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Artigo Original

The Use of On-line Evaluation Questionnaire in Technical Training in Rural Settlements: An Experience Report

O Uso de Questionários Avaliativos On-line na Formação Técnica em Assentamentos Rurais: Um Relato de Experiência

El Uso del Cuestionario de Evaluación En Línea en la Formación Técnica en Acuerdos Rurales: Un Informe de Experiencia

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Abstract

It is understood that the use of Digital Information and Communication Technologies (DICT) in the technical and vocational training of rural students, serve as a pedagogical tool, it can help to create knowledge and meanings in the teaching-learning process. Thus, through critical analysis and the help of bibliographic review, the text brings an experience report that occurred between 2017 and 2019, in a rural settlement located in the interior of Rio Grande do Norte, in which it may be possible to understand the importance of Professional Education for Rural Education in association with Digital Information and Communication Technologies using the "Paulo Freire method" in order to insert the experiences brought by each student within the educational process and with the help of the online questionnaires tool can be operationalized a

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viable way to achieve the objectives proposed in the discipline of Food Biochemistry in the Technical Course in Agroindustry. The on-line questionnaires were conducted in the moodle platform – Mandacaru Virtual Learning Environment (VLE). The results achieved were satisfactory because there was a greater encouragement in the students' speech about the subjects proposed in the subsequent classes which could be related to the questions of the questionnaire.

Keywords: Digital Information and Communication Technologies (DICT). Evaluation. Online questionnaire. Professional education. Rural education.

Resumo

Entende-se que o uso das Tecnologias Digitais da Informação e Comunicação (TDIC), na formação técnica e profissional do aluno da zona rural, serve como ferramenta pedagógica e pode ajudar a criar saberes e significados no processo ensino e aprendizagem. Assim, mediante análise crítica e auxílio de revisão bibliográfica, o texto traz um relato de experiências que ocorreu entre os anos de 2017 e 2019, em um assentamento rural localizado no interior do Rio Grande do Norte, no qual compreende-se a importância da Educação Profissional para a Educação do Campo em associação com as Tecnologias Digitais da Informação e Comunicação, utilizando concepções de Paulo Freire, no que se refere à inserção no processo educativo das vivências trazidas por cada aluno. E, com a ajuda da ferramenta questionários on-line pode-se operacionalizar uma forma viável de alcançar os objetivos propostos na disciplina de Bioquímica de Alimentos, no curso Técnico em Agroindústria. O questionário on-line foi realizado no Ambiente Virtual de Aprendizagem (AVA) Mandacaru, uma versão da plataforma Moodle. Os resultados alcançados foram satisfatórios porque se percebia um maior encorajamento na fala dos alunos a respeito dos temas propostos nas aulas, esses sempre relacionados com as questões do questionário.

Palavras-chave: Tecnologias Digitais da Informação e Comunicação (TDIC). Avaliação. Questionário online. Educação Profissional. Educação do Campo.

1. Introduction

Technical education combined with Rural Education, in partnership with Digital Information and Communication Technologies (DICT), provides the rural public with new ways to continue school education, after high school, which can be carried out, for example, via subsequent and semi-presential form. This public need a special look, as the conditions offered for education are precarious compared to those offered in urban centers. Technological mediation allows the breaking of distances and, therefore, a new understanding of temporality, and can broaden the students' worldview.

This article aims to perform a bibliographic review and present an experience report. It includes a reflection on the processes that involve DICT in a Technical Course in Agroindustry of the Agricultural School of Jundiaí (EAJ / UFRN), as well as the teaching and learning process mediated by these technologies, especially the online questionnaire tool.

The course was conducted in the Distance Learning (DE) modality, with weekly face-to-face meetings, and in the Subsequent form. The Law of Guidelines and Bases of National Education (LDBEN) in its Chapter II, section IV-A, which deals with Technical Vocational Education at the medium level, explains what are the characteristics of this form. The course was given in a rural settlement between the years 2017 to 2019.

According to Bedin and Del Pino (2018), the Information and Technology era has arrived for Education and new strategies must be used in the teaching and learning process, since Generation Y (digital natives), presents typical characteristics of their time, because they had contact with technology (computers, video games) since childhood. The demand of new generations for the introduction of technologies in the classroom ends up influencing the need for teachers to adopt new behaviors. (NOGUEIRA; CASA NOVA; CARVALHO, 2012).

