

ADHERENCE OF THE IPEN POST-GRADUATION PROGRAM DISSERTATIONS TO THE ABNT NORMS

Meirilane S. Leocadio¹, Mery P. Z. Igami² and Delvonei A. de Andrade³

¹ Centro Universitário Presidente Antônio Carlos (UNITPAC)
Av. Filadélfia, 568
77816-540 Araguaína, TO, Brazil
leocadio.meirilane@gmail.com

² Instituto de Pesquisas Energéticas e Nucleares (IPEN / CNEN - SP)
Av. Professor Lineu Prestes 2242
05508-000 São Paulo, SP, Brazil
mery@ipen.br

³ Instituto de Pesquisas Energéticas e Nucleares (IPEN / CNEN - SP)
Av. Professor Lineu Prestes 2242
05508-000 São Paulo, SP, Brazil
delvonei@ipen.br

ABSTRACT

The process of standardizing or normalizing "something" is a reality in various segments of society, from industry, commerce and even services require Technical Standards to confer a quality standard on any and all goods that are produced. The objective of this research was to verify the adherence of the Dissertations defended in the IPEN/USP Post-Graduation Program to the technical standards of ABNT documentation. We analyzed 85 dissertations made available in the Institutional Repository of the Institute, from 2007 to 2016; we chose to evaluate the adhesion of the Abstract, Literature Review, List of References and Page Formatting by means of a Likert Scale standard form. It was observed that 87% of the Abstracts presented were very adequate to the standards, against 12% that were very inadequate. The Literature Review was very adequate in 51% of the projects, although 27% presented as neither very adequate nor very inadequate (neutral). However, the List of References was inadequate to the norms in 69% of the projects. Finally, in the formatting format it was possible to observe that 56% of the projects were in agreement with the rules presented for paging. In this evaluation it was evidenced that the guide of the Institute has exerted a strong influence on the quality of the assignments, thus guaranteeing greater quality in the physical presentation of the dissertations of the IPEN Program.

1. INTRODUCTION

The process of standardizing or standardizing "something" is a reality in various segments of society, from industry, commerce and even in services that require Technical Standards to confer a quality standard on any and all goods that may be produced . Standardization enables products, processes and services to be adequately available for use and its main objectives are to facilitate communication, simplify processes and protect the consumer ⁽¹⁾. Society itself already recognizes the importance of this standardization when it questions the quality of a product or service, even though it is not observed by us, standardization guides the improvement of the quality of life, with norms related to safety, health and environment⁽¹⁾.

It wouldn't be any different in the Higher Education Institutions (IES), which in the teaching scope, research and extension have been concerned with the physical presentation of their product, since in addition to the aspect conditions, the visual aspect and the standardization of the data will also be evaluated in the postgraduate program defenses ⁽¹⁾.

The scientific production of Higher Education Institutions (HEI) in the scope of the research are the dissertations and theses that will present results of research done under the coordination of a supervisor (PHd), aims at obtaining academic title of master and PhD ⁽²⁾.

These assignments are defended before a Judging Committee or Examining Board, which will carry out a careful evaluation, involving the originality of the theme, research objectives, methodology and the aesthetic aspects of the work, after the project approval, it will be restructured and transformed into articles, chapters of books or even a book for publication. It is worth remembering that scientific production can be considered irrelevant if it does not generate works to be published ⁽³⁾.

It is important to observe that a scientist depends on peer evaluation that will allow him to join the group and will give him the right to receive the rewards and benefits intended to promote scientific progress. Their acceptance will bring the ascension into the social scale of the community, since doing science is an essentially social process ⁽³⁾.

Most IES have already adhered to some standard to guide the preparation of their academic work, aiming to guarantee credibility and quality in their scientific production. Currently, there are some norms of relevance used in the academic, which were elaborated to meet the more specific demands of some areas of knowledge.

Among the best known, then the Vancouver Norms, or Vancouver Style, which were produced by a group of medical journal editors in 1978, aims to establish guidelines for the publication of manuscripts in their magazines ⁽⁴⁾.

The American Psychological Association (APA) initiated a guide to guide and encourages young researchers to write, in 1952 the American Psychological Association's Handbook of Publication was published to assist authors in publishing journals in the area ⁽⁵⁾.

Another model also diffused is the Modern Language Association (MLA), which establishes rules for references and citations in the areas of Arts and Humanities. With this, we can see that with the development of knowledge areas, the normative question is becoming increasingly specialized ⁽⁵⁾.

Taking into consideration the autonomy of the institution, which can adopt a specific standard, such as the Brazilian Association of Technical Norms (ABNT), or elaborate its guide or manual with its own style, regardless of the option of the IES, the important thing is to recognize the importance of creating tools that help the researcher in the writing and presentation of his research.

