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Design and validation of the Academic Writing Teaching Practices Questionnaire

Diseño y validación del cuestionario prácticas de enseñanza de la escritura académica

Dr María Verónica STROCCHI. Lecturer and Coordinator of the Communication and Thought Programme, Universidad del Desarrollo *(mvstrocchi@udd.cl)* and Universidad Católica de la Santísima Concepción *(mstrocchi@doctoradoedu.ucsc.cl)*

Dr Mónica TAPIA-LADINO. Senior Lecturer and Director of the CIEDE-UCSC Education and Development Research Centre at the Universidad Católica de la Santísima Concepción *(mtapia@ucsc.cl)*

Pablo FUENTEALBA-CARRASCO. Lecturer, Universidad de Concepción *(pfuentel@udec.cl)*

Abstract:

Academic writing is a key skill in the university context. However, there is little evidence on how it is taught, especially in disciplinary subjects. Based on this need, the objective is to develop and conduct an exploratory validation of the psychometric properties of the subscales in the Academic Writing Teaching Practices Questionnaire (student version). The research employed an instrumental approach and involved 1,109 university students from Chile. The subscales were developed based on a previous qualitative phase and a literature review. To assess content and response validity, the instrument was reviewed by nine specialists and piloted with 30 students. An exploratory factor analysis and reliability analysis were performed to analyse its internal structure. The findings showed adequate indices, resulting in an instrument composed of 43 items distributed among seven dimensions/factors: 1) importance, 2) context, 3) planning, 4) implementation, 5) assessment, 6) feedback, and 7) self-learning. It is concluded that the instrument could provide information for the development of teaching in this area.

Keywords: teaching practices; academic writing; measurement subscales; higher education; psychometric properties.

Resumen:

La escritura académica constituye una competencia clave en el contexto universitario. No obstante, se cuenta con escasa evidencia sobre su enseñanza, especialmente, en asignaturas disciplinares. A partir de esta necesidad se plantea como objetivo la construcción y

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validación exploratoria de las propiedades psicométricas de las subescalas que conforman el Cuestionario de prácticas de enseñanza de escritura académica (versión para estudiantes). La investigación adoptó un enfoque instrumental e involucró a 1109 universitarios chilenos. Las subescalas se elaboraron a partir de una fase cualitativa previa y de la revisión de literatura. Para obtener evidencias de la validez de contenido y respuesta, el instrumento fue revisado por 9 especialistas y piloteado con 30 alumnos. Para analizar su estructura interna se llevó a cabo un análisis factorial exploratorio y también se efectuó un análisis de confiabilidad. Los hallazgos demostraron índices adecuados, resultando un instrumento compuesto por 43 ítems distribuidos en siete dimensiones/factores: 1) importancia, 2) contexto, 3) planificación, 4) implementación, 5) evaluación, 6) retroalimentación y 7) autoaprendizaje. Se concluye que el instrumento podría aportar información para el desarrollo de la didáctica en el área.

Palabras clave: prácticas de enseñanza, escritura académica, subescalas de medición, educación universitaria, propiedades psicométricas.

1. Introduction

As Navarro (2021) states, in higher education, writing serves different roles related to the construction of knowledge. It is a cross-cutting component of the teaching and learning processes in various subject areas. Thus, it is a key skill for students' academic and professional success (Sparks et al., 2014). It therefore requires an explicit teaching process, since at university writing acquires distinctive characteristics in relation to previous educational levels (Bazerman, 2019). Based on this differentiation, the concept of academic writing is used (Carlino, 2013), which takes into account its particularities, including its epistemic potential and its role as a facilitator of enculturation, understood as the process by which students join a disciplinary community and learn its specific ways of communicating and producing knowledge. Epistemic potential refers to the ability of writing to organise one's reasoning.

One of the variables related to the strengthening of writing in university students is the explicit teaching of such (Navarro, 2019). However, the absence of guidance in disciplinary courses is a common practice, based on the idea that it is not the university's role to undertake such a task. Furthermore, empirical evidence (Uribe-Gajardo et al., 2022) suggests that to foster the development of this skill, a pedagogical device that integrates writing instruction across the curriculum is necessary. The Writing Across the Curriculum (WAC) movement emphasizes the value of writing as a learning tool in all disciplines and subjects. From this perspective, the teaching of such skills should not be limited to specific academic literacy courses; instead, it should be integrated into various subjects that comprise the study programs.

Based on the above, we believe it is essential to highlight the approach to the teaching of academic writing from the conceptual framework of practices and from the viewpoint of the different actors in the teaching-learning process, in this case, from the perspective of students, which, in addition to contributing to the improvement of their performance, upholds their sense of agency. The theoretical perspective is linked to the shift in the English-speaking world towards practice theory as a key concept for understanding the social world (Ariztía, 2017). From this perspective, practices are understood as unitary activities that occur across space and time; thus, they are contingent and experience variations linked to their context. They are also defined as a multidimensional construct consisting of material and mental aspects. In the same vein, Shove et al. (2012) argue that competences, meanings, and materials, which in turn shape practices. Competences require the knowledge necessary to perform them; meaning

comprises the set of collective beliefs and meanings associated with a practice, which places it in a framework linked to opinion. Materials, on the other hand, refer to the resources and/or strategies necessary for the execution or implementation of teaching practices, such as the use of technological devices or text modeling.

For different authors (Cid-Sabucedo et al., 2013; Manrique and García, 2019), teaching practices constitute the operationalization of the knowledge that teachers possess, namely, disciplinary, pedagogical, and experiential learning. Some research (Pérez-Ornelas, 2016) suggests that practices extend beyond classroom interaction, as they encompass a dimension related to individual thought. Thus, the author understands them as complex processes that include the actions and meanings of the actors involved, namely, teachers and students. Additionally, practices are influenced by environmental factors, including cultural, social, political, and economic conditions.

