CHALLENGES IN THE USE OF ACTIVE LEARNING STRATEGIES WITH STUDENTS IN A PUBLIC SCHOOL

DESAFIOS NA UTILIZAÇÃO DE ESTRATÉGIAS PARA APRENDIZAGEM ATIVA COM ESTUDANTES EM UMA ESCOLA PÚBLICA

DESAFÍOS EN EL USO DE ESTRATEGIAS PARA APRENDIZAJE ACTIVA CON ESTUDIANTES EN UNA ESCUELA PÚBLICA

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ABSTRACT

Objective: to understand the development of "new" didactic-pedagogical strategies and their relation in the school routine. **Method:** a qualitative study supported by Paulo Freire's assumptions, with 21 students from a public school, aged 10-17 years. Data collection was performed through the Snow Ball strategy and the analysis was developed by Minayo's operational proposal, characterized by two moments: study fundamentals and empirical facts. **Results:** students use the internet as a complement to their education. Regarding health education, some understood the real feeling of health prevention and promotion, while others understood it as a punitive action. It was evidenced insufficient mastery of the teachers on the group and scarce approach in health; the active learning methodologies were perceived as playful. **Conclusion:** the use of technologies as an adjunct to the health theme in the school environment is not used by students adequately. The understanding of actions is ambiguous, being useful to some and irrelevant to others. **Descriptors:** Health Education; Students; Active Learning.

RESUMO

Objetivo: compreender o desenvolvimento de "novas" estratégias didático-pedagógicas de ensino e sua relação no cotidiano escolar. **Método:** estudo qualitativo, respaldado em Paulo Freire, com 21 estudantes de uma escola pública com idade entre 10-17 anos. A coleta dos dados foi realizada através da estratégia *Snow Ball* e a análise foi desenvolvida pela proposta operativa de Minayo, caracterizada por dois momentos: fundamentações do estudo e fatos empíricos. **Resultados:** estudantes utilizam a internet como complemento dos estudos; Com relação às educações em saúde, alguns entenderam o real sentido da prevenção e promoção da saúde, outros entenderam como punitivas; Evidenciou-se insuficiente domínio dos professores sobre a turma e escassa abordagem em saúde, as metodologias ativas de aprendizagem foram percebidas como lúdicas. **Conclusão:** o uso das tecnologias como coadjuvante do tema saúde na escola não é utilizado pelos estudantes de forma adequada; o entendimento das ações é ambíguo, sendo útil para alguns e irrelevante para outros. **Descritores:** Educação em Saúde; Estudantes; Aprendizagem Ativa.

RESUMEN

Objetivo: comprender el desarrollo de "nuevas" estrategias didáctico-pedagógicas de enseñanza y su relación en el cotidiano escolar. **Método:** estudio cualitativo, respaldado en Paulo Freire, con 21 estudiantes de una escuela pública con edad entre 10-17 años. La recolección de los datos fue realizada a través de la estrategia *Snow Ball* y el análisis fue desarrollado por la propuesta operativa de Minayo, caracterizada por dos momentos: fundamentaciones del estudio y hechos empíricos. **Resultados:** estudiantes utilizan internet como complemento de los estudios; Con relación a las educaciones en salud, algunos entendieron el real sentido de la prevención y promoción de la salud, otros entendieron como punitivas; Se evidenció insuficiente dominio de los profesores sobre el grupo y escaso enfoque en salud, las metodologías activas de aprendizaje fueron percibidas como lúdicas. **Conclusión:** el uso de las tecnologías como coadyuvante del tema salud en la escuela no es utilizado por los estudiantes de forma adecuada; el entendimiento de las acciones es ambiguo, siendo útil para algunos e irrelevante para otros. **Descriptores:** Educación para la Salud; Estudiantes; Aprendizaje Activo.

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INTRODUCTION

A predominant setting in the educational context is the ever-increasing expectation for changes. Even without knowing exactly what is to come in the educational scenario, the general expectation is that changes occur that may make a difference in the education of our students.

In Brazil, we have diverse educational methods as there are schools in which students spend much of their time copying texts from the board or dictations, and schools that provide students and teachers with the most modern information and communication resources. With all these extremes of diversity, we find schools that are in the 19th century, with 20th century teachers, training students for the 21st century world.