Thus, it is understood that the different educational institutions need to prepare to meet this demand, focusing on pedagogical practices and school curricula. DICT are tools that facilitate the teaching and learning

process, mainly in the distance or semi-presential modality, when students and teachers are physically distant.

Thus, with the collaboration of DICT, the usual daily meetings in traditional education are reduced to only one-off or weekly meetings, as in semi-presential courses. This process can occur effectively, because technology is a channel that, when used well, offers the opportunity for mediation between the student and knowledge.

However, DICT must be accessible to all teaching modalities and in a democratic way to be effectively a useful tool in Education, a fact that, unfortunately, is not yet substantially observed. In this regard, understand that, although there is a predominantly urban population, there is still a considerable portion, which still remains in the rural area. It is of utmost importance that it also enjoys the right to quality education, advocated as a fundamental right by the Federal Constitution (CF) of 1988, as well as in LDB 9394/96.

Alone, DICT are not able to achieve what Rural Education needs. Freire (1983) already warned of the need to combine knowledge, as it assumes that there is no production of knowledge, without context, without reality. Paulo Freire's idea is assumed here in the sense that the knowledge construction process is mediated by the world. The world with historicity, in which its reading is part of a historical-cultural dimension for the understanding of reality.

In view of the above, it is undeniable that the public power should have the obligation to grant the necessary technological tools in the distance modality for the insertion of distant communities, such as those in rural areas and, consequently, can be assisted in a satisfactory way, with respect to the right to education.

Despite the fact that the agricultural sector has accompanied the modernization of society, rural workers are not always able to keep up with these changes, they live today in a time when information and knowledge are present in the field, and therefore, they need more specialization and professionalization, which can be achieved through distance education, which requires DICT to be put into practice.

In this context, this article seeks information in the archives of the EAJ / UFRN institution that can assist in the construction of a brief reflection of reality, of a subsequent Technical Course in Agroindustry, Distance Education, with face-to-face meetings, that is, semi-presential, from EAJ / UFRN and how DICT are key players in this teaching modality.

We know that carrying out any type of teaching with a part of the workload in distance education is costly, but the investments must occur because the cost-benefit ratio in the training of qualified labor in the technical area is a bet even by governments that are not appreciative through Education, also emphasizing the importance of democratizing education as the DICT are encouraged in education through public policies. In this regard, it is necessary to understand the use of DICT and their contributions to Technical Distance Education.

Most of the thirty students who started the course were not used to using the internet to study, they only accessed social networks. During the course, access to the LMS on a desktop computer, in many cases, occurred only on Saturdays, at the pole. The rest of the access time, on the part of the students, was carried out on their smart phones, therefore, this device was very important throughout the course.

According to the Brazilian Institute of Geography and Statistics (IBGE) in 2016,

> the number of people aged 10 and over who had a mobile phone for personal use was 139.1 million, which corresponded to 78.3% of the country's population, in this age group. In relation to 2005, this contingent increased 147.2% (82.8 million people) (IBGE, 2016).

Due to this fact, the use of smartphones proved to be an ally more to adapt to the reality of the referred students, because the online questionnaires are one of the few tools of the LMS in which it is possible to answer tasks without the aid of desktop computers.

From the gradual insertion of the use of cell phones and classes held in the computer lab, which existed in the support center, students became accustomed to the new technologies necessary for the study of each subject.

In the face of all this initial exposure, a question emerged. Is it possible to overcome some of the difficulties of a semi-presential education and to achieve, through a basic resource present in the LMS - the online questionnaires - to build a minimum of significant knowledge for young adults from a rural settlement in the interior of Rio Grande do Norte?

In order to try to answer this question, this article was divided into three parts, with the aim of providing the reader with a more didactically organized content: the first part refers to the introductory character, the second, aims at a brief bibliographic review to regarding the theme, and the third and last one, is the report of the experience lived with the group of students of the Agribusiness course on the use of online questionnaires as a viable tool in the aid of knowledge construction.

Finally, it is important to mention that this work was inspired by a teaching reality within the scope of the Rede e-Tec program, in the distance learning modality, with face-to-face meetings in a rural settlement. Thus, it fits into the assumptions of the National Education Plan (PNE) and enables inclusion, democratization and the right to education for all, as advocated by national legislation in both the CF (1988) and LDBEN (nº 9394/96).