Regarding the dimensionality of the construct, although there is no univocal definition, it is common to highlight three components (García-Cabrero et al., 2008). Cañedo-Ortiz and Figueroa-Rubalcava (2013) point out that teaching practices consider three stages: planning, which focuses on decision-making regarding teaching; the execution or interactive phase, when the teacher implements the teaching process; and assessment, which refers to how, with what, and when to assess. Similarly, Montes-Pacheco et al. (2017) distinguish between planning, execution, and assessment.

Several studies have investigated academic writing teaching practices from an empirical perspective. As a multidimensional construct, research tends to focus on one of these dimensions. For example, the importance of feedback is considered (Tapia-Ladino and Correa, 2022), a focus on assessment is emphasized (Meza et al., 2022), or effective strategies for guiding writing tasks are highlighted (González-Moreno and Mejía-Carrillo, 2023). Nevertheless, there are very few studies that have simultaneously addressed its different dimensions.

It is important to note that a previous phase of this research, of a qualitative nature conducted on the basis of Grounded Theory according to the guidelines proposed by Strauss and Corbin (2002), identified categories that were contrasted with the theory and made it possible to develop a tentative dimensionality of the construct that is academic writing teaching practices, which was modified based on the results of the Exploratory Factor Analysis (EFA). The final conceptualization involved interweaving the concepts of academic writing practices with teaching practices to develop an integrated operational definition of a new construct. This preliminary definition, subject to review, views academic writing teaching practices as a multidimensional construct comprising three components: thought, action, and environment. Within the action component, it is possible to differentiate five highly interactive dimensions: planning, implementation, assessment, feedback, and self-learning. The environment component refers to the context in which practices take place, which is linked to their conceptualisation, but also implies a socio-cultural approach to writing (Englert et al., 2006). Finally, thought is related to the system of representations and meanings that individuals possess.

Although the literature review brought to light different instruments focused on measuring constructs related to academic writing (Chitez et al., 2015; Castelló, 2015; Castells et al., 2022; Espinosa et al., 2024; Meza and González, 2020), it was not possible to identify an instrument that addressed the construct of academic writing teaching practices. Moreover, other cases demonstrated a restriction that they did not explicitly state the variables measured or provide evidence of validity.

Given the above, it was necessary to design and validate an instrument that would enable the comprehensive measurement of the construct under study, namely, one that would cover its various dimensions. It was also considered that the instrument could be a very useful tool in the educational setting, by providing information anchored in specific contexts, thus enabling the implementation of actions aimed at strengthening a key skill for students' academic performance.

2. Method

The study employs a quantitative approach with an instrumental design (Ato et al., 2013), which involves the construction and validation of the subscales that comprise the Academic Writing Teaching Practices Questionnaire (AWTPQ). The instrument enables the assessment of academic writing teaching practices, in terms of opinion and frequency, as reported by students from various subject areas.

2.1. Participants

Non-probability convenience or strategic sampling (Cea D'Ancona, 1996) was employed in two universities in the city of Concepción, Chile, in 2024. These institutions are private and have been accredited by the Chilean National Accreditation Commission (CNA) for 6 and 5 years, respectively.

The final sample consisted of 1,109 valid responses. 80.3% of the student body belonged to University 1 (n = 891), and 19.7% to University 2 (n = 218). In terms of gender, 62.8% identified themselves as female, 35.7% as male, 0.6% as non-binary, and 0.6% preferred not to say. In terms of subject area, 35% of the participants were studying degrees in the area of Medical and Health Sciences (n = 388), followed by 22.9% in that of Social Sciences (n = 254), 22.4% in Engineering and Technology (n = 248), and 19.6% in Humanities (n = 217). In terms of university stage, the majority of students (67.7%) were in the first year of their degree programmes (n = 751), while the rest were in the second (10.5%, n = 116), third (5.5%, n = 61), fourth (8.8%, n = 98), fifth (5.6%, n = 62), sixth (1.6%, n = 18) and seventh year (0.3%, n = 3).

2.2. Ethical aspects

Prior to its implementation, the research project was approved by the Ethics Committee of Institution 2 and endorsed by Institution 1. Accordingly, all participants signed an informed consent form that explicitly stated the voluntary nature of their participation, how their personal data would be stored, and that they would be protected against any harm. To ensure the protection of information, the research team signed a confidentiality agreement.

2.3. Procedure

Since no existing instrument was identified that measured what this research sought to measure, we developed a questionnaire in two mirror versions: one for teachers and one for students. It is important to note that this article focuses only on the student version.

Regarding its application, the questionnaire was administered online, with email used as the primary means of contact. In the case of Institution 1, authorization was required from both the Vice-Rector's Office for Undergraduate Studies and the Vice-Rector's Office for Research and Doctoral Studies. Subsequently, the implementation of the survey was managed by an internal unit. In the case of Institution 2, the relevant faculty authorities were contacted to request authorization, and, using the provided databases, communication was initiated with potential participants. Once the process was complete, the data were analysed using SPSS software. In order to develop the instrument and assess the evidence regarding validity and reliability of the subscales, the guidelines proposed by López-Pina and Veas (2024) and by Meza and González (2020) were followed, which involved 6 stages: 1) theoretical definition of the construct; 2) construction of the questionnaire; 3) content validation; 4) pilot; 5) estimation of psychometric properties; and 6) adjusted version of the scale.

The first phase involved a literature review to conceptualize the construct and its dimensions, as well as to identify instruments that address similar constructs. The results of the previous qualitative research phase, which included seven focus groups with students, were also reviewed and analysed using the Grounded Theory approach (Strauss and Corbin, 2002). The results meant that the construct could be defined using not only pre-existing theory, but also empirical data.

