

Writing and scientific publication skills of university teachers: A survey study

Mendoza Velazco Derling José¹, Elizeth Mayrene Flores Hinostroza², Josselyn Leonela Muñoz Briones¹, María Leonila García Cedeño¹

¹Department of Social and Humanistic Sciences, Faculty of Social and Humanistic Sciences, Universidad Técnica de Manabí, Portoviejo, Ecuador

²Department of Experimental Sciences, Universidad Nacional de Educación, Azogues, Ecuador

Article Info

Article history:

Received May 13, 2023

Revised Sep 29, 2023

Accepted Oct 17, 2023

Keywords:

Journals
Research
Scientific publication
University
Writing skills

ABSTRACT

In the academic world, the skills of scientific writing and publishing allow for the sharing and dissemination of academic research. The research analysed the scientific publications of university teachers from the Faculty of Humanities and Social Sciences of the Technical University of Manabí (FCHS-UTM), Ecuador, in order to determine their skills and preferences in terms of scientific journals, writing language, type of publication, indexing, and editorial quality. A descriptive quantitative approach study was applied. A survey study was carried out. The sample selection was non-probabilistic and participatory. The sample consisted of 55 teachers from the faculty. A 25-item questionnaire was developed for data collection. The results were analysed using descriptive statistics. Among the results the faculty has a preference for national or local scientific journals. The language most used in studies is Spanish. University researchers are more professional in their use of American Psychological Association (APA) norms. The study presented implications such as the promotion of scientific publication and professional development, preservation of language and culture, professionalism in citation standards, promotion of collaboration, improvement of editorial quality and training strategies.

This is an open access article under the [CC BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.



Corresponding Author:

Mendoza Velazco Derling José
Department of Social and Humanistic Sciences, Faculty of Social and Humanistic Sciences
Universidad Técnica de Manabí
City Portoviejo, Province of Manabí, Avenida Jose Maria Urbina, Ecuador
Email: derling.mendoza@utm.edu.ec

1. INTRODUCTION

In the academic world, scientific writing, and publishing skills are fundamental for the professional development of university teachers, enabling university teachers to share and disseminate their research, thus contributing to the advancement of knowledge in their respective areas [1]. The importance of the present research lies in the need to evaluate and understand the preferences of the teaching staff regarding the writing and publication of their scientific work. This allows us to identify strengths and areas for improvement in terms of their writing skills, as well as their preferences in terms of scientific journals, language of writing, type of publication, indexing, and editorial quality [2].

The current academic environment demands a quality scientific production that meets the standards and requirements established by scientific journals and indexing systems [3]. In this sense, it is necessary for university teachers to be up-to-date and able to adapt to changes in the processes of evaluation and selection

of scientific journals. There must also be a mastery of the rules for writing and presenting studies, including the rules for citing bibliographic references.

In addition, the availability of time to devote to research and the ability to adapt to changes in the academic environment are important determinants of teachers' scientific productivity [4]. It is necessary to assess how much time teachers devote to research outside their regular working hours or classes, as well as to understand how their workload and academic responsibilities affect their availability to devote time to research. In terms of preferences, it is relevant to know whether university teachers choose to publish in national or international scientific journals, open or restricted access, and how they value the immediate availability of their articles to the research community and the general public. In addition, it is necessary to assess their level of academic training and their familiarity with the editorial quality criteria of scientific journals relevant to their field of research [5].

The Faculty of Humanities and Social Sciences of the Technical University of Manabí (FCHS-UTM), Ecuador does not have a baseline study that determines the level of publication preference or competences of the teaching staff. However, it is important to recognise that there are significant differences in the competences and preferences of university teachers in relation to these processes. At FCHS-UTM, an in-depth understanding of the scientific writing and publishing skills of its teaching staff is required to identify strengths, weaknesses and areas for improvement.

In this context, the need arises to carry out a research study to systematically analyse the writing and scientific publication capacity of the faculty's teaching staff during the period 2023. The importance of the study lies in promoting academic excellence and quality scientific production among university teachers at FCHS-UTM. If a study on writing and publishing skills at FCHS-UTM is not implemented, major problems may arise, such as: i) Erroneous submission of studies to journals; ii) High levels of rejection, disappointment, or frustration on the part of the faculty; iii) Lack of publications; iv) Lack of dissemination of important studies or research to the global educational community. The results of this research provide valuable data to design training and support strategies that foster the development of writing and scientific publication skills, as well as the orientation, selection of journals and improvement of editorial quality in the faculty. Through this analysis, we seek to provide relevant information to strengthen scientific production and promote academic excellence in the faculty.

Based on the above introductory problem, the following questions emerge: i) What is the preference of the teaching staff in relation to scientific journals? and ii) What is the writing language, type of publication, indexing, and editorial quality most used by the teaching staff of the FCHS-UTM? While in order to answer the questions posed, the following objectives are proposed: i) To analyse the scientific publications of the university teaching staff of the FCHS-UTM and ii) To determine the competences and preferences in terms of scientific journals, writing language, type of publication, indexations, and editorial quality.

