

Written Communication Apprehension of Accounting Students

Amélia Ferreira da Silva¹, Rui Silva², Francisco Carreira³

Porto Polytechnique, University of Trás-os-Montes and Alto Douro, Setúbal
Polytechnique

Abstract

The paper presents a demographic distribution of the subjective manifestations of anxiety in written communication of Portuguese higher accounting students. The students completed a questionnaire provided online, and data collection ended up with 813 valid participations. Data were processed using IBM, SPSS-27, applying descriptive statistics. The findings showed that students who feel more apprehension in writing are those from the 2nd curricular year. In contrast, students in the 3rd year of the course exhibit the highest levels of Written Communication Apprehension and all dimensions (Positivity towards writing, Negativity towards writing, Evaluation apprehension, Self-efficacy and writing). The results are also consistent across all four dimensions by gender type, with both males and females having less difficulty in the positivity towards writing construct. The group of students aged 40 years or less has a total Written Communication Apprehension higher than the other age groups, denoting a greater difficulty in writing. The paper contributes to the body of literature since it is the first to evaluate Portuguese accounting students' written communication apprehension level. Moreover, it fosters the awareness of higher institutions' education about their effective contribution to fulfilling students' and employers' aspirations.

Keywords

Written Communication Apprehension; Accounting Students; Skills.

¹ Porto Polytechnique, CEOS, Porto, Portugal, acfs@iscap.ipp.pt

² University of Trás-os-Montes and Alto Douro, CETRAD, Vila Real, Portugal, rui.silva@utad.pt

³ Setúbal Polytechnique, Campus do IPS - Estefanilha, Setúbal, Portugal, francisco.carreira@esce.ips.pt

Introduction

Before COVID-19, higher accounting students were accustomed to traditional lecture-style classes, meaning teaching synchronously, face-to-face, and in a physical learning environment. During these in-person classes, students and teachers interact directly and regularly with one another in different ways. Since "face-to-face interaction improves communication, encourages social affiliation and heightens the visibility of the mouth and eyes, which facilitate comprehension of mental states" (Ransom et al., 2022:2), these students are expected to have good communication skills and higher social interaction. Oral communication skills and social interaction are interconnected and are both crucial in the education environment because they stimulate and support learning.

Due to the COVID-19 pandemic, all face-to-face teaching classes were suspended in Portugal, and lectures were delivered online using teleconferencing programs like Zoom and Teams. The move to online learning introduced substantial changes in how educators and students interact. Of course, the transition from traditional classroom teaching to distance learning disrupted higher education, requiring significant changes, adaptations, and recreations, namely "the formation of soft skills, acquisition of digital competencies, development of professional skills that will make qualified specialists more competitive in the labour market" (Chikileva, 2022:39). Since online interaction is much more dependent on written communication, the written skills regained remarkable relevance in the teaching-learning process. However, according to Gaytan et al. (2022), the ability of business instructors to use nonverbal immediate behaviors and clarity to inoculate students against their writing apprehension did not have the same meaning or effect on the online classroom as they have in the face-to-face classroom. Therefore, "it is critical that educators and researchers search for new interventions to address students' writing apprehension, which will assist online business communication students in the classroom now and later in their careers" (Gaytan et al, 2022:390)

Moreover, written skills are increasingly perceived as vital to accounting professionals in digital transformation (Holmes, Zhang, & Harris, 2018; Irafahmi, Williams, & Kerr, 2021; Gonçalves, Silva, & Ferreira, 2022). Reiterating the undeniable importance of new technologies in teaching and training, which was extensively exploited and confirmed during the COVID-19 pandemic, it is crucial to understand to what extent the apprehension of written communication contributed to effectiveness in

education. Moreover, this issue is the responsibility of every educator, and it should not be solely attributed to college writing instructors, as stated by Mascle (2013: 217). Indeed, Written Communication Apprehension (WCA) can be attributed to a wide range of causes, including social factors (Alley-Young, 2005) and genetic as well as biological factors (Hunsaker, Kelly, & Duran, 1999).

The WCA scale (McCroskey, Beatty, Kearney, & Plax, 1985) focuses on predicting social interaction behaviors that vary according to levels of Communication Apprehension (CA) (Murphy & Weber, 2019). Over time, this scale has proved to be effective in measuring the written apprehension of students at various educational levels, making it an extremely relevant instrument.

The accounting profession is redefining its role in the context of a 4.0 economy and 5.0 society (World Economic Forum, 2020; CGMA, 2019). The development of Information and Communication Technologies and their integration into daily accounting processes transformed written skills into a vital tool for the profession to ensure clear communication. Several circumstances contribute to making WCA more pronounced in this group. On the one hand, the technical complexity associated with accounting concepts, principles, and calculations (Rebele, and Pierre, 2019) can cause students to worry about conveying accurate and objective information in their written assignments and reports. Simultaneously, the fact that accounting often follows specific formats and guidelines for financial statements, memos, or other written documents may create pressure on students to conform to these standards, fearing that they might make mistakes or deviate from the required structure. The requirement for precise and accurate language is another pressing factor. Indeed, accounting requires high precision and accuracy, leading students to fear that minor errors or unclear language may lead to misinterpretations or financial implications. These circumstances can contribute to apprehension, especially if students perceive writing as a secondary skill to their accounting expertise and if they are concerned about their professional future, namely by sounding professional, using appropriate terminology, and maintaining a formal tone.

In this sense, the need to apply and validate the scale to different contexts and samples related to the teaching-learning process in accounting makes this research study academically relevant due to the scarcity of studies in this scientific and academic knowledge area. This study aims to measure the written apprehension of accounting students in Higher Education in Portugal.

After the introduction, it follows the literature review about communication apprehension in students of different fields of knowledge, with a particular focus on accounting students. Section 3 describes the methodology regarding data collection. The presentation and discussion of results are in section 4. Finally, the conclusions, limitations, and proposals for future research are presented.