2. Justification of the delimitation of the theme

It can be said that the democratization of education expanded as the DICT developed, thus offering new possibilities for technical training, even in places far removed from large urban centers.

Parameters for correcting distance education activities, focused on technical training, are scarce in the specialized literature, so the comparison between assessments carried out in the conventional way, in print, with the use of online questionnaires is highly relevant.

This article made it possible to compare, qualitatively, the first form of traditional evaluative activity, in this case, a printed test with objective and / or subjective questions, and the second, consisting of the use of questionnaires prepared on the Moodle / Mandacaru platform.

In the first way, at the beginning of the course, the difficulties were evident in view of the different possibilities that students have in assimilating the content. Subsequently, the second way, in which the alternative use of online questionnaires occurred, students found more opportunities and dynamism to interpret and answer the questions.

3. Digital Information and Communication Technologies (DICT)

The DICT gave rise to a society with a different profile, the society of a digital culture intertwined with new knowledge and customs. Education, to accompany the demands arising from strategies in the teaching and learning process, since DICTs presuppose a new form of learning, which are characterized by being more dynamic, participatory, decentralized and innovative, facts that meet the concept ubiquitous reader present in the text by Santaella (2013, p.20): "this reader is characterized by a unique cognitive readiness to orient himself between us and multimedia nexus, without losing control of his presence and his surroundings in the physical space where he is located".

Therefore, distance education currently needs exactly this type of reader, so well characterized by Santaella, since teaching in distance education has a vast number of technological tools and the proposed pedagogical activities must be increasingly associated with the student's reality, in the case of this work, especially the field student. Thus, the use of DICT plays an important role in the education of students in the rural area, especially those who already work in agriculture. The use of them is a strong factor to increase new pedagogical ways to seek, create and disseminate knowledge and information, that is, to diversify the pedagogical actions, which, thus, will be of indispensable utility in a process of democratization of teaching. DICT can help modify the way the teaching and learning process occurs, facilitating communication between students and teachers, that is, they are modern technological tools that help to combine knowledge and meanings with the teaching and learning process.

Theorists like Moran (2007) state that:

> Technologies are bridges that open the classroom to the world, which they represent, mediate our knowledge of the world. They are different ways of representing reality, in a more abstract or concrete way, more static or dynamic, more linear or parallel, but all of them, combined, integrated, allow a better understanding of reality and the development of all the potentialities of the student, different types of intelligence, skills and attitudes. The technologies allow showing various ways of capturing and showing the same object, representing it from different angles and means: through movements, scenarios, sounds, integrating the rational and the affective, the deductive and the inductive, space and time, the concrete and the abstract (MORAN, 2007, p.164).

In this sense, it is understood the need for Education actors, especially those who depend on rural education, to incorporate more the daily use of DICT, due to the need for greater insertion of these resources in the contexts of teaching and learning, because those who live distant from large urban centers have less opportunities for formal education, so combining technologies and education in distance learning can enable successful experiences for communities located far from the capitals.

DICT are important complementary tools for the teaching and learning process when used by teachers to implement innovative methodologies, for example, active methodologies. Because, communication will only be more effective if the teacher knows how to explore all the benefits that digital technologies can offer. They can allow and enable the ways of expression, of thinking, of communicating more quickly, that is, new paths, a new vision of learning to learn, especially for Rural Education. In this sense, according to Almeida (2001):

> the use of ICT makes it possible to redirect the school space, making it more open and flexible and allowing the teaching and learning process to become collaborative,

> with an exchange of experiences between teachers, students and other people inside and outside the school. It is through collaborative virtual learning networks that participants exchange information and experiences, discuss problems and issues of common interest, develop collaborative activities to understand and solve existing problems, interact and develop research work, thus producing new knowledge. And these technical objects can be used to solve problem situations and work with projects, involving one or more disciplines and to optimize the pedagogical activity (ALMEIDA, 2001, p.1).

Thus, DICT can contribute to the democratization of education and it is essential to assess the potential of the various technological tools of which they are constituted.

It is known that, already in the Federal Constitution of 1988, the right to quality education is guaranteed and, if everyone should enjoy it, students in the field also have this right like any other. In this understanding, Distance Education Networks have been formed in recent years, for school, technical and professional training, interiorization and democratization of teaching.

