
Source Consulting – More Elaborate	3.75	0.55
Citation Rules	3.86	0.50

copying with and without quotation marks, patchwriting, paraphrasing and summarizing, the two scorers identified three new subcategories, all of them related to changing the meaning of the original text. In all the latter cases, despite changing the meaning, students used strategies very similar to paraphrasing and summary, i.e., they restated a phrase, a clause or one or two sentences in fresh language, or wrote a text as a whole, reducing the source using new language. Scorers classified these new subcategories as: changing the meaning through a paraphrasing strategy, changing the meaning slightly through a summary strategy (e.g., a name, or a date), and changing the meaning substantially through a summary strategy (altering the ideas).

In Table 2 we present some descriptive statistics for the strategies used by the students in their syntheses.

How students perceived themselves as readers, writers, source consulters and users of citation rules

In relation to the second specific objective, i.e., to examine how students perceived themselves as readers, writers, source consulters and users of citation rules, in general, they evaluated themselves as users of appropriate comprehension, writing, and consulting strategies (Table 3). On a 5-point Likert scale, the mean of the participant responses for the use of adequate strategies relating to comprehension selection, comprehension integration and writing revision was greater than 4. The mean was very close to 4 in the case of other adequate strategies, specifically planning and summarizing, in addition to scores for how students evaluated what they know about citation rules. Paraphrasing/

patchwriting was referred to as often being used. Students also evaluated themselves as using more appropriate strategies rather than inadequate strategies such as copying from sources and consulting inappropriate strategies.

With respect to the relations between the variables (Table 4), in general, perceptions of using more appropriate strategies, such as planning, revision, summary, integration, organization, selection and consulting more elaborate strategies were related to each other. Perception of knowing how to cite and refer was also related to perceptions of using planning, summarizing, integration and consulting more elaborate strategies. On the other hand, perceptions of using paraphrasing/patchwriting and 'think-then-do' were associated with the perception of using good comprehension (organization, integration), summary and, in the case of paraphrasing/patchwriting, with planning and revision. Perception of using 'think-then-do' was also related to consulting appropriate strategies. Perceptions of using poor strategies, such as copying, were not associated with any other variable.

Relations between perceptions and strategies for writing from sources

With respect to the third specific objective, i.e., to know how student perceptions were related to the way they wrote from sources, as can be seen in Table 5, we found relationships between: (i) Copying from a text without quotation and the perception of using a copying strategy; (ii) using a copying strategy with quotation and the perception of not using 'think-then-do' strategies (iii) the changing of the meaning of the original source (substantially changing the meaning through use of summary and using the three strategies for changing meanings) and the perception of using a 'think-then-do' strategy; (iv) a slight change to the meaning through summary and perception of not using more elaborate source consulting strategies.

We did not find any relationship between the perceptions of using good comprehension, writing, consulting and citation strategies and the way students wrote (i.e., copying, patchwriting, paraphrasing and/or summarizing).

Relationships between knowledge of citation rules, the way students write from sources and perceptions about literacy competencies

With respect to the fourth specific objective, i.e., to know whether knowledge of citation rules was associated with the way students write from sources and also with perceptions about literacy competencies, we did find that: a) the relationship between the knowledge of rules and strategies for writing from sources (copying, paraphrasing, patchwriting or summarizing) failed to unearth any discerning patterns; b) knowledge of rules was negatively related to perceptions of using copying strategies ($r_s = -.425$; $p = .004$).