In Brazil, since 1940 as National Forum for Standardization, ABNT aims to disseminate established methodologies and innovative processes, establishing a kind of link between the technological development of organizations of all profiles. Another major contribution of technical norms is its social aspect, since it collaborates with the absorption and transmission of knowledge ⁽⁶⁾.

It is worth noting that before the ABNT was established as an official standard for Documentation in Brazil, the *introduction, methods, results and discussion* (IMRD) model was already adopted for the writing of scientific articles published in health journals ⁽⁷⁾. The IMRD is a classically consolidated model that is quite recurrent in the presentation of specialists in scientific writing and in the norms and manuals of associations and committees that offer rules and guidelines for scientific communication ⁽⁸⁾.

The Institute for Energy Research (IPEN) has its own normative based on the ABNT Norms, entitled "Guide for the elaboration of Dissertations and Theses" of 2002, prepared by the head librarian of the Institute in collaboration with a professor of the Graduate Program in Nuclear Technology, this material is available to graduate students and is also used in the discipline of Scientific Research Methodology. This guide will be the instrument of reference of the instrument of data collection to verify the adherence of the works to the norms.

This research will also be corroborated with studies of a scientometric approach, aiming to subsidize discussions about the scientific production of postgraduate programs. Scientometry is the study of the quantitative aspects of science while a discipline or economic activity, including publications, is a segment of the sociology of applied science in the development of scientific policies ⁽⁹⁾.

2. MATERIALS AND METHODS, RESULTS AND DISCUSSION

2.1 Materials and Methods

The development of this research was conducted by a descriptive and exploratory study, with quanti / quali analysis of the dissertations made available by the Digital Repository of the Scientific Technical Production of IPEN, available at the electronic address: https://www.ipen.br/portal_por/portal/ (books, articles, abstracts for events, dissertations, theses, technical reports, scientific initiation) from 1955 to the present date, in an approximate total of 23,126 publications. The focus collection of the research was composed exclusively of dissertations deposited from 2007 to 2016.

The norms that were used to verify the adhesion of the works are described in the " Guide for the elaboration of dissertations and theses", available at the electronic address: https://www.ipen.br/portal_por/conteudo/Arquivos/2368_76_guia_teses.pdf, version 2002 ⁽¹⁰⁾.

A total of 85 master's theses made available by the Institute's Institutional Repository, from 2007 to 2016, were observed in this research, the aesthetic aspects recommended by the norms of presentation of scientific papers, where an element of the pre-text was verified. an element of the text (Literature Review), a post-text element (List of References), and a Formatting (pagination) element.

To collect the data, a questionnaire about the structure of the work was constructed using the Likert Scale to compose the response options, which were 1 to 3, indicating: 1 very inadequate, 2 not adequate and neither inadequate (neutral) and 3 very suitable. The Likert Scale is a measurement scale that presents up to five categories of responses ranging from "totally disagree" to "strongly agree", it will require that the papers indicate the degree of agreement or disagreement with each of the statements related to the study ⁽¹¹⁾.

The content evaluation and general style recommendations regarding the grammar rules provided by the IPEN Guide were excluded from the survey but are not relevant to the purpose of this study.

2.2 Results and Discussion

In the evaluation of the abstract, it was observed that 87% of the dissertations were very adequate to the norms, against 12% that were very inadequate, according to Lugoboni, 2016, the summary is protagonist in the processes of evaluation of the articles, being the fastest medium to evaluate a content and clearly identify the main elements of the research ⁽¹²⁾. In addition, the standard NBR 6028 ⁽¹³⁾ makes a detail of what should be written, as well as the quantitative of words or characters. It is possible to notice that the fact that the Abstract is a mandatory pre-

textual element, with clear and well defined rules for writing and that reflects the content of the work, arouses the authors' concern in their construction.

The Literature Review was the second element evaluated in the research, considering that its contents were not observed, but if the work had this item and if the graphic form was in accordance with the norms of the Institute. The research showed that they were very adequate in 51% of the studies, although 27% presented as neither very adequate nor very inadequate (neutral), the relatively high neutral response was due to the fact that in many studies authors called Revision of Literature as Theoretical Grounding or other denominations. It was also observed that in 21% were very inadequate, indicating that in some studies did not present this item to be evaluated, but it was possible to perceive that the revision was included in the introduction of the work, however, it was not the objective of the research to do this analysis .

The evaluation of the List of Reference List was exclusively supported in observing if the work had a list of works, and if the graphic form was in agreement with the norms advocated by the IPEN. It is worth noting that it was not possible to evaluate each reference presented in the dissertation, since NBR 6023 ⁽¹⁴⁾ points out specific rules for each type of document, and the papers are composed of several documents. In the evaluation of the list of references it was possible to indicate that they were very inadequate to the norms in 69% of the works, and very adequate in only 30% of the dissertations.

