



Research article

Moroccan EFL public university instructors' perceptions and self-reported writing practices

Abderrahim Mamad^{a,*}, Tibor Víg^b^a Doctoral School of Education, University of Szeged, Szeged, Hungary^b Institute of Education, University of Szeged, Szeged, Hungary

ARTICLE INFO

Keywords:

EFL writing

Perceptions

Self-reported practices

ABSTRACT

In previous research, the majority of university students seemed to lack proficiency in many areas of writing (e.g., grammar, vocabulary, organization, and sentence construction). This illustrates the challenging nature of writing (as a skill) and the frequent focus on the product rather than the process of writing instruction. Previous research focused on primary and secondary education; only a few studies investigated and compared the perceptions and self-reported practices of English as a Foreign Language (EFL) university instructors in relation to the product- and process-based writing approaches. Therefore, this study aims to examine this issue by surveying Moroccan EFL writing instructors' responses and comparing the findings with those of previous empirical studies from diverse educational levels. The following research questions guided our study: 1) What are the instructors' perceptions of product- and process-based writing? 2) What are their self-reported practices regarding these writing approaches? 3) Is there any alignment between their perceptions and their self-reported practices of product- and process-based writing instruction? For this purpose, a questionnaire was developed to collect data from 51 instructors. Since the questionnaire items regarding perceptions and practices were identical and covered five subscales under the two overall approaches, comparisons could be performed. The findings showed that the instructors agreed on the value of the subscale of *Engagement in the writing revision process* more than the other subscales. They also indicated that the two subscales of *Engagement in the writing revision process* and *Writing as a final product* were their most frequently reported writing practices. Based on the comparison between their perceptions and self-reported practices, consistencies were found in all five subscales. This study not only validated the questionnaire on the two approaches to teaching EFL writing in Moroccan universities but also showed the extent to which instructors' perceptions and self-reported practices matched one another.

1. Introduction

English as a Foreign Language (EFL) writing has been considered one of the most challenging language skills by teachers [1], since students' acquisition of the necessary skills to construct an effective written text in another language remains unclear [2]. Other reasons could be related to the ineffectiveness of teacher training programs or practicums as well as teachers' lack of confidence [1]. In this regard, there has been much debate about two approaches to teaching writing. First, there is product-based writing, which is a

* Corresponding author.

E-mail addresses: abderrahim.mamad@edu.u-szeged.hu (A. Mamad), vigh.tibor@edpsy.u-szeged.hu (T. Víg).

common practice in EFL writing that emphasizes foundational writing skills, e.g., punctuation, handwriting, and spelling [3]. However, due to the limitations of this approach, such as its primary focus on grammar and linguistic form [4–6], process-based writing, which engages students in planning, translating, revising, composing meaningful texts, and acknowledging the roles of self-reflection and evaluation in writing [3], has recently been emphasized in writing instruction. Mariano et al. [7] stated that there is a “variation in the ways aspects of writing are categorized and defined” (p. 87). According to numerous researchers (e.g., [7–12]), some of these writing-related aspects (e.g., generating ideas and sentence construction) are considered high-level, while others that deal with surface writing activities (e.g., spelling and punctuation) are deemed to be low-level. Thus, the present study focuses on the product- and process-based writing approaches in order to determine whether they are effective for EFL students.

Despite the shift toward process-based writing, empirical studies, as reviewed by Javadi-Safa [13], have indicated that especially EFL learners have difficulties in writing, and one of the reasons for the weakness of students can be attributed to the frequently overemphasized focus on the product approach to teaching writing. Similarly, in the Moroccan higher education context, some studies [14,15] have revealed that university students have numerous challenges in EFL writing, especially regarding grammar, vocabulary, and organization. The development of writing skills could be facilitated with the integration of information and communication technology (ICT) in the teaching practice [15]. However, as Laabidi and Laabidi [16,17] reported, Moroccan university English language teachers face multiple barriers, such as a lack of computers and internet, large classes, insufficient technical support and professional development, and a lack of computer training, which hinder the use of ICT in their instruction.

In order to meet teachers’ expectations regarding students’ improvement in writing, it is essential to examine “how writing is taught to determine if effective instructional practices are applied” [18, p. 930]. The exploration of different aspects of teachers’ thinking, such as their beliefs and perceptions about teaching and learning about writing, is a prominent area of research [2]. Specifically, as argued by Khanalizadeh and Allami [2], teachers’ beliefs can have a significant influence on teaching practices and behaviors. Previous empirical studies usually focused on primary or secondary teachers’ perceptions and practices [7,18–22], and few studies dealt with university EFL teachers’ writing instruction beliefs and practices [23–25]. Therefore, due to the rarity of studies on this issue at the university level, especially in the Moroccan context [26], the present study aims to examine Moroccan EFL public university instructors’ perceptions and self-reported practices of the product- and process-based approaches to writing, combined with a discussion of previous empirical studies from diverse educational levels.

2. Theoretical background

2.1. The product-based approach to writing

The product-based approach to writing, which started in the 1950s and early 1960s, emphasizes language form in the final text [21] and considers students’ language accuracy in grammar as the most crucial element of second language (L2) writing [27]. For example, students are provided with a model text to read, after which they focus on its linguistic features. In this approach, the majority of the writing tasks encourage students to imitate, copy, and transform the models provided by teachers or textbooks. Badger and White [28] and Hyland [4] indicated that the product approach to writing is taught through four stages: familiarization, controlled writing, guided writing, and free writing. During the first stage, the teachers present grammatical and lexical exercises in order for the students to illustrate the grammatical points in the texts. In the second stage, the teachers provide the students with controlled grammar and vocabulary exercises. In the guided writing stage, the students practice writing longer pieces, such as writing a letter to a friend, using the target vocabulary and grammar. Finally, in the free writing stage, the students use patterns that they have developed to write compositions. In this model, writing is only about applying linguistic knowledge to practice. Hence, this approach does not give much attention to macroaspects, such as the range of ideas and the development and relevance of a topic, purpose, genre, context, and audience, all of which can help students improve the quality and content of their writing.

Interestingly, the use of this approach in writing instruction has been advantageous for students with lower levels of language proficiency, since it helps them correct and eliminate their errors [29]. However, this approach has also been criticized because it limits the teaching to grammatical accuracy and linguistic knowledge [4–6]. Consequently, it decreases students’ awareness of the necessary writing skills (e.g., pre-writing, planning, drafting, revision, and editing). It also restricts students’ creativity, since it relies on the imitation of a model or written pattern. Pramila [5] added that it ignores the context and audience and over-concentrates on the final product of students. Moreover, this approach neglects certain learning strategies and cognitive writing processes [28,30].

2.2. The process-based approach to writing

The process-based approach, which has been applied in classes since the 1980s [31], appeared in response to the product-based approach and took the lead in the teaching of second language (L2) writing. In this approach, teachers focus on the cognitive processes that govern writing. Most researchers have described writing as a process that involves numerous stages such as pre-writing, planning, drafting, revising, editing, and publishing [21,32,33]. Keh [34] defined the process-based approach as “a multiple-draft process which consists of generating ideas (pre-writing); writing a first draft with an emphasis on content (to ‘discover’ meaning/author’s ideas); second and third (and possibly more) drafts to revise ideas and the communication of those ideas” (p. 294).