In the second stage, the items were developed and preliminarily grouped into dimensions that emerged from the qualitative analysis, although they required subsequent statistical validation to confirm their validity. The first version of the questionnaire comprised 61 items and was sent to 7 specialists who were selected based on their experience in the area of study and/or their expertise in assessing instruments to evaluate content validity (third stage). The assessment consisted of rating each item as essential, helpful but not essential, or not necessary at all. Furthermore, the experts were asked to provide suggestions regarding the dimensions comprising the construct, including any items that had not been considered or to suggest modifications to their wording. Based on the assessments, 18 items were revised to clarify the wording, and 3 items deemed irrelevant were eliminated. The Fleiss kappa value was 0.85, which indicates an adequate level of agreement among specialists.

Based on these adaptations, a pilot test (stage 4) was conducted with 30 students, with completion times ranging from 10 to 20 minutes. Subsequently, a cognitive interview was conducted with five students. Based on the comments, further adjustments were made to the instrument, especially to concepts or the wording of proposals that were ambiguous or difficult to understand. The research team then conducted a further review of the questionnaire; however, no inconsistencies were found, and no items were eliminated. At this point, we proceeded to stage 5, where an exploratory factor analysis (EFA) was conducted and Cronbach's alpha coefficient was applied, as detailed in the results section.

2.4. Instrument

The Academic Writing Teaching Practices Questionnaire, in its final version, includes, at the beginning, an informed consent form that participants must accept in order to proceed with the response process. The first section asks about personal and academic background. The second section comprises a total of 43 items grouped into 7 dimensions/factors, each represented by a five-point Likert subscale, which assess academic writing teaching practices. Finally, a multiple-choice question and an open-ended item were added, which, due to their nature, were excluded from the factor and reliability analyses.

For the design of the subscales, two instruments identified during the literature review were used as models: the European Writing Survey (EUWRIT) (Chitez et al., 2015) and the Academic Writing Questionnaire (Nuñez-Cortés and Muse, 2016). While these instruments were an important point of reference, they seek to measure constructs different from those stated in this study. The EUWRIT aims to capture self-perception of the level of competence in various aspects of academic writing from the students' perspective, while the Núñez-Cortés and Muse (2016) questionnaire focuses on aspects related to the teaching of writing. Specifically, the instrument developed in this research seeks to assess, in terms of opinion and frequency, academic writing teaching practices from the students' perspective. It should be noted that most of the items in the questionnaire were developed based on the results obtained in the qualitative phase, which enabled the construction of a substantiated description of teaching practices, including prioritization and the development of categories. This process facilitated the formulation of a first scale proposal consisting of nine dimensions: (1) meaning, (2) importance, (3) teaching, (4) context, (5) planning, (6) implementation, (7) assessment, (8) feedback and (9) self-learning, which was reformulated using the exploratory factor analysis (EFA).

3. Results

The psychometric properties of the instrument (stage 5) were estimated in two stages. First, the internal factor structure was assessed by means of an EFA, which was applied iteratively. Next, evidence of reliability for each factor and the overall scale was examined using Cronbach's alpha. Finally, a descriptive analysis was carried out to explore the factor scores and analyse their correlation using Pearson's coefficient.

3.1. Initial approach to factor creation

This study adopted the criteria proposed by Lloret et al. (2017) to perform the EFA. In this way, we worked with an appropriate sample size, which exceeds the suggested range. Through the EFA, we aimed to gather evidence of the exploratory validity of the instrument's internal structure, as no previous analysis had been conducted.

Although an initial dimensional framework for organizing the items was established based on the qualitative study conducted beforehand, this framework was merely provisional. Moreover, due to the need to provide more evidence for the theoretical construct (Mulaik, 1972), we decided to perform an EFA instead of a confirmatory factor analysis (CFA). This decision enabled us to identify latent patterns without imposing prior restrictions, which may not be suitable for the available data.

At the beginning of the process, the EFA included 58 items. The analysis was carried out iteratively to statistically establish the existence of dimensions or factors that grouped the items together and enabled the construct to be measured. In other words, this method enabled us to identify groups of variables with common meaning, thereby reducing the number of dimensions required to explain respondents' answers.

The data were tested for statistical suitability for factor analysis using the Kaiser-Meyer-Olkin (KMO) test (KMO = 0.95) and Bartlett's test of sphericity ($p < 0.001$). However, the first factor solution was not clear in terms of dimensional definition due to low or cross-loadings. Therefore, each factor was factorially assessed, considering that it should form a unidimensional subscale composed of items correlated with one another. Based on this statistical analysis, 9 items were eliminated as they did not significantly contribute to the measurement of the construct under study. Ultimately, a total of 49 items advanced to the next stage.

3.2. Final factory model of the scale

After the analysis described above, a new EFA was performed on the items as a whole. For this purpose, the principal axis method was used, as it enables us to extract factors considering only the common variance between items, making it more appropriate when the data do not comply with a normal multivariate distribution (Costello & Osborne, 2005). Following extraction, varimax rotation was employed to facilitate interpretation of the factors, as it maximizes the variance of the factor loadings (Field, 2018). Finally, the usual criteria (Lloret et al., 2017) were used for factor composition and retention (eigenvalue greater than 1; minimum saturation equal to or greater than 0.30 for the inclusion of an item in a factor).