The influence of school achievement on strategies for writing from sources, perceptions about literacy competencies and knowledge about how to cite and refer

At last, in relation to the fifth specific objective, i.e., to investigate if school achievement had some influence on perceptions about literacy competencies, writing strategies used by students and knowledge of the rules for citation, we found no relationship between school achievement, measured by taking the average mark for previous grades, and the

Table 4 Correlations between the Different Dimensions and Scales of the Questionnaire

	Writing from Sources				Writing			Comprehension			Source Consulting Strategies		Citation Rules
	Para/Patch	Copying	Summarizing	Revision	Planning	Think-then-do	Integration	Organization	Selection	Less Appro	More Elab		
Paraph/Patch	1												
Copying	-0.222	1											
Summarizing	0.424**	-0.082	1										
Revision	0.317*	-0.296	0.374*	1									
Planning	0.375*	-0.183	0.395**	0.529**	1								
Think-then-do	0.249	-0.178	0.345*	0.295	0.192	1							
Integration	0.409**	0.094	0.550**	0.542**	0.532**	0.504**	1						
Organization	0.380*	-0.045	0.407**	0.361*	0.604**	0.479**	0.725**	1					
Selection	0.213	-0.151	0.340*	0.515**	0.537**	0.195	0.553**	0.635**	1				
Less Appropriate	-0.224	0.013	-0.141	-0.261	-0.213	-0.361*	-0.311*	-0.211	-0.176	1			
More Elaborate	0.259	-0.174	0.396**	0.386**	0.520**	0.368*	0.581**	0.596**	0.556**	-0.378*	1		
Citation Rules	0.246	-0.019	0.433**	0.057	0.370*	0.284	0.360*	0.270	0.130	-0.452**	0.619**	1	

*p < .05; **p < .01

Table 5 Correlations between Strategies for Writing from Sources and Student Perceptions

Strategies for Writing from sources	Perceptions												
	WFSP ^a	WFSC ^a	WFSS ^a	WR ^a	WP ^a	WTTD ^a	CI ^a	CO ^a	CS ^a	SCLA ^a	SCMS ^a	CR ^a	CRK ^a
Copy without quotation	-0.066	0.339*	-0.010	-0.151	0.217	-0.277	-0.045	-0.163	-0.053	0.087	-0.090	-0.037	-0.019
Copy with quotation	-0.034	-0.131	-0.056	0.148	0.084	-0.313*	-0.76	-0.092	0.190	-0.019	0.043	-0.091	-0.073
Patchwriting	0.098	0.049	0.184	0.047	0.262	-0.207	0.182	0.137	0.284	-0.006	0.127	-0.063	-0.135
Paraphrase	-0.003	-0.243	0.121	0.184	0.247	0.210	0.178	0.066	0.182	-0.151	0.207	-0.068	0.162
Summarizing	0.135	-0.144	-0.173	0.040	-0.145	-0.057	-0.257	-0.205	-0.266	0.253	-0.211	-0.060	0.154
Changing the meaning through paraphrasing	0.157	0.024	0.198	-0.089	0.020	0.206	0.087	0.021	-0.104	0.024	0.157	0.110	0.207
Changing the meaning slightly through summary	-0.190	0.026	-0.258	-0.045	-0.222	-0.049	-0.196	-0.148	-0.108	-0.078	-0.349*	-0.252	-0.260
Changing the meaning substantially through summary	0.105	-0.007	0.274	0.154	0.108	0.298*	0.266	0.230	0.295	-0.268	0.038	0.136	-0.009
All forms of changing the meaning	0.061	0.013	0.175	0.026	-0.076	0.308*	0.139	0.077	0.066	-0.175	-0.117	0.070	-0.091

* $p < .05$; ^aWFSP – Writing from Sources – Paraphrasing/Patchwriting; WFSC – Writing from Sources – Comprehension Organization; CS – Comprehension Selection; SCLA – Source Consulting – Less Appropriate; SCME – Source Consulting – More Elaborate; CR – Citation Rules; CRK^a – Citation Rules Knowledge

way students write from sources (copying, paraphrasing/ patchwriting or summarizing). However, school achievement was related to perceptions of using good literacy strategies, such as writing from sources - summarizing ($r_s = 0.310, p = .045$), writing - planning ($r_s = 0.491, p < .001$), comprehension integration ($r_s = 0.409, p = .007$), comprehension organization ($r_s = 0.333, p = .031$), comprehension selection ($r_s = 0.310, p = .046$), source consulting - more elaborate strategies ($r_s = 0.433, p = .004$), and knowledge of citation rules ($r_s = 0.396, p = .009$).