2. THEORETICAL FRAMEWORK

2.1. Scientific writing

Scientific writing is a fundamental process in scholarly communication and knowledge dissemination. It can be understood as a type of specialised discourse that follows specific conventions for presenting and organising scientific information [6]. Scientific writing is characterised by its precision, clarity, and methodological rigour, and its main objective is to communicate the results of scientific research in an objective and verifiable way. It is a means by which researchers present their findings, theories, and arguments to the scientific community and contribute to the advancement of knowledge in their field.

Understanding the characteristics and standards of scientific writing will enable university teachers at the FCHS-UTM to write and publish their research effectively. By applying the conventions of scientific writing, teachers will be able to clearly communicate their results, arguments and contributions, and ensure the credibility and rigour of their work. In addition, knowledge of preferences in terms of scientific journals, writing language, publication type, indexing, and editorial quality will help teachers select the most appropriate options to disseminate their research and maximise its visibility and impact in the academic community.

2.2. Scientific writing skills

Scientific writing competences refer to the skills and knowledge needed to write effectively and accurately in the academic and scientific domain. These competences cover aspects such as text structure and organisation, appropriate use of scientific language, textual coherence, and cohesion, as well as the ability to synthesise complex information and present solid arguments [7]. The development of scientific writing competences is important for university teachers, as it enables them to communicate their ideas and research results in a clear and convincing way, thus facilitating the understanding and impact of their work.

2.3. Scientific publication in university research

Scientific publication plays a fundamental role in the dissemination and validation of knowledge generated in the university environment, it can be understood as the systematic and accessible dissemination of the results and progress of research through specialised media [8], [9]. Scientific publication not only allows the findings and contributions of academics to be shared, but also gives them academic recognition and provides them with a means to establish connections with other researchers and institutions. In addition, scientific publication is a key indicator of the productivity and quality of university research, being a relevant factor in the evaluation and accreditation of academic programmes [10].

Within the framework of this research, the aim is to analyse the scientific publication preferences of university teachers from the FCHS-UTM. This involves examining aspects such as the scientific journals selected for the dissemination of papers, the preferred writing language, the types of publication (articles, reviews, and books), indexing and the editorial quality of the journals. Understanding scientific publication preferences is essential to evaluate the scope and impact of the research developed in the faculty, as well as to identify possible areas for improvement and opportunities for collaboration. Likewise, this analysis will allow us to establish strategies and guidelines that promote a culture of scientific publication among university teachers, fostering the generation, and dissemination of quality knowledge.

3. RESEARCH METHOD

3.1. Study approach

The present study is framed within a quantitative research approach, which is characterised by the systematic collection and analysis of numerical data. This approach seeks to obtain objective and generalisable measures of the variables studied, using statistical techniques to describe and examine the relationships between them [11], [12]. The choice of a quantitative approach for this study is justified by its ability to collect and analyse data in a rigorous and objective manner. This approach provides generalisable numerical measures, which is essential when addressing the scientific writing and publishing skills of university teachers [13]. By applying statistical techniques, it is possible to describe and examine the relationships between the variables under study in a precise and detailed manner. In this way, the quantitative approach ensures a rigorous and evidence-based analysis, allowing for robust conclusions and clear answers to the research questions posed.

3.2. Type of research

This is a descriptive study. The main objective of which is to describe the characteristics and phenomena present in each population. This type of research focuses on collecting data without intervening in the variables studied, using the survey as the data collection technique and the questionnaire as the data collection instrument [15], [16].

3.3. Population and sample

The population refers to the complete set of elements that have a common characteristic and are of interest to the research [14]. The population under study consisted of 78 teachers belonging to the FCHS-UTM during the year 2023. The sample used in this study was a non-probabilistic participatory sample. A total of 55 teachers from the FCHS-UTM were involved in the study. A non-probability sample is characterised by the fact that it is selected intentionally and not randomly, based on specific criteria and the availability of the participants [15]. In this case, a participatory sample was chosen, in which teachers had the opportunity to voluntarily take part in the research. This choice made it possible to obtain a representative group of university teachers from the faculty, providing valuable information on their writing skills and scientific publication.

3.4. Data collection technique and instruments

The technique used for data collection was the survey, which was applied to the teachers of the FCHS-UTM. The survey consisted of a set of structured questions that addressed the competences of writing and scientific publication [16]–[18]. The survey was distributed electronically via email and participants were asked to respond fully and honestly. To collect the necessary data, a questionnaire was designed in the Google test form system [19]–[21]. There were 25 items or questions addressed the variables of academic background, number of publications, language, journal indexing, writing standards, research time, publication frequency, review adaptation, quality criteria, journal accessibility, and training. These variables represent the scientific writing and publishing skills of university teachers. Each item had five Likert-type response options (1=never, 2=almost never, 3=sometimes, 4=almost always, and 5=always).