[...] the great learning potential that is wasted in our schools, daily and systematically, in the name of obsolete educational ideas. [...] It is a tragedy to see, every day, thousands of students being convinced that they are incapable and unintelligent simply because they cannot adapt to a wrong system.¹

The current situation of the need to reinvent education, given that the traditional school model, consolidated in the 19th century, "has now also to meet the demands and needs of a democratic and inclusive society, permeated by differences and guided by the inter, multi and transdisciplinary knowledge, with which we live in this early 21st century".²

In this article we focus, through qualitative research with health education workshops, on how active learning is seen by teachers and students of a public school in the municipality of Chapecó/SC, with the purpose of perceiving, instigating and reflecting on the knowledge of active learning, both with students and with teachers. In the said school, a reflection on active learning was carried out, which was applied during the course of the process.

Health education is a theme that has increasingly occupied spaces in discussions and reflections among health professionals, especially among those working in the field of collective health, such as nurses. "An action in health that establishes an interaction between the one who educates and the one who receives and absorbs such education, with the purpose not only of informing, but mainly of exchanging experiences and knowledge that favor the promotion of healthy habits of life."³ Educational activities

have been carried out through active learning methodologies.

In the context of new pedagogical trends, the Active Methodology is one of the possible strategies, for which the student is the central protagonist, that is, responsible for his/her educational trajectory and the teacher is as a facilitator of the experiences related to the learning process.⁴

It is expected that teachers have a minimal knowledge about active learning, in its simplest form, and that they know the means of teaching and learning that can be considered as active learning methods, even though they are not known as active learning.

An example of active learning is teaching how to solve problems and situations. This teaching aims to encourage students to listen, see, ask and discuss, thus combining various knowledge, skills, attitudes, mental postures, curiosity, passion, the search to discover some meanings, among others, that are born from both training and experience, in this way, being on the path of active methodologies.⁵

There is a need to reconnect with the issue of purpose in education, especially in the light of a recent trend to focus discussions on education almost exclusively on the measurement and comparison of educational outcomes rather than on the measurement of learning, that is, the issue of the purpose of actively teaching should always have a place in the educational discussion so that the student feels active in the process of learning.⁶

For some students, school is seen as a negative obligation, as if it was something bad for their lives, undesirable. For this reason, teachers, exhausted by this attitude, often pour the content for the students and they end up learning little and nothing. And, as most of the time the classes are dictated, written on the board, the students of the said research related active learning with the use of technologies in the classes.

With this, Freire points out that "educators appear as an indisputable agent, with their real subject, whose indeclinable task is to "fill" the learners with the contents of their narration. These contents, in turn, are cut off from reality and disconnected from the totality in which they are engendered and in whose vision would gain meaning."⁷

The role of the teacher in the classroom is to get students to understand the content addressed in the classroom and to manage their routine activities. The approach in health has to be linked with the everyday life, so that the student understands how the change of some habits will benefit his/her health. For this purpose, "a humanist and

revolutionary educator takes action, identifying early with the students; he/she must guide students in the sense of humanization, of the authentic thinking, not in the sense of giving, of delivering knowledge. ”⁷

Some points that can be discussed in active learning methodologies: why not establishing an "intimacy" need between the fundamental curricular knowledge to the students and the social experience they have as individuals? Why not discussing the political and ideological implications of such a disregard of the dominant authorities in relation to the poor areas of the city? A pragmatic educator will say that school has nothing to do with it. ⁸

OBJECTIVE

- To understand the development of "new" didactic-pedagogical strategies and their relation in the school routine.

METHOD

This is a qualitative study, based on the Paulo Freire’s perspective, conducted with 21 students from a public school in the municipality of Chapecó/SC, Brazil. The insertion of "new" didactic-pedagogical teaching strategies for health education was investigated at the end of each health education workshop by means of an interview accompanied by a script containing guidance-stimulus questions, one for the students and another for the teacher of the class, in order to understand how the active methodologies are understood by the student. The project was approved by the Ethics and Research Committee (CEP), under approval number 51792415.2.0000.5564 and opinion number 1,393,621. Regularly enrolled students attending the Valesca C. Parizotto Primary School, located in the Jardim América neighborhood, in the municipality of Chapecó-SC, participated in the project, which included from elementary school to high school and teachers. The selection and recruitment of the students was done with the aid of the Snow Ball methodological strategy, in which a student indicated two more of his/her class, and so on, until completing the number of three respondents of this category per classroom. In each classroom, the choice of students was made after the health education workshop.

The first student was selected by the teacher who was present in the class. The only criterion was that the student was assiduous and that participated in student movements or groups, considering that these

characteristics maximized the chances of this student to indicate other young people with juvenile protagonism to socialize the active methodologies to be investigated and instigated throughout the project, thus guaranteeing the sustainability of the ideals to beyond this research project and to themselves. Later, this student indicated a classmate, and so on. Workshops were developed in nine classes of the mentioned school, which would total 27 students. Of these, six refused to participate in the research.