1. Literature review

Several studies applied WCA scale to higher education accounting students (Arquero et al., 2017; Jackling & De Lange, 2009; Scott & Rockwell, 1997; Fuller, Vician, & Brown, 2006; Holiday-Goodman et al., 1994; Bui, & Porter, 2010; Bunea, 2017; Samkin & Stainbank, 2016, Smith, Carstens, & Stainbank, 2021; Loureiro, Silva, & Loureiro, 2020; Arquero et al., 2007; Hassall, et al., 2013; Cheng, 2002). One study that preliminarily investigated curriculum impacts on oral and WCA in accounting students and how it impacts academic performance was the research developed by Gardner et al. (2005). Other authors, such as Hertz-Lazarowitz and Bar-Natan (2002), argue that writing has become a central element in school, being inductive of academic success and professional performance (Autman, & Kelly, 2017). Therefore, Hertz-Lazarowitz and Bar-Natan (2002) promoted a study of 5th and 6th-grade students, composed of Jews and Arabs, who studied in three environments: cooperative learning, computer-mediated communication, and a combination of the two previous learning environments. The students reported their perceptions and attitudes towards writing activities. The teachers evaluated the written assignments and reached the following results: the students in the cooperative learning and computer-mediated communication groups were those who achieved the highest scores in all the items analyzed; the teachers' evaluation was similar for computer-mediated communication and blended learning; the results of the Arab students were identical in some items to their Jewish counterparts; there are no differences, concerning gender.

Similarly, Berdanier (2021) investigated the rhetorical patterns within the research proposals of 50 National Science Foundation Graduate Research Fellowship winners in engineering disciplines. The author found out “that several writing attitudes are statistically linked, such as writer's block with perfectionism and procrastination, and productivity with knowledge transforming concepts and intuitive approaches” (Berdanier, 2021:207). Thus, he argues that instructors of engineering graduate students

may consider how the emotional aspect of writing impacts writing practices and the resulting rhetorical style to support graduate students in developing their academic literacy skills.

Regarding the accounting field, Arquero et al. (2017) examined the potential relationships between the levels of CA and tolerance, with ambiguity and learning styles. The study addressed 300 undergraduate students and showed that students with high CA coefficients have different learning styles from those with low levels of CA. Therefore, they are more isolated and dependent and less cooperative and participative. They are both constrained regarding skills development and pedagogical change (understood as CA, tolerance to ambiguity, or learning styles and preferences). Accounting students showed low tolerance regarding ambiguity (which expresses the degree of acceptance when faced with a lack of information and, consequently, to make choices and decisions) compared to students from other areas, which means that they reveal lower performance levels and confidence in decision-making.

Fulmer et al. (2021) recognize written communication skills as critical in accounting. Therefore, they introduced "a novel learning intervention that encourages students (...) to tailor their message to different audiences using various communication formats while simultaneously reinforcing their knowledge in important areas" (Fulmer et al., 2021:231). Kelly & Gaytan (2020) also evaluated the impact of the pedagogical approaches on students' writing apprehension. In particular, the authors attempted to identify the influence of instructional communicative behaviours – specifically, instructors' immediate actions and clarity - on accounting students' writing apprehension. Additionally, Jackling & De Lange (2009) asked accounting graduates to indicate the most critical skills for progression in their professional life. The results were communication in the first place, problem-solving in second place, and technical skills in fifth place. This statement aligns with the requirements listed by employers of small and medium enterprises, who place high importance on analytical, oral, and written communication skills (Bui, & Porter, 2010). Also, Bunea (2017) assessed final-year students' perception of the accounting course units' role in training and developing their skills and competencies. The results showed that students prefer courses based on detailed rules rather than principles and conceptual aspects, which call for value judgments, scenarios, decision-making, and simulations. In this sense, students welcome decisions more in financial accounting than for management purposes, as the

last ones require skills like communication, critical thinking, and interdisciplinary knowledge and decision-making.

In their 2021 study, Smith and colleagues explored the individual and social learning experiences of first-year accountancy students who were receiving instruction in English as a second language. They aimed to establish correlations between listening, reading, speaking, and writing proficiency levels and the student's academic performance. To achieve this, they conducted semi-structured interviews with both successful and unsuccessful students.

The findings revealed that students' ability to effectively engage with pedagogical materials and their exposure to positive verbal interactions, both in formal and informal settings, appear to have a direct and positive influence on their academic outcomes. Consequently, the authors propose adopting an interactive approach when designing curriculum resources and language learning activities in the field of accounting.

These two apprehensions are also felt when students write tests and present assignments (Loureiro, Loureiro, & Silva, 2020). The proof is in a study of social sciences and humanities students whose results confirm the fear of written and oral communication, with greater emphasis on orality, which is felt more in female students.

Similarly, Hassall et al. (2013) state that the level of employability is influenced by the level of communication, i.e. candidates with low level communication skills will have less possibility of being selected in a recruitment and selection process or even promoted in an organization.

Likewise, in language learning, Cheng (2002) studied the relationship between students' perceptions of their second language arising from writing anxiety and other forms of language anxiety. She used four scales and a questionnaire and obtained the following results: writing anxiety in the first language is lower than writing anxiety in the second language; perceptions of writing competence in the second language predict writing anxiety in that language better than the writing performance in the second language; female students have significantly higher levels of writing anxiety in a second language than male students; there were no significant differences between students in different curriculum years, although writing anxiety is higher in more advanced years.

Other studies explored the use of the computer as an element of anxiety in the apprehension of communication and writing. The results showed that using the computer had more impact on the apprehension in communication than in the

apprehension of writing (Scott & Rockwell, 1997). Scott and Timmerman (2005) related communication technologies in the workplace with different forms of apprehension (computer, communication, and writing). The authors worked with two samples of 205 individuals for five years to predict changes. They concluded that communication measured by computer generates greater apprehension than traditional types of apprehension.

A study by Fuller et al. (2006) proved that anxiety is a significant factor in the e-learning experience as "computer anxiety and oral CA, with email familiarity, explained 68% of the variance in the resulting anxiety associated with email. Email anxiety and computer familiarity accounted for 22% of the variance in email use".

From a broader perspective, Dobos (1996) analyzed students' communication expectations and apprehension of communication concerning collaborative learning group activities, and the results showed distinct patterns of motivation.

In the study of Holiday-Goodman et al. (1994), regarding the writing-for-learning strategy used in the curricula, it was incorporated into regular classes of verbal communication, and two distinct groups were formed by pharmacy students (one before the introduction of this strategy and the other during this project). Compared to the experimental group of the initiative, the results showed the typical apprehension of writing, which showed significant improvement in writing in the dimensions: verbal skills, ability to formulate ideas, and identification of the target audience.

