

# Development Dynamics of Action-Oriented Learning on Health Education

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**Abstract** — Today a change in the context of health promotion as a consequence of present world situation is advocated due to inequalities in health, globalization, environmental changes, urbanization, demographic changes, new and re-appearing diseases, advances in medical science and in information technologies and the role of the State. The strategies of health promotion, which have responded to these changes and concerns, are directed towards health risks and determinants of health and, re-enforce the *Millennium Development Goals*. In this context, health education has changed from a traditional approach of isolated topics, such as diet, drugs, physical exercise or sexuality to one where the generic teaching of *action competence* lies beneath the specific problems of health. As a consequence, in this paper it is argued that the principal educational objective of health education is to develop student *action competence*, which is achieved with the genuine participation of students in democratic health education projects. These projects use active strategies in the construction of action-oriented knowledge that leads students to carry out individual or collective actions and provoke positive changes in their lifestyles and/or life conditions. In this sense, a research intended to characterise the sex education practices of some Portuguese teachers (N=87), and analyse the eventual training needs to develop action-oriented learning projects on sex education was carried out. These results and the implications in terms of teacher in-service training will be discussed.

**Index Terms** — Action competence, Action-oriented learning, Active learning, Health education

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## 1 INTRODUCTION

The health promotion proposal is based on values and principles of social justice and equity, respect for diversity, dignity and human rights, the reduction of inequalities regarding health within and among countries, and through a holistic concept of health defined as the complete state of physical, mental and social well-being and not only as the absence of disease and disability.

The promotion of health has been envisioned as a process of personal empowerment in order to increase one's personal control of one's personal health to improve it. This idea implies the increasing of self-control regarding personal, economic and environmental factors – determinants of health – that influence the status of individuals and community health [1]. In this sense, the promotion of health is considered a political and social process, which represents a comprehensive approach with actions directed to the strengthening of individual skills and capacities and also to change economic, environmental and social conditions.

Individual and collective participation is not only essential to maintain actions related to

health behaviour and lifestyles but also to take action regarding life conditions (in relationship to environmental factors which have an impact on health such as income and social status, education, employment and work conditions, adequate access to health services and the physical environment).

The principal guideline for action is to encourage individuals to consider their health as a complete state of physical, mental and social well-being and as a fundamental human right, whose fulfilment is considered to be the most important social goal in world and also whose completion requires, beside the health sector, the integrated action of many other social and economic sectors [2].

As a consequence, the most efficient health education strategies support the following evidences [3]: participation and individual and community empowerment which are fundamental for sustainable development and health promotion; educational interventions and health promotion which apply a combination of strategies that are more efficient; the access of information and health education are fundamental in order to acquire a high level of literacy in health, effective participation and individual and community empowerment; settings such as schools, work places, communities and cities offer practical opportunities for the implementation of comprehensive strategies; and national and international policies of support for health promotion are considered essential for their

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sustainable development.

This progress of intellectual work, experience and the knowledge regarding health promotion of practitioners and researchers in a globalized world, emphasizes the modernization of the double holism concept of health by reinforcing a triple holism [3]: “man as a whole”, in a “national whole” which is integrated in a “world as a whole”. The awareness of the impact of globalization in health is accompanied by the awareness of great advantages for investigation and practices in education and health, centred in settings like schools, work places, communities and cities. These practices must apply bottom-up strategies for the implementation of behavioural change and involve international partnerships which empower individuals and communities to act in a way which contributes to global health promotion. In this sense, in health promoting schools, students must be placed in the centre of health promotion actions and also in the decision making process in order for them to be considered efficient.

As a consequence, in this paper it is argued that the principal educational objective of health education in schools is to develop student *action competence*, that is, their ability to have reflexive, individual or collective actions and provoke positive changes in their lifestyles and/or life conditions that will lead to a healthy life. It is also argued that this objective is achieved with the genuine participation of students in democratic health education projects, which apply active strategies in the construction of action-oriented knowledge that leads them to carry out actions.