3.5. Technique for analysing the results

Once the data had been collected through the survey, a descriptive percentage analysis was carried out to interpret the results. This type of analysis made it possible to examine the frequencies and percentages of the responses obtained for each of the variables investigated. The data were organised and presented in a clear and concise manner using basic statistical tables, which facilitated the understanding and visualisation of the findings. The results obtained were interpreted considering the percentages and patterns identified, establishing an overview of the scientific writing and publishing skills of university teachers at the FCHS-UTM during the year 2023.

4. RESULTS AND DISCUSSION

The results obtained from the questionnaire applied to FCHS-UTM teachers during the year 2023 are presented as can be seen in Tables 1-10. According to the results obtained, the first question of the questionnaire was “level of education”. According to the results, three people have a bachelor’s degree, 40 teachers have a master’s degree, and 15 have a Ph.D. Therefore, 72.7% of the respondents have a master’s degree.

Table 1. Level of academic training of the teaching staff of the FCHS-UTM during the period 2023

Level of academic background	Options				
	Degree	Graduate	Speciality	Mastery	Doctorate
	5.5%	0	0	72.7%	27.3%

Table 2 shows that 10.9% of the teachers have published 20 or more articles in indexed journals in the last five years. The 1.8% of the informants have published 13 to 19 articles, while 12.7% have published 6 to 12 articles. The largest group of teaching staff, 67.3%, published 1-5 articles, and 7.3% had no publications in indexed journals during this period. This statistical analysis reveals a variability in the level of productivity of university respondents in terms of scientific publications in indexed journals. Although there is an outstanding group that has managed to publish 20 or more articles, the majority of teachers are in the range of 1 to 12 publications in the last five years. These results suggest the need to foster and strengthen scientific writing and publishing skills among university teachers in the FCHS-UTM. The results in the Table 2 indicate that there is variability in the number of publications of teachers, reflecting different levels of competence in scientific writing and publishing. These results support the importance of assessing and strengthening scientific writing skills, as these competences can contribute to an increase in the number of publications in indexed journals.

Table 2. Descriptive statistics on the frequency of language use in the writing of scientific articles

Frequency of language use	Options				
	20 and more	From 13 to 19	From 6 to 12	1-5	0
Frequency of use of the Spanish language in the writing of scientific articles	21.8%	3.6%	18.2%	54.5%	1.8%
Frequency of use of the English language in the writing of scientific articles	0	1.8%	0	52.7%	45.5%

The 21.8% of teachers use the Spanish language in their scientific articles at a high level (20 or more articles). The 3.6% of the teachers use Spanish in a range of 13 to 19 articles, while 18.2% use it in a range of 6 to 12 articles. The 54.5% of respondents use Spanish in a range of 1 to 5 articles, and only 1.8% do not use Spanish in any of their scientific publications. On the other hand, with regard to the use of English, 1.8% of the teaching staff use this language in the writing of their scientific articles at a high level (20 or more articles). The 1.8% use it in a range of 13 to 19 articles, while 52.7% use it in a range of 1 to 5 articles. The 45.5% of the informants do not use English in any of their scientific publications.

These descriptive statistical results reveal the preference of university teachers of the FCHS-UTM regarding the language of writing their scientific articles [20], [21]. The predominant use of the Spanish language stands out, being used in different publication frequency ranges. In addition, a not so significant use of English is evident, especially in a range of 1 to 5 publications. Therefore, it is suggested to create a trend towards internationalisation and dissemination of research in the faculty. The results of the Table 2 indicate that both Spanish and English are used in the writing of scientific articles by the teaching staff.

In Table 3, relation to national or local scientific journals, 32.7% of teachers have a high preference (rating 5) for this type of journal. The 30.9% opted for level 4, while 29.1% set level 3. A smaller percentage of teachers, 5.5%, have a preference for level 2, and only 1.8% expressed that they never publish in these journals. With regard to international scientific journals, 27.3% of teachers always publish in this type of journal (level 5). The 16.4% have almost always, whereas 32.7% sometimes apply external journals. Then, 18.2% of the informants expressed almost never and finally, 5.5% of the respondents chose never to have never made this type of submission to journals. The results highlight a greater preference for international scientific journals compared to national or local ones. This indicates a trend towards the internationalisation of scientific dissemination by teachers in the FCHS-UTM. On the other hand, there is a variety in teachers' preferences, with an inclination towards international scientific journals [12], [22], [23].