In the same way, in analyzing the differences between those students who had previously failed a school year and those who had not, through an independent t-test, we observed that they differed in relation to the perceptions of writing - planning [$t(40) = -2.799, p = .008; M = 3.50, SD = 0.74$ for students who had failed a school year; $M = 4.03, SD = 0.47$ for those who had not], and knowledge of citation rules [$t(40) = -2.083, p = .046; M = 3.65, SD = 0.37$ for those who had failed a school year; $M = 3.95, SD = 0.53$ for those who had not], showing those who had not failed a school year held more positive views of themselves as users of appropriate strategies than those who had failed a school year.

We also observed that failing a school year impacted in relation to knowledge of citation rules [$t(40) = -2.233, p = .031; M = 10.17, SD = 3.97$ for those who had failed a school year; $M = 12.59, SD = 2.77$ for those who had not], revealing those who had not failed a school year yielded better results than those who had.

Discussion, limitations and future research

As has been already documented by other researchers, the results obtained in the present study with firsts years college students studying Education at a Portuguese university confirmed that students have numerous issues when writing from sources (Jamieson 2018). They frequently used copying and patchwriting (Yoshimura 2018), and summarized less often. Moreover, our study identified an unexpected form of writing used by students in which they changed the source meaning. Through a technique very similar to paraphrasing or summary, the synthesis they wrote resulted in ideas that were not present in the original text. It seemed that sometimes students used copying, thus respecting the meaning of the text consulted, and other times wrote a synthesis, reducing the original by expressing it in their own words, but changed the meaning of the source (Pecorari 2016).

In relation to how students evaluated themselves, the perceptions of using good strategies in a particular area were associated with the use of good strategies in other areas, suggesting the presence of a correct idea about what the appropriate literacy strategies are. However, we also found that the perception of using paraphrasing/patchwriting was associated with the perception of using appropriate writing and comprehension strategies. It is possible that, in line with the usual recommendations for academic writing, students consider paraphrasing/patchwriting to be a good strategy (Gibaldi and Achert, 1977; Hyland 2001; Yamada 2003). In the same manner, the perceptions of using 'think-then-do', summary and good comprehension and consulting strategies were related to each other. Again, it is possible that students considered 'think-then-do' to be a good way to write. In both cases, findings pointed to the existence of erroneous perceptions about strategy adequacy. Finally, since students evaluated themselves as users of appropriate strategies, using copying without quotation and poor consulting strategies to a much higher extent, the results obtained pointed to a mismatch between actual writing

performance and the way they view themselves as writers. This idea was reinforced through the study of the relationships between perceptions and performance. Except for the perception of not using copying associated with knowing more citation rules, there was no other relationship between perception of using appropriate comprehension, writing, consulting and citation strategies and performance in actual tasks. This result underlines the idea of a mismatch between student perceptions and how they actually write, infirming the findings obtained by authors such as Villalón et al. (2015) White and Bruning (2005), and Yoshimura (2018) who showed a relationship between performance on writing tasks and writing perceptions, but confirming those found on comprehension area, revealing a mismatch between student perception and real text understanding (Dunlosky and Lipko 2007). Nonetheless, in the case of the perceptions of using less appropriate strategies such as copying, there was an association with effective use of copying without quotation marks in writing tasks. This means that awareness of copying exists, raising the question as to why students persist in using this strategy. In the case of the 'think-then-do' strategy (Torrance and Thomas 2000), we found that the perception of using it was related to the changing of meaning, suggesting that students could change the meaning because they wrote without planning. However, since we did not evaluate if students used 'think-then-do' in the tasks set, we cannot draw any conclusion.