Similarly, the KMO test was performed for the 49 items to justify the use of the EFA, and, in accordance with the categorisation proposed by Lloret et al. (2017), it indicated a satisfactory level (KMO = 0.96), further confirmed by Bartlett's test of sphericity ($p < 0.001$). During the initial exploration, it was observed that several items grouped in the "meaning" dimension/factor had factor loadings that were either cross-loadings or below the threshold of 0.30. As a result, we worked iteratively to progressively eliminate these items and analyse changes in the factor model. Nevertheless, this procedure negatively affected the model by reducing consistency and weakening other well-performing items, prompting us to eliminate six items that represented two dimensions.

The changes made it possible to clarify and measure the construct using specific dimensions, resulting in a factor model that matches the conceptual proposal. This enabled the creation of a scale and subscales to represent academic writing teaching practices. Consequently, 43 items remained from the original 61, grouped into 7 dimensions/factors that together explain 62.6% of total variance. The number of factors was based on the scree plot and the Kaiser-Guttman criterion (Hair et al., 2005).

Below is the final configuration matrix (Table 1), which identifies clear values for each component, meaning that all items load more heavily on a single factor, as indicated in italics. According to Tabachnick and Fidell's (2019) criteria, factor loadings of less than 0.30 were considered unacceptable. Conversely, loadings above 0.71 were considered excellent, 0.63 very good, 0.55 good, and 0.45 moderate.

TABLE 1. Configuration Matrix for factor loadings

Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
Item 12	*0,875*						
Item 13	*0,824*						
Item 14	*0,851*						
Item 15	*0,795*						
Item 16		*0,610*		0,357			
Item 17		*0,705*					
Item 18		*0,675*					
Item 19		*0,604*					
Item 20		*0,625*					
Item 21		*0,624*					
Item 22			*0,718*				
Item 23			*0,716*				
Item 24			*0,666*		0,308		
Item 25			0,367	*0,554*			
Item 26				*0,671*			
Item 27				*0,678*		0,369	
Item 28				*0,552*		0,458	
Item 29				*0,667*		0,394	
Item 30				*0,696*		0,353	
Item 31				*0,643*			
Item 32				*0,676*		0,436	
Item 33				*0,659*		0,436	
Item 34				*0,504*		0,333	

Item 35	0,302		*0,582*	0,301	
Item 36		0,392	*0,459*	0,389	
Item 37			*0,759*		
Item 38			*0,587*	0,358	
Item 39			*0,750*		
Item 40		0,358		*0,553*	
Item 41		0,346		*0,717*	
Item 42				*0,743*	
Item 43				*0,749*	
Item 44		0,330		*0,697*	
Item 45				*0,762*	
Item 46				*0,718*	
Item 47		0,311		*0,694*	
Item 48				*0,761*	
Item 49				*0,748*	
Item 50					*0,562*
Item 51					*0,731*
Item 52					*0,721*
Item 53					*0,492*
Item 54					*0,540*

Source: compiled by authors based on SPSS software

Based on the above, it can be stated that the EFA revealed that the initial group of items proposed for measuring academic writing teaching practices required modification. The iterative work resulted in a factor model with a total of 43 items, which meant that 15 of the items proposed prior to the EFA were eliminated. It is also important to note that the dimensions forming part of the final factor model confirm the multidimensionality of the construct proposed based on the results obtained in the qualitative stage. This aligns with the theoretical proposal of Shove et al. (2012) and various studies (García Cabrero, 2008; Pérez et al., 2016), in that practices encompass not only action but also components related to thought and the environment.

The final dimensions of the questionnaire, along with their conceptualization, are outlined in Table 2. At this point, it is essential to note that the dimensions in Table 2 correspond to the factors listed in Table 1.

Table 2. Conceptualisation of the dimensions in the questionnaire

Component	Dimension	Definition	No. of items
Thought	1. Importance of academic writing	Value placed on academic writing in the students' formative process.	4 Items
Environment	2. Context	Opinion regarding the curricular/ extra-curricular space where the academic writing learning experiences offered to students take place.	6 Items
Action	3. Planning	Frequency with which writing activities to be undertaken in the context of the subject are anticipated and described.	3 Items
	4. Implementation	Frequency of guidance actions, such as the use of pedagogical strategies and resources for teaching writing.	10 Items
	5. Assessment	Frequency with which competence development is measured.	5 Items
	6. Feedback	Frequency with which different strategies are employed to provide suggestions for improvement of texts produced by students.	10 Items
	7. Self-learning	Frequency with which students autonomously employ strategies to foster the development of their writing skills.	5 Items

Source: compiled by authors

The adjusted version of the questionnaire (stage 6) is presented in Table 3. The response options for dimensions 1 (importance) and 2 (context) are as follows: (5) strongly agree; (4) agree; (3) neither agree nor disagree; (2) disagree; (1) strongly disagree. The rest of the dimensions are also rated from 1 to 5 with the following options: (5) always; (4) frequently; (3) sometimes; (2) rarely; (1) never.