Table 3. Results of the percentage of preference in publication by scientific journals

Preference for scientific journals	Options				
	5	4	3	2	1
Preference for national or local scientific journals (Latindex-Dialnet-SciELO)	32.7%	30.9%	29.1%	5.5%	1.8%
Preference for international scientific journals (Web of Science or WoS-Scopus)	27.3%	16.4%	32.7%	18.2%	5.5%

Regarding the knowledge of the American Psychological Association (APA) 7th edition citation rules, 14.5% of the teachers have a high command (score 5) of these rules as seen in Table 4. The 30.9% were almost always familiar with the publication rules, while 32.7% were sometimes familiar with them. The 20% said that they were almost never familiar with the editorial standards and 1.8% said that they were never familiar with these standards. In relation to the knowledge of other citation standards such as Vancouver, Modern Language Association (MLA), Chicago, Institute of Electrical and Electronics Engineer (IEEE), among others, it is observed that only 1.8% of the teachers almost always apply them. The 12.7% indicated that almost always, 27.3% stated that sometimes (level 3 knowledge). The 34.5% almost never and 23.6% have a low level of knowledge of these norms (level 1). A greater mastery of APA 7th edition citation standards compared to other citation standards such as Vancouver, MLA, Chicago, and IEEE [24]. This indicates a greater familiarity and use of APA 7th edition citation standards among teachers in the FCHS-UTM. There is a need to strengthen the knowledge of other citation standards. It is essential that teachers expand their mastery of various citation standards, such as Vancouver, MLA, Chicago, and IEEE, to enrich their scientific work and ensure a correct presentation of the bibliographic references used.

Table 4. Descriptive statistics on the mastery of study writing and presentation standards

Mastery of the rules of writing and presentation of studies	Options				
	5	4	3	2	1
Knowledge about the rules of citation of bibliographic references APA 7th edition	14.5%	30.9%	32.7%	20%	1.8%
Knowledge about the standards of citation of bibliographic references Vancouver, MLA, Chicago, IEEE among others	1.8%	12.7%	27.3%	34.5	23.6

In Table 5, 20% of the teachers responded that they always dedicate time to research (rating 5). 30.9% almost always, while 38.2% do so with a frequency of level 3. The 9.1% said almost never and 1.8% never spend time on research (rating 1). With regard to the impact of workload or academic responsibilities on the availability of time for research, 25.5% of the teachers perceive a high impact (rating 5). The 23.6% perceive a level 4 impact, while 40% perceive a level 3 impact. The 9.1% perceive a level 2 impact, and only 1.8% perceive a low impact (rating 1). With regard to the weekly time they are willing to devote exclusively to research, 10.9% of teachers are willing to devote less than two hours per week. The 47.3% are willing to dedicate 2 to 5 hours per week, while 32.7% are willing to dedicate 6 to 10 hours per week. A low percentage, 3.6%, are willing to spend 11 to 15 hours per week, and 5.5% are willing to spend more than 15 hours per week. There is a variety in the frequency and availability of time devoted to research. In addition, it is noted that a considerable proportion of teachers are willing to devote significant time to research on a weekly basis [25]–[27].

Table 5. Descriptive statistics on the availability of time to devote to research

Availability of time to devote to research	Options				
	5	4	3	2	1
How often do you spend time on research outside of your regular work or class hours?	20%	30.9%	38.2%	9.1%	1.8%
How much does your workload or academic responsibilities affect your willingness to devote time to research??	25.5%	23.6%	40%	9.1%	1.8%
How much time a week are you willing to devote exclusively to research?	<2 10.9%	From 2 to 5 47.3%	From 6 to 10 32.7%	From 11 to 15 3.6%	>15 5.5%

The frequency of publication of teaching staff in Latindex indexed journals shows that no teacher has published more than 15 articles or research studies in the last five years. The 1.8% from 11 to 15 articles, 14.5% from 6 to 10, 45.5% from 2 to 5, and 38.2% have published less than two studies in this database. The frequency of publication in Scielo indexed journals also shows that no respondent has submitted more than 15 articles or research in the last five years. The 3.6% have published from 11 to 15, 5.5% from 6 to 10, 36.4% from 2 to 5, and 54.5% have announced less than two. In terms of frequency of publication in Web of Science indexed journals, there were no teacher who has published more than 15 articles or research papers in the last five years. Finally, the frequency of publication in Scopus indexed journals showed that 1.8% have submitted more than 15 articles or research papers in the last five years. There was no teacher who has presented between 11 and 15 studies, 3.6% between 6 and 10, 23.6% between 2 and 5, and 70.9% less than two. There is no evidence of a high frequency of publication in any of the journals, and the majority of teachers have presented less than two articles or research in the last five years. The results in the Table 6 indicates that there is room for improvement in terms of frequency of publication in indexed journals.

Table 6. Descriptive statistics of the frequency of publication of articles or research in indexed journals during the last five years

Frequency of publication of articles or research in indexed journals during the last five years	Options				
	>15	From 11 to 15	From 6 to 10	From 2 to 5	<2
Latindex	0	1.8%	14.5%	45.5%	38.2%
Scielo	0	3.6%	5.5%	36.4%	54.5%
Web of Science	0	1.8%	1.8%	29.1%	67.3%
Scopus	1.8%	0	3.6%	23.6%	70.9%

The 21.8% of the teachers always adapt to changes in the evaluation and selection processes of scientific journals (score 5). The 45.5% is almost always with a frequency of level 4, while 27.3% sometimes with a frequency of level 3. The 3.6% is almost never with a frequency of level 2, and only 1.8% never (rating 1). With regard to the difficulty they experience when applying the adjustments, changes or modifications requested in the evaluation or review processes of scientific journals, 10.9% of respondents find this task difficult with a high difficulty level (rating 5). The 21.8% is almost always with level 4, while 41.8% stated sometimes, 21.8% almost never, and only 3.6% with low difficulty (rating 1). It can be observed that the majority of teachers show a willingness and ability to adapt to these changes, although a significant percentage also encounter difficulties in implementing the requested adjustments or changes. The results in the Table 7 indicate that, although the majority of teachers show a willingness to adapt to these changes, difficulties in implementing the requested adjustments are also identified.