In favor of this approach, Freeman and Freeman [35] identified several advantages. First, it naturally moves writing from invention to convention (i.e., writing becomes a practice for a set of cognitive processes, instead of a demonstration of linguistic knowledge). Second, it focuses on errors in students’ writing skills, such as grammar and spelling, through teacher-student conferencing. Third, it involves both teachers and students through peer feedback and related discussions. Fourth, it motivates students to deliver their own

messages.

Despite the numerous advantages [6], the process-based approach is not without its critics. The main criticism is that it does not adequately address some issues in L2 writing [36], such as the level of cognitive development, language proficiency, and differences in individuals, writing tasks, and situations. Pramila [5] explained that it does not consider L2 students' specific difficulties, since it assumes that all writing processes are similar. It also claims that students always write in the same way for the same audience. Moreover, unlike the product-based approach, this approach does not place sufficient attention on the final product but focuses on the writing processes from planning through evaluation. Due to these limitations, focusing on the product and process of L2 and foreign language (FL) writing is insufficient for helping students develop their texts at an advanced level. Thus, at the higher education level, it may be useful to address the macroaspects and writing processes of first language (L1) expert writers, as described by Flower and Hayes [37] in their model.

In Flower and Hayes' [37] model, the writing process is composed of three major components. The first is the task environment, in which several factors influence the writing task. These consist of social factors, such as a teacher's writing assignment, and physical factors, such as the text the writer has produced. The second pertains to cognitive processes (i.e., planning, translating, and reviewing), which are considered reactions to the traditional linear sequence models of L2 and FL writing (i.e., pre-writing, planning, drafting, revising, editing, and publishing). This component also aims to help novice writers easily learn and develop their revision strategies, which, in turn, can make them become proficient writers [38]. In this component, the difference between how basic and expert writers compose their writings and review their texts can be clarified [38]. To help inexperienced writers effectively revise their writings in the same way that expert writers do, Flower and Hayes [37] regarded planning, translating, and reviewing as the main cognitive processes that can operate through a monitor function. This not only activates their roles as essential activities, but also the role of writers' long-term memory [38]. Specifically, in the planning phase, writers decide what and how to write, while during the translating phase, they turn plans into written texts. As for the reviewing phase, writers simply improve their existing texts. In this process, writers are engaged in two actions: evaluating the quality of their texts and making possible changes to them [38]. The final component of Flower and Hayes' [37] model is writers' long-term memory, which involves their knowledge of the topic, audience, and genre.

Regarding the role of this model in the L2 context, Zimmermann [39] discussed its translating process by highlighting its sub-processes. Specifically, to avoid misunderstandings in the L2 context, he referred to the translating phase in Flower and Hayes' [37] model as formulating, which he considered the heart of the writing process. This includes important sub-processes, including tentative formulation in L1/L2; modified, repeated, and simplified tentative formulation; and other metaprocesses (e.g., evaluating, rejecting, accepting, postponing, and simplifying).

Based on his modification of Flower and Hayes' [37] model, Hayes [40] suggested a new model in which social and physical environments are considered as other important sub-components in writing. This latter model [40] includes two main components: the task environment and the individual. Whereas the former component involves both the social environment (the vital role of the audience and the collaborators) and the physical environment (the role of the writer in producing an actual text and the role of the word processor as a writing medium), the second component includes motivation and effect (goals, predispositions, beliefs, and attitudes), cognitive processes (text interpretation, reflection, and text production), working memory (phonological memory, the visual/spatial sketch pad, and semantic memory), and long-term memory (task schemes and knowledge of the topic, audience, language, and genre).

This shift from the previous model to the new one indicates a change from the social-cognitive model of writing to the individual-environmental model. Hayes [40] claimed that his orientation toward the individual components does not mean that other social and cognitive aspects are unimportant. Instead, they are imperative for a complete understanding of writing. This requires a suitable combination of social, physical, affective, and cognitive conditions. Therefore, writing can be in the form of communicative (the social context and medium), generative (motivation), and intellectual activities (cognitive processes and memory) [40]. Based on one of the focuses of the present study, it is also imperative to apply different teaching approaches to EFL/ESL writing, such as product- or process-based writing. Abouabdelkader and Bouziane [26] argued that EFL writing teachers need to follow any approach, or various approaches, that meet their students' needs.

2.3. Research on teachers' perceptions and self-reported practices of product- and process-based writing

In this study, it is worth clarifying two concepts. The first is the term, *perceptions*, defined as uniquely individualized experiences, personal and mental constructions, propositions, and assumptions [41,42]. In the EFL context, such aspects influence teachers' judgments and decisions [43]. Conversely, the second term, *self-reported practices*, refers to one possible way to investigate teacher practice, which, as a broader concept, can be differently measured depending on the agents' perspectives; thus, teacher practice can be examined as perceived by students, observed by researchers, and/or self-reported by teachers [44]. Investigating teachers' self-reported practices is based on their estimation of the types of teaching practices and how often they are used during lessons [42]. However, teacher self-reports can be considered unreliable [45]; thus, they need to be measured in triangulation from other perspectives [44,46] to identify, for example, the extent to which teacher self-reported practices have meaningful alignment with their beliefs [47,48]. This seems to be important in the context of writing since teachers' perceptions and/or beliefs about teaching writing can influence their practices [1,3,19]. Sengupta and Falvey [22] argued that teachers' perceptions and/or beliefs "are often shaped by teachers' existing knowledge and how the teaching context helps support and extend that knowledge" (p. 75). Related research has claimed that self-reported practices have meaningful alignment with perceptions [47,48]. In this regard, examining ESL/EFL writing teachers' perceptions and/or beliefs can help determine "how their beliefs are formed and developed or the extent to which these beliefs shape their practices" [49, p. 627]. Hsiang et al. [20] also argued that teachers' reported writing practices can be predicted from

their beliefs. Thus, investigating the two concepts and their relationship is warranted in writing research. The majority of previous empirical studies [2,3,7,20,23,24,50] on teachers' perceptions and practices employed a mixed-method approach for data collection (e.g., questionnaires and interviews) in order to analyze multiple features of writing, especially those of the product-based approach. These studies also targeted different educational contexts.

Regarding teachers' perceptions and practices of writing instruction at the university level, various key components (e.g., the appropriateness of ideas and their clarity, accuracy, and logicity) were examined as indicators of quality writing among Chinese EFL university instructors [23]. In the same context, organization, language, and content were frequently emphasized at the expense of vocabulary and mechanics based on EFL instructors' beliefs [24]. As for other features of quality writing in EFL writing instruction, organization and ideas were emphasized over grammar and vocabulary in Iranian language institutes [2]. At the kindergarten level, the types of assigned writing tasks, the teachers' approaches to writing instruction, the use of instructional practices, the teachers' beliefs about writing, and the time devoted to writing instruction were major components of the investigation [3]. From the perspective of writing assessment, knowledge (basic concepts in classroom writing assessments), beliefs (scoring accuracy, writing assessment methods, and general assessment issues in writing classes), and practices (rubrics, portfolios, rater-training sessions, and self-assessment) of L2 tertiary writing teachers were explored [50]. In the context of mid-sized schools, other features of writing were assessed, including punctuation, text structure, genre features, vocabulary, spelling, grammar, mechanics, ideas/content, revising, reader engagement, elaboration, and sentence structure [7].