Given the restricted schedule of accounting higher education courses, it is hard to balance the time available for students to acquire a vocationally based body of knowledge and the time to develop general skills (Siegel, Sorensen, Klammer, & Richtermeyer, 2010; Lawson, Pincus, Sorensen, Stocks, & Stout, 2017). Developing an integrative competency-based curriculum in accounting poses extensive trials for all the actors involved in the accounting teaching-learning process. However, general/foundational skills are increasingly perceived as vital to boosting professional career opportunities and performance. So, Lawson et al. (2015) offer reflections on integrating fundamental skills, accounting skills and management skills in the accounting curriculum. Moreover, there are pedagogical approaches, such as Service-learning (Handoyo, Suparno, & Suparno, 2020) which promote that integrative education.

Considering the literature mentioned above and the fact that there are few studies on the apprehension of communication in accounting students, this study aims to label

the incidence of WCA among accounting students in the Portuguese public higher education system. The need for more studies on WCA is urgent as more and more studies report better retention of content when students are actively engaged in the writing process, because the mind develops deeper thoughts compared to simply reading (Krom, & Williams, 2011).

2. Methodology

This quantitative study on WCA collected data through a questionnaire, applied in the form of a paper and online. The paper questionnaire was distributed during class hours by accounting lecturers, and the online questionnaire was sent by email during the 1st and 2nd semesters of classes of the 2019/2020 academic year.

All the Portuguese HEIs teaching undergraduate accounting courses participated in the study. Data were processed using IBM, SPSS 27, applying descriptive statistics. As this article aims to analyze the perception of WCA skills among students of accounting courses in Portuguese public HEIs, we assessed the levels of apprehension of students' written communication from thirteen institutions (twelve Polytechnics and one University), to identify the differences between institutions, gender, age, and curricular year.

The study's population consisted of students enrolled in accounting courses in Portugal during June 2020, corresponding to the academic year 2019/20. The overall student population in this category numbered 2,343. From this population, 879 students responded to the questionnaire, and after screening, 813 of these responses were deemed valid, resulting in a representativeness rate of 34.7%.

The sample encompassed students from thirteen public higher education institutions, comprising twelve Polytechnics and one University. This selection represented 93% of the total number of institutions in the country. Table 1 presents the distribution of students in the sample.

Table 1: *Distribution of Students Responding to the Questionnaire by Institution*

Higher Education Institutions with Accounting Courses in June 2020	Sample							
	Nº	%	Male	% Total of Male	% Total of Sample	Female	% Total of Female	% Total of Sample
IP Bragança	19	2,3%	7	2,3%	0,9%	12	2,4%	1,5%
IP Cávado e Ave	113	13,9%	32	10,3%	3,9%	81	16,1%	10,0%
IP Leiria	44	5,4%	17	5,5%	2,1%	27	5,4%	3,3%
IP Santarém	14	1,7%	5	1,6%	0,6%	9	1,8%	1,1%
IP Setúbal	105	12,9%	41	13,2%	5,0%	64	12,7%	7,9%
IP Tomar	6	0,7%	2	0,6%	0,2%	4	0,8%	0,5%
IP Viana do Castelo	11	1,4%	4	1,3%	0,5%	7	1,4%	0,9%
IP Viseu	19	2,3%	7	2,3%	0,9%	12	2,4%	1,5%
ISCA Aveiro	73	9,0%	29	9,4%	3,6%	44	8,7%	5,4%
ISCA Coimbra	44	5,4%	16	5,2%	2,0%	28	5,6%	3,4%
ISCA Lisboa	196	24,1%	48	15,5%	5,9%	60	11,9%	7,4%
ISCA Porto	108	13,3%	82	26,5%	10,1%	114	22,7%	14,0%
U Minho	61	7,5%	20	6,5%	2,5%	41	8,2%	5,0%
Total students	813	100%	310	100%	38%	503	100%	62%

Regarding gender, as shown in Table 1, the majority is female (with 62% and reaching higher percentages in ISCA Porto, IP Cave, IP Setúbal, and ISCA Lisboa). Consequently, the other 38% is male.

In terms of age, there is an average of 18,5 years, a variance of 36,7 years, and the ages of the youngest and oldest students are 17 and 63 years, respectively.

The students in the study were divided into four groups according to age: under 23 years old (because they correspond to students coming from the regular regime for access to higher education), between 23 and 30 years old, between 31 and 40 years old, and over 40 years old (Table 2).

We also verified that in all HEIs most students are under 23 years old (in the IP Santarém and IP Vcastelo they reach 100%), and nine institutions have about 86% of their students aged between 17 and 30 years old. Only four institutions (ISCA Porto, IP Cave, IP Setúbal, and ISCA Aveiro) have the highest values in the age brackets above 31 years (in the 31 to 40 and the over 40 years bracket), with 33, 24, 17, and 17 students, respectively, which represent, altogether, approximately 14% of the sample, as shown in Table 2.

Table 2: *Distribution of students per age group*

Age range	Number of students	%
< 23 years	571	70%
23 - 30 years	131	16%
31 - 40 years	56	7%
> 40 years	55	7%
Total	813	-

Finally, the students were divided according to the year in which they were enrolled, resulting in (33%), (27%) and (40%) students enrolled in the 1st, 2nd, and 3rd years respectively.

The institutions with the most students in the 1st year are ISCA Lisboa and ISCA Porto (with 62 and 53, respectively, which makes 14%). In the 2nd year are ISCA Porto and IP Setúbal (with 54 and 48, respectively, which makes 13%), and in the 3rd and final year are IP CAve and ISCA Porto (both with 89, which makes 22%).

A questionnaire was used to collect the data, composed of two parts: the first with sociodemographic and academic variables and the second with the constructs of the model under analysis. The questionnaire was translated from English into Portuguese following the recommendations of Koller et. al (2007).

Table 3: Measurement scales of the WCA dimensions

Constructs	Statements
Positivity towards writing	1. I avoid writing
	3. I look forward to writing down my ideas.
	5. Taking a composition course is a very frightening experience.
	8. Expressing ideas through writing seems to be a waste of time.
	9. I would enjoy submitting my writing to magazines for evaluation and publication.
	10. I like to write my ideas down.
	15. I enjoy writing.
	17. Writing is a lot of fun.
	19. I like seeing my thoughts on paper.
Negativity towards writing	7. My mind seems to go blank when I start to work on a composition.
	13. I'm nervous about writing.
	14. People seem to enjoy what I write.
	16. I never seem to be able to clearly write down my ideas.
	18. I expect to do poorly in composition classes even before I enter them.
	21. I have a terrible time organizing my ideas in a composition course.
	22. When I hand in a composition, I know I'm going to do poorly.
	23. It's easy for me to write good compositions.
24. I don't think I write as well as most other people.	
Evaluation apprehension	26. I'm no good at writing.
	2. I have no fear of my writing being evaluated.
	4. I am afraid of writing essays when I know they will be evaluated.
	6. Handing in a composition makes me feel good.
Self-efficacy and writing	25. I don't like my compositions to be evaluated.
	11. I feel confident in my ability to clearly express my ideas in writing.
	12. I like to have my friends read what I have written.
	20. Discussing my writing with others is an enjoyable experience.