Table 7. Descriptive statistics of the ability to adapt to changes in the evaluation and selection processes of scientific journals

Ability to adapt to changes in the evaluation and selection processes of scientific journals	Options				
	5	4	3	2	1
How often do you adapt to changes in the evaluation and selection processes of scientific journals?	21.8%	45.5%	27.3%	3.6%	1.8%
How difficult do you find it to apply the requested adjustments/changes/modifications in the evaluation/review processes of scientific journals?	10.9%	21.8%	41.8%	21.8%	3.6%

The 58.2% of the teaching staff have not participated in the refereeing, review, evaluation, or scientific committee processes of a high-impact indexed journal (score 1), 14.5% almost always with a frequency of level 4, 10.9% sometimes with a frequency of level 3, 9.1% said always (score 5), 7.3% of the

teaching staff said almost never with a frequency of level 2. With regard to knowledge of the editorial quality criteria of scientific journals relevant to the field of research, 20% of the teaching staff are very familiar with these criteria (rating 5). The 18.2% are familiar with a frequency of level 4, 40% with a frequency of level 3, 12.7% with a frequency of level 2, and 9.1% have a low familiarity with the criteria (rating 1). The frequency of consultation of platforms (Scopus- SCImago Journal Rank or SJR- WoS) to verify the editorial quality criteria of scientific journals shows that 16.4% of the teachers consult with a high frequency (score 5). Some 40% consult with a frequency of level 4, 27.3% with a frequency of level 3, 10.9% with a frequency of level 2, and 5.5% consult with a low frequency (rating 1). It is noted that a significant proportion of teachers have not been involved in the review process of high impact indexed journals, indicating limited experience in this area. In addition, a range of levels of familiarity with editorial quality criteria is identified, with a significant proportion of teachers frequently consulting platforms to check these criteria. The results in the Table 8 indicate that while some academics are familiar with and frequently consult platforms to check these criteria, others show less familiarity and involvement in the review process of high-impact indexed journals [15], [28], [29].

Table 8. Descriptive statistics of knowledge on the criteria of editorial quality of scientific journals

Knowledge about the editorial quality criteria of scientific journals	Options				
	5	4	3	2	1
Have you participated in the review process/evaluator/scientific committee of a high impact indexed journal?	9.1%	14.5%	10.9%	7.3%	58.2%
How familiar are you with the editorial quality criteria of scientific journals relevant to your field of research?	20%	18.2%	40%	12.7%	9.1%
How often do you consult platforms (Scopus-SJR-WoS) to verify the editorial quality criteria of scientific journals?	16.4%	40%	27.3%	10.9%	5.5%

The 34.5% of the academics show a high preference (rating 5) for open access journals compared to restricted access journals, followed by 32.7% with a frequency of level 4. The 27.3% have a frequency of level 3, 3.6% of level 2 and 1.8% have a low preference for open access journals (rating 1). With regard to the assessment of the immediate availability of scientific articles, 30.9% of the respondents attach a high importance (rating 5), followed by 30.9% with a rating of level 4. The 27.3% rate it at level 3, 10.9% at level 2 and 0% attach a low importance to the immediate availability of their scientific articles. The 34.5% of teachers always consider it acceptable to make payments to publishers for the publication process (rating 5), 20% consider it almost always acceptable at level 4, 18.2% responded sometimes at level 3, 14.5% said almost never at level 2, and 12.7% of teachers have a low acceptability of making payment of publication fees (rating 1). A considerable proportion of teachers show a high preference for open access journals, as well as a positive assessment of the immediate availability of scientific articles. In addition, a significant proportion of academics consider it acceptable to pay publication fees in high-impact scientific journals [30], [31]. The study seeks to determine the level of competition and preferences for scientific journals, and the results of this Table 9 provide information on the preference for open access journals, the assessment of immediate availability and the acceptability of paying publication fees in high impact indexed journals [32]–[34].