Interviews were conducted in a space in the school reserved for this purpose in order to guarantee the secrecy and anonymity recommended by Resolution 466 of 2012. The duration of each interview was approximately ten minutes and they were recorded only for the transcription of the information. After five years, they will be distributed in the research database stored in the teacher's/researcher's institutional notebook, accessible only by them and only when there is any doubt about the transcribed material, in order to be able to return to the recording, never divulging any file.

Students who were minors signed the Consent Term, and their parents and guardians also signed the Free and Informed Consent Term (FICT). Students who were older signed the FICT because they were able to agree to their inclusion in the survey. We provided a questionnaire about the understanding of active methodologies, how to get knowledge beyond the classroom, their perception about educational workshops in health and what they thought of the classes taught by teachers.

This research was interconnected with the extension project "Promoting children and adolescents’ health through educational actions in health", approved in Notice No. 804/UFFS/2014, with the objective of promoting children and adolescents’ health through educational actions in the pursuit of a healthy life. This project is in the final phase, and had the objective achieved. This project is linked to the extension program entitled "Education-Health: intertwining actions for a healthy life", also approved in the Notice no. 804/UFFS/2014, aimed to develop educational, health and music actions for children and adolescents enrolled in a state school of the municipality of Chapecó-SC, considering a healthy life. The aim of the research was not demonstrated in the objectives, but rather to understand how the methodologies have been perceived by teachers and students.

The inclusion criterion was students who were regularly enrolled and effectively attending the school under study.

The analysis of the data was developed through the "Operational Proposal of Minayo"⁹, which is characterized by two operational moments. The first includes the fundamental determinations of the study, which is mapped out in the exploratory phase of research. And the second moment is called interpretative, since it consists of the starting point and the end point of any investigation, representing the encounter with the empirical facts. The interpretative phase has two stages: data sorting and data classification, which includes horizontal and exhaustive reading of the texts, cross-reading, final analysis and the construction of a report presenting the results. An analytical matrix was constructed from the readings on the subject of teaching-learning methodologies.

According to Freire, the main objective of education is to raise awareness of the student. This means leading them to understand their situation as oppressed and to act in favor of their own liberation by proposing a school practice that could develop students' critical sense⁸. Freire condemned the teaching offered by the vast majority of schools, which he denominated as banking education, in which the student is conceived as an "empty" being in whom the educator "deposits" knowledge that the student needs to memorize and reproduce.⁷

RESULTS

The 21 students interviewed were aged between 10 and 17 years, and the time studying in the school varied from 1 to 12 years. In order to have an effective understanding of the research results, this was divided into categories, according to the reports of the participants.

Clarification of doubts arising from the classes: how students try to heal them:

The use of technology is increasingly frequent in our environment. The students, when in doubt, seek to heal them through the internet, which is an easy-access method, as reported:

When I am in doubt about the subject that the teacher taught in class, I search for video lessons, I search through the internet. (Student 15)

It can also be perceived a restriction of the teachers, according to the students, on the use of the technologies in the classroom:

Technologies have advanced, the use thereof has become more recurrent, its access has become easier, and teachers

continue with the same teaching model, using the board, using books, thinking that this makes learning difficult. (Student 16)

The understanding of educational workshops in health by students:

Students' understanding of the workshops is ambiguous. Some have understood the real purpose of health prevention and promotion.

We are going to take this for life; it is what most matters to all the young people and I think that taking care of our health is nothing more than our obligation. [...] I think it is very important to know that many things happen and we do not know many of these diseases because no one keeps looking for this on the internet. (Student 17)

It is also reported by another student:

It is very good when you come to talk about how we should take care of our health. I have diabetes, and when you came to talk about food, I clarified many doubts that no one had told me before. (Student 10)

Others understand that the subject addressed is for them to never have contact, as if that was the "greatest of evils" in their lives.

We should not get close to drugs, [we should] stay away from this kind of person, from alcohol, smoking; we have to move away from it. (Student 2)

Some report on the understanding of the damages this can cause for their lives:

You talk about the risks to which we are susceptible; we have to take care not to fall into the world of drugs, to use condoms, because if we get a disease it will be for life. (Student 15)

The difficulties teachers face in teaching and students' perceptions of how some classmates hamper class development:

During the development of the educational workshops in health and through the students' reports, we have noticed the great difficulty of contribution by the group due to parallel conversations and jokes during class.