Table 3. Adjusted version of the questionnaire

Dimension	Description of the item
Dimension 1: Importance of academic writing	General instruction dimension 1 "I think academic writing is important for...: 12. My university education. 13. My academic performance. 14. My professional development. 15. To carry out research-related tasks.
Dimension 2: Context of teaching practices	General instruction dimension 2 "I received training in academic writing...": 16. In all my semesters of study. 17. By means of the teaching material provided by my subject-specific teachers. 18. In disciplinary subjects specific to my degree. 19. In research methodology courses. 20. In workshops or extracurricular activities. 21. At my university's student support centre (CEADE or CADA).
Dimension 3: Planning	General instruction dimension 3 "In the scheduling or syllabus of my subjects": 22. Academic writing assignments to be completed during the semester are included. 23. The academic writing activities included are clearly defined, for example, the type of academic text and mode. 24. Dates for the submission of drafts and/or final versions of academic texts are indicated.
Dimension 4: Implementation	General instruction dimension 4 "The teachers of my disciplinary subjects...": 25. Provide clear and detailed instructions when we are asked to write an academic text. 26. Include text planning activities that allow me to brainstorm ideas and/or order them, e.g., concept maps, schema, drafts, etc. 27. Provide practical tips on writing academic texts. 28. Ask me to rewrite my written work based on their corrections. 29. Explain the characteristics of the types of academic texts worked on in class. 30. Write fragments of academic texts with their students, similar to the ones they set as assignments. 31. Use digital platforms (Moodle, forums, wikis, etc.) to provide instructions on academic writing assignments. 32. Share examples of the same type of academic text they set as an assignment in their classes. 33. Provide support material related to writing academic texts (videos, glossaries, complementary texts, etc.). 34. Include practice with writing academic texts related to my degree (for example, a clinical record for the Nursing degree or drawing up a project on economics in Commercial Engineering).

Dimension 5: Assessment	General instruction dimension 5 "The teachers of my disciplinary subjects...": 35. Use assessment tools (rubrics, checklists, etc.) that include scored indicators related to academic writing. 36. Explain in detail the aspects of academic writing that will be assessed, which helps to guide my work. 37. Deduct marks for spelling mistakes in my academic assignments. 38. Assign marks for the organisation and development of ideas in academic assignments. 39. Assign marks for the structure (organisation into sections, for example, introduction, body, conclusion) of written academic assignments.
Dimension 6: Feedback	General instruction dimension 6 "The teachers of my disciplinary subjects...": 40. Use digital tools, such as Word comments or Speedgrader, to provide feedback on my academic texts. 41. Provide some kind of feedback on drafts or the progress of my academic texts. 42. Provide some kind of feedback on the final submission of my academic texts. 43. Provide individual feedback on my academic texts by means of written comments. 44. Provide individual feedback on my academic texts by means of oral comments. 45. Provide group feedback when I submit academic texts written with other classmates. 46. Provide general feedback to the whole course group in order to address the most frequent problems regarding academic writing. 47. Provide feedback on normative aspects of academic writing, for example, spelling and punctuation. 48. Provide feedback on the organisation of ideas in my academic texts (coherence). 49. Provide feedback on the structure of the academic texts I submit (organisation into sections, for example, introduction, body, conclusion).
Dimension 7: Self-learning	General instruction dimension 7 "I have learnt academic writing in the university context...": 50. Through autonomous review of material and/or literature. 51. Through the help of my university classmates. 52. Through the help of my family and/or friends. 53. Through the support requested from my teachers. 54. By reading articles or research written by my teachers.

Source: compiled by authors

3.3. Reliability analysis

Subsequently, Cronbach's alpha coefficient was calculated for each dimension (see Table 4) to assess the reliability of the measurement, specifically the internal consistency of the construct being measured.

Table 4. Cronbach's alpha coefficient values by dimensions

Factor	Cronbach's alpha
1: Importance	0,94
2: Context	0,92
3: Planning	0,86
4: Implementation	0,82
5: Assessment	0,78
6: Feedback	0,70
7: Self-Learning	0,.76

Source: compiled by authors based on SPSS software

Table 4 shows that the results fell within the ranges for acceptable and excellent reliability, with $\alpha > 0.70$ for all dimensions. Moreover, the coefficient value for the overall scale was $\alpha = 0.94$.

The relationship between the factors was assessed using Pearson's correlation coefficient. Interdimensional correlations showed positive and statistically significant ($p < 0.01$) associations for each pair assessed. In particular, the first factor (importance) showed lower correlations with the other dimensions ($r = 0.129$ to 0.205), while the fourth factor (implementation) was moderately to highly associated with the second (context) $r = 0.582$, with the third (planning) $r = 0.560$, and, especially, with the sixth (feedback) $r = 0.782$. These relationships suggest that, although each dimension provides specific information, there is a considerable degree of convergence among them, except for the importance dimension.

4. Discussion

The aim of this study was to develop and assess the psychometric properties of an instrument designed to measure academic writing teaching practices from the students' perspective. The resulting questionnaire comprises 43 items grouped into 7 dimensions and presents evidence of content validity (expert judgment), response validity (as demonstrated by a pilot test and cognitive interviews), and internal structure validity at the exploratory level (as assessed by an exploratory factor analysis, or EFA). It is worth noting that the subscales can be used simultaneously or separately to measure specific dimensions of the construct.

From a theoretical perspective, the EFA enabled us to explore the dimensionality of the construct of academic writing teaching practices and also to redefine it. The final factor model supports multidimensionality. In particular, the presence of dimensions such as planning, implementation, and assessment coincides with the findings of Montes-Pacheco et al. (2017), who identified these same stages in teaching practices. It also contributes to the conceptualisation of the construct through the inclusion of the context and self-learning dimensions, which reinforce the importance of self-management when learning academic writing. The above is linked to a gap in the teaching of this skill, which has been identified by previous research (Avila-Reyes et al., 2020). This presents an opportunity for higher education institutions to improve equity, as students with lower cultural capital may face greater difficulties when it comes to self-directing their learning.

It should be noted that the reliability coefficients obtained for each dimension were appropriate ($\alpha > 0.70$), indicating adequate internal consistency (Nunnally, 1967). Only the feedback subscale could be compared with a previous study (Castelló and Mateos, 2012); in both cases, the values were $\alpha = 0.70$.

Regarding the limitations of the study, it is worth noting that, as a self-administered questionnaire, there may be a certain subjective element in the answers. However, measures were taken to mitigate this bias, such as pilot testing with a group of individuals who had similar socio-demographic characteristics to those of the participants in the final sample. Another limitation is that non-probability sampling was used, which restricts the generalisability of the results and the estimation of the margin of error. Nevertheless, the sample size was large and fairly heterogeneous in composition, which suggests that the solution obtained is relatively stable. Further evidence of validity and reliability is required by applying the instrument to other populations, given that data collection was limited to one city.