Scoring:

Positivity towards writing=78 + (1) - (3) + (5) + (8) - (9) - (10) - (15) - (17) - (19)

Negativity towards writing=78 + (7) + (13) - (14) + (16) + (18) + (21) + (22) - (23) + (24) + (26)

Evaluation apprehension=78 - (2) + (4) - (6) + (25)

Self-efficacy and writing=78 - (11) - (12) - (20)

Overall WCA= 78 + Positive Statements Values (PSV) - Negative Statements Values (NSV)

*PSV statements=1;4;5;7;8;13;16;18;21;22;24;25;26

*NSV statements=2;3;6;9;10;11;12;14;15;17;19;20;23.

Table 3 presents the measurement scale of the various dimensions of the WCA construct (Positivity towards writing, Negativity towards writing, Evaluation apprehension, and Self-efficacy and writing), with a total of 26 statements which were measured using a Likert scale (from 1 to 5), ranging from "I strongly agree" to "I strongly disagree".

The scale has shown good reliability and validity of the psychometric properties. Reliability tests were performed to reinforce the scale's robustness, which resulted in high Cronbach's Alpha values in all four dimensions: Positivity towards writing; Negativity towards writing; Evaluation apprehension; and Self-efficacy and writing.

3. Analysis and Discussion of Results

The analysis of the results is divided into four points: the first by institution, the second by gender, the third by age and the last and fourth point by year of study.

3.1 WCA differences by institution

Concerning the results per institution, we found seven institutions with results above the average and the remaining six with results below the average of the sample (Table 4). The average result of the Total WCA is 71,467 by the literature average. Most surveyed institutions fit this average qualification which is well above average (82,333).

Table 4: Results from WCA Constructs by HEI

	Written Communication Apprehension Constructs				Total WCA
	Positivity towards writing	Negativity towards writing	Evaluation apprehension	Self-efficacy and writing	
IP Tomar	70,333	97,167	77,833	70,333	82,333
IP Bragança	68,737	96,895	77,684	69,789	79,421
IP Leiria	66,636	93,750	76,955	68,932	71,750
IP Santarém	65,071	93,857	76,714	68,214	69,214
IP Setúbal	66,190	93,914	76,657	68,810	71,095
IP Viana do Castelo	63,909	89,455	75,636	67,091	60,818
IP Viseu	68,316	95,526	77,684	69,421	77,105
IP Cávado e Ave	66,478	94,044	77,301	68,549	72,000
ISCA Aveiro	65,712	93,329	76,863	69,123	70,466
ISCA Coimbra	66,523	94,000	76,864	69,545	73,068
ISCA Lisboa	65,861	93,231	76,324	68,815	69,611
ISCA Porto	65,296	93,306	76,668	68,551	69,173
U Minho	67,557	94,967	77,738	69,607	75,639
Total Sample	66,182	93,904	76,921	68,899	71,478

* Level of WCA: High (26 to 59); Average (60 to 96); Low (97 to 130).

The institutions with values higher than the average of the total WCA and which show a lower apprehension in writing are seven (IP Tomar, IP Bragança, IP Viseu, IP Leiria, IP CAve, ISCA Coimbra and U Minho). Consequently, those with values lower than the average of the sample are six (the remaining ones), in which the Institutes with the highest number of students fit, except IP Santarém and IP VCastelo, which feel a greater difficulty in writing.

The most significant positive differences, compared to the general average, are observed in the institutions with the highest values, surpassing the average. Consequently, the institutions with the highest propensity for effective writing are IP Tomar (+10.85), IP Bragança (+7.94), IP Viseu (+5.6), and U Minho (+4.1), all of which have a smaller student population.

The most accentuated negative differences in comparison with the general average and which show more difficulty in writing occur in the IP VCastelo (-10.6), the IP Santarém and ISCA Porto (both -2.2) and the ISCA Lisboa (-1.8).

The same conclusion is obtained in any of the four constructs of the understanding of written communication, with exceptions: IP Setúbal, in the positivity towards writing, which is slightly higher than the average for this construct; IP Leiria and IP Setúbal in the negativity towards writing construct, with slight differences for less and more, respectively, compared to the average; ISCA Coimbra regarding the evaluation apprehension construct, with a value below the average, and therefore with a better performance in writing; and IP CAve, regarding the self-efficacy and writing construct, with the best result of all institutions.

The IP Tomar presents higher values in the total WCA, in any of the constructs and, hence, consistently above the general average, which means that its students show less concern with the domain of writing, being the institution with the lowest number of students and questionnaire respondents.

3.2 WCA differences by gender

Regarding gender, the results of the Total WCA are similar for both males and females, with males constantly below average in all constructs, indicating fewer difficulties in writing than females, as shown in Table 5.

Table 5: Results by Gender

	Written Communication Apprehension Constructs				
	Positivity towards writing	Negativity towards writing	Evaluation apprehension	Self-efficacy and writing	Total WCA
Male	66,094	93,795	76,869	68,877	71,170
Female	66,129	93,848	76,894	68,884	71,303
Total Sample	66,182	93,904	76,921	68,899	71,478

* Level of WCA: High (26 to 59); Average (60 to 96); Low (97 to 130).

The results are consistent across all four constructs by gender type, with males and females having less difficulty in the positivity towards the writing construct.

There are eight institutions (IP Tomar, IP Bragança, IP Leiria, IP VCastelo, IP Viseu, IP CAve, ISCA Coimbra and U Minho) above the Total WCA average in the female gender (between 1,2 and 14,3, in IP Leiria and IPTomar, respectively). The remaining five position themselves below the Total WCA average (between -0,2 and -2,1, in IP Setúbal and ISCA Porto, respectively). The higher results show that the students from the first group of institutions have a perception of fewer difficulties in writing, to the detriment of the students from the second group, and show greater apprehension in writing, with the highest and the lowest results, in IP Tomar and ISCA Porto, with 85,75 and 69,328 points, respectively. In the male gender, five institutions (IP Tomar, IP VCastelo, IP Viseu, IP CAve and U Minho) are positioned with values above the average of this gender (between more 0,63 points and 8,58, in IP CAve and IP VCastelo). The remaining eight institutions are placed below the average of their gender, between -1,54 and -8,38, in ISCA Coimbra and ISCA Porto, respectively.