## 2 THEORETICAL BACKGROUND

### 2.1 The holistic concept of health as the basis of student participation in health education

A closed and pre-defined concept of health which focuses on the dimension of disease, violates the definition of health set down by WHO which states that health is “the state of physical, mental and social well-being and not only the absence of disease or disability” [2]. The greatest difference in this definition is that it includes two different dimensions with implications to the didactic of health education: health subjects are related to the avoidance of disease and also to a more subjective dimension of well-being and quality of life, which have as a consequence the notion that people and students have the right

to be involved in their definition of a healthy life.

The definition of well-being included in the definition of health, places attention on what target groups think regarding the question of what really is quality of life, independently from being doctors, school children or members of the local community. Jensen [4] argues that giving attention to the fact that people in general have ideas regarding the definition of well-being is indispensable in health education since these visions can, in many cases, directly contradict the prophylactic advice in health education which has been given up to now. For example, when campaigns or other planned initiatives are based on disease and on the physic-chemical side of the definition of disease, while the target groups are more worried with their quality of life and well-being or on sensory aspects of the definition of health, the two “worlds” (each represented in its preferred definition of health) never totally meet each other. This does not imply that students cannot easily learn to say and write things correctly on tests during school evaluation, but it does not bring about consequences for their daily practices and actions.

Consequently, if medical specialists wish to work within the definition of health set down by WHO, they cannot simultaneously tell people what a “healthy life” consists of. They, like teachers of schools, should be able to give advice about how to reduce future health risks, and target groups must also be invited to be part of the discussion and their opinions must be taken seriously [3], [4], [5]. The definition of health set out by WHO, implies an open concept of health and changes in health education. The methodological approach must be orientated towards the principles of active and democratic participation of students. This does not signify that relevant information about the factors which provoke diseases should be removed from health education, on the contrary, information, like the visions and preferences of students, should be brought forward for active discussion. Such balanced discussion can help to qualify students to make conscientious choices in relationship to their own health [4].

Therefore, because of the holistic concept of health, one of the most important didactic changes in health education consists of commencing health education projects with the visions and anxieties of students, in order to systematically work in transforming the feeling of powerlessness into the desire and ability to act.

## 2.2 Active Learning in the Dynamics of Action-Oriented Learning

The concept of action competence has become a central concept on various levels in the discussion regarding health (and environmental) education in the future. In school practices, as well as in the health (and environmental) education areas, there is a strong trend towards the development of action-oriented learning perspectives. There are four very different reasons to carry out this change [4], [6], [7]:

i) Firstly, the dominance of the scientific domain, where the particular focus has been on giving students knowledge concerning the seriousness and extension of current health (and environmental) problems has not been capable of addressing the social perspectives involved in the questions about the root causes of problems and the action possibilities of society and of individuals regarding these problems.

ii) Secondly, the new focus on “action” has been established according to the awareness that the teaching of behavioral modification, moralizing, never, or very rarely, leads to the behavioral change intended.

iii) Thirdly, the growing criticism concerning the fact that schools have given priority to the academic dimension, at the expense of less practice, has led to an increasing attention to “action-oriented education”.

iv) And, finally, the criticism that the work in schools is artificial, using “as if” situations (e.g. role playing, case studies), created for the occasion, has led to the increasing requests of authenticity and, consequently, to the participation in the reality of society as being part of education.

The reasons above mentioned for an action-oriented education has, in this manner, led to further development on the concept of action-oriented learning.

Action-oriented learning, within the democratic perspective, involves working in a broad field of knowledge, which includes knowledge, not only regarding the consequences of health problems, but also, of their causes, their visions regarding the future and knowledge regarding the strategies in order to find solutions. In other words, action-oriented knowledge is a complex interdisciplinary understanding built on a shared process of critical dialogue, reflection, development of visions, planning and action taking as part of the teaching and learning process [8].