3.1. Information and Communication Technology: distance education

In Brazil, the federal government's concern with Technical and Professional Education (ETP) is perceived when it sought, in 2007, to offer ETP to a larger number of students, creating the Open Technical School System in Brazil (e-Tec Brasil), through Decree No. 6,301, of December 12, 2007. In 2011, Decree No. 7,589, of October 26, instituted the e-Tec Brasil Network, revoking Decree No. 6,301, with this Network being one of the actions that are part of the National Program for Access to Technical Education and Employment (PRONATEC).

In this sense, for the full development of the program to expand technical vocational education in distance learning, DICTs play an essential

role, especially when dealing with rural areas, as these demand professional qualification and new knowledge, which without mediation technology would be practically unviable.

The main focus of Rural Education combined with the use of DICT is quality, citizen and professional training. The e-Tec / EAJ / UFRN teaching network exemplifies the concern with the needs of the community very well, in the case of the Technical course in Agroindustry, it trains professionals capable of implementing, organizing and managing activities, companies and institutions related to agroindustry.

With the regulation of the Distance Education modality (DE) in Brazil, after the approval of the current Law of Directives and Bases of National Education (LDBEN) n ° 9,394, of December 20, 1996, different authors, such as Aretio (2002), Belloni (2003), Moore and Kearsley, (2007), claim that Distance Education tends to be increasingly present in educational institutions. Its methodologies have been consolidated as tools in the democratization of knowledge, assuming aspects at different levels of education, but this democratization is only possible when linked to a public policy, preferably, of the state and not just of a certain government. In this sense, Distance Education emerges as a modality of education and development of the student in which he can understand professional education, improvement and training, primarily for the field worker. Thus, according to Moran (2002 apud SÁ FILHO et al. 2019, p. 6), distance education is a mode of teaching and learning mediated by technologies, in which teachers and students are spatially and / or temporally separated.

Thus, distance education requires a strong interaction between students involved in the teaching and learning process. DICT are the basis of all distance education, and this supports the intention of fostering new practices for the teaching-learning process, which formulated by qualified and committed teachers results in a trend towards an improvement in the quality and effectiveness of the Education system a Distance, in addition to prioritizing the educational objectives proposed in the official documents that govern Brazilian education, such as, for example, LDBEN / 96 and the most recent, National Common Curricular Base - BNCC.

In the current context, DICT are increasingly inserted in the teaching and learning processes, with the purpose of improving, supporting, expanding and collaborating with the pedagogical practice for students in the field.

3.2. Professional education in the field

In Brazil, in the last decades, there has been a struggle for the democratization of education in all areas, including the rural environment. Rural Education is called the modality of Education that occurs in spaces called rural and is aimed at rural populations with all the diversity that constitute them, contemplating in the school curriculum the characteristics of each location, as well as the knowledge present there.

The Education of the Countryside has its trajectory linked to the social movements of the 1980s, which demanded an Education in which the ways of life of students belonging to the countryside were legitimized. In this sense, according to Arroyo (2007):

> the people who live in rural areas had their educational rights, veiled by an education shaped by the educational conceptions of urban schools, disconnected from the rural reality, consolidating in this context, the vision of the countryside as a place of backwardness, a reality to be overcome and, For this reason, public policies were not seen as a priority for this population (ARROYO, 2007, p.43).

In this way, Education in the Countryside is called a specific segment, with its own social and pedagogical particularities. LDB (BRASIL, 1996) brings, in its articles, the recognition of the rights inherent to Rural Education, which go against what was already explained in the Federal Constitution of 1988, the right to equality and difference.

Observing the thought of Caldart (2002) regarding the right to consider everything that surrounds the public for which education should be thought, there is a strong link between distance education and rural education.

> The people have the right to be educated in the place where they live; the people are entitled to an education thought from their place and with their participation, linked to their culture and their human and social needs. We are heirs and continuers of the historic struggle for the constitution of education as a universal right, for everyone: a human right, for each person in view of their full development, and a social, citizenship or more critical and active participation in the dynamics of education. society. As a right, it cannot be treated as a service or as a compensatory policy; much less as a commodity (CALDART, 2002, p. 157).

The Agroindustry technical course was offered to a group consisting of adults with completed high school and residing in rural settlements in the municipalities of Ceará-mirim / RN and Pureza / RN, as well as in the entire region of Mato Grande. In this region, for example, there was a student from a rural settlement, located in the municipality of Caiçara do Norte, 122 km from the pole, where the weekly face-to-face meeting took place. This pole was located at Agrovila Canudos, Rosário Rural Settlement, belonging to the municipality of Ceará-Mirim / RN.