All the results are classified as average in terms of difficulties in writing. When we compared the results obtained by both genders in the various constructs, we found that in almost all of these constructs and institutions, the male gender shows lower differences than the female gender, and these differences are more expressive in the Tomar and Leiria IPs. It suggests a greater predisposition for writing on the part of males.

3.3 WCA differences by age

The Total WCA scores in our sample align with what has been reported in the literature. This suggests that our findings are consistent with previous research on writing ability and age. The age group of students older than 40 has a lower Total WCA than other age groups, indicating a minor difficulty in writing for this group. This observation supports the idea that older students may face challenges in writing, which is in line with the

existing literature. It's important to consider that while this analysis indicates a correlation between age and writing ability, there may be other factors at play. Further research and a more in-depth examination of the data and other variables could provide a more comprehensive understanding of the relationship between age and writing proficiency.

Table 6: Results by Age

	Written Communication Apprehension Constructs				
	Positivity towards writing	Negativity towards writing	Evaluation apprehension	Self-efficacy and writing	Total WCA
< 23 years	66,118	93,841	76,887	68,881	71,271
23 – 30 years	66,062	93,758	76,850	68,861	71,059
31-40 years	66,108	93,780	76,879	68,855	71,165
> 40 years	65,937	93,658	76,803	68,794	70,717
Total Sample	66,182	93,904	76,921	68,899	71,478

* Level of WCA: High (26 to 59); Average (60 to 96); Low (97 to 130)

The age group ">40 years" is the one that always presents lower results than the other age groups in all the constructs, and, contrarily, the age group "<23 years" is the one that holds the highest values in all the constructs, comparatively, to the other age groups. From this, we infer that the older the student is, the lower the perception of difficulties in written communication. In a longitudinal analysis, we found that the results of the age groups by an educational institution are not always homogeneous, as shown in Table 7. In this sense, the students from IP Tomar, IP Bragança, IP Viseu and ISCA Coimbra are consistently placed above the total WCA values. The most expressive values are from IP Tomar (+11,1 and 8,6 points in the age groups "< 23 years old" and "23-30 years old") and from IP Viseu (+5,0 and 10,9 points in the age groups "< 23 years old" and "23-30 years old"). The students of ISCA Aveiro, ISCA Lisboa and ISCA Porto are always positioned below the values of the total WCA, with the most significant values being for ISCA Aveiro (-0.8 in the "<23 years", -4.7 in the "23-30 years" and "31-40 years" and 4.6 ">40 years" and ISCA Lisboa (-12.4 in the ">40 years". Some institutions show positive and negative differences depending on the age group being analyzed, as is the case of IP Leiria, IP Setúbal, IPCAve and U Minho. These institutions show higher values than the Total WCA in the younger age groups ("<23 years" and "23-30 years") and lower values than the Total WCA in the older age groups ("31-39 years" and ">40 years"), except for U Minho in the "31-29 years" age

group.) In the "31-39 years" age group, six of the seven institutions (87%) show negative differences concerning the Total WCA values, the most notable cases being IP Setúbal and ISCA Aveiro (-6.1 and 4.7, respectively). Similarly, in the ">40 years" age group, five of the six institutions (83%) presented negative differences compared with the WCA Total values, with the most notable cases being ISCA Lisboa (-12.4) and ISCA Aveiro and ISCA Porto (both with -4.6) (Table 7).

Table 7: Total WCA by the Institution and Age and the Sample Average

HEI \ Age	Difference between the Overall WCA of the Higher Education Institution (HEI) and the Sample Average, when the HEI result is lower than the sample				Difference between the Overall WCA of the Higher Education Institution (HEI) and the Sample Average, when the HEI result is higher			
	< 23 years	23 - 30 years	31 - 40 years	> 40 years	< 23 years	23 - 30 years	31 - 40 years	> 40 years
IP Tomar	82,333	79,667	-	-	11,1	8,6	-	-
IP Bragança	74,000	72,063	-	-	2,7	1,0	-	-
IP Leiria	72,651	72,421	66,618	-	1,4	1,4	-4,5	-
IP Santarém	69,214	-	-	-	-2,1	-	-	-
IP Setúbal	72,485	72,093	65,055	68,731	1,2	1,0	-6,1	-2,0
IP Viana do Castelo	76,091	-	-	-	4,8	-	-	-
IP Viseu	76,222	82,000	-	-	5,0	10,9	-	-
IP Cávado e Ave	72,179	72,131	70,853	71,417	0,9	1,1	-0,3	0,7
ISCA Aveiro	70,493	66,370	66,452	66,145	-0,8	-4,7	-4,7	-4,6
ISCA Coimbra	73,068	78,700	-	52,000	1,8	7,6	-	-
ISCA Lisboa	69,387	68,327	69,611	58,357	-1,9	-2,7	-1,6	-12,4
ISCA Porto	69,328	69,636	67,782	66,106	-1,9	-1,4	-3,4	-4,6
U Minho	75,133	73,917	77,611	66,917	3,9	2,9	6,4	-3,8
Total Sample	71,271	71,059	71,165	70,717	-	-	-	-

* Level of WCA: High (26 to 59); Average (60 to 96); Low (97 to 130)

3.4 WCA differences by curricular year and Higher Education Institutions

The results per curricular year show that all years present a value considered average by the literature, although the 1st curricular year presents the lowest value; that is, the students of the 1st year say they feel more difficulties in written communication, according to Table 8.

Table 8: OCA Results by Curricular Year

Curricular Year	Written Communication Apprehension Constructs				Total WCA
	Positivity towards writing	Negativity towards writing	Evaluation apprehension	Self-efficacy and writing	
1 ^o Curricular year	66,115	93,838	76,884	68,880	71,261
2 ^o Curricular year	66,057	93,759	76,849	68,848	71,038
3 ^o Curricular year	66,134	93,851	76,894	68,886	71,314
Total Sample	66,182	93,904	76,921	68,899	71,478

* Level of WCA: High (26 to 59); Average (60 to 96); Low (97 to 130)

However, the results indicate that the students who feel more apprehension in writing are those from the 2nd curricular year, both in total WCA and in the four constructs, compared to all the others. In contrast, students in the 3rd year of the course

have the highest scores in the total WCA and all constructs, which may mean that they feel more competent in written communication as they reach the last year of the course. The differences between the curricular years are less than 1%. Although the variation of results by curricular year is not meaningful, the fact that the students in the 2nd curricular year feel more apprehension may be related to the difficulty and content of the curriculum at this grade level or with the level of teacher guidance.

