# International Journal of Health Science

# CONTINUING EDUCATION: VALUATION FROM THE VIEW OF TEACHERS OF RADIOLOGY TECHNOLOGY

*Camila Navarro Rocha Saraiva* Universidade Federal da Paraíba

*Hélvia Nascimento da Silveira* Universidade Federal da Paraíba

*José Damião Inácio* Universidade Federal da Paraíba

*Morise de Gusmão Malheiros* Florida Christian University



All content in this magazine is licensed under a Creative Commons Attribution License. Attribution-Non-Commercial-Non-Derivatives 4.0 International (CC BY-NC-ND 4.0).

Abstract: Education in the area of health has been undergoing many changes in its conceptions and concepts, in parallel with the evolution that has been taking place in all sciences, being directly influenced the country's socioeconomic by and political moment. The general objective of this research was to analyze the level of appreciation of continuing education in the area of radiology technology teachers. This study was carried out through qualitative, quantitative, descriptive, bibliographic and field research. The study was carried out at the following private institutions: Faculdade Santa Emília de Rodat (FASER); Integrated Faculty of Pernambuco (FACIPE); Integrated Faculty of Patos (FIP). The population consisted of professors from the radiology technology courses at these institutions, who agreed to participate in the research and sign the Free and Informed Consent Form (ICF). Data collection was performed through the application of a questionnaire, containing objective and subjective questions, about some aspects related to continuing education. The ethical aspects contained in resolution 510/16 of the National Health Council, which guides and regulates research with human beings, were taken into account. Through this study, the importance of investing in the continuing education of the group of teachers surveyed was perceived, since they show, through the data, the need to continue in the training process with the aim of building a personal and professional profile of the educator, meeting the socio-educational needs, bringing countless benefits to educators and students. Keywords: Appreciation, Continuing education, University professors.

#### INTRODUCTION

Since the advent of the computer, the area of diagnostic medicine has been progressing a lot with technological advances, just look at the current computerized tomography and magnetic resonance imaging equipment, which are capable of producing high definition and three-dimensional images of the human body, which without shadow of doubt increases the accuracy of diagnosis. Professionals working in this area followed this evolution, because, in view of this perception, the course of higher professional training of radiology technologist was disseminated throughout the national territory.

Education in the area of health has been undergoing numerous changes in its conceptions and concepts, in parallel with the evolution that has been taking place in all sciences, being directly influenced by the country's socioeconomic and political moment.

The Technologist professional operates radiological equipment and uses ionizing radiation and other energy sources in the processes of obtaining images for diagnostic and therapeutic purposes. The teacher who trains this professional has a fundamental role in the construction of their training, professionals who work in the area of care, and must be constantly updated due to technological advances. This way, the teacher is an integral and necessary part in the continuous updating of content and new knowledge, this provides a direct link in the student training that is appearing as a receiver of new knowledge passed on by teachers.

Therefore, it is essential to implement continuing education for radiology professionals, in order to update them in the health area, spreading knowledge for the training of new professionals, aiming to update and improve the capacity of a person or person. group in the face of technicalscientific evolution.

The National Network for Continuing Education of Basic Education Teachers emerged in 2003, where progress was made in programs aimed at elementary school teachers. It was only in 2009 that the Coordination for the Improvement of Higher Education Personnel (CAPES) was developed, which gave space for initial and continued training, both face-to-face and at a distance.

Continuing education is understood as the need to develop new decisions, new attitudes, new practices and, consequently, new ways of thinking and acting. It is a set of educational practices with the aim of increasingly improving professionals by developing their potential and preparing them for transformations and innovations in their practices, as well as encouraging them to seek updates for their learning (PASCHOAL; MANTOVANI; MEIER; 2007).

The process of continuing education is of paramount importance for professionals in the teaching area, even with recent training, since critical reflections of the practice are developed, through learning, research and the implementation of new concepts, transformations and updates will be carried out for the professional. According to Chimentão (2009), it becomes unfeasible for professionals in the teaching area to change their pedagogical methods, their way of acting and thinking without the opportunity to carry out new experiences and research through new perspectives.