The democratic approach is built on the broad and positive concept of health that embraces the quality of life, absence of

illness, living conditions and lifestyles. Therefore, the interdisciplinary approach can be referred to as a precondition in the development of action competence. Health education cannot be treated, as traditionally, merely within the subject of Natural Sciences. If only a scientific level is applied, the focus will be to describe, and illustrate, the effect that serious problems present and the teaching results will be the concern and pupils’ lack of power. According to Jensen and collaborators [5], [8] if that lack of power is to be transformed or qualified into the real ability to act, classes must place an action perspective in the centre and involve the social perspectives in the discussion of the solutions for our health and environmental problems.

Jensen [9], [10] based on the experience of a great number of study groups, within the Health Promoting Schools Project and other connections regarding the environmental education area, proposes that the following eight perspectives can be dealt with, in the projects within the area of health (and environmental) education:

- (1) which subject should be worked on;
- (2) which problem within the subject in question should be work with;
- (3) what are the causes of this problem;
- (4) why did it become a problem;
- (5) what alternatives can one imagine;
- (6) what action plans exists to obtain these alternatives;
- (7) what barriers will be brought to light through these actions; and
- (8) what actions will be started.

These perspectives do not necessarily represents steps that should be worked on following a certain order, but issues that must be dealt with during the learning process. Dealing with these perspectives means creating some important preconditions in order to develop action competence in health (and environmental) education.

The first dimension of this action-oriented knowledge, which is knowledge about the effects of the problem, includes the first and second point above mentioned, which intends to achieve a common perception concerning the real problem that is being dealt with. In other words, which conditions would we like to change and which would we like to maintain. Regarding the second point, it must make clear why we feel that the actual condition represents a problem and to whom does it represent a problem. The scientific observations have an important role in this point to delimitate the range and extension of the problem [9]. This type of knowledge

typically qualifies us to consider statements such as: "If I do this, this will happen" or "if these are the conditions or circumstances, the risks of this happening may increase [8]. The classroom activities focused on student research-groups, followed by class assembly in order to share and negotiate the new knowledge, have given way to positive results in the construction of this knowledge regarding the specific type of problem [3], [11].

The second dimension of this action-oriented knowledge includes the third and four points above mentioned. The third point deals with achieving a common comprehension concerning the underlying causes of the chosen problem. The causes must be found as soon as possible [10]. Such causes (social determinants) include causes associated with social factors underlying our behavior. When working on a problem in the local community, class or school, a broad discussion of the causes should also be carried out. Even if the problem is displayed in class or at school (e.g. not having access to condoms or not having the abilities to speak about safe sex with colleagues or romantic partners), the underlying causes are quite often found outside these domains. Consequently, according to Jensen [10] the social observation methods, where health and environmental problems display economic, social and cultural structures in which they develop, are important. Vilaça's studies [3] have shown that social inquires and interviews, participant observation and life stories collected by student research-groups, working outside the classroom, have given positive results in the construction of a common understanding about the reasons why our problems exist.

The third dimension, knowledge about change strategies, includes the actual change process, which means, knowledge about how to have control over our own life, how to influence the school environment or how to contribute to changing the living conditions in society [3], [8], [12]. This knowledge is crucial for the development of action-oriented health education. It also includes knowledge about how structures cooperate, how they develop and organize strategies, how to analyze and use power relationships, etc. This kind of knowledge is particularly related to the field of psychology and sociology. Activities focused on the Internet, such as, talking with colleagues of other countries, consulting others similar projects and informal conversations with school or community leaders, followed by class assembly in order to balance the pros and cons of the

development of these change strategies directed towards the causes of the problem, have shown positive results [3].

The fourth dimension, knowledge about alternatives and visions, includes the last three points above mentioned for action-oriented knowledge. It deals with the development of students' ideas, dreams and perceptions regarding their future life and the society in which they will grow up [10]. An important prerequisite for the desire and ability to initiate changes is that a person must have real possibilities, including the necessary support and energy, to develop and mould their own dreams and ideas for the future regarding their own life, work, family and society. This dimension may include knowledge concerning the circumstances in the school, neighborhood or concerning how the issue can be dealt with in other cultures, near and distant, as long as the knowledge concerning such circumstances can be a source of inspiration to develop our personal visions [8], [12]. It is also important (point 6) that imagination is allowed in order to give rise to a group of several healthy actions and to accomplish some visions that were outlined. It is of great importance that all suggestions are brought out to class discussion. Regarding the last two points mentioned, the different actions should be discussed according to the effects and barriers that may appear and, finally, the development of one or more actions will be decided [10], [13].