Concerning school achievement, higher-grade performance was related to the perception of using more appropriate strategies. Since we did not find any relationship between school achievement and the use of strategies for writing from sources, we can infer that students with a higher average grade mark had a notion as to which strategies are more appropriate, regardless of whether they were used or not. We also observed that students who had not failed a school year evaluated themselves as using more planning in their writing as well as correct citation rules than those who had failed a school year. The former also had better knowledge of citation rules. Thus, it seems that school achievement had some influence on how students perceived their literacy competencies, though this extended solely to student performance with respect to knowledge of citation rules.

This study had several limitations, which should be considered in future research. Among them, we highlight the fact that we only studied student performance for tasks related to writing from sources. We did not analyze if and how students used general writing, comprehension and consulting strategies. For this reason, we do not know if those students who stated that they use a strategy really use it. For example, in relation to those who changed the meaning and stated that they use 'think-then-do', did they really use this strategy? In addition, we did not evaluate comprehension, an important issue related to the origin of changing the meaning of the sources. In this manner, we can't know if these students changed the meaning of the source because they did not understand the original idea, or because they wrote without thinking seriously about the meaning of their synthesis.

Interviewing students would also help shed light on the results obtained in the present research. Such interviews would be fundamental in understanding why students copied and why those who copied, and who stated that they did so, persist in the use of a strategy that is very similar to plagiarism. Will it be because the participants of our study believed that they could write good summaries even if they used expressions from the source, as has been found by Yoshimura (2018) with Japanese university students? Or will it be because they do not know how to use appropriate strategies such as

summarizing? Or is it that they use a copying technique to avoid changing the meaning of the original? And does copying and the changing of the meaning correspond to a choice between respecting and changing the original meaning? Interviewing students would also be fundamental to appreciate whether 'think-then-do' and paraphrasing/patchwriting are viewed as adequate writing strategies.

Although the main aim of the present research was to study literacy strategies, it would be important to question the students about plagiarism and how they perceived the relationship between both variables, namely if they linked writing deficiencies with plagiarism, if they understood that copying is tantamount to plagiarizing, and if when they changed the meaning they were doing so because they wished to avoid copying for fear of plagiarizing.

Another limitation of the present study is related to the evaluation of perceptions of using patchwriting and paraphrase. As we have seen, because a single factor was found for patchwriting and paraphrasing in a previous study with a questionnaire, we evaluated both of them conjointly. In future, it would be important to deepen our understanding about the relationship between patchwriting and paraphrasing, adopting a tool such as the taxonomy of paraphrases types of Keck (2006).

However, the major limitations of our study are that it was carried out with few students within a very specific context utilizing a synthesis based on a single source.

Further research is needed in order to overcome all these limitations and to deepen our understanding of the strategies used and perceived as being used by students when writing from sources. Study of student performance in all literacy issues and of what students say about their competencies and difficulties would be crucial in understanding the relationship between literacy and plagiarism. Mainly, future research needs to be grounded in broader academic work based on a wider student body comprising text genre differences and through more extensive course levels and accommodating other areas of academia.

Conclusion

Through our study of the literacy strategies of firsts year's university students with respect to plagiarism, the results have succeeded in highlighting some important issues.

The study serves to confirm that firsts years university students have many problems relating to writing deficiencies (Keck, 2014), not least the frequent use of copying without quotation marks and patchwriting, two writing strategies that can be the root cause of texts easily acknowledged as examples of plagiarism (Howard 2016). Although copying with quotation marks, a strategy frequently used, prevents plagiarism, it may also drive students to use the language of the source, instead of summarizing.

The results of the present research also revealed some problems with respect to the way students evaluated their literacy competencies. In short, despite the frequent use of copying without quotation and patchwriting, students view themselves as using appropriate strategies. Furthermore, we failed to find relationships between perceptions of using appropriate strategies and performance in writing tasks. Moreover, it seemed that some inappropriate strategies, such as paraphrasing/ patchwriting and 'think-then-do', were viewed in a positive light.

In addition, we found many students whose writing changed the meaning of the source, highlighting that the difficulties of writing may not be confined solely to texts

approximating to the originals - often classified as plagiarism. These students could not be accused of plagiarism (like those who use copying with quotation marks), but they also failed the educational goal of writing appropriate and autonomous texts. Thus, while we remain concerned about plagiarism, it is important to recognize that our students are failing in many ways due to writing deficiencies or gaps in more general literacy.