The content is interesting, however, many students do not contribute to make the content more interesting and for the teacher to be able to do different activities. The students talk too much, they scream, they make a mess, they clap their hands. (Student 10)

Some teachers sometimes let everybody shout. When they are explaining, the students who are quiet cannot understand. Some other teachers take a little more control and do not let the class make a mess. (Student 8)

Some teachers ask for silence many times during class. (Student 21)

(Lack of) Approach to health in the classroom and the importance of this for daily life:

A difficulty found in the data collection was little or no approach to health in the classroom.

Biology teachers sometimes speak a few things, but it is very little. (Student 15)

What teachers bring to the classroom is very shallow and basic; the conduction of the workshops was the most in-depth contact they have had. The discipline of Biological Sciences is the ideal one to address health in the classroom. (Student 16)

DISCUSSION

The Information and Communication Technologies (ICT) have been gradually inserted in the school environment; the school has been changing in relation to the ICTs. However, teachers are used to the traditional way of teaching, maybe due to the fact that some teachers had not been educated with technologies. They are the so-called "digital migrants", who were born in an era with little technology and now they need to adapt to them. Students, however, were born in the era of technologies, and do not fear them. The use of computers and digital media is important for a better school environment.

But this improvement only has meaning when the teacher is aware that, to be efficient, they must have a basic knowledge about technologies. "Today's technology resources, the new digital media: multimedia, the internet and telematics bring new ways of reading, writing and therefore thinking and acting."¹⁰

Most students are familiar with the technologies but are not aware of their educational importance. The teacher does not need to be an ICT specialist to insert them in the classroom. He/she only needs encouragement to change their pedagogical action and to be aware of his/her role of facilitator of knowledge and that the school changes start from them.

"The ICTs are daily used by students and using them in the school environment can arouse students' interest and bring them closer to the teachers and to the school institution, allowing a greater learning of the subjects discussed in the classroom."¹¹

Educational programs in health targeted at children and adolescents are generally conducted in schools. "While health education is the responsibility of different segments, school is a privileged institution that can become a genuine space for health promotion."¹²

*It is necessary to strengthen health promotion among children and adolescents, since transforming life and health habits has already been compared to a great challenge. This health promotion should target the real needs of this population, instead of having a specific agenda of subjects, since it is known that the school is a space for aggregation of knowledge and has the possibility to raise awareness on the change of habits and thoughts, thus enabling a close connection for the development of a conscious and healthy adult person.*¹³

Prevention is treated at three levels:

*Primary prevention is the action taken to remove causes and risk factors of a health problem in an individual or population prior to development of a clinical condition. It includes health promotion and specific protection (e.g., immunization, family planning). Secondary prevention is the action performed to detect a health problem at an early stage in an individual or population, facilitating the definitive diagnosis, treatment and reducing or preventing its dissemination and the long-term effects (e.g., screening, early diagnosis). Tertiary prevention is the action implemented to reduce the functional losses resulting from an acute or chronic problem in an individual or population, including rehabilitation (e.g., preventing complications of diabetes, rehabilitating post-infarction patient - AMI or stroke).*¹⁴

The Ministry of Health states:

*Health promotion, as one of the health production strategies, that is, as a way of thinking and operating articulating the other policies and technologies developed in the Brazilian health system, contributes to the construction of actions that allow responding to the social needs in health. Some examples are: violence, hunger, lack of basic sanitation and empowering broader forms of health intervention. This emphasizes the great importance of health education workshops as health promotion guides.*¹²

Health prevention corresponds to educational measures aimed at improving the resistance and the general well-being of the individuals so that they resist to the aggressions of the agents. It also refers to guidance for care of the environment, so that it does not favor the development of etiological agents.

Thus, educational workshops in health can be considered as a preventive action in order to avoid the emergence of diseases and reduce their incidence and prevalence in the population.

For this purpose, it is argued that:

The social and educational context in which the adolescent is inserted has been pointed out as the most conscious predictor of substance abuse in adolescence. "Within the school environment, some factors, such as lack of motivation for learning, poor school performance, absenteeism and the desire to be independent, articulated with the lack of interest in personal fulfillment are identified as risk factors for using illicit drugs."¹⁶

Complementing this thought:

Health and disease should be discussed with individuals and population groups so that this reflection enables people to opt for a healthier life. This option should be based on the analysis of the reality that is made from the identification of problems and health needs of the population. From then on, the critical reflection of reality should be stimulated. To that end, educational actions in health should be focused on improving the determinants of health.¹⁷

Some pedagogical methods for teaching and evaluation were analyzed. Among these methods, the "importance of cooperative learning among students was highlighted, in which one of the disadvantages of this method can be related to the lack of individual maturity to act in the construction of the collective scope."¹⁸ In the course of the present research, we noticed that some teachers have difficulty in holding the attention of the class; they are not able to control the class.