This way, the general objective was to analyze the level of valorization of continuing education in the area of radiology technology teachers. Specifying to understand the perception of professors in the area of technology in radiology about continuing education; to describe the contribution of continuing education for university professors in the area of technology in radiology and in teaching practice; to identify the difficulties faced in accessing the continuing education of radiology technology teachers. Teachers and educational institutions are still in the development phase with regard to reflective education. However, this conception allows these professionals to reflect on the importance of self-reflection on their developed pedagogical practice.

As a research problem, we had: what reasons or factors involved in the levels of appreciation and dedication on the part of radiology technology professors that may compromise the formation of the profile of this professional?

As research hypotheses, the following were formulated: A teacher who is updated is a professional capable of transmitting new content to his/her students; The absence of continuing teacher training is configured in a shrinkage with regard to the transmission of updated information to their students; The search for immersion in new technologies makes the teacher capable and enthusiastic in the awakening of students.

According to Freire (1996), in order to pass on knowledge, the educator must be involved with it to involve the students. In view of this, the problem that this investigation sought to answer is whether radiology technology professors value continuing education as a tool for professional growth and pedagogical training.

This study is justified because, by focusing on the work process of continuing education, it becomes easier to verify the problem or the lack of appreciation and/or knowledge of the teachers involved, so that a training policy can be implemented or worked in the best way. continuous process, where this continuous process of teacher training can be more accessible and can reach teachers in their entirety.

## METHODOLOGY

The present study is a research of a basic nature, as it aims to specialize in relation to

the importance of continuing education for teachers in the area of technology in radiology, without the possibility of changing the reality studied, with the aim of to analyze and evaluate the perception of professionals in the area referred to, collecting their opinions in relation to continuing education, at the same time that the difficulties encountered by them in carrying out this education are identified, providing support for carrying out studies that can give resolution to the problems found.

The research was developed in the following private institutions: Faculdade Santa Emília de Rodat (FASER) - João Pessoa - PB; Integrated Faculty of Pernambuco (FACIPE) – Recife - PE; Integrated Colleges of Patos (PIP) Patos - PB. The choices of these institutions were motivated by the fact that they have a university degree in radiology technology, and their teaching staff of the course have professors with training in radiology technology in addition to the fact that they are solid institutions, with greater numbers of classes and graduates in the current market.

The universe of this research was directed to the 64 professors of the Technology Course in Radiology of the Faculties FASER, FACIPE, FIP, being 20 professors of the FASER Faculty, 18 professors of FACIPE and 26 professors of FIP. The sample of this research was carried out for convenience and was composed of 55 professors of the Higher Course of Technology in Radiology from the aforementioned Faculties, distributed among 19 interviewees from the FASER Faculty, 15 professors from FACIPE and 21 professors from FIP.

The process was triggered by the elaboration of a questionnaire containing questions about the teachers' mastery of continuing education. This measurement instrument was previously submitted to the Ethics Committee and, once approved, through the opinion number: 2,290,463, the professors were invited to participate of their own free will.

The following steps form data collection and cross-references in order to verify the hypotheses raised in the axis of this work. There was only one contact with the participants, when the responsible researcher explained the importance of the professors' participation, the Free and Informed Consent Term (ICF), as well as the questionnaire. After accepting the participation, they signed the informed consent in two copies: one for the responsible researcher and the other was collected by the institution where that research was carried out. With the data in hand, they were systematized and presented in the form of graphs, providing a better understanding of the results of this investigation and the importance of researching the training of higher education teachers in the private network in the process of continuing education.

#### RESULTS

The results of the quantitative research were tabulated by the program (Microsoft Excel starter 2010) and presented in the form of graphs. For qualitative analysis, content analysis was used, which, according to Olabuenaga and Ispizúa (1989), is characterized by a technique in order to read and interpret the content of all kinds of documents, which, properly analyzed, open the door to the knowledge of aspects and phenomena of social life that are otherwise inaccessible.