### 3 METHODOLOGY

#### 3.1 Sample

To research the conceptions of the teachers regarding their pedagogical questions and practical approaches to sex education, a sample of schools within the preparatory (third cycle) and secondary school levels of the Braga District, in the North of Portugal, was defined. Teachers that had taught sex education topics, in whatever format, in the last three years before the interview were chosen for this study. In each school one teacher from the 7<sup>th</sup> to 9<sup>th</sup> year and another from the 10<sup>th</sup> to 12<sup>th</sup> year was selected. This type of sampling was intentional, that is, only those cases that had a good probability of giving rich information in relationship to the objective of the study were selected (Patton, 1990). Although a relatively large number of participants were involved for a qualitative research (N=87) (table 1), care had to be taken when extrapolating these results for other sex education groups or for the general

population of the preparatory and secondary schools of the Braga District.

TABLE 1  
CHARACTERISATION OF THE INTERVIEWED TEACHERS (N=87)

Variable		n	f	%
Sex	Male	87	16	18,4
	Female		71	81,6
Age M=37 Max=53 Min=23 SD=5,9	20-25	64	1	1,6
	26-30		9	14,1
	31-35		15	23,5
	36-40		23	35,9
	41-45		12	18,7
	46-50		2	3,2
Academic degree	Bachelor's	87	3	3,4
	Degree		75	86,2
	Master's/ Post-Grad		9	10,3
Subject Group	Sciences	86	61	70,9
	History		4	4,7
	Moral Ed		10	11,6
	Philosophy		1	1,2
	Artistic Ed.		2	2,3
	Languages		5	5,8
	Physical Ed		2	2,3
	Geography		1	1,2

The sample was composed of 87 teachers, mainly of the female sex (81.6%), with an average age of 37 (range of 23 to 53 years, SD= 5.9). The majority were over 35 years old (61%) and had a Degree (86.2%) or a Master's degree (10.3%). The majority of them belonged to the Science subjects group (Biology, Earth and Life Sciences, Biology Laboratory Techniques, Environmental and Natural Sciences) (70.9%) and from the Catholic Religion and Moral Education group (11.6%).

### 3.2 Data Collection Instrument

A semi-structured interview *Sex Education Pedagogical Issues and Practical Approaches* was elaborated and validated. The first version of this interview was submitted for the appreciation of three specialists in science education and to the execution of a pilot study, so as to validate it, which means, to check vocabulary, language level, respondents' understanding of questions and respondents' reactions to the interview. During the execution of the pilot study, as well as in the final study, the questions were formulated in a colloquial way so as to generate spontaneous and rich descriptions. The analysis of the pilot interviews applied to eleven teachers [14], who made it possible to reach the conclusion that the final interview had to include a greater level of openness in

order to be essentially exploratory. This final guide had a sequence of issues to be dealt with and a group of principal questions to be put forward. The questions were aimed at the thematic dimensions and the dynamics of the interview and included questions to deepen the matter whenever adequate, as for instance, "Can you give me a detailed description of the situations in which that happened?" and questions to specify the answers, for instance, "Who suggested which hypothesis should be selected?". During the interviews, there was total freedom to change the sequence and the configuration of the questions, so as to follow the answers given and the everyday life stories related to the description of health promotion and sex education carried out by the interviewees.

This interview has as one of the principal objectives to analyze teachers' conceptions regarding the conceptualization and implementation of the last sex education project or activities in which they participated in the school community. This paper will present and discuss part of the data collected in this interview, which are related with the methodology of sex education activities.