The limitations and unanswered questions in the present study highlight the need for deepening our understanding of student literacy competencies. Yet regardless of these ongoing questions, we can conclude that the principal results unearthed call for pedagogical responses. Educational programs would be particularly important for firsts year's students because they used a writing strategy mainly grounded in a dependence on the language of the sources (Keck 2006).

Text-based and intertextuality interventions (Howard and Jamieson 2021) involving instruction on comprehension of the sources (Kintsch 1998, 2009), on planning, revision and summarizing when writing (Franzke et al., 2005; Kintsch 2009), and on how to link reading and writing (FitzPatrick and McKeown 2021; Harris et al. 2019) will prove particularly fruitful in developing student identity as writers and authors (Elander et al. 2010). Instruction on consulting as well as citation and referencing rules must be integrated on a much broader intervention centered on ideas and language ownership (Vaccino-Salvadore and Buck 2021), and on writing as an interaction between the target and sources (Howard and Jamieson 2021) and between the writer and other voices (Hutchings, 2014). Simultaneously, educational programs should be concerned with metalinguistic knowledge, allowing students to possess correct perceptions, not only about the literacy strategies they are capable of using, but also about those which are more appropriate and those which could be related to plagiarism.

To sum up, directing attention towards how to promote student literacy competencies will prove to be one of the best ways of facilitating academic development and in so doing prevent plagiarism (Adam 2016; Pecorari 2016).

Abbreviations

APA American Psychological Association.

Supplementary Information

The online version contains supplementary material available at <https://doi.org/10.1007/s40979-022-00119-8>.

Supplementary Material 1

Acknowledgements

Not applicable.

Authors' contributions

All authors contributed to the study conception and design. Material preparation, data collection and analysis were performed by Isabel Festas, Ana Seixas and Armanda Matos. The first draft of the manuscript was written by Isabel Festas and all authors commented on previous versions of the manuscript.

Funding

This study was supported by COMPETE 2020, Portugal 2020, European Union, through FEDER and by national funding through FCT (Fundação para a Ciência e Tecnologia/Science and Technology Foundation) and conducted in the frame of the COMEDIG project (PTDC/CEDEDG/32560/2017).

Data Availability

The main data supporting the conclusions of this article are included within the article. Any data not present in this manuscript are available from the corresponding author on reasonable request (email: ifestas@fpce.uc.pt).

Declarations

Competing interests

The authors have no conflicts of interest to declare that are relevant to the content of this article.