The analysis that aims to understand the meanings attributed by the research subjects is presented in two categories:

1st category: describe the contribution of continuing education for university professors in the area of radiology technology in teaching practice;

2nd category: identify the difficulties faced in accessing continuing education for radiology technology teachers.

The analysis below is intended to collect data on the profile of teachers in the institutions surveyed. The results obtained were divided into:

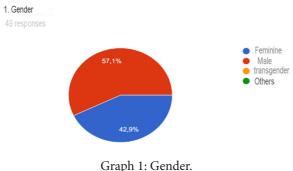
1) Gender;

- 2) Age;
- 3) Training;
- 4) Teaching time;

5) Time for updating in continuing education programs.

### DISCUSSION

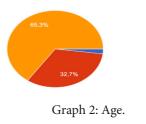
According to the research carried out, it was observed (Graph 1) that the data showed that about 42% of respondents are female and 57% are male. This implied that, within the radiology courses, the faculty of respondents is predominantly male.



Source: own authorship (2019).

It was observed with the survey of data on the age of teachers (Graph 2) that the majority, with 65.3%, were older than 35 years, followed by 32.7% of teachers aged between 25 and 35 years and a very small portion of professors under 25 years of age, which demonstrates that the teaching staff of the participating institutions has a predominance of professors over 35 years of age.



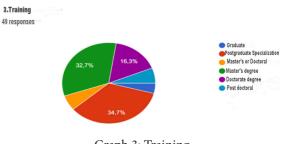


Source: own authorship (2019)

up to 25 years

From 25 to 35 years old Over 35 years

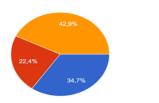
This graph 3 showed that knowing the level of education of the professors was relevant to be able to understand the professors of the higher education courses in radiology who were interviewed. A small portion (4.1%) has only a degree; the majority (34.7%) have a specialization level, that is, the first step towards continuing education, 32.7% have a master's degree, 16.3% a doctorate, 6.1% have a postdoctoral degree, and 6.1% are in continuing education processes as master's and doctoral students.



Graph 3: Training. Source: own authorship (2019).

Observing the data obtained on the time of teaching experience of the participants was extremely relevant to better understand their performance and commitment to the work they develop in the institution.

About 42.9% have been working for more than 10 years; 34.7%, for a maximum of five years. A considerable portion of young teachers with up to five years of teaching was observed, 22.4% had been teaching for 5 to 10 years. 4. How long have you been teaching? 49 responses



Up to 5 years
From 05 to 10 years
Over 10 years

Graph 4: Teaching time. Source: own authorship (2019).

According to the research shown in Graph 5 below, regarding the time interval for the search for continuing education programs, it was observed that the predominance is annual, with 42.9%, and 36% seek training programs every semester, the number even decreased when it came to the most frequent search in a minimum monthly time interval, with only 20.4%.

The time interval for carrying out continuing education programs in a year is considered high, taking into account that we live in times of rapid and great changes, especially when it comes to educational matters related to health and technology, making it very relevant actions that effect and support the teaching practice. This type of training with a shorter time interval is justified, this way, we can agree with the authors.

> [...] the need for continuous professional improvement and critical reflections on the pedagogical practice itself, since the effective improvement of the teaching-learning process only happens through the teacher's action; the need to overcome the gap between contributions from educational research and their use to improve the classroom, implying that the teacher is also a researcher of their own practice; in general, teachers have a simplistic view of the teaching activity, when they conceive that to teach it is enough to know the content and use some pedagogical techniques (ROSA; SCHNETZLER, 2003, p. 27)

According to this quote, the need for continuous training in short intervals of time has become undeniable due to technological and educational changes, thus making the teaching work qualitatively viable.

# CONCLUSION

1. The importance of the continuing education process for university professors is unquestionable. This process is part of the personal and professional construction within the society in which a trained teacher becomes an example for his students.

2. Through the data obtained in the research, it was observed that teachers need to dedicate themselves more to the processes of continuing education, making an effort and dedicating themselves in order to improve and grow in the educational context.

