

The use of audiovisual resources in the teaching and learning process in occupational therapy for health and at work

Utilização de recursos audiovisuais no processo ensino-aprendizagem em terapia ocupacional na saúde e no trabalho

Utilización de recursos audiovisuales en el proceso enseñanza-aprendizaje en terapia ocupacional en la salud y en el trabajo

Received: 10/10/2017

Approved: 01/07/2018

Published: 27/09/2018

Heloísa Cristina Figueiredo Frizzo¹

Rhaiane Aparecida Lopes Souza²

Jonathan Benedito Bezerra³

José Henrique da Silva Cunha⁴

This is an experience report which aims to illustrate the teaching and learning process in Occupational Therapy for Health and Labor, by producing audiovisual materials that portray the complexity of the relationship between the process of labor, health and disease. The total number of audiovisual productions created during the period of this study (2007-2011) was of 36, all of which were analyses of the work in different industry fields, in commerce, service provision, and as informal workers, areas that are marked by division of tasks and alienation of the worker. This study was a teaching strategy that made it possible to understand the work of occupational therapy in the health field, in a critical and reflective way, favoring health promotion and surveillance of these individuals.

Descriptors: Occupational therapy; Occupational health; Teaching; Audiovisual aids.

Este é um relato de experiência que tem como objetivo ilustrar o processo de ensino-aprendizagem em Terapia Ocupacional na Saúde e no Trabalho a partir da produção de recursos audiovisuais que retratam a complexidade das relações entre processo de trabalho, saúde e doença. O total de produções audiovisuais geradas durante o período coberto por este estudo (2007-2011) foi de 36 análises de situação de trabalho nas áreas de indústria, comércio, prestação de serviço e trabalho informal que são marcadas pela divisão de tarefas e alienação do trabalhador. Este estudo foi uma estratégia de ensino aprendizagem que possibilitou a compreensão da atuação terapêutica ocupacional na saúde do trabalhador de forma crítica e reflexiva em prol da promoção e vigilância em saúde desse indivíduo.

Descritores: Terapia ocupacional; Saúde do trabalhador; Ensino; Recursos audiovisuais.

Este es un relato de experiencia que tiene como objetivo ilustrar el proceso de enseñanza-aprendizaje en Terapia Ocupacional en la Salud y en el Trabajo a partir de la producción de recursos audiovisuales que retratan la complejidad de las relaciones entre proceso de trabajo, salud y enfermedad. El total de producciones audiovisuales generadas durante el período cubierto por este estudio (2007-2011) fue de 36 análisis de situaciones de trabajo en las áreas de industria, comercio, prestación de servicio y trabajo informal que son marcadas por la división de tareas y alienación del trabajador. Este estudio fue una estrategia de enseñanza-aprendizaje que posibilitó la comprensión de la actuación terapéutica ocupacional en la salud del trabajador de forma crítica y reflexiva en pro de la promoción y vigilancia en salud de este individuo.

Descriptores: Terapia ocupacional, Salud laboral, Enseñanza, Recursos audiovisuales.

1. Occupational Therapist. Specialist in Hospital Administration. Specialist in Acupuncture. Specialist in Health Information. MS in Medical Sciences: Mental Health. PhD in Sciences. Post-Doctoral in Science, Technology and Society. Adjunct professor of the course of Occupational Therapy of the Federal University of Triângulo Mineiro (UFTM). ORCID: 0000-0002-7661-0353 E-mail: heloisa.frizzo@yahoo.com.br

2. Graduate student in Occupational Therapy by the UFTM. ORCID: 0000-0002-1927-4859 E-mail: rhaianel@hotmail.com

3. Graduate student in Occupational Therapy by the UFTM. ORCID: 0000-0003-0959-4901 E-mail: jonathan2b@hotmail.com

4. Occupational Therapist. Acupuncturist. Specialist in Adult Health in the modality Multiprofessional Health Residence. MS in Health Care. ORCID: 0000-0002-4255-6125 E-mail: josehenrique_dasilvacunha@hotmail.com

INTRODUCTION

Working is a human activity that can provide pleasure or suffering, be stimulating and rewarding, or dangerous to the physical and mental health of the worker, depending on the situation in which it occurs^{1,2}.