Received: 28 April 2022 / Accepted: 16 September 2022

Published online: 14 October 2022

References

- Abasi A, Akbari N (2008) Are we encouraging patchwriting? Reconsidering the role of pedagogical context in ESL student writers' transgressive intertextuality. *Engl Specif Purp* 27(3):267–284. <https://doi.org/10.1016/j.esp.2008.02.001>
- Adam L (2016) Student perspectives on plagiarism. In: Bretag T (ed) *Handbook of academic integrity*. Springer, Singapore, pp 519–535. https://doi.org/10.1007/978-981-287-098-8_67
- American Psychological Association (2010) *Publication manual of the American Psychological Association*. American Psychological Association (APA), Washington
- Bailey J (2017) What does citation have to do with plagiarism? Is it really plagiarism if I don't cite correctly? <https://www.plagiarism.org/blog/2017/09/25/what-does-citation-have-to-do-with-plagiarism> Accessed 5 May 2021
- Bereiter C, Scardamalia M (1987) The psychology of written composition. Lawrence Erlbaum, Hillsdale
- Bretag T (2016) Defining academic integrity: International perspectives – introduction. In: Bretag T (Ed.) *The handbook of academic integrity* (pp. 3–5). Springer, Singapore. https://doi.org/10.1007/978-981-287-098-8_76
- Bretag T, Harper R, Burton M, Ellis C, Newton P, Rozenberg P, Saddiqui S, van Haeringen K (2019) Contract cheating: a survey of Australian university students. *Stud High Edu* 44(11):1837–1856. <https://doi.org/10.1080/03075079.2018.1462788>
- Bretag T, Mahmud S, Wallace M, Walker R, McGowan U, East J, Green M, Partridge L, James C (2014) 'Teach us how to do it properly!' An Australian academic integrity student survey. *Stud High Edu* 39(7):1150–1169. <https://doi.org/10.1080/03075079.2013.777406>
- Carpenter J (2012) Researchers of tomorrow: The research behaviour of generation Y doctoral students. *Inf Serv Use* 32(1–2):3–17. DOI <https://doi.org/10.3233/ISU-2012-0637>
- Davies L, Howard R (2016) Plagiarism and the Internet: Fears, facts, and pedagogies. In: Bretag T (ed) *The handbook of academic integrity*. Springer, Singapore, pp 591–606. https://doi.org/10.1007/978-981-287-098-8_16
- Devlin M, Gray K (2007) In their own words: A qualitative study of the reasons Australian university students plagiarize. *High Educ Res Dev* 26(2):181–198. https://doi.org/10.1007/978-981-287-098-8_16
- Dunlosky J, Lipko AR (2007) Metacomprehension: A brief history and how to improve its accuracy. *Curr Dir Psychol Sci* 16:228–232
- Elander J, Pittam G, Lusher J, Fox P, Payne N (2010) Evaluation of an intervention to help students avoid unintentional plagiarism by improving their authorial identity. *Assess Eval High Edu* 35(2):157–171. <https://doi.org/10.1080/02602930802687745>
- Festas I, Seixas A, Matos A (2020) Escrita académica e plágio no ensino superior. *Revista Educação em Questão* 58(56):1–20. <https://doi.org/10.21680/1981-1802.2020v58n56ID19986>
- Festas I, Seixas A, Matos, A (2022) O conhecimento acerca das normas de citação e de referenciação em estudantes do Ensino Superior. *Rev Port Peda* 56, e056002. https://doi.org/10.14195/1647-8614_56_02