Regarding the relationship between the perceptions of teachers and their self-reported practices, a number of writing aspects (e.g., teaching elements of writing, promoting writing collaboration, and facilitating text revision) were examined to determine the extent to which Taiwanese teachers' beliefs predicted their reported writing practices in grades 1 to 3 [20]. As for Morocco, studies investigating teachers' perceptions and self-reported practices in writing instruction are rare and almost non-existent. In addition, Abouabdelkader and Bouziane [26] indicated scant research on writing instruction in the Moroccan context (e.g., [51]). Meanwhile, the majority of the existing Moroccan studies [52,53] focused on the impact of information and communications technology on writing skills but not on the teaching and learning of writing. Based on this gap in EFL writing research in Morocco and the future research recommendations by Abouabdelkader and Bouziane [26], who called for the "adaptation of process-oriented approaches to the teaching of writing with the requirements of the EFL language learner [and the] provision of writing instruction in relation to the learners' development of linguistic abilities" (p. 51), the present study examines instructors' perceptions and self-reported practices regarding product- and process-based writing to better understand how their perceptions shape their practices. Therefore, the following research questions guide this study:

1. What are instructors' perceptions of product- and process-based writing?
2. What are instructors' self-reported practices in teaching product- and process-based writing?
3. Is there any alignment between instructors' perceptions and their self-reported practices regarding the teaching of these two writing approaches?

3. Methods

The present research was substantially reviewed and approved by the Institutional Review Board at the Doctoral School of Education, University of Szeged. Informed consent was obtained from all teachers who were involved in the study.

Table 1
Characteristics of the respondents.

Baseline characteristics	Full sample (N = 51)	
	N	%
Gender		
Male	37	73
Female	14	27
Age		
20–30 years old	10	20
31–40 years old	15	29
41–50 years old	10	20
Over 50 years old	16	31
Years of teaching experience in EFL writing		
1–5 years	13	25
6–10 years	14	27
11–20 years	11	22
21–30 years	8	16
Over 30 years	5	10
Average number of students in EFL writing classes		
1–50 students	22	43
51–100 students	20	39
101–150 students	4	8
Over 150 students	5	10

3.1. Data collection and participants

This exploratory quantitative study using a survey method was designed to examine 51 Moroccan public university EFL writing instructors' perceptions and self-reported practices of writing and to compare the extent to which they matched one another. In order to recruit a sufficient number of participants, the questionnaires were administered both face-to-face and online. The instructors were also informed that their anonymity would be guaranteed and that completing the questionnaires would not take more than 15 min. Specifically, this study focused on EFL university teachers who taught writing courses (e.g., *Writing Paragraphs*, *Composition I* and *II*, *Advanced Writing*) in order to gain a better understanding of their perceptions about writing practices and approaches. Based on the objectives of the course descriptions by Abouabdelkader [15], which included an analysis of corpora (e.g., EFL students' final composition examinations and EFL teachers' views and perceptions of assessments), such EFL writing courses in Moroccan universities, especially *Composition I*, focus on "the expository, analytical, and argumentative writing that forms the basis of academic and professional communication" (p. 104). As for *Composition II*, he stated that it encourages students to "place their emphasis on content, purpose, and audience, and to allow this focus to guide the organization of their writing" (p. 106). Abouabdelkader [15] also showed that the contents of these courses examine all of the elements of product- (e.g., reviewing a paragraph's structure, formatting a paragraph, and examining the topic sentence, unity, and coherence of a paragraph) and process-based writing (e.g., writing, revising, drafting by using a checklist, and self- and peer-editing).

As shown in Table 1, instructors over 50 years of age are the dominant subsample in the present study, followed by participants between the ages of 31 and 40. Concerning writing instruction, the majority of the instructors have 6 to 10 years of experience. Additionally, the majority of them (43.1%) have been teaching up to 50 students in their EFL writing classes, with 39.2% teaching between 51 and 100 students.

3.2. Instrument and procedure

A self-designed questionnaire was the instrument in this study. Due to the limited research on the aspects of product-based writing (rather than other aspects of process-based writing) and the absence of any comparisons between teachers' perceptions and their self-reported practices of these two approaches, other questionnaires could not be adopted. As for the content validity of the developed instrument, it was achieved in three ways. First, the structure of the subscales and the contents of the items were developed based on the existing writing literature (e.g., [4,5,27,28,33,37,38,40]). Second, the questionnaire items were revised based on feedback from researchers who specialized in education and EFL teaching. Third, through a pilot study, the questionnaire's readability and appropriateness were assessed by Moroccan EFL writing instructors, after which their suggestions and feedback were taken into account in the final version of the questionnaire.

The questionnaire items were related to either the three research questions (as shown in the Appendix) or the background information of the participants (see Table 1). The latter was not used for data analysis and interpretation, but only considered for describing the sample. The two targeted questions related to the two dimensions of teachers' perceptions and their self-reported practices of writing showed similarities in all five subscales and the total number of items that described the features of product- and process-based writing. However, there were differences in the way the items in the two questions were worded. The first question required the instructors to indicate their agreement/disagreement regarding the 21 items and asked about their perceptions of the teaching approaches to writing based on a five-point Likert scale ranging from one (strongly disagree) to five (strongly agree). In order to express participants' neutral position, a scale with an odd number was provided. The second question asked how frequently they implemented the product- and process-based writing practices described in 21 statements, using a five-point intensity scale ranging from one (never) to five (always). The results of the first and second questions were then compared to determine if the instructors' perceptions matched their self-reported practices. Table 2 presents an overview of the scales and subscales related to the two writing approaches and the total number of items, including their serial numbers (shown in the Appendix).

As shown in Table 2, within the scale of the product-based approach to writing, there are two subscales. The first subscale, *Stages of product-based writing*, includes four items. Badger and White [28] and Hyland [4] argued that this approach is taught through four stages (familiarization, controlled writing, guided writing, and free writing), the features of which are included in the items. The second subscale, *Writing as a final product*, includes three items, which reflect the value of focusing on the accuracy and form of

Table 2

Overview of the scales and subscales related to the two dimensions.

Scales and subscales	Number of items	Dimensions	
		Perceptions	Self-reported practices
Product-based approach	8		
Stages of product-based writing	4	1, 7, 12, 19.	19, 8, 13, 2.
Writing as a final product	4	3, 10, 15, 21.	15, 5, 1, 21
Process-based approach	13		
Socio-cognitive processes of writing	4	2, 9, 13, 18.	20, 11, 3, 17.
Engagement in the revision process of writing	4	4, 6, 17, 20.	4, 7, 14, 10.
Developmental macroaspects of the content of writing	5	5, 8, 11, 14, 16	16, 18, 12, 6, 9.

Note. The serial numbers in the dimensions column indicate the serial numbers of the questionnaire items in the Appendix.

students' final writings (e.g., [5,27]) as well as on marking and correcting their writings [54].