The consolidation of a methodology based on the use of DICT tools associated with Freire's methodology, articulates theory and practice, at the service of the field student's daily life, valuing the knowledge that each one brought. Thus, it was guided by the guiding principles of Rural Education, thus bridging the gap between technical knowledge and its practice.

3.2.1. The importance of rural education in partnership with professional education

Since 2007, courses have emerged with an emphasis on practices focused on the rural reality, for example, agribusiness, cooperatives, aquaculture, agribusiness, and agriculture, which are highlights of the e-Tec Brasil Network.

From a dimension of public policies aimed at Rural Education with an emphasis on Professional Education, it is possible to say that the focus of technical courses in Agroindustry with the use of DICT resources has precisely this social purpose: the development of rural workers and improving their quality of life.

Through DICT, rural students do not deviate from their environment, that is, understanding that the technical and professional training of rural workers should not be carried out far from their reality. The defense of the use of TDIC in technical training in rural settlements starts from the premise that there is a more horizontal, participatory and critical relationship in the process of teaching and learning, so defended since the Pedagogy of Paulo Freire in the 1980s, as was portrayed by Sousa (2015).

> The adoption of a critical and transformative education is also sought as a central strategy. The defense of a production of knowledge based on the direct relationship between scientific knowledge and the wisdom of the people of the countryside - from the dialogue of knowledge - using the questioning of reality; the revaluation of peasants' social knowledge; the generation and dissemination of technologies adapted to territorial realities, respecting knowledge and not degrading the environment; the transformation of the social reality of peasant families; and the production of healthy food for consumption and the supply of local markets are some of the central elements of methodological change and are included in rural education with this focus. (SOUSA, 2015, p.313)

Therefore, access to DICT made it possible for the teacher to work with a remote community that had no other possibility of taking a technical course without having to leave their locality. This possibility allowed the student in the field to build and affirm knowledge, creating hope for the development of their communities, without having to leave the environment in which they live.

4. Methodology

It is a qualitative, exploratory and descriptive research, through a case study, carried out in the support pole of the Rosário settlement, Agrovila Canudos, carried out in the first semester of 2018. The site for the development of the research was the municipality of Ceará-Mirim, RN.

The choice of this location was due to the fact that it is a rural settlement lacking from an educational point of view, especially professional education, geared to the interest of the community, and because it is a territory that covers the actions of the Agricultural School of Jundiaí (EAJ), a supplementary agency of UFRN, which adhered to technical courses in the distance learning modality of the e-Tec Brasil Network.

The universe contemplated in the research consisted of students enrolled in the technical course in Agroindustry, enrolled in the 2nd semester of 2017, in the referred pole. This course was offered in the distance mode, with a face-to-face meeting on Saturdays. The participating subjects were students enrolled in the technical course in Agroindustry for the period from December 2017 to July 2019. The respondents to the questionnaire were those who completed the course, numbering 14.

As instruments of data collection, online observations were made on the LMS Mandacaru (based on the Moodle platform) that housed all the disciplines offered to that course and to the students involved in the research. Several assessment instruments were used, but the research focused on the instrument that was optimized from the point of simplicity and efficiency for students. It consisted of the mentioned online LMS questionnaire, which could be easily accessed even via students' smartphones. This choice was made from a completed questionnaire, via the Google Forms questionnaire form, asking which instrument was most effective in activities and evaluations throughout the course. Although we used a variety of instruments in LMS, such as chats, forums, videos, tasks, etc., the instrument with which students identified themselves, especially for evaluative purposes, was the online questionnaire. A message was sent via the WhatsApp group containing the link to Google Forms to answer about the choice of the assessment tool for each person's preference.

Of the fourteen graduates, 10 answered the diagnostic questionnaire, which represents 71.4%. The most relevant question within the questionnaire for this research was: which Mandacaru (LMS) tool did you find to be most useful among those used as a form of evaluation?

After realizing that the online questionnaire was the tool with which they most identified themselves throughout the course in evaluative questions, we rescued one of the questionnaires for evaluation, which was used in the discipline of Chemistry and Biochemistry of foods, considered one of most difficult aspects of the course in the perception of the course teacher.