There are other types of active methodologies that are little used and little discussed, such as the Problem-Based Learning (PBL), which promotes the development of the ability to work in groups and also stimulates individual study. Learning becomes focused on the student, who moves from the role of passive receiver to that of agent and main responsible for his/her learning. Groups of up to 12 students meet with a teacher two or three times a week and the teacher does not "teach" in the traditional way, he/she facilitates students' discussions. Also, the Team-Based Learning (TBL) method involves working in groups of six to eight people and a sequence of activities: studying the content previously sent by the teacher; individual and group assessment, with immediate feedback to students prior to the start of case discussion; and content contextualization.

Experience-based learning was built with the following pillars: participation with concrete experiences; observation and reflection on experiences, formation of abstract concepts; and validation of concepts in new situations. In order to ensure the sustainability and the values proposed by the model, four critical skills or competences

were identified: openness and motivation to get involved in new experiences; capacity for observation and reflection so that these new experiences can be seen from a variety of perspectives; analytical skills to integrate ideas and concepts from observations and reflections; decision-making and problem-solving skills so that new ideas and concepts can be used in practice.

"Students have some faults: lack of interest, of ability to learn, of knowledge, of family support and of perspectives in an unequal society."¹⁹ This would make the student become less interested, thus harming the class as a whole.

Most teachers have difficulty approaching Biological Sciences because they do not understand the advances that occur in this area of knowledge, do not know some terms or do not understand the language used. This is due to the lack of preparation in teacher training, which consequently leads to difficulty in teaching biology concepts.²⁰

Teachers have two primary pedagogical tasks. The first is to help students managing the relationship between the concepts of the different disciplines that make up the curriculum and its referents in their daily lives. The second is to introduce students to concepts that have meanings that do not derive from or directly relate to their experience.²¹

Future teachers have the need and the importance of being prepared, through the disciplines of undergraduate courses, to deal with issues of Health Education in the school. "The subjects of Health Education are not present in the training of Science and Biology teachers, who will inevitably address this theme in their school activities."²² "The World Health Organization has advocated in conferences and publications the need to train Primary School teachers in Health Education."²³ Many of the teachers who teach Biological Sciences have no understanding of how much the health approach is needed in the classroom. Most of the teachers are laymen in the subject because they had not had a previous knowledge during the undergraduate course, and they think that it is not their responsibility to reflect and to guide students on a subject of such importance.

"Some teachers refer to Health Education as the mere transmission of scientifically established knowledge, as if it was enough for the individual to transform his/her posture in the perspective of maintaining health and establishing the principle of quality of life in their daily activities."²⁴ However, Health Education is not limited to the transmission of

knowledge. Instead, it is defined as an encouragement or reinforcement to changing healthy lifestyles, but for this to occur, teachers need to develop and consolidate these behaviors.

Health education themes should not be circumscribed in a single discipline but should be globalized in the various disciplines and contribute to the achievement of the objectives of compulsory education in a way that facilitates personal balance, interpersonal relations and society as a whole.²⁵

The educator is the subject leading the learners to the mechanical memorization of the narrated content. But still, the narration turns them into "vessels", into containers to be filled by the educator. The more the containers are filled, with their "deposits", the better the educator will be. The more they allow themselves to be docilely filled, the better students they will be.⁷

CONCLUSION

It is concluded that the use of technologies as an adjunct to the health theme in the school environment has been used by the students, but in an undirected or supervised way as their doubts are healed through unreliable sites, which can often be erroneous. As a consequence, students reproduce some behaviors, jeopardizing their lives.

The students' understanding of health education is ambiguous, since it is seen as useful and important by some and not very relevant by others. It is also concluded that teachers face difficulties in teaching classes due to discipline problems, such as parallel conversations and lack of respect by the students in relation to the teacher.

Finally, the study showed that teachers find difficult to discuss health-related issues. The students themselves reported feeling the same, which also hampers the development of children and adolescents because the school, for many students, is considered as a reference place in the search for support. It was also perceived a deficiency in the training of these teachers, being the Biology discipline the most adequate to address this theme. Unfortunately, teachers do not have a specific curricular component on health during the undergraduate course, being evident the lack of health education in schools.

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