Regarding the scale of the process-based approach to writing, there are three subscales. The first subscale, *Socio-cognitive processes of writing*, includes four items related to planning, translating, and reviewing, as referred by Flower and Hayes [37] and Becker [38]. The second subscale, *Engagement in the revision process of writing*, includes four items that target the effective role that teacher-student discussions and peer involvement can play in the revision process of writing. The latter also involves students in some writing activities (e.g., pre-writing, planning, drafting, revising, editing, and publishing) [33], which can promote their overall writing performance. The third subscale, *Developmental macroaspects of the content of writing*, consists of five items that are related to Hayes' [40] model of writing, especially the individual components of long-term memory (task schemes and knowledge of the topic, audience, language, and genre), motivation, and effect (goals, predispositions, and beliefs).

Since the objectives of the present study were to first explore the teachers' perceptions and self-reported practices regarding writing, and then determine the relationship between these two dimensions at the subscale level, the construct and convergent validity as well as the reliability of the questionnaire items were examined to indicate their relevance in this research. Specifically, the construct validity of the questionnaire was ensured by conducting exploratory factor analysis (EFA) to verify and compare the empirical structure of the questionnaire with its theoretical structure. Reducing the dataset to a manageable size by maintaining the original information of the questionnaire items was another goal of using EFA [55,56]. Relatedly, four principal component analyses (PCAs) with varimax rotation were performed based on the two dimensions and scales in order to determine the function of each item in the factor structure and to create composite scores of the five subscales. Regarding the convergent validity of the questionnaire, Pearson's correlation coefficients were computed to reveal the relationship between instructors' perceptions and their self-reported practices described in the different subscales. The scales' reliability was also calculated by Cronbach's alpha coefficients.

Table 3 presents the results of the four PCAs to examine the factorability of the items. In all of the cases, the Kaiser-Meyer-Olkin (KMO) sampling adequacy values ranged between 0.75 and 0.84, which were above the minimum acceptable value of 0.5. Additionally, Bartlett's tests of sphericity were significant in all of the models ($p < 0.001$), confirming that the correlation coefficients between the items were appropriate for the PCAs. The communalities among all of the items were also above the minimal acceptable limit of 0.3, except for one item related to the self-reported practices' dimension in the scale of product-based writing. As for the other factors, the total variance explained by the generated factors was around or higher than 60%.

When identifying the factors, the eigenvalues in all of the cases were greater than 1, except for the perceptions' dimension in the scale of process-based writing (0.89). Despite this lower value, the three-factor resolution was favored, since it aligned with the theoretical structure and made it possible to make comparisons between the teachers' perceptions and self-reported practices. Based on the theoretical structure, there were two factors for product-based writing and three for process-based writing in both dimensions of teachers' perceptions and self-reported practices.

The factor loadings of each item within the scales of product- and process-based writing in both dimensions of the perceptions and self-reported practices of teachers were above the recommended value of 0.4. Moreover, the majority of the items in the individual factors matched the theoretical structure. However, there were some cross-loading items that belonged to another factor, which explains the influence of the results by the number of generated factors and the sample size. Hence, the factor structure associated with process-based writing on a larger sample needs to be controlled.

Finally, the structure of the self-developed questionnaire made it possible to control its convergent validity, especially since all of the subscales were the same for teachers' perceptions and self-reported practices of writing. Table 4 presents Pearson's correlation coefficients between these two dimensions along the subscales, together with their Cronbach's alpha coefficients in both dimensions. In all of the cases, there were moderate positive significant relationships between teachers' perceptions and self-reported practices, indicating that these two constructs are theoretically and empirically related. As for the subscales' reliability, the majority of the Cronbach's alpha coefficients were acceptably high. Nevertheless, it was noted that these values were higher in the process-based approach than in the product-based approach, either based on teachers' perceptions or self-reported practices.

3.3. Data analysis

The Statistical Package for Social Sciences (IBM SPSS) V25 was used to analyze the data and respond to the three research questions. In order to determine the instructors' perceptions of the items within the given subscales and the extent to which they frequently used them, composite scores derived from principal component analysis were used. To identify their perceptions and self-

Table 3
Summary of the four PCAs.

Dimensions and scales	KMO	Bartlett's test of sphericity			Communalities			Total variance explained (%)
		χ^2	df	p	Min.	Max.	M	
Perceptions								
Product-based writing	0.75	144.96	28	<0.001	0.50	0.75	0.61	60.83
Process-based writing	0.82	426.64	78	<0.001	0.56	0.84	0.70	70.08
Self-reported practice								
Product-based writing	0.76	165.17	28	<0.001	0.14	0.98	0.61	60.71
Process-based writing	0.84	417.21	78	<0.001	0.53	0.84	0.72	71.94

Note. KMO = Kaiser-Meyer-Olkin measure of sampling adequacy.

Table 4
Summary of Pearson's correlation and Cronbach's alpha coefficients.

Scales and subscales	Correlations between the two dimensions		Cronbach's alpha coefficients	
	r	p	Perceptions	Self-reported practices
Product-based approach				
Stages of product-based writing	0.50	<0.001	0.61	0.74
Writing as a final product	0.58	<0.001	0.78	0.73
Process-based approach				
Socio-cognitive processes of writing	0.45	<0.001	0.83	0.75
Engagement in the revision process of writing	0.50	<0.001	0.83	0.77
Developmental macroaspects of the content of writing	0.60	<0.001	0.83	0.89

reported practices of product- and process-based writing, descriptive statistical analyses were employed. In addition, the differences between the subscales were examined by performing paired-samples t-tests, while the internal relationships between them were determined by calculating the correlation coefficients. Finally, the differences between perceptions and self-reported practices were analyzed along the subscales.

4. Results

4.1. Research question one

The results in Table 5 regarding the Moroccan instructors' perceptions of product-based writing show that they agreed on the importance of *Writing as a final product* over *Stages of product-based writing*. The means, standard deviations, and minimum and maximum values of these two subscales also differed ($t(50) = 3.08, p < 0.001$), while the correlation between these two subscales was significant ($r = 0.66, p < 0.001$).

Regarding process-based writing, the differences between *Engagement in the revision process* and the other two subscales were significant ($t(50) = 4.29, p < 0.001$; $t(50) = 6.72, p < 0.001$). Participants also perceived the subscale of *Socio-cognitive processes of writing* as more important than that of *Developmental macroaspects of the content of writing* ($t(50) = 3.83, p < 0.001$). Moreover, there were strong positive significant correlations ($0.73 \leq r \leq 0.88, p < 0.001$) between all of the subscales.

4.2. Research question two

As shown in Table 6 concerning the instructors' self-reported practices of product-based writing, the minimum and maximum values as well as the standard deviations of *Writing as a final product* and *Stages of product-based writing* differed. There was also a significant difference between their means ($t(50) = 5.17, p < 0.001$). In addition, the correlation between these two subscales was significant ($r = 0.60, p < 0.001$).

As for the process-based approach to writing, significant differences were found between *Engagement in the revision process of writing*

Table 5
Moroccan EFL instructors' perceptions of product- and process-based writing.