Table 9. Descriptive statistics on the preference for open access or restricted access scientific journals

Preference for open access or restricted access scientific journals	Options				
	5	4	3	2	1
How often do you prefer to publish in open access scientific journals (free journals with no publication cost) compared to restricted access ones?	32.7%	34.5%	27.3%	3.6%	1.8%
To what extent do you value the immediate availability (articles submitted/reviewed/accepted/published in a range of six months or less) of your scientific articles to the research community and the public?	27.3%	30.9%	30.9%	10.9%	0
Do you consider it acceptable to pay publication fees (between \$250 and \$2500) in high impact indexed scientific journals?	12.7%	14.5%	34.5%	20%	18.2%

The 29.1% of the teachers have almost always participated in courses or workshops on the publication of scientific articles in high impact journals (rating 4), followed by 23.6% with participation at level 3. The 21.8% have participated at level 2, 9.1% at level 1, and 16.4% have not participated in courses or workshops of this type. With regard to the perception of the need for orientation courses or workshops on the process of publishing in high-impact journals, 67.3% of the teaching staff consider this training to be very necessary (score 5). The 18.2% consider it necessary at level 4, 12.7% at level 3, and 1.8% do not consider it necessary. In Table 10, these results reveal the education and training of university teachers in the field of

publishing scientific articles. It is observed that a considerable proportion of teachers have participated in courses or workshops on publishing in high-impact journals [35]–[37]. In addition, the majority of academics perceive the need for courses or workshops to provide guidance on the process of publishing in high-impact journals [20], [23], [31].

Table 10. Descriptive statistics of education and training in the publication of scientific articles

Education and training	Options				
	5	4	3	2	1
Have you taken courses or workshops to publish scientific articles in high-impact journals?	23.6%	29.1%	21.8%	9.1%	16.4%
Do you consider it necessary to carry out an orientation course or workshop on the process of publishing scientific articles in high-impact journals?	67.3%	18.2%	12.7%	0	1.8%

5. CONCLUSIONS

Based on the study findings, the teaching staff at FCHS-UTM exhibit a significant level of academic training, primarily holding master's degrees, indicating specialised expertise. While some faculty members have notable publication records, a majority publish between 1 and 5 articles in the last five years, revealing an uneven distribution in scientific production. Additionally, the preference for Spanish in writing scientific articles is predominant, but a notable percentage, especially in lower-ranking publications, opt for English, suggesting a potential trend towards internationalisation and increased visibility. The preference for international journals over local ones is evident, yet a noteworthy percentage contributes to local publications, emphasizing the value of scientific production at the local level.

The study highlights the faculty's acceptable knowledge of APA 7th edition standards but indicates a need for strengthening understanding of other citation standards. While faculty members express a willingness to dedicate varying amounts of time to research, workload constraints impact research availability. Moreover, low participation in high-impact journal activities suggests a gap in faculty involvement in editorial processes. The findings underscore the need for training in editorial quality evaluation, with many faculty members expressing a desire for courses or workshops on publishing in high-impact journals. Overall, these insights into the preferences and competencies of the teaching staff contribute valuable information for enhancing research quality and visibility at FCHS-UTM.





REFERENCES

- [1] J. Peck and Martin. Coyle, *The student's guide to writing: spelling, punctuation and grammar, 3rd ed.* London: Palgrave Macmillan, 2012.
- [2] D. Mendoza, Z. C. Nieto-Sánchez, and M. Vergel-Ortega, 'Technology and mathematics as a cognitive component', *Journal of Physics: Conference Series*, vol. 1414, no. 1, Dec. 2019, doi: 10.1088/1742-6596/1414/1/012007.
- [3] A. Gordillo-Alfonso and A. Gordillo-Alfonso, 'La escritura científica: una revisión temática', *Signo y Pensamiento*, vol. 36, no. 71, pp. 54–66, 2017, doi: 10.11144/JAVERIANA.SYP36-71.ECRT.
- [4] R. Murray, *Writing for academic journals*. Berkshire: Open University Press, 2013.
- [5] M. van de Ven, A. D. Hofman, E. de Bree, E. Segers, L. Verhoeven, and H. L. J. van der Maas, 'Doubling up: The influence of native and foreign language cues in foreign language double consonant spelling', *Journal of Writing Research*, vol. 14, no. 2, pp. 141–183, Jun. 2022, doi: 10.17239/JOWR-2022.14.02.01.
- [6] M. F. Serrano Guzmán, D. D. Pérez Ruiz, N. C. Solarte Vanegas, and L. M. Torrado Gómez, *Ciencia, docencia y tecnología*, no. 56. Universidad Nacional de Entre Ríos, 2018. Accessed: Oct. 10, 2023. [Online]. Available: http://www.scielo.org.ar/scielo.php?script=sci_arttext&pid=S1851-17162018000100009&lng=es&nrm=iso&tlng=es
- [7] N. C. Mercedes, C. G. Fernando, M. M. J. Gustavo, C. M. M. Francisca, and M. V. D. José, 'Attitudinal Analysis of Women's Political Participation in Ecuador: Social and Legal Perspectives', *Journal of Educational and Social Research*, vol. 12, no. 6, p. 12, Nov. 2022, doi: 10.36941/jesr-2022-0141.
- [8] D. Livingstone, 'Review of New Perspectives on Academic Writing: The Thing That Wouldn't Die', *Journal of Academic Writing*, vol. 13, no. 1, pp. 59–61, Jul. 2023, doi: 10.18552/JOAW.V13I1.943.
- [9] R. a Day and B. Gastel, 'How to Write and Publish a Scientific Paper (How to Write and Publish a Scientific Paper)', *Medical Physics*, vol. 7, no. 5. 2006.
- [10] V. F. Vladimir, N. C. Mercedes, C. M. M. Francisca, and M. V. D. José, 'Tourism planning and competitiveness in Ecuador', *African Journal of Hospitality, Tourism and Leisure*, vol. 8, no. 5, 2019, doi: 10.2139/ssrn.3639478.
- [11] P. Török, 'BOOK REVIEW: Heard, S.B. 2016. The Scientist's Guide to Writing: How to Write More Easily and Effectively throughout Your Scientific Career', *Bulletin of the Eurasian Dry Grassland Group*, no. 33, 2017, doi: 10.21570/edg.bull.33.30-30.
- [12] C. A. Mack, *How to Write a Good Scientific Paper*. Bellingham: SPIE, 2018.
- [13] E. C. Hansen, *Successful Qualitative Health Research*. New York: Routledge, 2020.
- [14] M. Zeiger, 'Essentials of Writing Biomedical Research Papers', *Discourse and Writing/Rédactologie*, vol. 11, no. 1, 1993, doi: 10.31468/cjsdwr.342.
- [15] F. Ecamot, M. F. Seronde, R. Chopard, F. Schiele, and N. Meneveau, 'Writing a scientific article: A step-by-step guide for beginners', *European Geriatric Medicine*, vol. 6, no. 6, 2015, doi: 10.1016/j.eurger.2015.08.005.