Finally, in terms of formatting, a list of pages at work, it was possible to observe that 56% of the works were very adequate to the rules presented for pagination, while 43% were very inadequate to the regulations, this percentage shows a certain difficulty of the student in understanding some rules, since NBR 14724 ⁽¹⁵⁾ recommends a very specific rule for the pagination of documents and not always the student can do it.

3. CONCLUSIONS

Within the main objective proposed in this research, the analyzes showed that the Institute's guide has exerted influence on the quality of the Works, thus guaranteeing a better quality in the physical presentation of the dissertations of the IPEN Program.

ACKNOWLEDGMENTS

I thank the collaborators of the Institute of Energy Research (IPEN) and the University Center President Antônio Carlos (UNITPAC) for all the help and encouragement for this research.

REFERENCES

1. Prestes, R. S.. *A normalização como fator de qualidade ao trabalho acadêmico*. (2009). Disponível em: <http://www.webartigos.com/artigos/a-normalizacao-como-fator-de-qualidade-ao-trabalho-academico/25055/>. Acesso em: 20/07/2016.
2. França, J. L.. *Manual para normalização de publicações técnicos-científicas*. 5.ed. Belo Horizonte: UFMG, (2001).
3. Ribeiro, C. M.; Santos, R. N. M. dos. “Produtividade científica: impactos na normalização e na comunicação científica”. *Educação Temática Digital*. Campinas, v. 8, n. 1, p. 106-123, (2006).
4. Oliveira, R. M. (Org.). *Manual de normalização de trabalhos técnicos-científicos de acordo com a Norma de Vancouver para os cursos da área da saúde: citações e referências*. Barbacena: UNIPAC, (2014). (Disponível em: <http://www.unipac.br/site/bb/guias/Manual%20-%20Normas%20Vancouver%20UNIPAC.pdf>). Acesso em: 09/02/2017)
5. Funaro, V.M.B.O. (Coord.). *Diretrizes para apresentação de dissertações e teses da USP*. São Paulo: SIBiUSP. (2016). (Disponível em: <http://www.livrosabertos.sibi.usp.br/portaldelivrosUSP/catalog/view/112/96/493-1>). Acesso em: 09/02/2017)
6. Associação Brasileira de Normas Técnicas. “História da normalização brasileira”. Rio de Janeiro: ABNT, (2011).
7. Sollaci, L.B.; Enneking, W.; Pereira, M.G.. “The introduction, methods, results, and discussion (IMRAD) structure: a fifty-year survey”. *J. Med. Libr. Assoc.* v.92, n. 3, p. 364-371, (2004).
8. Aragão, R. M. L. de. *Modelos para a estruturação de artigos científicos: um estudo de instruções aos autores a introduções de artigos de revistas da Scientific Electronic Library Online do Brasil*. São Paulo. Dissertação (Mestrado) Faculdade de Filosofia, Letras e Ciências Humanas da USP. São Paulo. (2011). Disponível em: [file:///C:/Users/UFT/Downloads/2011_RodrigoMouraLimaDeAragao%20\(1\).pdf](file:///C:/Users/UFT/Downloads/2011_RodrigoMouraLimaDeAragao%20(1).pdf). Acesso em 13/02/2017
9. Macias-Chapukas , C.A. “O papel da informetria e da cienciometria e sua perspectiva nacional e internacional”. *Ciência da Informação*. Brasília, v. 27, n. 2, p. 134-140, (1998).
10. Igami, M.P.Z.; Zarpelon, L.M.C. (Org). *Guia para a elaboração de dissertações e teses: preparado para orientação dos alunos de Pós-graduação do IPEN*. São Paulo: IPEN, Divisão de Informação e Documentação Científicas. (2002). Disponível em <http://www.ipen.br/biblioteca/apresentacao_guia.htm>. Acesso em: 25/01/2017.
11. Silva Júnior, S.D. da; Costa, F. J.. “Mensuração e escalas de verificação: uma análise comparativa das Escalas de Likert e Phrase Completion”. *Revista Brasileira de Pesquisas de Marketing, Opinião e Mídia*. São Paulo, v. 15, p. 1-16, (2014).
12. Lugoboni, L. F., " A importância do resumo". *Liceu on line*. V. 6, n. 2, (2016).
13. Associação Brasileira de Normas Técnicas. "NBR 6028: informação e documentação: resumos". Rio de Janeiro, (2003).
14. Associação Brasileira de Normas Técnicas. “NBR 6023: informação e documentação: referências: elaboração”. Rio de Janeiro, (2002).
15. Associação Brasileira de Normas Técnicas. “NBR 14724: informação e documentação: trabalhos acadêmicos – apresentação”. Rio de Janeiro, (2011).