## 4 RESULTS AND DISCUSSION

Teachers used three types of teaching methods in sex education: lecturing, alternative active methods to lecturing and learning methods based on the empirical experience.

The main techniques used by teachers in the lecturing (table 2) were anonymous question boxes or brainstorming (74.7%), film watching followed by debates (87.4%), exploration of transparencies or slides in class dialogues (81.6%), attending conferences and seminars (71.3%) and the making of a web page (1.1%).

TABLE 2  
USE OF THE LECTURING METHOD ON SEX EDUCATION (N=87)

	f	%
Anonymous question boxes or brainstorming	65	74,7
Exploration of transparencies or slides in a class dialogue	71	81,6
Film watching followed by debates	76	87,4
Attending conferences and seminars	62	71,3
The making of a web page	1	1,1

Generally to increase student interest and involvement regarding the sexual or reproductive health theme which they were going to initiate, teachers would carry out a

diagnostic test or ask students to, individually or in groups, write down anonymously all the questions that they would like to see answered regarding the theme. With the same objective, an initial brainstorming was also frequent, generally in class, with the organization of the ideas brought up by sub-themes and discussion of the extent of the theme, but without answering the questions or explaining the topics that were brought up.

In order to maximize the comprehension of the information and withhold it, teachers used audiovisual material to present diagrams, schemes, plans, graphics or images in transparencies or presented it in a power point format.

Generally there was concern in using techniques to involve the participants during these lectures, providing the students with the responsibility of listening actively through the following techniques: asking them questions to clarify the lecture; asking them to answer or ask questions about the issue at the end; and doing a summary of the contents dealt with or asking oral questions to their colleagues. Quite often these techniques were applied in class or in small groups with a final presentation in class.

Very few teachers mentioned having used techniques to involve the participants actively when viewing the films. When they were mentioned, they consisted of taking guide notes during the film, such as, completing worksheets or carrying out small debates during the breaks when they stopped watching the film or completing worksheets at the end of the film, based on what they had observed.

The conventional behavior after the lecture was to reinforce the most important aspects in a question and answer period. Some teachers have already mentioned more active methods for this final phase, such as: asking the participants to prepare questions for the teachers to answer; asking the students to review the contents in groups and elaborate questions for a formative test; and asking the students to reflect upon the implications regarding the issue exposed by them either orally or in a brief questionnaire.

A strategy also used quite often within the lecture was to make the students attend conferences, seminars or workshops oriented by invited specialists, generally, doctors, nurses or psychologists. Only very rarely did students volunteer for these activities. In most of the schools these activities were carried out within the school timetable or as extracurricular activities, but the students were, almost invariably, accompanied by a

teacher who helped them to prepare the session beforehand with an invited specialist and during the session had the role of moderator of students' irreverent behavior. In some cases these activities were suggested and organized by students in order to solve problems, which meant that they specific carried out actions. According to the opinion of most of the teachers, the collaborators who had been coming to the schools were excellent communicators and worried about pedagogical aspects more than only traditional ones. Most of the time, the students felt more comfortable with the specialists who were invited because they did not have to be with them everyday, as they do with the teachers, and they felt they were able to expose their problems in an anonymous way.

The active alternative methods to lecturing (table 3) were used to replace the more conventional ones, like isolated strategies to deal with themes factually in a more entertaining and active way than the usual lecturing method would allow, or reinforce the lecture and included: case studies, study groups, research groups and demonstrations.

TABLE 3  
USE OF ACTIVE ALTERNATIVE METHODS TO LECTURING ON  
SEX EDUCATION (N=87)

	f	%
Case studies	39	44,8
Class debate	93	88,5
Completing worksheets in study groups	58	66,7
Group analysis of films and analysis of television programs	76	87,4
Investigation of the theme in the school library	65	74,7
Investigation of the theme on the Internet	59	67,8
Investigation of the theme in the Health Centres and Pharmacies	19	21,6

The "case studies" with the presentation of dilemmas and the resolution of problems were applied by 44.8% of the teachers investigated. The teachers presented the students with a narrative of real or fictitious situations with the necessary detail to allow the groups to analyze the problems involved and present solutions to solve them.