Occupational therapy is a health practice that works according to Resolution no. 459 of the Federal Council of Physical Therapy and Occupational Therapy (COFFITO)³, which prescribes the purview of the occupational therapist in regards to worker's health, which includes working on programs of inclusive strategies and of prevention, protection, and recovery of health. Occupational therapists can perform actions in both private and public institutions, in favor human health in the work context, especially in actions of promotion of health, and prevention of diseases and accidents at work, as well as in the rehabilitation of sick workers⁴.

Occupational therapy and ergonomics have particular theoretical and practical approaches. The professionals in ergonomics and occupational therapy, to subsidize their activity, look for a specific framework of knowledge through specializations and scientific studies in the area, with the aim to apply their knowledge to analyze, diagnose, and fix a real situation in which the work environment is affecting health².

One of the theoretical approaches used to consolidate ergonomics is derived from the French theoretical branch, which considers the analysis and understanding of the workers in real situations, considering the various factors related to the organization of the work, environmental conditions, physical and mental loads, and others aspects^{2,5}. The work context is studied in its singularity, as is the case of occupational therapy, because each worker, patient, or company demands a singular care².

Thus, one of the strategies of teaching and learning proposed in the discipline of "Work Organization and Ergonomics", presented in the second semester of the Course of Occupational Therapy of the Universidade Federal do Triângulo Mineiro (UFTM), has been to create conditions for the

analysis and transformation of work situations, according to the methodology of *Ergonomic Analysis of Work Activity* (EAWA), generating an audiovisual production. This was carried out with the partnership and support of extra-classes with an assistant professor.

A field work plays, in educational practice, four functions: *illustrative* - illustrate the various concepts seen in the classroom; *motivating* - motivate the student to study a particular theme; *coaching* - guiding the execution of a technical skill; and *generating problems* - guide the student to solve or propose a problem⁶. It is a resource that enables the students to understand a place and the world, linking the theory and the practice through the observation and analysis of a lived and designed space⁷.

Proposing the presentation of the EAWA through an audiovisual production in video, promotes the opportunity to stimulate the learning process through the use of information and communication technologies⁸. These technologies can show data, pictures, and summaries in a quick and attractive way, that can help in the development of special, chronological, synesthetic, and creative skills of the students, but the teacher is the one with the main role of assisting the student to interpret, relate and contextualize this information⁸.

Among these technologies, the audiovisual resources can be highlighted, they have a range of materials that are used in the classroom by the teachers, and enables the mediation of the formation of new concepts by the student, making them interested and capable of internalizing concepts that would be incomprehensible if expressed with the formalism of the scientific definitions, these aspects facilitate and motivate the learning process⁹.

Considering the above, this study aims to illustrate the process of teaching and learning in Occupational Therapy on the Health and Labor area, through the production of audiovisual materials that portray the complexity of the relationship between the processes of labor, health and disease.

METHOD

This is an experience report, a type of study in which a practical experience is discussed for better understanding and grounding of the theory¹⁰. This study will present the resources created during nine editions, from 2007 to 2011, of the discipline "*Work Organization and Ergonomics*", which took place in the 2nd semester of the Occupational Therapy course at UFTM, with a total of 30 hours of classes per semester.

This discipline has the following syllabus: the concepts and basics of working; national and international approaches of work organization in the twentieth century; the definition and evolution of ergonomics; classifications, types and characteristic of ergonomics; ergonomic theoretical approaches and analysis of work activity.

At the end of the classes, students were asked to present an audiovisual production of a work environment of their choice, as the final evaluation in the teaching and learning process of the EAWA in a real situation. To accomplish this activity the students made two visits, one to get to know the place and the work organization; and the other focused in doing a critical/reflective observation.

Ethical aspects were respected and participants signed the free and informed consent form and authorized researchers to use their personal image in photo and video. In turn, the researchers guaranteed the confidentiality and preservation of the identity of the workers.

In this audio-visual production, the following evaluation criteria was considered: correlation of theory and practice, critical analysis, and systematization of the material produced. To present the audiovisual product, the photographs, videos, and music, technological resources were used, in a group of five members or less at the end of the discipline, with a maximum length of 10 minutes. The presentations used multimedia resources such as videos and slides.

The "resources" used for the analysis of the conditions of the practice activity were field observation, the EAWA, the support and pedagogical guidance offered by the professor and the professor's assistant, and the

theoretical background obtained along the discipline, in particular that found through the theme Ergonomics and Psychodynamics of Work^{5,11}

The process of production of the audiovisual resources presented in the discipline followed the following steps:

1st - Orientation

- a) Choosing the work situation to be analyzed, according to risks and harm to the health and safety of the worker;
- b) Sources/instruments for data collection;
- c) Interview;
- d) A semi-structured guide based on the EAWA;
- e) Images: photography, video;
- f) Ethical procedures for conducting field work;
- g) Development of the Free and Informed Consent Form, focused on the company and the worker.