- [16] S. Arsyad, M. Zaim, and D. Susyla, 'Review and citation style in research article introductions: A comparative study between national and international english-medium journals in medical sciences', *Discourse and Interaction*, vol. 11, no. 1. 2018. doi: 10.5817/DI2018-1-28.
- [17] M. J. Katz, *From Research to Manuscript: a guide to scientific writing*. Dordrecht: Springer, 2009.
- [18] B. Gustavii, *How to Write and Illustrate Scientific Papers*. Cambridge: Cambridge University Press, 2008.
- [19] W. L. Belcher, *Writing your journal article in twelve weeks: a guide to academic publishing success*. California: SAGE Publications, 2019.
- [20] C. M. M. Francisca, L. A. B. Nohemi, U. A. Jacqueline, M. V. D. José, and R. U. Gabriela, 'The irruption of information and communication technologies (Ict), a challenge in the management of digital competences of university professors in Ecuador', *RISTI - Revista Iberica de Sistemas e Tecnologias de Informacao*, vol. 2020, no. 37, 2020, doi: 10.17013/risti.37.132-148.
- [21] Gerald Graff and Cathy Birkenstein, *"They Say, I Say": The Moves That Matter in Academic Writing (Third Edition)*. London: W. W. Norton & Company, 2006.
- [22] L. M. Hite, 'The Handbook of Scholarly Writing and Publishing, edited by Tonette S. Rocco and Tim Hatcher. San Francisco: Jossey-Bass, 2011. ISBN 978-0-47039335-2 (paperback); 336 pages, *Human Resource Development Quarterly*, vol. 24, no. 1, 2013, doi: 10.1002/hrdq.21138.
- [23] J. Hartley, *Academic writing and publishing: A practical handbook*. New York: Routledge, 2008.
- [24] L. Vinicius, 'Book review of How to Write and Illustrate a Scientific Paper. By B. Gustavii. (Cambridge University Press, 2003). [pp. 141]. ISBN: 0521530245; ISBN: 0521823234, *Annals of Human Biology*, vol. 31, no. 4, 2004, doi: 10.1080/03014460410001703745.
- [25] Z. Bahadoran, P. Mirmiran, K. Kashfi, and A. Ghasemi, 'The Principles of Biomedical Scientific Writing: Citation', *International Journal of Endocrinology and Metabolism*, vol. 18, no. 2. 2020. doi: 10.5812/ijem.102622.
- [26] P. Sjögårde and F. Didegah, 'The association between topic growth and citation impact of research publications', *Scientometrics*, vol. 127, no. 4, 2022, doi: 10.1007/s11192-022-04293-x.
- [27] P. Cargill, M. and O'Connor, 'Research article structures', *Writing Scientific Research Articles: Strategy and Steps*, vol. 3, 2009.
- [28] J. M. Marine, 'Book Review of "The Expanding Universe of Writing Studies: Higher Education Writing Research"', *Journal of Writing Research*, vol. 14, no. vol. 14 issue 3, 2023, doi: 10.17239/jowr-2023.14.03.06.
- [29] S. P. Turbek et al., 'Scientific writing made easy: A step-by-step guide to undergraduate writing in the biological sciences', *International Journal of Environmental and Science Education*, vol. 11, no. 12, 2016, doi: 10.1002/bes2.1258.
- [30] R. Rezvani and P. Miri, 'Sensitizing Citing Practices of Graduate Students of TEFL in Academic Summary Writing', *Profile: Issues in Teachers' Professional Development*, vol. 25, no. 1, 2023, doi: 10.15446/profile.v25n1.101568.
- [31] A. Prayag, 'Overview and principles of scientific writing', *Indian Journal of Medical and Paediatric Oncology*, vol. 40, no. 3. 2019. doi: 10.4103/ijmpo.ijmpo_131_19.
- [32] J. W. Kim, 'Book Review: Writing Science: How to Write Papers That Get Cited and Proposals That Get Funded', *International Neurology Journal*, vol. 18, no. 2, 2014, doi: 10.5213/inj.2014.18.2.101.
- [33] M. Y. D. Lin, 'The Effects of Mediation Tools on Online Collaborative and Individual Writing', *Asia-Pacific Education Researcher*, vol. 32, no. 1, 2023, doi: 10.1007/s40299-021-00634-1.
- [34] F. Al Mahmud and M. Afzal ur Rahmani, 'Academic Writing of Saudi Graduate Students: Issues and Improvements', *Arab World English Journal*, vol. 14, no. 1, 2023, doi: 10.24093/awej/vol14no1.26.
- [35] S. García-Granda, 'Writing science: how to write papers that get cited and proposals that get funded', *Crystallography Reviews*, vol. 19, no. 1, 2013, doi: 10.1080/0889311x.2013.769529.
- [36] K. S. Diasti and C. L. Mbato, 'The Role of Volition in Graduate Students' Academic Writing', *Tell: Teaching of English Language and Literature Journal*, vol. 11, no. 1, 2023, doi: 10.30651/tell.v11i1.15266.
- [37] D. Hasanuddin, Emzir, and S. Akhadiyah, 'Improving students' scientific writing ability through blended learning-based collaborative learning', *International Journal of Emerging Technologies in Learning*, vol. 14, no. 20, 2019, doi: 10.3991/ijet.v14i20.11457.