The fact that the problem in analysis is identified in a simulated story told in a film or text (n=25; 64.1%) or in a story about students' daily life (n=24; 61.5%) interferes, according to the teachers, not only with students' motivation to debate which would have been the best hypothesis to solve the problem and which would have been the causes and consequences of the problem, but

may also interfere in the fact that they feel that there is a greater probability of the event described happening to them. Nevertheless, real stories may lead to serious value judgments that may be negative for the person in question. Most of the teachers, even though having already chosen real and simulated stories to debate, found the simulated stories more useful.

The construction of oriented knowledge to solve the problem varied according to the teachers: 56.4% of the teachers referred that in this type of activities the students discussed the causes more rather than the consequences; 25.6% referred that they discussed the consequences more than the causes of the problem and 19.9% considered that students discussed the causes and consequences of the problem with the same emphasis.

The type of student participation in the suggestion regarding the hypotheses to solve the problem and in the decision regarding the best hypothesis to be followed, varied from a low participation level in which "the hypotheses to solve the problem were presented by the teacher who decided with students which would be the best hypothesis to be followed" (n=2; 5.1%), went through an intermediate level of participation where "the students suggested the hypotheses to solve the problem and decided on their own which would be the best hypothesis to be followed" (n=4; 10.3%), to a maximum participation level where "the students suggested the hypothesis and decided together with the teacher" (n=33; 84.6%).

Most of the teachers (66.7%) selected the stories well, which meant that the stories were very similar to the students' real lives. As a consequence of this, students told similar stories regarding their daily lives in the classroom.

The "search for information" by students as an alternative to the traditional lecturing method was generally used by the teachers with the final objective of implementing a class debate (88.5%).

One of the forms most used by the students to search for information, that could be taught by the teachers in a lecture, was to divide the students in groups, give out (or ask students to bring) documents, leaflets or reference books which could allow access to relevant information in the Internet and library or films related to the theme, so as to prepare themselves for the final debate. Quite often, there was the organization of a discussion panel with the spokesmen of the groups, moderated by the teacher or by one of

students, in which the other students participated as an audience. Nevertheless, very often this debate consisted simply of a final presentation of the facts, concepts and opinions that each group had reached, presented orally with the use of transparencies or posters, and in an exchange of explanations among the groups when the final results were different.

The "study groups" were another technique used as an alternative method to traditional lecturing. The most frequent was the use of worksheets (66.7%) for the students to complete in groups, clarifying their contents. The group analysis of films and the analysis of television programs were also several options mentioned by the teachers for the students' work in study groups (87.4%). The general method followed by the teachers included giving the students a small quantity of informative material (as the previous one or, often news from newspapers or magazines, exercises from the Science Book or small amounts of information from other books), asking them to read out loud or silently and form work groups so as to study the material following precise instructions given by the teacher. The group work was generally led by spokesperson who was the representative of the group in the class debates, although all of the students ended up talking, especially when a final consensus was not reached.

The teachers quite often organized the students into "investigation groups" asking them to do research on the theme, on which they had done a brief general presentation. In many situations, the class was organized in a way that each group investigated a sub-theme within the general theme selected. The resources for the investigation were generally suggested and decided by the students, who mainly resorted to the school library (74.7%), to the Internet (67,8%) and to the Health Centers and pharmacies (21,6%). The methodology that the teachers followed was, instead of asking questions, they provided conditions so that the students could make their own questions for their future comprehension of the theme. As the students had very little knowledge regarding the themes, many teachers made a brief presentation of the themes in order to raise their curiosity and interest and stimulate the emergence of problems for them to investigate.

The "demonstration" of information was an alternative form to the exposition of a concept or group of facts, generally used by teachers to involve the students in the demonstration of contraceptive methods, specially regarding

how to put on condoms.

Most of the learning approaches based on “experiential learning” used by the teachers were: active observation, written tasks and action learning projects.