In an attempt to explore how the use of Digital Information and Communication Technologies tools were fundamental to the course, a bibliographic review was first carried out, which allowed the search and analysis of articles in areas of science in a specific way, defining the limit of the research that is intended to be developed, in a scientific perspective, bringing some relevant aspects about DICT, Rural Education and Professional Education. Then, there is the report of the experience in the perspective of a critical analysis of the development of a class of the referred technical training course in the rural settlement of Rosário, Agrovila Canudos, in the municipality of Ceará-Mirim, State of Rio Grande do Norte, including the use of online questionnaires as one of the evaluation methods.

5. Results

From the answers to the diagnostic questionnaire, carried out with the help of Google Forms, it was found that the questionnaire resource, according to the graduating students of the 2019 class in the Technical course in Agroindustry, was the most enriching tool in the teaching and learning process. Figure 1 shows the result found in the diagnostic questionnaire: 100% of those who answered rated it as the most useful tool among those used by the teacher throughout the course.

"which Mandacaru (LMS) tool did you find to be most useful among those used as a form of evaluation"

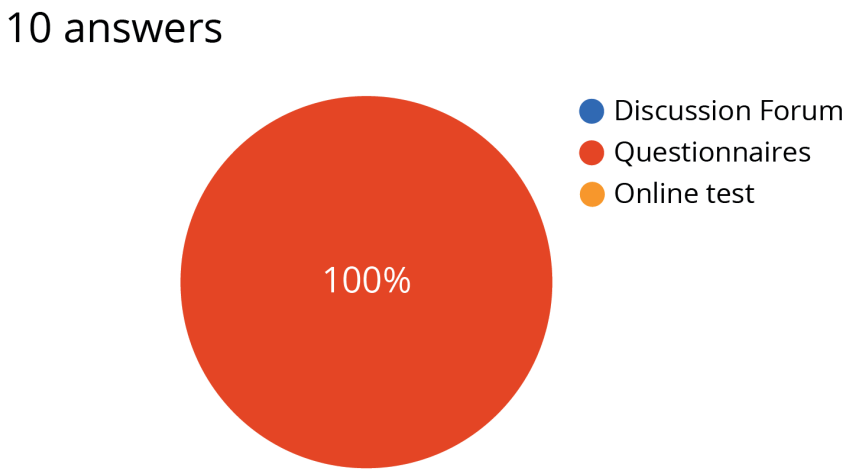
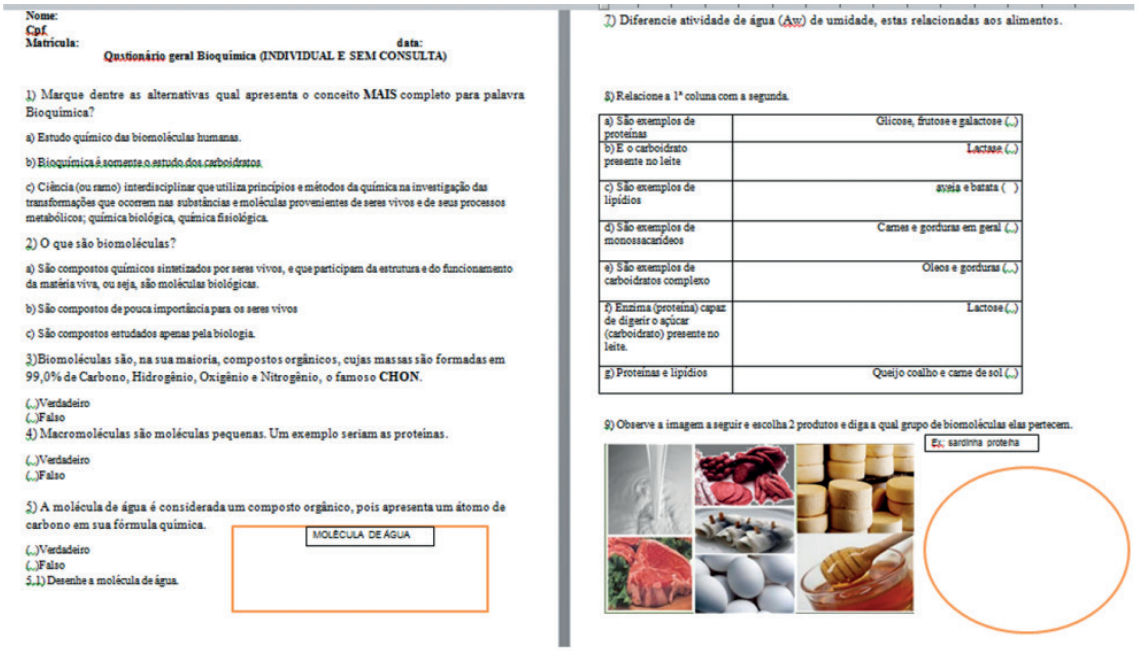


Figure 1: Result found for a question about the importance of online questionnaires as an evaluation method: the question asked is explicitly shown in the figure

Source: prepared by the author in the Google forms tool, 2019.