In a longitudinal analysis by Educational Institution and curricular year, from Table 9 it can be induced that the 1st and 2nd curricular years are those that register the highest number of positive differences between the result of the educational institution and the total WCA (8 out of 13 Institutes, 62%), while the 3rd curricular year this positive difference occurs in 7 institutions (54%). The average difference between the curricular year and total WCA is highest in the 2nd year (with -3,29), followed by the 1st year (with -2,58), and lastly, the 3rd year (-0,7) and the standard deviation is 4,69 in the 2nd year, 4,47 in the 3rd year and 4,09 in the 1st curricular year, which validates that the 2nd year students feel more difficulties in writing, against the 3rd year students. The institutions whose students report the slightest difficulty in writing (WCA) and by year of study are: in the 1st year, IP Tomar (11,7), IP VCastelo (8,0) and IP Viseu and U Minho (both with 5,2), in the 2nd year, IP VCastelo (13,5), IP Santarém (8,1) and ISCA Coimbra (6,8) and, in the 3rd year, IP Viseu (9,5), IP Tomar (7,7) and U Minho (4,3). The students with the greatest apprehension in writing and by curricular year are: in the 1st year, ISCA Lisboa (-1,5), ISCA Porto (-1,2) and IP Santarém (-1,1), in the 2nd year, ISCA Porto (-2,2), ISCA Lisboa (-1,6), ISCA Aveiro (-1,5) and in the 3rd year, IP Santarém (-7,0), ISCA Lisboa (-2,9) o ISCA Porto (-2,4).

Six institutions always present results higher than the total WCA, in the three curricular years, whose highest values correspond to IP Tomar, IP VCastelo and IP Viseu. In the opposite direction, three institutions consistently exhibit scores below the overall WCA, in all three curricular years, whose highest values correspond to ISCA Porto, ISCA Lisboa and ISCA Aveiro. In an overall analysis of the constructs, we obtained evidence that three institutions always show values above the average of the respective construct, which means that students have a positive perspective of their writing skills (U Minho, IP Tomar and IP Viseu) and two institutions show values below the average of the respective construct, which denotes a deficit regarding the quality of writing (ISCA Lisboa and ISCA Porto). The first construct, positivity towards writing, has 22 scores above the construct average, with the most significant being in

the IP Tomar (1st year with 4,49 and 3rd year with 2,87) and IP Viseu (1st year with 1,77 and 3rd year with 33,39), and 16 scores below the construct average, with the most significant being in the IP Santarém (3rd year with -2,83) and the others below -1,0. Regarding the second construct, negativity towards writing, there were 23 values above the construct average, the most significant being in the IP VCastelo (2nd year with 5,49 and 1st year with 3,59), IP Tomar (1st year with 3,56 and 3rd year with 2,15) and IP Bragança (2nd year with 3,37) and 15 values below the construct average, the most significant being in the IP Santarém (3rd year with -1,45) and the others below -1,0. As for the third construct, evaluation apprehension, there were 23 values above the construct average, being the most significant, from the IP VCastelo (1st year with 1,83 and 2nd year with 2,40) and IP Santarém (2nd year with 1,58) and 15 values below the construct average, being the most significant, from the IP Santarém (3rd year with -1,89);

Finally, in the fourth construct, self-efficacy and writing, we had 21 values above the average of the construct, the most significant being in the IP VCastelo (2nd year with 1,90) and IP Tomar (1st year with 1,72) and 17 values below the average of the construct, the most significant being in the IP Santarém (3rd year with 0,78).

Table 9: Total WCA by Institution and by Curricular Year and the Sample Average

HEI \ Curricular Year	Difference between the Overall WCA of the Higher Education Institution (HEI) and the Sample Average, when the HEI result is lower than the sample			Difference between the Overall WCA of the Higher Education Institution (HEI) and the Sample Average, when the HEI result is higher than the sample		
	1º Year	2º Year	3º Year	1º Year	2º Year	3º Year
IP Tomar	83,000	-	79,000	11,7	-	7,7
IP Bragança	74,000	76,733	72,063	2,7	5,7	0,7
IP Leiria	70,821	74,257	71,750	-0,4	3,2	0,4
IP Santarém	70,154	79,143	64,300	-1,1	8,1	-7,0
IP Setúbal	71,812	70,740	69,960	0,6	-0,3	-1,4
IP Viana do Castelo	79,286	84,500	73,900	8,0	13,5	2,6
IP Viseu	76,471	74,000	80,800	5,2	3,0	9,5
IP Cávado e Ave	72,385	71,818	72,000	1,1	0,8	0,7
IS C A Aveiro	70,493	69,507	69,159	-0,8	-1,5	-2,2
IS C A Coimbra	75,225	77,800	70,474	4,0	6,8	-0,8
IS C A Lisboa	69,794	69,437	68,390	-1,5	-1,6	-2,9
IS C A Porto	70,026	68,848	68,938	-1,2	-2,2	-2,4
U Minho	76,491	75,167	75,639	5,2	4,1	4,3
Total Sample	71,261	71,038	71,314	-	-	-

* Level of WCA: High (26 to 59); Average (60 to 96); Low (97 to 130)

4. Final considerations

Given the restricted schedule of accounting higher education courses, it is hard to balance the time available to students for the acquisition of a vocationally based body of knowledge and the time for the development of general skills such as "Leadership, Communication, Negotiation, Creativity and Problem-Solving" (World Economic Forum, 2020:12). However, academics and employers concur that good written skills are critical for students as well as professionals because career competence and performance are deeply connected with communication ability. The development of Information and Communication Technology and its integration into accounting daily working processes transformed written skills into a key tool for the accounting profession.

The paper presents a demographic distribution of the subjective manifestations of anxiety in written communication of Portuguese higher accounting students. The students completed a questionnaire provided on the internet, with the Portuguese language version of a self-completion scale, from the Personal Communication Apprehension Report (PRCA) (Dobos, 1996). The WCA presents the four constructs analyzed (Positivity towards writing, Negativity towards writing, Evaluation apprehension and Self-efficacy and writing), with a total of 26 questions, which were measured using a Likert scale (from 1 to 5), ranging from "I strongly agree" to "I strongly disagree."