2nd - Field Research

- a) Contact with the company;
- b) Request approval to the conduct the field work;
- c) Technical visit;
- d) Analysis of the Work situation.

3rd - Production and Presentation of the Technological Audiovisual Resource - Analysis of the Work Situation

- a) Presentation of the audiovisual production, with a maximum duration of 10 minutes, at the end of the semester, as an evaluation strategy;
- b) Sources of production: photography, videos, songs, phrases, poems, chronicles, and tales;
- c) Format: multimedia resources such as videos and slides.

This pedagogical teaching experience was only possible with the effective participation of the monitor, trough intra and extra-class guidance activities and supervision, during all the stages of execution of the final product.

RESULTS

The total number of audiovisual productions created during the period covered by this study (2007-2011) was of thirty-six (36) analyses of work situations in the following

areas: different industry fields, commerce, service delivery, informal work and cooperative work, enabling the analysis of different situations and working conditions as shown in Table 1.

Table 1. Production areas and professions examined from 2007 to 2011. Uberaba, 2016.

Area	Profession
Commerce	Receptionist Shoes Seller Clothes Seller
Industry	Handcrafted Operator – Sector: Food – Breads and Cheeses Production Operator - Sector: Cosmetic Production Operator - Sector: Poultry Farm
Provision of Services	Fast food Attendant – Arab food Fast food Attendant– Snacks Fireman (02) Hairdresser Dentist Plasterer Car washer Woodworker Musician Copier Machine Operator Telemarketer operator Military Police Officer Advertising Radio broadcaster Receptionist – Doctor's Office
Informal Work	Craftsman Hairdresser Recyclable waste collector Baker Maid (02) Manicure (02) Foreman Mason Hostel owner (02) Blacksmith
Cooperative Work	Craftsman Association

Images 1, 2, 3, and 4 represent work situations analyzed. The images selected were extracted directly from the audio-visual productions created by the students.

Image 1 presents a situation of industrial work in a poultry farm: the selection of birds viable for the creation and slaughter in the future. This is a job in which

workers have the “obligation” to dispose of young birds that are considered non-viable for the creation and slaughter process. In this work situation, it was possible to observe psychological distress experienced by workers in relation to the disposal of the birds that are considered non-viable.

Image 1. Selection and disposal of non-viable birds for breeding and slaughter. Uberaba, 2016.



Source: Collection of the authors. Audio-Visual Production.

Image 2 shows the situation of working in a sawmill. In this environment, the students were able to highlight the conditions and risks that this work may cause, whether they are physical, with regard to the noises that can affect the hearing of the worker; or chemicals,

such as burns; ergonomic, as a result of inappropriate posture; in addition to accidents due to the handling of machinery and other equipment inherent to the work, that can cause cuts and injuries.

Image 2. Activity and conditions of the work of a Blacksmith. Uberaba, 2016.



Source: Collection of the authors. Audio-Visual Production.

Image 3 illustrates the work done by recyclable waste collectors. In this situation, accidents and illnesses were observed, primarily due to the exposure to

contaminated materials, running through the streets and prejudices linked to this occupation.

Image 3. Activity and conditions of collectors of recyclable waste. Uberaba, 2016.



Source: Collection of the authors. Audio-Visual Production.

Image 4 was obtained by observing the work in a cooperative of handcraft work. The students showed that despite this activity being carried out many times in precarious

and incipient physical and material conditions, the workers expressed feelings of pleasure and of personal and professional satisfaction.

Image 4. The final product and work activity of cooperative craftsmen members. Uberaba, 2016.



Source: Collection of the authors. Audio-Visual Production.

DISCUSSION

Through the visits presented in the figures and subsequent production of the audiovisual resources in the classroom, it was possible to encourage undergraduates to discuss and reflect about the working conditions to which people are subjected in the exercise of their profession.

The possible risks to their health were seen in the industry, marked by the division of labor, alienation from the production process, the replacement of the worker by machines, and by working in multiple roles, which could overload the physical, cognitive and psychic aspects of the worker.