Working with the questionnaire resource and using the tools available within its construction on the Moodle Mandacaru platform, enriches the ways of assessing, because students have different ways to test their knowledge. In addition, students receive immediate feedback and, in most cases, have the possibility of a second attempt, according to the configuration that the teacher defines for the questionnaire. When working only with written tests, perhaps the conventional formatting or the distribution of questions and answer options will be static on paper, or even the corrected test will only be delivered a week later, making it more difficult to assimilate more effectively.

Figures 2 and 3 show a comparison between questions with the same content, but which were presented in two different ways. Figure 2 shows how the question texts became after they were organized for later transformation into an online questionnaire.



Nome:
Cpf
Matrícula: data:

Questionário geral Bioquímica (INDIVIDUAL E SEM CONSULTA)

1) Marque dentre as alternativas qual apresenta o conceito **MAIS** completo para palavra Bioquímica?

a) Estudo químico das biomoléculas humanas.

b) Bioquímica é somente o estudo dos carboidratos.

c) Ciência (ou ramo) interdisciplinar que utiliza princípios e métodos da química na investigação das transformações que ocorrem nas substâncias e moléculas provenientes de seres vivos e de seus processos metabólicos; química biológica, química fisiológica.

2) O que são biomoléculas?

a) São compostos químicos sintetizados por seres vivos, e que participam da estrutura e do funcionamento da matéria viva, ou seja, são moléculas biológicas.

b) São compostos de pouca importância para os seres vivos

c) São compostos estudados apenas pela biologia.

3)Biomoléculas são, na sua maioria, compostos orgânicos, cujas massas são formadas em 99,0% de Carbono, Hidrogênio, Oxigênio e Nitrogênio, o famoso **CHON**.

(..)Verdadeiro
(..)Falso
4) Macromoléculas são moléculas pequenas. Um exemplo seriam as proteínas.

(..)Verdadeiro
(..)Falso

5) A molécula de água é considerada um composto orgânico, pois apresenta um átomo de carbono em sua fórmula química.

(..)Verdadeiro
(..)Falso
5.1) Desenhe a molécula de água.

MOLÉCULA DE ÁGUA

7) Diferencie atividade de água (Aw) de umidade, estas relacionadas aos alimentos.

8) Relacione a 1ª coluna com a segunda.

a) São exemplos de proteínas	Glicose, frutose e galactose (..)
b) E o carboidrato presente no leite	Lactase (..)
c) São exemplos de lipídios	aveia e batata ( )
d) São exemplos de monossacarídeos	Carnes e gorduras em geral (..)
e) São exemplos de carboidratos complexo	Oleos e gorduras (..)
f) Enzima (proteína) capaz de digerir o açúcar (carboidrato) presente no leite.	Lactose (..)
g) Proteínas e lipídios	Queijo coalho e carne de sol (..)

9) Observe a imagem a seguir e escolha 2 produtos e diga a qual grupo de biomoléculas elas pertecem.

Ex: sardinha proteína

Figure 2 - questionnaire built in a text editor

Source: prepared by the author, 2019

Figure 3 is an example of question 8 adapted for the online questionnaire, which differs from the questions referred to in figure 1. The difference depends on the familiarity that the mediating teacher has with the LMS and with the possibilities that the questionnaire tool provides.