The literature considered 71,467 as the average result of the total WCA. Most of the surveyed institutions fit this average qualification which is well above average (82.333). The findings also showed that:

- Regarding gender, the results are consistent across all four dimensions of WCA by gender type, with both males and females having less difficulty in the positivity towards writing construct.
- The age group of students older than 40 years presents a Total WCA lower than the other age groups, therefore denoting a minor writing difficulty.
- The students who feel more apprehension in writing are those from the 2nd curricular year, both in total WCA and in the four constructs, compared to all the others.

- In contrast, students in the 3rd year of the course have the highest scores in the total WCA and in all constructs, which may mean that as they reach the last year of the degree, they feel more competent in written communication.

The fact that the students in the 2nd curricular year present more apprehension is an important clue for future research. Perhaps it is associated with the level of the difficulty and content of the curriculum at this grade level, or with the level of teacher guidance.

This investigation presents an important contribution to the body of literature since it is the first to evaluate Portuguese accounting students' WCA level.

The study shows that Portuguese accounting students reveal important levels of WCA. It follows that higher education institutions should promote teaching-learning environments that inspire and drive to higher levels of written and oral communication. For instance, the Global Management Accounting Principles define management accounting as ‘the sourcing, analysis, communication and use of decision-relevant financial and non-financial information to generate and preserve value for organisations’ (CGMA, 2019:14), which means that communication skills are at the core of accounting functions. Thus, following Lawson et al. (2015), we suggest a progressive approach, starting with pedagogical methodologies that aim to enhance the communication skills of students. For instance, service-learning (Handoyo, et al., 2020) and the use of creative writing (Krom, & Williams, 2011) have been successful in improving communication skills and enhancing and assess student learning.

Moreover, it fosters the awareness of higher education institutions about their effective contribution to fulfilling students' and employees' aspirations. Future research must consider undertaking a case-control study to identify the causal factor behind WCA.

References

- Alley-Young, G. (2005). An Individual's Experience: A Socio-Cultural Critique of Communication Apprehension Research. *Online Submission*, 30(1), 36-46.
- Arquero, J. L.; Fernández-Polvillo, C.; Hassall, T.; Joyce, J. Relationships between Communication Apprehension, Ambiguity Tolerance and Learning Styles in Accounting Students. *Rev. Contab. – Spanish Account. Rev.* 2017, 20 (1), 13–24. <https://doi.org/10.1016/j.rcsar.2015.10.002>

- Arquero, J. L.; Hassall, T.; Joyce, J.; Donoso, J. A. Accounting Students and Communication Apprehension: A Study of Spanish and UK Students. *Eur. Account. Rev.* 2007, 16 (2), 299–322. <https://doi.org/10.1080/09638180701391337>
- Autman, H.; Kelly, S. Reexamining the Writing Apprehension Measure. *Bus. Prof. Commun. Q.* 2017, 80 (4), 516–529. <https://doi.org/10.1177/2329490617691968>
- Berdanier, C. G. P. Linking Current and Prospective Engineering Graduate Students' Writing Attitudes with Rhetorical Writing Patterns. *J. Eng. Educ.* 2021, 110 (1), 207–229. <https://doi.org/10.1002/jee.20368>
- Bui, B.; Porter, B. The Expectation-Performance Gap in Accounting Education: An Exploratory Study. *Account. Educ.* 2010, 19 (1–2), 23–50. <https://doi.org/10.1080/09639280902875556>
- Bunea, S.. The Contribution of Accounting Disciplines to Developing Professional and Personal Skills. *SEA – Pract. Appl. Sci.* 2017, V (15), 443–450.
- CGMA (2019). Reinventing finance for a digital world. Chartered Global Management Accountant (CGMA®), USA.
- Cheng, Y. S. Factors Associated with Foreign Language Writing Anxiety. *Foreign Lang. Ann.* 2002, 35 (6), 647–656. <https://doi.org/10.1111/j.1944-9720.2002.tb01903.x>.
- Chikileva, L. S. The Role of Cooperation and Collaboration in Digital Environment for Sustained Economic Growth; 2022; pp 39–45. https://doi.org/10.1007/978-3-030-77000-6_5
- Dobos, J. A. Collaborative Learning: Effects of Student Expectations and Communication Apprehension on Student Motivation. *Commun. Educ.* 1996, 45 (2), 118–134. <https://doi.org/10.1080/03634529609379042>
- Fuller, R. M.; Vician, C.; Brown, S. A. E-Learning and Individual Characteristics: The Role of Computer Anxiety and Communication Apprehension. *J. Comput. Inf. Syst.* 2006, 46 (4), 103–115. <https://doi.org/10.1080/08874417.2006.11645917>
- Fulmer, B. P.; Fulmer, S.; Liu, Y. Communication Roulette: Engaging Students in the Practice of Tailored Communication. *Issues Account. Educ.* 2021, 36 (4), 231–251. <https://doi.org/10.2308/ISSUES-19-078>
- Gardner, C. T.; Milne, M. J.; Stringer, C. P.; Whiting, R. H. Oral and Written Communication Apprehension in Accounting Students: Curriculum Impacts and Impacts on Academic Performance. *Account. Educ.* 2005, 14 (3), 313–336. <https://doi.org/10.1080/06939280500077269>
- Gaytan, J.; Kelly, S.; Brown, W. S. Writing Apprehension in the Online Classroom: The Limits of Instructor Behaviors. *Bus. Prof. Commun. Q.* 2022, 85 (4), 376–394. <https://doi.org/10.1177/23294906211041088>
- Gonçalves, M. J. A.; da Silva, A. C. F.; Ferreira, C. G. The Future of Accounting: How Will Digital Transformation Impact the Sector? *Informatics* 2022, 9 (1), 1–17. <https://doi.org/10.3390/informatics9010019>