Scales and subscales	Minimum	Maximum	M	SD
Product-based writing				
Writing as a final product	1.00	5.00	3.97	0.82
Stages of product-based writing	1.50	5.00	3.69*	0.74
Process-based writing				
Engagement in the revision process of writing	1.00	5.00	4.25	0.76
Socio-cognitive processes of writing	1.00	5.00	4.02*	0.80
Developmental macroaspects of the content of writing	1.40	5.00	3.74*	0.75

Note. * The mean significantly differs from the previous subscale at $p < 0.05$.

Table 6
Moroccan EFL instructors' self-reported practices of product- and process-based writing.

Scales and subscales	Minimum	Maximum	M	SD
Product-based writing				
Writing as a final product	1.25	5.00	4.02	0.74
Stages of product-based writing	1.25	4.75	3.51*	0.82
Process-based writing				
Engagement in the revision process of writing	1.25	5.00	4.09	0.75
Socio-cognitive processes of writing	1.00	5.00	3.92*	0.75
Developmental macroaspects of the content of writing	1.40	5.00	3.70	0.82

Note. * Mean significantly differs from the previous subscale at $p < 0.001$.

Table 7
Moroccan EFL instructors' perceptions and self-reported practices of writing.

Scales and subscales	Perceptions		Practices		Mean Diff.	T-test	
	M	SD	M	SD		t (50)	p
Product-based writing							
Writing as a final product	3.97	0.82	4.02	0.74	-0.04	-0.48	0.62
Stages of product-based writing	3.69	0.74	3.51	0.82	0.18	1.64	0.10
Process-based writing							
Engagement in the revision process of writing	4.25	0.76	4.09	0.75	0.16	1.56	0.12
Socio-cognitive processes of writing	4.02	0.80	3.92	0.75	0.10	0.90	0.37
Developmental macroaspects of the content of writing	3.74	0.75	3.70	0.82	0.03	0.35	0.72

Note. In all of the subscales in both dimensions, the values ranged from 1 to 5.

and the two other subscales ($t(50) = 2.96, p < 0.001$; $t(50) = 4.07, p < 0.001$). The instructors also stated that they used the practices described in the subscale *Socio-cognitive processes of writing* more frequently than those included in the subscale of *Developmental macroaspects of the content of writing* ($t(50) = 2.46, p < 0.001$). Moreover, the relationships among all of the subscales of process-based writing were mainly characterized by strong significant correlations ($0.63 \leq r \leq 0.85, p < 0.001$).

4.3. Research question three

Table 7 presents a comparison of the instructors' perceptions with their self-reported practices regarding product- and process-based writing at the subscale level. In all of the five subscales, non-significant differences were identified. The paired subscales were significantly correlated with one another and ranged between $0.45 \leq r \leq 0.60$ ($p < 0.001$) (see Table 4).

5. Discussion

Despite the pedagogical value of researching the relationship between teachers' perceptions and their self-reported practices, there is a rarity of such research in tertiary EFL education (e.g., [23,25]), let alone in the Moroccan university writing context. In addition, the majority of international studies have only focused on primary or secondary education, with frequent emphasis on teachers' beliefs over their practices. Thus, we could compare our results with previous empirical studies from diverse educational levels, especially in terms of research design and content. Although most of these studies employed a combination of two to three sources of data collection (e.g., surveys, interviews, and content analyses), reflecting on their findings based on the questionnaire used in this study could be suitable for making meaningful comparisons to discuss how teachers perceive and practice both the product- and process-oriented approaches to writing and the extent to which teachers' perceptions align with their practices. To achieve these comparisons, the included studies used quantitative or mixed survey methods, pertained to teachers' perceptions and/or self-reported practices of teaching EFL, ESL, or academic writing at different educational levels, and covered one or more similar subscales as those in our study.

5.1. EFL teachers' perceptions of product- and process-based writing

Based on their perceptions of product-based writing, the Moroccan EFL writing university instructors involved in this study agreed on the importance of *Writing as a final product* over *Stages of product-based writing*. This highlights the beliefs of teaching students to write accurate words and structures in the product-based writing process. This finding is in line with Yang and Gao's [23] study, in which half of the instructors agreed with the importance of accuracy in writing instruction. In a related study, Nguyen and Truong [21] found that 63.4% of high school teachers believed that writing assessments are mainly conducted in order to assess students' final products.

In a case study by Zhang [25], the importance of teaching linguistic forms (e.g., vocabulary and grammar) was the participant's predominant perception. In a related study, the importance of grammatically correct writing was the most commonly mentioned aspect by Hong Kong English teachers in writing instruction [22]. In contrast to the current study's findings, vocabulary and mechanics (e.g., spelling, punctuation, format, and handwriting) were regarded as the moderately or the least important aspects of writing, as a final product in Ding and Zhao's [24] study. Opposite findings were also found in the research by Brindle et al. [18], in which third and fourth grade teachers moderately disagreed with items focusing on students' correctness in writing (e.g., spelling, grammar, and vocabulary), as key elements in their writing development of the final text. As part of the *Stages of product-based writing*, guided writing was perceived to be the focus of most primary education teachers in the study by Casas Deseures et al. [19]. However, this was not the case in the present study, since the instructors did not often believe in the value of guiding their students in the practice of writing by using related examples/models.

Concerning their perceptions of process-based writing, participating Moroccan instructors perceived *Engagement in the revision process of writing* as more important than the subscales of *Socio-cognitive processes of writing* and *Developmental macroaspects of the content*. This result indicated that they were in agreement with the value of the writing process based on the editing and revision of multiple drafts. Like the finding of this study regarding *Engagement in the revision process of writing*, Yang and Gao [23] found that university teachers of EFL writing considered pre-writing activities relevant in students' writing preparation. Regarding the

Socio-cognitive processes of writing, Sengupta and Falvey [22] showed little focus of Hong Kong L2 secondary teachers on either the discourse-related or cognitive aspects of writing. In contrast to the results of the present study regarding the perceived high value of *Engagement in the revision process of writing*, Sengupta and Falvey [22] found that 63.4% of the respondents disagreed with the idea that writing is a step-by-step process, which involves thinking, planning, writing, and revision. The participants in this present study also perceived *Socio-cognitive processes of writing* as more important than the subscale of *Developmental macroaspects of the content of writing*. This finding aligns with that of Yang and Gao [23], in which half of the participants indicated the efficacy of developing students' creative and critical writing (i.e., involving students in deciding what to write). Unlike the findings of the present study regarding *Developmental macroaspects of the content of writing*, Ding and Zhao [24] found that most of the EFL university teachers considered organization (e.g., topic sentences, division of paragraphs, presentation and support of ideas, logic, coherence, and cohesion) and content (e.g., range and quality of ideas, development of the topic, and relevance to the topic) as the most important factors that determine the quality of EFL writing.

5.2. EFL teachers' self-reported practices of product- and process-based writing

Regarding the application of the product-based approach to writing, the Moroccan university teachers who participated in our study mentioned their frequent employment of *Writing as a final product*, rather than the *Stages of product-based writing*. As examples of the former, the frequent focus on accuracy and basic writing techniques by the majority of the participants was also found in the study by Yang and Gao [23]. Similar to the findings of the present study, Guo et al. [3] found that teaching spelling, punctuation, capitalization, grammar, and handwriting were heavily applied by most of the kindergarten teachers when teaching basic writing skills. In a related study by Brindle et al. [18], the teaching of basic writing skills and imitating model essays were more often applied by third and fourth grade teachers in *Writing as a final product*. Meanwhile, the inclusion of practices related to the *Stages of product-based writing* seems to be absent in previous research. However, the stage of guided writing in the study by Brindle et al. [18] was the only stage that was highlighted and frequently integrated into the teachers' writing instruction. Thus, it can be stated that overfocus by teachers in *Writing as a final product* can lead students to value or pay more attention to the basic features of product-based writing, either in their assigned writing activities or in their preparation for written examinations.