It is relevant to note that, at the time of designing the questionnaire, the explicit inclusion of a gender perspective in the wording of all items was not considered. For future application and validation, it is proposed to adapt the wording of the items in line with current gender equity frameworks in educational research. Furthermore, the instrument, in its current version, does not include specific items for feedback regarding audience type or citation styles. Finally, it is necessary to confirm the factor structure obtained by performing a confirmatory factor analysis.

5. Conclusions

The study addresses a key issue in higher education: the teaching of academic writing, through the development and validation of a comprehensive questionnaire that links to existing instruments.

From the analysis performed it can be concluded that: 1) the subscales for measuring academic writing teaching practices are unidimensional, consisting of a total of 43 items accounting for 7 dimensions/factors; 2) there is evidence of content validity, response validity and internal structure validity of the measurement performed; 3) the factors showed correlations among themselves, which is theoretically expected, since they refer to a single construct; 4) the overall scale is available to the community and can be broken down into subscales to address specific aspects.

Moreover, while the EFA was appropriate at this exploratory stage, the next step in validating the instrument would be to conduct a confirmatory factor analysis to verify the model's fit and assess its replicability. This strategy would further strengthen the validity of the evidence from the questionnaire.

Author contributions

María Verónica Strocchi: Conceptualisation, data processing, writing (original draft).

Mónica Tapia-Ladino: Conceptualisation, drafting, review, and editing.

Pablo Fuentealba-Carrasco: Methodology, writing, review, and editing.

Artificial Intelligence (AI) Policy

The authors declare that they have not used Artificial Intelligence (AI) in the preparation of their articles.

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References

Andueza, A. (2019). Evaluación de la escritura académica: construcción y validación de un instrumento integrado basado en tareas para evaluar habilidades específicas de escritura [Assessment of academic writing: development and validation of an integrated task-based instrument to assess specific writing skills]. RELIEVE. Revista Electrónica de Investigación y Evaluación Educativa, 25(2). https://doi.org/10.7203/relieve.25.2.11163

Ariztía, T. (2017). La teoría de las prácticas sociales: particularidades, posibilidades y límites [The theory of social practices: particularities, possibilities, and limits]. Cinta de Moebio, 59, 221-234. https://doi.org/10.4067/S0717-554X2017000200221

Ávila-Reyes, N., Navarro, F., & Tapia-Ladino, M. (2020). Identidad, voz y agencia: Claves para una enseñanza inclusiva de la escritura en la universidad [Identity, voice, and agency: keys to an inclusive approach to teaching writing in higher education]. Archivos Analíticos de Políticas Educativas, 28(98). https://doi.org/10.14507/epaa.28.4722

Ato, M., López, J., & Benavente, A. (2013). Un sistema de clasificación de los diseños de investigación en psicología [A classification system for research designs in psychology]. Anales de Psicología, 29 (3), 1038-1059. https://doi.org/10.6018/analesps.29.3.178511

Bazerman, C. (2019). Lives of writing [Vidas de la escritura]. Writing and Pedagogy, 10(3), 327-331. https://doi.org/10.1558/wap.37066

Cañedo-Ortiz, T. y Figueroa-Rubalcava, A. (2013). La práctica docente en educación superior: Una mirada hacia su complejidad [Teaching practice in higher education: A look at its complexity]. Sinéctica, 41, 2-18. http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S1665-109X2013000200004&lng=es&tlng=es

Carlino, P. (2013). Alfabetización académica diez años después [Academic literacy ten years later]. Revista Mexicana de Investigación Educativa, 18(57), 355-381. https://bit.ly/32GuHV4

Castelló, M. (2015). Research on academic writing in the teaching learning processes in the Spanish university context [La investigación sobre escritura académica en los procesos de enseñanza-aprendizaje en la universidad española]. Cultura y Educación, 27(3), 465-476. https://doi.org/10.1080/11356405.2015.1072362

Castelló, M. & Mateos, M. (2015). Faculty and student representations of academic writing at Spanish universities [Las representaciones de profesores y estudiantes sobre la escritura académica en las universidades españolas]. Cultura y Educación, 27(3), 1-12. http://dx.doi.org/10.1080/11356405.2015.1072357

Castells, N., Minguela, M., Nadal, E., & Cuevas, I. (2022). Learning through reading and writing tasks in higher education: What do students use, paper or screen? [El aprendizaje a través de la lectura y la escritura en la educación universitaria: ¿qué usan los estudiantes, papel o pantalla?]. Cultura y Educación, 34(1), 39-71. https://doi.org/10.1080/11356405.2021.2006499

Cea D'Ancona, M. (1996). Metodología cuantitativa: estrategias y técnicas de investigación social [Quantitative Methodology: Strategies and Techniques of Social Research]. Síntesis S. A.

Cid-Sabucedo, A., Pérez-Abellás, A. & Zabalza-Beraza, M. (2013). Las prácticas de enseñanza realizadas/ observadas de los «mejores profesores» de la Universidad de Vigo [Teaching practices conducted/observed by the "best professors" at the University of Vigo]. Educación XX1, 16(2), 265–295. https://www.redalyc.org/articulo.oa?id=70626451015

Chitez, M., Kruse, O., Castelló, M., & Donahue, C. (2015). The European Writing Survey (EWS): A research initiative for mapping writing instruction and practices in higher education.