3. It was observed worryingly the nonparticipation on the part of educational institutions regarding their share of incentive and contribution in the processes of continuing education of their teachers. Policies and programs related to the subject in question must be launched and disseminated for the improvement of professionals, since the achievement of the teacher's achievements will also be the institution's.

4. The reason for the non-advancement or absence in the training process of some radiology technology teachers was identified, caused by the fact that they remain contained due to the barriers encountered on the way and mainly

5. because they do not see the updating processes as a tool for professional and personal growth, remaining in the comfort zone, a situation that can harm the professional due to market volatility and technological innovations.

6. Therefore, it is believed that continuing education is the result of collective work, which must introduce ideals and reflect

to foster their construction, which must contribute to the personal and professional development of those involved. This way, each professional is the protagonist of his/her story and acts before society for the formation of a better world through education.

It is concluded that the training process must be seen as a necessary step in teaching practice, increasingly seeking to improve teaching with perspectives to broaden the vision of the world. After all, the teacher is much more than a teaching professional, he is an apprentice researcher.

#### REFERENCES

PASCHOAL A. S.; MANTOVANI M. F.; MÉIER M. J. Percepção da educação permanente, continuada e em serviço para enfermeiros de um hospital de ensino. Rev. esc. enferm. USP. v. 41, n. 3, p. 478-484, 2007. Disponível em: <a href="http://www.scielo.br/scielo.php?script=sci\_arttext&pid=S0080-62342007000300019">http://dx.doi.org/10.1590/S0080-62342007000300019</a>. doi: http://dx.doi.org/10.1590/S0080-62342007000300019. CHIMENTÃO L. K. O significado da formação continuada docente. In: IV CONGRESSO NORTE PARANAENSE DE EDUCAÇÃO FÍSICA ESCOLAR, 2009, Londrina. Disponível em: <a href="http://www.uel.br/eventos/conpef/conpef4/trabalhos/comunicacaooralartigo/artigocomoral2.pdf">http://www.uel.br/eventos/conpef/conpef4/trabalhos/comunicacaooralartigo/artigocomoral2.pdf</a>.

FREIRE P. Pedagogia da autonomia: saberes necessários à prática educativa. 7.ed. São Paulo: Paz e Terra, 1996.

OLABUÉNAGA J. I. R.; URIBARRI M. A. I. La descodificacion de la vida cotidiana: metodos de investigacion cualitativa. Espanha: Universidad de Deusto, 1989.

ROSA M. I. F. P. S.; SCHNETZLER R. P. A investigação-ação na formação continuada de professores de Ciências. Ciênc. Educ. v. 9, n. 1, p. 27-39, 2003. doi: http://dx.doi.org/10.1590/S1516-73132003000100003.

ALTENFELDER A. H. **Desafios e tendências em formação continuada.** Constr. psicopedag. São Paulo. v. 13, n. 10, 2005. Disponível em: <a href="http://pepsic.bvsalud.org/scielo.php?script=sci\_arttext&pid=S1415-69542005000100004">http://pepsic.bvsalud.org/scielo.php?script=sci\_arttext&pid=S1415-69542005000100004</a>>.

MASSAROLI A.; SAUPE R. **Distinção conceitual: educação continuada e educação continuada no processo de trabalho em saúde.** 2005. Disponível em: <a href="http://www1.saude.rs.gov.br/dados/1311947098405educa%E7%E3o%20continuada%20e%20">http://www1.saude.rs.gov.br/dados/1311947098405educa%E7%E3o%20continuada%20e%20</a> permanente.pdf>.

SOUZA, L. B.; LIMA, Â. V. A. **Formação continuada de professores: história e desafios.** In: IV SIMPÓSIO NACIONAL DE LINGUAGENS E GÊNEROS TEXTUAIS, 2017, Pernambuco. Anais Pernambuco: Universidade Federal Rural de Pernambuco/ UAG, 2017.

GUIMARÃES M. A formação de educadores ambientais. Campinas: Papirus, 2004.