As for their self-reported practices of the process-based approach to writing, the instructors who were involved in this study stated they employed *Engagement in the revision process of writing* more often than the practices described in the subscales of *Socio-cognitive processes of writing* and *Developmental macroaspects of the content of writing*. In harmony with these results, Hsiang et al. [20] and Guo et al. [3] identified some instructional procedures (e.g., revision, editing, peer reviewing, and teacher-student conferencing) associated with the construct of *Engagement in the revision process of writing*, as the most common practices used by kindergarten and elementary school teachers in writing instruction. In the study by Hsiang et al. [20], having the students involved in planning what to write in their papers and employing graphic organizers for generating/organizing their writing ideas were considered by teachers as the moderately applied activities representing the construct of *Socio-cognitive processes of writing*. The involved Moroccan instructors also perceived this subscale as more crucial than the subscale of *Developmental macroaspects of the content of writing*. Regarding *Socio-cognitive processes of writing*, the present study echoed the findings of Brindle et al. [18], in which the majority of the teachers often taught the students how to plan and self-regulate their writing strategies. Hence, the Moroccan teachers encouraged the students to put their plans into a written text and involved them in the advanced writing process. As an example of *Developmental macroaspects of the content of writing*, the use of genre features was the most referenced aspect of writing in the study by Mariano et al. [7], which was not the case in our study. In this regard, the Moroccan instructors stated that they rarely asked the students to write following their knowledge of the genre of writing and did not appear to pay more attention to the role of reader engagement in writing.

5.3. The relationship between teachers' perceptions and their self-reported practices of product- and process-based writing

When comparing the teachers' perceptions with their self-reported practices regarding product-based writing at the subscale level, a commonality was found in the way the Moroccan participant instructors perceived and practiced *Writing as a final product*. This was consistent with Zhang's [25] findings, which showed how a novice Chinese EFL teacher acted upon his beliefs in his teaching of linguistic forms and grammatical and lexical cues. The present study also matched the study of Yang and Gao [23], in which the university students' development of writing competence based on accuracy played a crucial role in the teachers' self-reported practices. Concerning *Stages of product-based writing*, there was an alignment in the teachers' perceptions and their self-reported practices. This indicates that the Moroccan instructors were able to transfer their theoretical knowledge about the value of the four stages of writing (i.e., familiarization, controlled, guided, and free writing) into practice when following the product-based approach to writing instruction.

Regarding the most frequently adopted mode in writing instruction, participant instructors' perceptions of the value of *Engagement in the revision process of writing* also matched that of their self-reported practices. For example, the teachers encouraged the students to learn how to write for improvement, participate in peer reviews, discuss their writing performance with the teachers, and engage in certain writing processes (e.g., pre-writing, planning, drafting, revising, and editing). As for the moderately adopted mode of process-based writing, the subscale of *Socio-cognitive processes of writing* was perceived by the teachers in the same way that they practiced it. Despite its limited use in comparison to the two aforementioned modes of process-based writing, the subscale of *Developmental macroaspects of the content of writing* appeared to align with the teachers' perceptions and their self-reported practices. Therefore, the teachers' beliefs in requiring their students to write based on their knowledge of the purpose, topic, reader, context, and genre of writing were also enacted in their writing classes. However, it was not as frequent as their reliance on the subscales of *Engagement in the*

revision process of writing and Developmental macroaspects of the content of writing.

6. Limitations and suggestions for future research

Despite the present study's contributions to the field of teaching EFL writing, some limitations were found. First, the majority of previous research supporting the discussion of the results of this study was conducted in primary or secondary contexts, in which the teachers had lower qualifications. Consequently, their perceptions and practices might have greatly differed from those in higher education settings. Second, the scope of the study was limited to EFL university writing instructors in Moroccan faculties of arts and humanities. In other words, English departments in teacher training institutions were not involved. Thus, the results of this study cannot be generalized to other institutions where writing is taught. Third, this study focused on the teachers' perceptions and their self-reported practices, while the students' preferences and perceived teacher practices were not included. Hence, the relationships between the students' and teachers' perspectives were not considered. Fourth, due to the paucity of space, this study did not involve the analysis of individual questionnaire items, which could have provided more insight into the nature of the specific practices of product- and process-based writing and how they were perceived by the Moroccan instructors. Fifth, the differences in the teachers' perceptions and their self-reported practices related to background variables (e.g., the current grade that they teach, their gender, and their teaching experience) were not analyzed in this study. The final limitation stems from the data collection, since this study only focused on the constructed questionnaire as the main instrument.

Nevertheless, this study is useful in the sense that it reveals other research gaps that should be investigated in the future. Possible directions might include investigating the relationship between teachers' and students' perceptions and practices, which can help determine the nature of the match (or mismatch) between teachers and students regarding their writing approaches. In order to overcome the methodological shortcomings, future researchers can consider a larger study with more diverse research instruments (e.g., interviews, observations, and document analysis) to gain a deeper understanding of the way Moroccan teachers perceive and practice writing instruction in EFL classrooms. Based on these recommendations, the findings of future research could be more valid in their methodology and useful for teachers in the Moroccan educational context. As for pedagogical recommendations, teachers should place equal emphasis on the practices of process-based writing as they do on product-based writing. Moreover, higher education institutions should develop teachers' professional knowledge with innovative teaching skills in writing through webinars, workshops, and training courses. Therefore, more research on how process-based writing practices are taught in higher education is warranted in the future because "it is difficult to enhance writing instructional practices if data about how it is taught are not available" [20, p. 2545].

7. Conclusion

This study compared product- and process-based writing approaches based on Moroccan EFL university instructors' perceptions and self-reported practices. First, their perceptions were characterized by the frequent emphasis on *Writing as a final product* and *Engagement in the revision process of writing*. This finding indicates that Moroccan instructors believe that the features targeted in these subscales can help students write accurately and engage in process-based writing, especially in terms of deciding what to write, planning, writing, and revising their drafts. However, *Stages of product-based writing* and *Developmental macroaspects of the content of writing* were less frequently addressed in their writing instruction. Second, a dominant focus was found on *Writing as a final product* and *Engagement in the revision process of writing* in the dimension of self-reported practices. This indicates that the instructors relied on writing techniques that included advanced writing processes (e.g., planning, translating, and reviewing), peer reviews of their classmates' writings, discussions with their teachers, and writing an accurate final text in terms of grammar, vocabulary, and punctuation. Despite such reliance, the teachers still employed other writing practices covered by the remaining subscales.