European Association for the Teaching of Academic Writing (EATAW) [La Encuesta Europea de Escritura (EUWRIT): antecedentes, estructura, implementación y algunos resultados]. ZHAW Universidad de Ciencias Aplicadas de Zúrich. https://doi.org/10.21256/zhaw-1016

Costello, A., & Osborne, J., (2005) Best practices in exploratory factor analysis: four recommendations for getting the most from your análisis [Mejores prácticas en el análisis factorial exploratorio: cuatro recomendaciones para aprovechar al máximo tu análisis]. Practical Assessment, Research and Evaluation, 10(1), 7. https://doi.org/10.7275/jyj1-4868

Englert, C., Mariage, T., & Dunsmore, K. (2006). Tenets of Sociocultural Theory in Writing Instruction Research [Principios de la teoría sociocultural en la investigación sobre la enseñanza de la escritura]. In C. A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), Handbook of writing research (pp. 208-221). The Guilford Press.

Espinosa, M., Escribano, R., Marchant, J., Morales, S. & Castillo, C. (2024). Creencias sobre escritura en docentes y futuros docentes: validación del instrumento y resultados comparativos [Beliefs about writing in teachers and future teachers: validation of the instrument and comparative results]. Educação e Pesquisa, 50, e277298. https://doi.org/10.1590/S1678-4634202450277298es

Field, A. (2018). Discovering Statistics Using IBM SPSS Statistics (5th ed.) [Descubriendo la estadística utilizando IBM SPSS Statistics]. SAGE.

García-Cabrero, B., Loredo-Enríquez, J. & Carranza-Peña, G. (2008). Análisis de la práctica educativa de los docentes: pensamiento, interacción y reflexión [Analysis of teachers' educational practice: thinking, interaction, and reflection]. Revista Electrónica de Investigación Educativa, 10, 1-15. http://redie.uabc.mx/NumEsp1/contenido-garcialoredocarranza.html

González, J., & Mejía, M. (2023). Delimitación de estrategias para el fortalecimiento del nivel de lectura y escritura académica en educación superior [Delimiting strategies for strengthening academic reading and writing skills in higher education]. Revista de Estudios Clínicos e Investigación Psicológica, 13(26), 81-90. https://doi.org/10.56342/recip.vol13.n26.2023.22

Hair, J., Anderson, R., Tatham, R., & Black, W. (2005). Multivariate data analysis (6th ed.) [Análisis de datos multivariantes]. Pearson Prentice Hall.

López-Pina, J. & Veas, A. (2024). Validación de instrumentos psicométricos en ciencias sociales y de la salud: una guía práctica [Validation of psychometric instruments in social and health sciences: a practical guide]. Anales de Psicología, 40(1), 163-170. https://doi.org/10.6018/analesps.583991

Lloret, S., Ferreres, A., Hernández, A., & Tomás, I. (2017). The exploratory factor analysis of items: guided analysis based on empirical data and software [El análisis factorial exploratorio de ítems: análisis guiado basado en datos empíricos y software]. Anales de Psicología, 33(2), 417-432. https://doi.org/10.6018/analesps.33.2.270211

Manrique, M. & García, M. (2019). Producción de textos académicos en las prácticas de enseñanza de los docentes [Production of academic texts in teachers' teaching practices]. Lengua y habla, 23, 557-568. https://www.redalyc.org/journal/5119/511966657036/

Meza, P., & González, M. (2020). Construction and validation of the self-efficacy scale for disciplinary academic writing [Construcción y validación de la escala de autoeficacia para la escritura académica disciplinaria]. Cogent Education, 7(1), https://doi.org/10.1080/2331186X.2020.1830464

Meza, P., González, M., González Catalán, F. & Urízar, C., (2022). Relación entre percepción de autoeficacia, calidad lingüístico-discursiva y evaluación disciplinar: tres aproximaciones a la evaluación de la escritura académica en Derecho y Medicina [Relationship between self-efficacy perception, linguistic-discursive quality, and disciplinary evaluation: three approaches to academic writing assessment in Law and Medicine]. Estudios filológicos, 69, 163-186. https://doi.org/10.4067/S0071-17132022000100163

Montes-Pacheco, L., Caballero-Guichard, T. & Miranda-Bouillé, M. (2017). Análisis de las prácticas docentes: estado del conocimiento en DOAJ y EBSCO (2006-2016) CPU-e [Analysis of teaching practices: state of knowledge in DOAJ and EBSCO (2006-2016) CPU-e]. CPU-e, Revista de Investigación Educativa, 25, 197-229. http://www.redalyc.org/articulo.oa?id=283152311009

Mulaik, S. A. (1972). The foundations of factor analysis [Los fundamentos del análisis factorial]. McGraw-Hill.

Muñoz, A., Mueller, J., Álvarez, M., & Gaviria, S. (2006). Developing a coherent system for the assessment of writing abilities: tasks and tools [Desarrollando un sistema coherente para la evaluación de las habilidades de escritura: tareas y herramientas]. Íkala, revista de lenguaje y cultura, 11(17), 265-296. https://www.redalyc.org/pdf/2550/255020424010.pdf

Navarro, F., & Mora-Aguirre, B. (2019). Teorías implícitas sobre escritura académica y su enseñanza: Contrastes entre el ingreso, la transición y el egreso universitarios [Implicit theories on academic writing and its teaching: contrasts between university entry, transition and graduation]. Universitas Psychologica, 18(3), 1-16. https://doi.org/10.11144/Javeriana.upsy18-3.tiea

Navarro, F. & Montes, S. (2021). Los desafíos de la escritura académica: Concepciones y experiencias de estudiantes graduados en seis áreas de conocimiento [The challenges of academic writing: conceptions and experiences of graduate students in six knowledge areas]. Onomázein, 54, 179-202. https://doi.org/10.7764/onomazein.54.05

Nunnally, J. C. (1967). Psychometric theory [Teoría psicométrica]. McGraw-Hill.