The main theoretical and methodological reference used for the analysis of work situations reported in audiovisual productions was the "*Ergonomic Analysis of Work Activity*" (EAWA) created by the French Approach to Ergonomics. This approach focuses on the human being in a real situation of work, considering the employee as the main actor in the process and valuing their knowledge, their practice and their know-how⁵.

The method suggested by the EAWA consists of the following steps: analysis and reformulation of the demand and the survey, and analysis of the data of the company and of its employees from sources such as analysis of the tasks, the activities, the situational diagnosis, validation and recommendations¹².

The use of the EAWA reveals aspects of the work, often unknown, such as the variability of the work activity and of the workers^{5,12}; it shows how the workers use their technical and personal expertise to carry out the work and maintain the productivity required from the organization and from the conditions of the work itself¹².

The occupational therapists use the EAWA in the health-work area to deconstruct the activity, seeking to know the actual work, understand it, and then transform it^{13,14}. In this context, the proposal aims, in addition to surveying and analyzing the risks, to decrease exposure and to better fulfill the legislation, as well as to promote educational and prevention interventions aimed at making the workers reflect about their labor, considering themselves as the protagonists of their actions¹³. Thus, the occupational therapist

takes on the role of facilitator in the construction of a process of reflection, allowing the worker to go through a process of appropriation and emancipation that will lead them to a collective reconstruction of their work^{2,13}.

The experience presented has enabled the understanding of handcrafting work, which, although often carried out in the precarious and incipient physical and material conditions, may provide a better personal satisfaction and social recognition, through the recognition of their product¹⁵. On the other hand, operators of the poultry farm industry sector experience mental suffering, because they are responsible for disposing the birds that are not viable for creation and slaughter.

It was possible to establish relations between the organization of work, the activities undertaken, and the consequences for the health of the worker, in addition to understanding subjective aspects of the work such as visibility, co-operation, recognition, defensive strategies and processes of communication.

This experience of the construction of the audiovisual resource and discussion/reflection on the material produced, offered an ethical and sensitive look to the preservation of identity and respect for people in the environments and contexts in which they live, which contributes to the insertion of the student in the research field. The collaboration of the professor's assistant was also highlighted in the tutoring process and in the preparation of the technological resource.

CONCLUSION

The limitations of this study are related to the impossibility of presenting, in narrative form, the richness and deepness with which the audiovisual productions, presented by the students, reported the complexity of the relationship between the human being and the world of work.

In turn, the experience contributes to the personal development of the professor assistants, for the expansion of knowledge and new academic experiences. In relation to

the students, the conclusion was that a critical/reflective construction of knowledge, an understanding of the role of the occupational therapist beyond rehabilitation, considering health surveillance and work and worker's health, especially in primary care.

REFERENCES

1. Antunes R, Praun L. A sociedade dos adoecimentos no trabalho. *Serv Soc Soc*. [Internet]. 2015 [cited in 23 may 2017]; 1(123):407-27. doi: <http://dx.doi.org/10.1590/0101-6628.030>
2. Rocha LF, Simonelli AP. A utilização da análise ergonômica do trabalho como ferramenta do terapeuta ocupacional no estudo da atividade de trabalho de cabeleireiros. *Cad Ter Ocup UFSCar*. [Internet]. 2012 [cited in 23 may 2017]; 20(3):413-24. doi: <http://dx.doi.org/10.4322/cto.2012.041>
3. Conselho Federal de Fisioterapia e Terapia Ocupacional. Resolução nº459, de 20 de novembro de 2015. Dispõe sobre as competências do terapeuta ocupacional na saúde do trabalhador, atuando em programas de estratégias inclusivas, de prevenção, proteção e recuperação da saúde [Internet]. D. O. U., Brasília, DF, 09 dec 2015 [cited in 20 may 2017]. Available from: <https://www.coffito.gov.br/nsite/?p=3220>
4. Silva FMN, Vendrusculo-Fangel LM, Rodrigues DS. A terapia ocupacional e a saúde do trabalhador: panorama de produção bibliográfica. *Cad Ter Ocup UFSCar*. [Internet]. 2016 [cited in 28 may 2017]; 24(2):351-61. doi: <http://dx.doi.org/10.4322/0104-4931.ctoAR0604>
5. Nunes CMP. Saúde do trabalhador e ergonomia. In: Cavalcanti A, Galvão C. *Terapia ocupacional: fundamentação & prática*. Rio de Janeiro: Guanabara Koogan; 2011. p. 278-289.
6. Souza OS, Chiapetti RJN. O trabalho de campo como estratégia no ensino em geografia. *Rev Ens Geogr*. [Internet]. 2012 [cited in 23 may 2017]; 3(4):3-22. Available from: <http://www.revistaensinogeografia.ig.ufu.br/N.4/Art1v3n4.pdf>
7. Neves KFTV. Os trabalhos de campo no ensino de geografia: reflexões sobre a prática