Based on the findings of the first and second research questions, education training programs must develop teachers' perceived approaches to writing instruction with fundamental/practical writing strategies that promote EFL students' socio-cognitive features of writing and other macroaspects of discourse/content-related writing (e.g., genre, topic, context, and audience). Aside from viewing writing as a final product that must be well structured and written, Moroccan instructors also need to pay attention to the developmental stages of product-oriented writing in their instruction and support students in following the macroaspects in the writing process because they are considered essential elements in the teaching and learning of writing skills. Thus, as argued by Abouabdelkader and Bouziane [26] too, adopting an eclectic approach that combines product- and process-based writing may facilitate Moroccan EFL writing teachers' instructional practices and help them meet their students' developmental needs. Finally, consistency was found in regard to the teachers' perceptions and their self-reported practices of the two writing approaches. This suggests the extent to which the teachers' knowledge about the different approaches to writing was enacted in their actual writing instruction. As for Moroccan teachers, the more they become familiar with and knowledgeable about certain features of the targeted subscales, the more they will implement them in their writing instruction. It is hoped that the questionnaire in this study, which was verified according to psychometric properties, can be used/adapted by other researchers who are not only interested in examining the perceptions and self-reported practices of different writing approaches, but also in revealing any alignments/misalignments between these targeted dimensions.

Author contribution statement

Abderrahim Mamad: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data;

Contributed reagents, materials, analysis tools or data; Wrote the paper.

Tibor Vigh: Conceived and designed the experiments; Contributed reagents, materials, analysis tools or data; Wrote the paper.

Funding statement

This work was supported by the University of Szeged Open Access Fund (grant number: 5884).

Data availability statement

The data that has been used is confidential.

Declaration of interest's statement

The authors declare no conflict of interest.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.heliyon.2023.e15626>.

References

- [1] C.C. Tseng, Senior high school teachers' beliefs about EFL writing instruction, *TJTESOL* 16 (1) (2019) 1–39, [https://doi.org/10.30397/TJTESOL.201904_16\(1\).0001](https://doi.org/10.30397/TJTESOL.201904_16(1).0001).
- [2] B. Khanalizadeh, H. Allami, The impact of teachers' belief on EFL writing instruction., *TPLS* 2 (2) (2012) 334–342, <https://doi.org/10.4304/tpls.2.2.334-342>.
- [3] Y. Guo, C. Puranik, M.S. Dinnesen, A.H. Hall, Exploring kindergarten teachers' classroom practices and beliefs in writing, *Read. Writ.* 35 (2) (2022) 457–478, <https://doi.org/10.1007/s11145-021-10193-y>.
- [4] K. Hyland, *Second Language Writing*, Cambridge University Press, Cambridge, 2003.
- [5] N. Pramila, Approaches to teaching English writing: a research note, *Stud. Foreign. Lang. Edu.* 39 (2017) 141–148.
- [6] W. Puengpipattrakul, A process approach to writing to develop Thai EFL students' socio-cognitive skills., *Electr. J. For. Lang. Teach.* 11 (2) (2014) 270–284.
- [7] E. Mariano, G. Campbell-Evans, J. Hunter, Writing assessment in early primary classrooms: thoughts from four teachers, *AJLL* 45 (1) (2022) 85–101, <https://doi.org/10.1007/s44020-022-00007-1>.
- [8] S. Humphry, S. Heldsinger, Raters' perceptions of assessment criteria relevance, *Assess. Writ.* 41 (2019) 1–13, <https://doi.org/10.1016/j.asw.2019.04.002>.
- [9] N.M. Mackenzie, J. Scull, T. Bowles, Writing over time: an analysis of texts created by year one students, *Aust. Educ. Res.* 42 (5) (2015) 567–593, <https://doi.org/10.1007/s13384-015-0189-9>.
- [10] M.F. Quinn, G.E. Bingham, The nature and measurement of children's early composing., *Read. Res. Q.* 54 (2) (2019) 213–235, <https://doi.org/10.1002/rrq.232>.
- [11] J. Scull, N.M. Mackenzie, T. Bowles, Assessing early writing: a six-factor model to inform assessment and teaching, *Educ. Res. Pol. Pract.* 19 (2) (2020) 239–259, <https://doi.org/10.1007/s10671-020-09257-7>.
- [12] J. Wilson, A. Czik, Automated essay evaluation software in English language arts classrooms: effects on teacher feedback, student motivation, and writing quality, *Comput. Educ.* 100 (2016) 94–109, <https://doi.org/10.1016/j.compedu.2016.05.004>.
- [13] A. Javadi-Safa, A brief overview of key issues in second language writing teaching and research., *IJELS* 6 (2) (2018) 12, <https://doi.org/10.7575/aiac.ijels.v.6n.2p.15>.
- [14] F. Bouzenirh, Errors of composition, in: E.M. EL Haddad, M. Najbi (Eds.), *English Language Teaching in the Maghreb: Focus on the Learner: Proceedings of the XIIIth MATE Annual Conference*, Tetouan, 1991, pp. 113–126.
- [15] S. Abouabdalkader, Moroccan EFL university students' composing skills in the balance: assessment procedures and outcomes, in: A. Ahmed, H. Abouabdalkader (Eds.), *Assessing EFL Writing in the 21st Century Arab World: Revealing the Unknown*, Palgrave Macmillan, Cham, 2018, pp. 79–109.
- [16] H. Laabidi, Y. Laabidi, A quantitative examination of factors that influence technology integration in higher education system., *IJEFL* 1 (2) (2016) 175–191, <https://doi.org/10.21462/ijefl.v1i2.15>.
- [17] Y. Laabidi, H. Laabidi, Barriers affecting successful integration of ICT in Moroccan universities, *JELTL* 1 (3) (2016) 203–214, <https://doi.org/10.21462/jeltl.v1i3.29>.
- [18] M. Brindle, S. Graham, K.R. Harris, M. Hebert, Third and fourth grade teacher's classroom practices in writing: a national survey, *Read. Writ.* 29 (5) (2016) 929–954, <https://doi.org/10.1007/s11145-015-9604-x>.
- [19] M. Casas, L. Comajoan, A. Santolària, The beliefs of primary education teachers regarding writing and grammar instruction., *L1 Educ. Stud. Lang. Lit.* 20 (3) (2020) 1–23, <https://doi.org/10.17239/L1ESLL-2020.20.03.04>.
- [20] T.P. Hsiang, S. Graham, Y.-M. Yang, Teachers' practices and beliefs about teaching writing: a comprehensive survey of grades 1 to 3 teachers, *Read. Writ.* 33 (10) (2020) 2511–2548, <https://doi.org/10.1007/s11145-020-10050-4>.
- [21] T.H.H. Nguyen, A.T. Truong, EFL teachers' perceptions of classroom writing assessment at high schools in central Vietnam, *TPLS* 11 (10) (2021) 1187–1196, <https://doi.org/10.17507/tpls.1110.06>.
- [22] S. Sengupta, P. Falvey, The role of the teaching context in Hong Kong English teachers' perceptions of L2 writing pedagogy., *Eval. Res. Educ.* 12 (2) (1998) 72–95, <https://doi.org/10.1080/09500799808666933>.
- [23] L. Yang, S. Gao, Beliefs and practices of Chinese university teachers in EFL writing instruction, *Language, Cultur. Curr.* 2 (2) (2013) 128–145, <https://doi.org/10.1080/07908318.2013.794817>.
- [24] Y. Ding, T. Zhao, Chinese university EFL teachers' and students' beliefs about EFL writing: differences, influences, and pedagogical implications, *Chin. J. Appl. Ling.* 42 (2) (2019) 163–181, <https://doi.org/10.1515/CJAL-2019-0010>.
- [25] X. Zhang, Exploring a novice Chinese EFL teacher's writing beliefs and practices: a systemic functional perspective, *IJLS* 11 (1) (2017) 95–118.
- [26] H. Abouabdalkader, A. Bouziane, The teaching of EFL writing in Morocco: realities and challenges, in: A. Ahmed, H. Abouabdalkader (Eds.), *Teaching EFL Writing in the 21st Century Arab World: Realities and Challenges*, Palgrave Macmillan, London, 2016, pp. 35–68.
- [27] J. Prodesen, C. Holten, *Grammar and the ESL Writing Class*, Cambridge University Press, Cambridge, 2003.
- [28] R. Badger, G. White, A process genre approach to teaching writing., *ELT J.* 54 (2) (2000) 153–160, <https://doi.org/10.1093/elt/54.2.153>.
- [29] C. Tribble, *Writing*, Oxford University Press, Oxford, 1996.
- [30] D. Ferris, J. Hedgecock, *Teaching ESL Composition: Purpose, Process, and Practice*, Lawrence Erlbaum, Hillsdale, NJ, 2005.