BIOGRAPHIES OF AUTHORS






Mendoza Velazco Derling José     is a highly accomplished educator and researcher, holding a doctorate in education, a master's degree in educational sciences, and specialized expertise in mathematics didactics. He earned two bachelor's degrees in education, one with a focus on mathematics and the other with a focus on physics. In addition, he holds a higher technician degree in electronics. Dr. Mendoza Velazco has served in various roles, showcasing his versatile skill set. He has excelled as a methodologist counselor, university researcher teacher, and editor-reviewer. Teacher-researcher methodologies are in scientific research at Universidad Nacional de Educación (UNAE) and Universidad Técnica de Manabí (UTM). Dr. Mendoza Velazco has played key roles as an editorial assistant editor-coordinator, overseeing pre-professional practices and research methodologies. Furthermore, he has contributed significantly to research, particularly in educational thinking, competence-based training, and the innovative exploration of social tourism as a tool for enhancing the quality of life. For inquiries, he can be contacted via email at derling.mendoza@utm.edu.ec.






Elizeth Mayrene Flores Hinostrza    is a distinguished professional with a background in pharmacy, having earned her degree from the Universidad de Los Andes (ULA). Complementing her expertise, she holds a degree in education with a focus on Health Sciences from ULA. Furthering her academic achievements, she completed a master's in education at IPLAC and attained a doctorate in education from UPEL. With an impressive career spanning 23 years in secondary education, Ms. Flores Hinostrza has been instrumental in teaching biology and chemistry at the high school level. Her commitment to education extends to higher education, where she has accumulated 15 years of experience teaching research methodology, chemistry, and biology at both the undergraduate and postgraduate levels. As a dedicated research professor at the National University of Education in Ecuador (UNAE), she has contributed significantly to the field. Her scholarly contributions are evident in the numerous articles she has published in both national and international journals, with a particular emphasis on experimental sciences. For those interested in connecting with Ms. Flores Hinostrza, she can be reached via email at elizeth.flores@unae.edu.ec.



Josselyn Leonela Muñoz Briones    is an accomplished professional with a master's degree in social intervention in knowledge societies and a bachelor's degree in social work. She is currently serving as a dedicated professor of social work at the Technical University of Manabí. Ms. Muñoz Briones brings a wealth of expertise and experience to her role. For inquiries or further communication, you can reach Ms. Muñoz Briones via email at josselyn.munoz@utm.edu.ec.



María Leonila García Cedeño    is a distinguished professional affiliated with the Department of Social and Behavioural Sciences within the Faculty of Humanistic and Social Sciences at the Technical University of Manabí. Currently, she is serving as a professor at the Technical University of Manabí. Ms. García Cedeño holds a degree in educational sciences with a specialization in psychology and vocational guidance. She has furthered her academic journey by earning a master's degree in social development and education. With a strong foundation in educational and social sciences, Ms. García Cedeño brings valuable insights to her role. For any inquiries or communication, she can be reached via email at maria.garcia@utm.edu.ec.