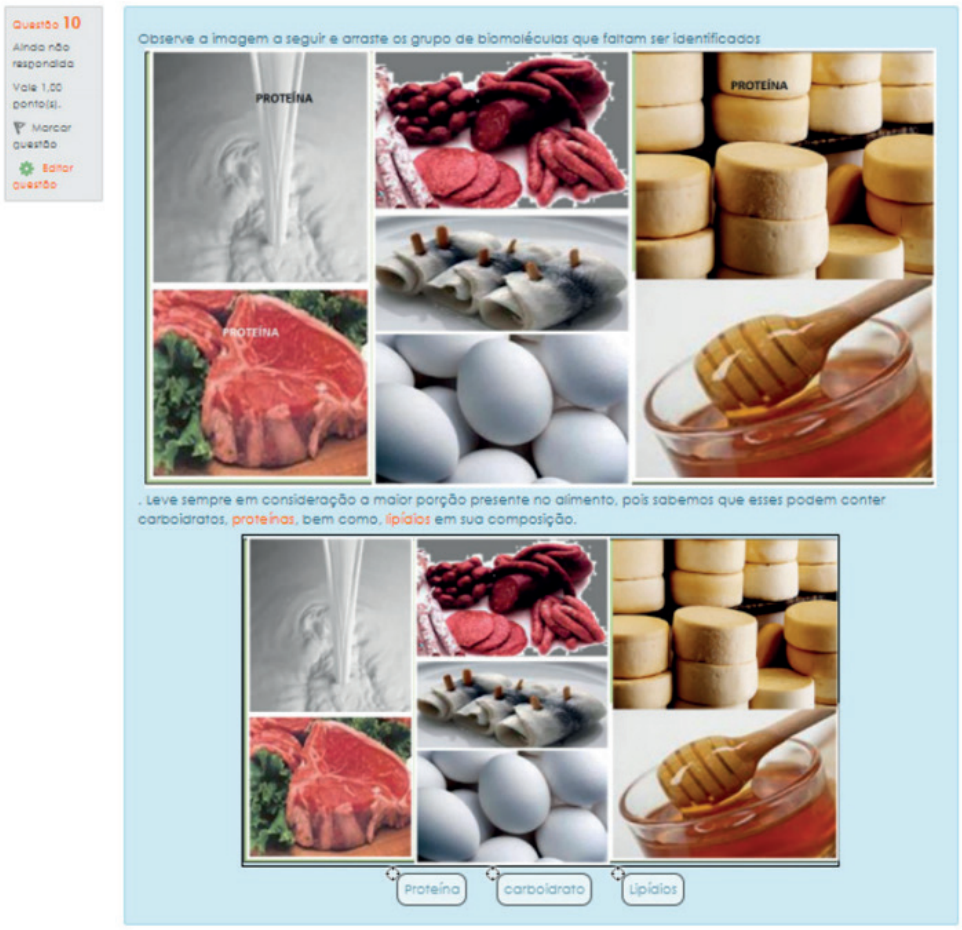


Figure 3 - one question from the online questionnaire

Source: prepared by the author, 2019

Initially, it was found that the class of students in the course consisted of local family farmers and, some of them, children of rural workers, who envisioned rural development and the strengthening of family farming in their community. In order for this to occur, in fact, technical training may enable greater opportunities for the community.

The use of DICT in technical course actions with precepts in Rural Education seemed to be a good strategy, since without digital tools it would be impracticable to teach a course with a workload of 1,200 hours over eighteen months.

6. Final considerations

In this 18-month experience as a teacher of 22 curricular components, it would be impossible to perform a minimum of effective work without the use of TDIC. It was possible to understand the importance of Professional Education for Rural Education in association with Digital Technologies of Information and Communication. It was possible to recognize, in the context of the Subsequent Technical Course in Agroindustry at the Escola Agrícola de Jundiaí, from the beginning of the course, the students, rural workers, as holders of their own knowledge and cultures, therefore, the insertion of Freire's conceptions.

The course had as main focus the professionalization of the student in the field, but without ever leaving aside the uniqueness of each one, especially, without it being necessary to be far from the reality of the field.

The questionnaires were very important in the teaching and learning process throughout the course, as they provided the insertion of an extremely useful tool in the mediation process between the content and the students. The most dynamic form provided by the questionnaire resource within the LMS covers several aspects, such as, for example, the fixation of contents, the dynamics of classes and their successful use in learning assessments. The finding that the minimum of significant knowledge was assimilated, happened when in the class after the resolution of a questionnaire, students demonstrated a greater mastery over the content or topic addressed. The engagement in the class demonstrated that the dynamics of the class were optimized and when the questionnaire was used in an evaluative way, the students were able to demonstrate a greater assimilation of the contents worked, when compared to evaluation methods, questions and answers printed on paper.

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