- [31] A. Astrid, D. Rukmini, S.W. Fitriati, Syafryadin, Experiencing the peer feedback activities with teacher's intervention through face-to-face and asynchronous online interaction: the impact on students' writing development and perceptions, *JLE* 7 (2) (2021) 64–77, <https://doi.org/10.17323/jle.2021.10585>.
- [32] A. Goldstein, P. Carr, Can Students Benefit from Process Writing?, US Department of Education Office of Educational Research and Improvement, 1996.
- [33] T. Hedge, *Writing*, Oxford University Press, Oxford, 2005.
- [34] C.L. Keh, Feedback in the writing process: a model and methods for implementation, *ELT J.* 44 (4) (1990) 294–304, <https://doi.org/10.1093/elt/44.4.294>.
- [35] D.E. Freeman, Y. Freeman, *Essential Linguistics: what You Need to Know to Teach Reading, ESL, Spelling, Phonics, and Grammar*, Heinemann, Portsmouth, NH, 2004.
- [36] B. Kroll (Ed.), *Second Language Writing: Research Insights for the Classroom*, Cambridge University Press, Cambridge, 1990.
- [37] L. Flower, J. Hayes, Identifying the organization of writing processes, in: L.W. Gregg, E.R. Steinberg (Eds.), *Cognitive Processes in Writing: an Interdisciplinary Approach*, Lawrence Erlbaum, Hillsdale, NJ, 1980.
- [38] A. Becker, A Review of Writing Model Research Based on Cognitive Processes, in: A. Horning, B. Anne (Eds.), *Revision: History, Theory, and Practice*, Parlor Press, West Lafayette, Indiana, 2006, pp. 25–49.
- [39] R. Zimmermann, L2 writing: subprocesses, a model of formulating and empirical findings, *Learn. InStruct.* 10 (1) (2000) 73–99, [https://doi.org/10.1016/S0959-4752\(99\)00019-5](https://doi.org/10.1016/S0959-4752(99)00019-5).
- [40] J.R. Hayes, A new framework for understanding cognition and affect in writing, in: C.M. Levy, S. Randall (Eds.), *The Science of Writing: Theories, Methods, Individual Differences, and Applications*, Erlbaum, Mahwah, NJ, 1996, pp. 1–27.
- [41] S.M. McDonald, Perception: a concept analysis, *Int. J. Nur. Knowl.* 23 (1) (2012) 2–9, <https://doi.org/10.1111/j.2047-3095.2011.01198.x>.
- [42] J.C. Richards, R. Schmidt, *Longman Dictionary of Language Teaching and Applied Linguistics*, fourth ed., Longman, London, 2010.
- [43] Y. Kirkgoz, M. Pinar Babanoglu, R. Ağcam, Turkish EFL teachers' perceptions and practices of foreign language assessment in primary education, *JEE* 4 (4) (2018) 163–170, <https://doi.org/10.20448/journal.509.2017.44.163.170>.
- [44] D. Muijs, Measuring teacher effectiveness: some methodological reflections, *Educ. Res. Eval.* 12 (1) (2006) 53–74, <https://doi.org/10.1080/13803610500392236>.
- [45] C.M. Hook, B.V. Rosenshine, Accuracy of teacher reports of their classroom behavior, *Rev. Educ. Res.* 49 (1979) 1–11, <https://doi.org/10.3102/00346543049001001>.
- [46] F. Lawrenz, D. Huffman, J. Robey, Relationships among student, teacher and observer perceptions of science classrooms and student achievement, *Int. J. Sci. Educ.* 25 (3) (2003) 409–420, <https://doi.org/10.1080/09500690210145800>.
- [47] G.T.L. Brown, Teachers' self-reported assessment practices and conceptions: using structural equation modelling to examine measurement and structural models, in: T. Teo, M.S. Khine (Eds.), *Structural Equation Modeling in Educational Research: Concepts and Applications*, Sense Publishers, Rotterdam, 2009, pp. 243–266.
- [48] G.T.L. Brown, H. Chaudhry, R. Dhamija, The impact of an assessment policy upon teachers' self-reported assessment beliefs and practices: a quasi-experimental study of Indian teachers in private schools, *Int. J. Educ. Res.* 71 (2015) 50–64, <https://doi.org/10.1016/j.ijer.2015.03.001>.
- [49] H.-T. Min, A case study of an EFL writing teacher's belief and practice about written feedback, *System* 41 (3) (2013) 625–638, <https://doi.org/10.1016/j.system.2013.07.018>.
- [50] D. Crusan, L. Plakans, A. Gebril, Writing assessment literacy: surveying second language teachers' knowledge, beliefs, and practices, *Assess. Writ.* 28 (2016) 43–56, <https://doi.org/10.1016/j.asw.2016.03.001>.
- [51] R. Moussaid, *Self-efficacy Beliefs and the Effect of Metacognitive Strategy Training on Moroccan High School EFL Student's Argumentative Essay Writing*, Doctoral Dissertation, Faculty of Education, Rabat, 2005.
- [52] N. Azmi, *The Impact of Info-Tech on English Language Teaching Practices, Learning Achievements and Students' Perspective Transformation*, Doctoral Dissertation, School of Education, Mohamed V University, Rabat, 2014.
- [53] A. Bennani, *The Efficacy of Using an EFL Computer Application Program to Improve Students' Learning and Achievement*, Doctoral Dissertation, School of Arts and Humanities, Meknes, 2013.
- [54] J. Bitchener, D. Ferris, *Written Corrective Feedback in Second Language Acquisition and Writing*, Routledge, New York; London, 2012.
- [55] A. Field, *Discovering Statistics Using SPSS*, third ed., Sage Publications Ltd, London, 2009.
- [56] K.A. Pituch, J.P. Stevens, *Applied Multivariate Statistics for the Social Sciences*, sixth ed., Routledge, New York; London, 2016.