- Handoyo, L. D., Suparno, P., & Suparno, P.. Service-learning in Indonesia: The benefits of developing students' characters in higher education. *Academia*, 2020, 20-21, 138-153. <https://doi.org/10.26220/aca.3444>
- Hassall, T.; Arquero, J. L.; Joyce, J.; Gonzalez, J. M. Communication Apprehension and Communication Self-efficacy in Accounting Students. *Asian Rev. Account.* 2013, 21 (2), 160–175. <https://doi.org/10.1108/ARA-03-2013-0017>
- Hertz-Lazarowitz, R.; Bar-Natan, I. Writing Development of Arab and Jewish Students Using Cooperative Learning (CL) and Computer-Mediated Communication (CMC). *Comput. Educ.* 2002, 39 (1), 19–36. [https://doi.org/10.1016/S0360-1315\(02\)00019-2](https://doi.org/10.1016/S0360-1315(02)00019-2)
- Holiday-Goodman, M.; Lively, B. T.; Nemire, R.; Mullin, J. Development of a Teaching Module on Written and Verbal Communication Skills¹, 2. *Am. J. Pharm. Educ.* 1994, 58, 257.
- Holmes, A. F.; Zhang, S.; Harris, B. An Analysis of Teaching Strategies Designed to Improve Written Communication Skills. 2018, 28 (1), 25–48. <https://doi.org/10.1080/09639284.2018.1477055>
- Hunsaker, F. G.; Kelly, L.; Duran, R. L. Sensation Seeking and Communication Apprehension: Biological and Genetic Correlates of Approaching or Avoiding Communication Events. *Int. J. Phytoremediation* 1999, 16 (2), 121–130. <https://doi.org/10.1080/08824099909388709>
- Irafahmi, D. T.; Williams, P. J.; Kerr, R. Written Communication: The Professional Competency Often Neglected in Auditing Courses. *Account. Educ.* 2021, 30 (3), 304–324. <https://doi.org/10.1080/09639284.2021.1916547>
- Jackling, B.; De Lange, P. Do Accounting Graduates' Skills Meet the Expectations of Employers? A Matter of Convergence or Divergence. *Account. Educ.* 2009, 18 (4–5), 369–385. <https://doi.org/10.1080/09639280902719341>
- Kelly, S.; Gaytan, J. The Effect of Instructors' Immediate Behaviors and Clarity on Student Writing Apprehension. *Bus. Prof. Commun. Q.* 2020, 83 (1), 96–109. <https://doi.org/10.1177/2329490619868822>
- Koller, M., Aaronson, N. K., Blazeby, J., Bottomley, A., Dewolf, L., Fayers, P., ... & EORTC Quality of Life Group. (2007). Translation procedures for standardised quality of life questionnaires: The European Organisation for Research and Treatment of Cancer (EORTC) approach. *European Journal of Cancer*, 43(12), 1810–1820. <https://doi.org/10.1080/01463378509369595>
- Krom, C. L., & Williams, S. V. (2011). Tell me a story: Using creative writing in introductory accounting courses to enhance and assess student learning. *Journal of Accounting Education*, 29(4), 234-249. <https://doi.org/10.1016/j.jaccedu.2012.06.003>
- Lawson, R. A., Blocher, E. J., Brewer, P. C., Morris, J. T., Stocks, K. D., Sorensen, J. E., ... & Wouters, M. J. (2015). Thoughts on competency integration in accounting education. *Issues in Accounting Education*, 30(3), 149-171. <https://doi.org/10.2308/iace-51021>
- Lawson, R. A., Pincus, K. V., Sorensen, J. E., Stocks, K. D., & Stout, D. E. (2017). Using a life-cycle approach to manage and implement curricular change based on

- competency integration. *Issues in Accounting Education*, 32(3), 137-152. <https://doi.org/10.2308/iace-51587>
- Loureiro, M.; Loureiro, N.; Silva, R. Differences of Gender in Oral and Written Communication Apprehension of University Students. *Educ. Sci.* 2020, 10 (12). <https://doi.org/10.3390/educsci10120379>
- Loureiro, M.; Silva, R.; Loureiro, N. Differences of Gender in Communication Apprehension of University Students. In *ICGR 2020 3rd International Conference on Gender Research*; 2020; p 146.
- Masclé, D. D. Writing Self-Efficacy and Written Communication Skills. *Bus. Commun. Q.* 2013, 76 (2), 216–225. <https://doi.org/10.1177/1080569913480234>
- McCroskey, James C, Beatty, M. J., Kearney, P., & Plax, T. G. (1985). The content validity of the PRCA-24 as a measure of communication apprehension across communication contexts. *Communication Quarterly*, 33(3), 165–173. <https://doi.org/10.1080/01463378509369595>
- Murphy, M.; Weber, K. Confirmation of the Ability of the Personal Report of Communication Apprehension-24 (PRCA-24) to Predict Behavioral Indicators of Social Interaction. *Commun. Res. Reports* 2019, 36 (5), 393–403. <https://doi.org/10.1080/08824096.2019.1683527>
- Ransom, A.; LaGrant, B.; Spiteri, A.; Kushnir, T.; Anderson, A. K.; de Rosa, E. Face-to-Face Learning Enhances the Social Transmission of Information. *PLoS One* 2022, 17 (2), e0264250. <https://doi.org/10.1371/JOURNAL.PONE.0264250>
- Rebele, J. E., & Pierre, E. K. S. (2019). A commentary on learning objectives for accounting education programs: The importance of soft skills and technical knowledge. *Journal of Accounting Education*, 48, 71-79. <https://doi.org/10.1016/j.jaccedu.2019.07.002>
- Samkin, G.; Stainbank, L. Teaching and Learning Current and Future Challenges Facing Accounting Academics, Academics, and the Development of an Agenda for Future Research. *Meditari Account. Res.* 2016, 24 (3, SI), 294–317. <https://doi.org/10.1108/MEDAR-05-2016-0062>
- Scott, C. R.; Rockwell, S. C. The Effect of Communication, Writing, and Technology Apprehension on Likelihood to Use New Communication Technologies. *Commun. Educ.* 1997, 46 (1), 44–62. <https://doi.org/10.1080/03634529709379072>
- Scott, C. R.; Timmerman, C. E. Relating Computer, Communication, and Computer-Mediated Communication Apprehensions to New Communication Technology Use in the Workplace. *Communic. Res.* 2005, 32 (6), 683–725. <https://doi.org/10.1177/0093650205281054>
- Siegel, G., Sorensen, J. E., Klammer, T., & Richtermeyer, S. B. (2010). The ongoing preparation gap in management accounting education: A guide for change. *Management Accounting Quarterly*, 11(4), 29. GALE|A239816361
- Smith, S.; Carstens, A.; Stainbank, L. Student Experiences Studying Accounting in English as an Additional Language. *Meditari Account. Res.* 2021, 29 (6), 1401–1424. <https://doi.org/10.1108/MEDAR-09-2019-0557>

World Economic Forum. Jobs of Tomorrow: Mapping Opportunity in the New Economy | World Economic Forum. 2020, <https://www.weforum.org/reports/jobs-of-tomorrow-mapping-opportunity-in-the-new-economy/>