- FitzPatrick ER, McKeown D (2021) Writing from multiple source texts: SRSD for fifth grade learners in inclusive settings. *Learn Disabil Res Pract* 36(3):188–200. <https://doi.org/10.1111/ldrp.12257>
- Flower LS, Hayes JR (1980) The dynamics of composing: Making plans and juggling constraints. In: Gregg LW, Steinberg ER (eds) *Cognitive processes in writing*. Lawrence Erlbaum, Hillsdale, pp 31–50
- Fořtýnek DD, Sivasubramaniam S (2018) How to avoid plagiarism: Paraphrasing, quotation and summary. *European Network for Academic Integrity*. <http://www.academicintegrity.eu/wp/all-materials> Accessed 3 Mar 2019
- Franzke M, Kintsch E, Caccamise D, Johnson N, Dooley S (2005) Summary Street®: Computer support for comprehension and writing. *J Educ Comput Res* 33(1):53–80. <https://doi.org/10.2190/DH8F-QJWM-J457-FQVB>
- Gibaldi J, Ahtert W (1977) *MLA handbook for writers of research papers, theses, and dissertations*. Modern Language Association of America, New York
- Gullifer J, Tyson G (2010) Exploring university students' perceptions of plagiarism: A focus group study. *Stud High Edu* 35(4):463–481. <https://doi.org/10.1080/03075070903096508>
- Harris K, Graham S (2009) Self-regulated strategy development in writing: Premises, evolution, and the future. *Br J Edu Psychol* 6:113–135
- Harris K, Graham S, Brindle M, Sandmel K (2009) Metacognition and children's writing. In: Hacker D, Dunlosky J, Graesser A (eds) *Handbook of metacognition in education*. Lawrence Erlbaum, Hillsdale, pp 131–153
- Harris K, Ray A, Graham S, Houston J (2019) Answering the challenge: SRSD instruction for close reading of text to write to persuade with 4th and 5th Grade students experiencing writing difficulties. *Read Writ* 32:1459–1482. <https://doi.org/10.1007/s11145-018-9910-1>
- Horning A, Kraemer E (2013) *Reconnecting reading and writing*. Parlor Press, Anderson
- Howard RM (1992) A plagiarism pentimento. *J Teach Writ* 11(2):233–245
- Howard RM (1995) Plagiarism, authorship, and the academic death penalty. *Coll Engl* 57:788–806
- Howard RM (2016) Plagiarism in higher education: An academic literacies issue? Introduction. In: Bretag T (ed) *The handbook of academic integrity*. Springer, Singapore, pp 499–501. https://doi.org/10.1007/978-981-287-098-8_70
- Howard RM, Jamieson S (2021) The ethics of teaching rhetorical intertextuality. *J Acad Ethics* 19:385–405. <https://doi.org/10.1007/s10805-021-09424-2>
- Howard RM, Serviss T, Rodrigue T (2010) Writing from sources, writing from sentences. *Writ Pedagogy* 2(2):177–192. <https://doi.org/10.1558/wap.v2i2.177>
- Hutching C (2014) Referencing and identity, voice and agency: Adult learners' transformations within literacy practices. *High Educ Res Dev* 32(2):312–324. <https://doi.org/10.1080/07294360.2013.832159>
- Hyland F (2001) Dealing with plagiarism when giving feedback. *ELT J* 55(4):375–381. <https://doi.org/10.1093/elt/55.4.375>
- Jamieson S (2008) One size does not fit all: Plagiarism across the curriculum. In: Howard RM, Robillard A (eds) *Pluralizing, plagiarism: Identities, contexts, pedagogies*. Heinemann-Boynton/Cook, Portsmouth, pp 77–91