Núñez-Cortés, J., & Muse, C. (2016). Una propuesta de cuestionario de percepción sobre alfabetización académica [A proposal for a questionnaire of perception on academic literacy]. En A. Díez Mediavilla, V. Brotons Rico, D. Escandell Maestre, & J. Rovira Collado (Eds.), Aprendizajes plurilingües y literarios: Nuevos enfoques didácticos (pp. 550-558). Publicacions de la Universitat d'Alacant. https://rua.ua.es/dspace/bitstream/10045/64835/1/Aprendizajes-plurilingues-y-literarios_64.pdf

OCDE (2018). Manual de Frascati 2015. Guía para la recopilación y presentación de información sobre la investigación y el desarrollo experimental [Frascati Manual 2015: Guidelines for collecting and reporting data on research and experimental development]. Fundación Española para la Ciencia y la Tecnología.

Pérez, C. et al. (2016). Cuestionario de prácticas pedagógicas: análisis de su estructura factorial y consistencia interna en docentes de carreras de la salud [Questionnaire on pedagogical practices: analysis of its factorial structure and internal consistency in health sciences faculty]. Revista médica de Chile, 144(6), 788-795. https://dx.doi.org/10.4067/S0034-98872016000600015

Pérez-Ornelas, M. (2016). Las prácticas educativa y docente en un grupo de profesores universitarios [Educational and teaching practices in a group of university professors]. Revista Latinoamericana de Estudios Educativos, 46(2), 99-112. https://www.redalyc.org/pdf/270/27046182005

Shove, E., Pantzar, M. & Watson, M. (2012). The dynamics of social practice: Everyday life and how it changes [La dinámica de la práctica social. La vida cotidiana y cómo cambia]. Sage.

Sparks, J. et al. (2014). Assessing written communication in higher education: review and recommendations for next-generation assessment [Evaluación de la comunicación escrita en la educación superior: revisión y recomendaciones para la evaluación de próxima generación]. ETS Research Report Series, 2014(2), 1-52. https://doi.org/10.1002/ets2.12035

Strauss, A & Corbin, J. (2002). Bases de la investigación cualitativa: Técnicas y procedimientos para desarrollar la teoría fundamentada [Basics of Qualitative Research: Techniques and procedures for feveloping grounded theory]. Editorial Universidad de Antioquia.

Tabachnick, B., & Fidell, L. (2019). Using Multivariate Statistics (7th ed.) [Uso de estadísticas multivariantes]. Pearson.

Tapia-Ladino, M., & Correa, R. (2022). Implementación de retroalimentación de escritura académica en dos disciplinas universitarias [Implementation of academic writing feedback in two university disciplines]. Formación Universitaria, 15(6), 23-34. http://dx.doi.org/10.4067/S0718-50062022000600023

Uribe-Gajardo, F., Lovera-Falcón, P., & Navarro, F. (2022). "Nosotros lo superamos y llegamos, pero hay gente que se quedó atrás": Escribir a través del currículum y de las etapas formativas en la universidad ["We overcame it and made it, but some stayed behind": writing through the curriculum and formative stages in university]. Pensamiento educativo, 59(2), 1-14. https://dx.doi.org/10.7764/pel.59.2.2022.7

Author Biographies

María Verónica Strocchi. Bachelor's degree in Language and Literature from the Universidad Nacional de Córdoba and Bachelor's degree in Literature from the Universidad de Chile. Language teacher with a Bachelor's degree in Education and a PhD in Education from the Universidad Católica de la Santísima Concepción. Her line of research is related to academic literacy and the inclusion of technologies in teaching this ability. She has participated in several different innovation and research projects. In 2024, she completed a PhD internship at Universidad Pompeu Fabra. She is currently a member of the research team of the Ibero-American Research Network on Academic Integrity and of the editorial team of Andamiajes, the journal of the Latin American Network of Writing Centres and Programmes. She has engaged in management, teaching, and research in educational institutions. She currently works as a teacher in the area of research methodology and as Coordinator of the Communication and Thought Programme at the Universidad del Desarrollo.

https://orcid.org/0000-0002-9023-5465

Mónica Tapia-Ladino. Spanish teacher, Master's Degree in Linguistics, and PhD in Linguistics from the Universidad de Concepción. She has published scientific articles in mainstream journals specifically related to academic writing. She has participated in research projects (Fondecyt, Fonide, and Fundación Andes) on academic writing in higher education and in the Chilean school system. In 2013, she completed a post-doctoral fellowship at the University of California, Santa Barbara. Her line of research relates to the study of writing in the university environment. More specifically, she is concerned with the relationship between the provision of written feedback and the production of academic writing. She is currently President of the Association for the Study of Reading and Writing in Academic and Professional Contexts and was previously President of the Chilean Society of Linguistics. From 2016 to 2018, she served as Academic Vice-Rector, and from 2018 to 2021, Vice-Rector for Research and Postgraduate Studies at the Universidad Católica de la Santísima Concepción in Concepción, Chile. She is currently the director of the CIEDE-UCSC Education and Development Research Centre.

https://orcid.org/0000-0003-2951-1798

Pablo Fuentealba-Carrasco. Sociologist with a Master's Degree in Social Research and Development from the Universidad de Concepción. Candidate for a PhD in Law at the University of Edinburgh. His line of research is linked to quantitative methods, criminology, and punitive attitudes. He has participated in several different research projects (Fondecyt, Fondef). He is currently a lecturer in the Department of Sociology at the Universidad de Concepción.

https://orcid.org/0000-0002-5965-0556