- docente na educação básica. Ilhéus: UESC; 2015.
8. Lobo ASM, Maia LCG. O uso das TICs como ferramenta de ensino-aprendizagem no ensino superior. *Cad Geogr.* [Internet]. 2015 [cited in 18 June 2017]; 25(44):16-26. doi: <http://dx.doi.org/10.5752/P.2318-2962.2015v25n44p16>
9. Freitas ACO. Utilização de recursos visuais e audiovisuais como estratégia no ensino da Biologia. [monography]. Beberibe: Universidade Estadual do Ceará, Centro de Ciências da Saúde, Curso de Ciências Biológicas a Distância; 2013.
10. Gil CA. Como elaborar projetos de pesquisa. 6ed. São Paulo: Atlas; 2017.
11. Giongo CR, Monteiro JK, Sobrosa GMR. Psicodinâmica do trabalho no Brasil: revisão sistemática da literatura. *Temas Psicol.* [Internet]. 2015 [cited in 18 Jun 2017]; 23(4): 803-14. Available from: http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S1413-389X2015000400002
12. Abrahão J, Sznclwar L, Silvino A, Samet M, Pinho D. Introdução à ergonomia: da prática à teoria. Rio de Janeiro: Blucher; 2009.
13. Balsano MA, Simonelli AP. Caracterização dos tipos de acidentes de trabalho do Ambulatório de Terapia Ocupacional do Hospital do Trabalhador de Curitiba, PR. *Cad*

- Ter Ocup UFSCar.* [Internet]. 2015 [cited in 23 May 2017]; 23(1):53-61. doi: <https://doi.org/10.4322/0104-4931.ctoAO443>
14. Silva EC, Camarotto JA. Contribuições da análise da atividade do trabalho no processo de retorno do trabalhador afastado por LER/DORT. *Rev Ter Ocup.* [Internet]. 2016 [cited in 28 May 2017]; 27(2):131-7. doi: <http://dx.doi.org/10.11606/issn.2238-6149.v27i2p131-137>
15. Freitas AF, Freitas AF. Representações sociais do trabalho artesanal: estudo de caso de uma associação de artesãos em Viçosa, Minas Gerais – Brasil. *Serv Soc Rev.* [Internet]. 2010 [cited in 23 May 2017]; 13(1):43-66. doi: <http://dx.doi.org/10.5433/1679-4842.2010v13n1p43>

CONTRIBUTIONS

Heloísa Cristina Figueiredo Frizzo worked in the conception, design, analysis and interpretation of data, drafting and critical revision. **Rhaiane Aparecida Lopes Souza** and **Jonathan Benedito Bezerra** participated in the conception, design, analysis and interpretation of data and writing. **José Henrique da Silva Cunha** contributed in analysis, interpretation of data and writing.

How to cite this article (Vancouver)

Frizzo HCF, Souza RAL, Bezerra JB, Cunha JHC. The use of audiovisual resources in the teaching and learning process in occupational therapy for health and at work. *REFACS* [Internet]. 2018 [cited in *insert day, month, and year of access*]; 6(Supl. 2):654-661. Available from: *Insert Access link*. DOI: *insert DOI link*.

How to cite this article (ABNT):

FRIZZO, H. C. F. et al. The use of audiovisual resources in the teaching and learning process in occupational therapy for health and at work. *REFACS*, Uberaba, MG, v. 6, supl. 2, p. 654-661, 2018. Available from: *<insert access link>*. Access in: *insert day, month and year of access*. DOI: *insert DOI link*.

How to cite this article (APA):

Frizzo, H.C.F., Souza, R.A.L., Bezerra, J.B. & Cunha, J.H.S. (2018). The use of audiovisual resources in the teaching and learning process in occupational therapy for health and at work. *REFACS*, 6(Supl. 2), 654-661. Recovered in: *insert day, month and year of access* from *insert access link*. DOI: *insert DOI link*.