- Jamieson S (2016) Is it plagiarism or patchwriting? Toward a nuanced definition. In: Bretag T (Ed) *The handbook of academic integrity*. Springer, Singapore, pp 503–518. https://doi.org/10.1007/978-981-287-098-8_68
- Jamieson S (2018) The evolution of the Citation Project: Lessons learned from a multi-year, multi-study. In: Serviss T, Jamieson S (eds) *Points of Departure: Rethinking student source use and writing studies research methods* (pp 33–61). Utah State University Press, Boulder
- Jamieson S, Howard RM (2011) Unraveling the citation trail. Project information literacy smart talk, 8. Citation project. <http://projectinfolit.org/smart-talks/item/110-sandra-jamieson-rebecca-moore-howard> Accessed 5 Apr 2019
- Keck C (2006) The use of paraphrase in summary writing: A comparison of L1 and L2 writers. *J Second Lang Writ* 15:261–278
- Keck C (2014) Copying, paraphrasing, and academic development: A re-examination of L1 and L2 summarization practices. *J Second Lang Writ* 25:4–22
- Kellogg RT (2008) Training writing skills: A cognitive developmental perspective. *J Writ Res* 1(1):1–26
- Kintsch W (1998) *Comprehension: A paradigm for cognition*. Cambridge University Press, Cambridge
- Kintsch W (2009) Learning and constructivism. In: Tobias S, Duffy T (eds) *Constructivist instruction. Success or failure?* Routledge, New York, pp 223–241
- Lancaster T, Clarke R (2012) Dealing with contract cheating: A question of attribution. https://www.academia.edu/2810770/Dealing_With_Contract_Cheating_A_Question_Of_Attribution
- Larsen S (1987) Assessing the writing abilities and instructional needs of students. Pro-Ed Australia, Nerang
- McGowan S (2016) Breaches of academic integrity using collusion. In: Bretag T (ed) *The handbook of academic integrity*. Springer, Singapore, pp 221–248. https://doi.org/10.1007/978-981-287-098-8_36
- Parodi G (2007) Reading – writing connections: Discourse – oriented research. *Read Writ* 20:225–250. Doi:<https://doi.org/10.1007/s11145-006-9029-7>
- Pecorari D (2008) Academic writing and plagiarism. A linguist analysis. Continuum International Publishing Group, London
- Pecorari D (2016) Plagiarism, international students, and the second-language writer. In: Bretag T (Ed) *The handbook of academic integrity*. Springer, Singapore, pp 537–550. https://doi.org/10.1007/978-981-287-098-8_69
- Pecorari D, Petric B (2014) Plagiarism in second-language writing. *Lang Teach* 47(3):269–302. <https://doi.org/10.1017/S0261444814000056>
- Pittam G, Elander J, Lusher J, Fox P, Payne N (2009) Student beliefs and attitudes about authorial identity in academic writing. *Stud High Educ* 34(2):153–170. <https://doi.org/10.1080/03075070802528270>
- Power L (2009) University students' perceptions of plagiarism. *J High Educ* 80(6):643–662. <https://doi.org/10.1080/00221546.2009.11779038>
- Ramos M, Morais C (2021) As várias faces do plágio entre estudantes do ensino superior: Um estudo de caso [The multiple faces of plagiarism among higher education students: a case study]. *Educ Pesqui* 47:e231584. <https://doi.org/10.1590/S1678-4634202147231584>
- Rogerson A, McCarthy G (2017) Using internet based paraphrasing tools: Original work, patchwriting or facilitated plagiarism. *Int J Educ Integr* 13 2. DOI <https://doi.org/10.1007/s40979-016-0013-y>
- Scardamalia M, Bereiter C (1986) Writing. In: Dillon RF, Sternberg RJ (eds) *Cognition and instruction*. Academic Press, London, pp 59–81
- Shaw P, Pecorari D (2013) Source use in academic writing: An introduction to the special issue. *J Engl Acad Purp* 12:A1–A3
- Tauginiene L (2016) Embedding academic integrity in public universities. *J Acad Ethics* 14:327–344. <https://doi.org/10.1007/s10805-016-9268-4>
- Tauginiene L, Ojsteršek M, Foltýnek T, Marino F, Cosentino M, Gaižauskaitė I, Glendinning I, Sivasubramaniam S, Razi S, Ribeiro L, Odiņeca T, Trevisiol O (2019) General Guidelines for Academic Integrity. ENAI Report 3A [online]. first publication date: October 2018, amended version: September 2019. <http://www.academicintegrity.eu/wp/>
- Torrance M, Thomas G (2000) Individual differences in undergraduate essay-writing strategies: A longitudinal study. *High Educ* 39(4):181–200
- Vaccino-Salvadore S, Buck RH (2021) Moving from plagiarism police to integrity coaches: assisting novice students in understanding the relationship between research and ownership. *Int J Educ Integr* 17:20. <https://doi.org/10.1007/s40979-021-00085-7>
- Villalón R, Mateos M, Cuevas I (2015) High school boys' and girls' writing conceptions and writing self-efficacy beliefs: What is their role in writing performance? *Edu Psychol (Lond)* 35(6):653–674. <https://doi.org/10.1080/01443410.2013.836157>
- Van Dijk T, Kintsch W (1983) *Strategies of discourse comprehension*. Academic Press, New York
- White MJ, Bruning R (2005) Implicit writing beliefs and their relation to writing quality. *Contemp Educ Psychol* 30:166–189. 10.1016/j.cedpsych.2004.07.002
- Yamada K (2003) What prevents ESL/EFL writers from avoiding plagiarism?: Analyses of 10 North-American college websites. *System* 31(2):247–258
- Yoshimura F (2015) Japanese university students' task representations of paraphrasing and their experience with it. *Tohoku Gakuin University Review: Essays and Studies in English Language and Literature* 99:1–21. <http://id.nii.ac.jp/1204/00024289/>
- Yoshimura F (2018) Another possible reason for plagiarism: Task representation of summary skills. *TESL-EJ* 22(3):1–17. <http://www.tesl-ej.org/pdf/ej87/a6.pdf>

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