“Role play” was not often used by the teachers (n= 40; 46,0%), but was one of the main techniques in the Students’ Support Office (70%). This was the method that the teachers knew best to help the participants to experiment certain feelings and practice personal competences, such as assertiveness and verbal and non-verbal communication in general in a simulated situation. The situations of the role play tasks used were similar to the real ones, describing with precision, the high risk situations and the pressures that adolescents experience and also integrating their life stories, their own words, sentences and syntax.

Many teachers (n=47; 54.0%) never tried this technique because they did not have the technical preparation to carry it out and/or considered that its application in a classroom context was difficult, especially for those students with a low self-esteem and/or inhibitions.

There were several different situations when the teacher planned a role play exercise to select the original document (scripting) which was presented to the class: prescription of roles, semi-prescription of roles, preparation of the original scripting by the participants, improvisation, dramatic readings and repeating once again real life situations that they had experienced. In some cases the students were divided into small groups in the classroom in order to prepare the role that had been given to them (n=9; 22.5%), nevertheless, almost most of the time they worked on it individually (n=28; 70%) whether it was a prescribed role or a semi-prescribed role. Sometimes, in extra-class activities, students interviewed people (2,5%) or did research (5,0%) in order to clarify the role to be carry out.

There was also “active observation and written tasks” operationalized by the teachers through the development of simple worksheets or precise instructions before the viewing of a film, a game or related activities. The final information processing techniques that have already been mentioned consistently revealed the concern of teachers with the active observation by students.

Some of the teachers who participated in this research, although very few (29.9%), used action-oriented learning to orientate the construction of students’ knowledge (regarding the consequences and the causes

of the problem, strategies that enabled the change and hypotheses of solving the problem) in a way which allowed them to carry out actions in order to solve real problems selected by themselves. The participatory and action-oriented projects were generally a result of students’ visions to educate the younger students or students of the same age concerning sexual and reproductive health or to educate themselves (table 4).

TABLE 4  
TYPES OF ACTIONS CARRIED OUT ON ACTION-ORIENTED  
PROJECTS (N=87)

	f	%
Conception and presentation of posters, stickers and news for the newspaper	25	28,7
Peer education	24	27,6
Construction, implementation and analysis of interviews	10	11,5
Research aimed at solving doubts/ problems regarding their own sexual and reproductive health	8	9,2
Developers of thematic games and responsible for their implementation	7	8,0
Organisers and those responsible for the implementation of traditional games and “peddy paper”	4	4,6
Self-organization to ask for help at the School’s Student Support Office	3	3,4
Self-organization to ask for help in the Youth Consultation in the Health Centre	1	1,1

The students carried out indirect collective actions aimed at changing living conditions at school, mobilizing the students in peer education as: teacher monitors in sessions (27,6%); change catalysers of peers through the conception and presentation of posters, stickers and news for the newspaper (28,7%); organisers and those responsible for the implementation of traditional games and “peddy paper” (4,6%); developers of thematic games and responsible for their implementation (8,0%) and change catalysers of peers and parents by conducting interviews (11,5%).

The students also carried out, however less frequently, individual actions aimed at changing their lifestyles, such as; research aimed at solving doubts/problems regarding their own sexual and reproductive life (9,2%); self-organization to ask for help at the School’s Student Support Office (3,4%) and self-organization to ask for help in the Youth Consultation in the Health Centres or Youth Portuguese Institute (1,1%).

Both the collective and individual actions carried out by students were suggested by



teachers or by students. Nevertheless, the decision whether to implement them or not always belonged to the students.

In synthesis, on one hand, the collective actions above referred to enabled students to create a support policy in the ambit of students acting as catalysers of change among their colleagues and their parents. On the other hand, both collective and individual actions developed student action competence, that is, their ability to have reflexive actions and provoke positive changes in their lifestyles and/ or life conditions that will lead to sexual health.

## 5 CONCLUSION

In this study, the majority of teachers who carried out sex education started their projects by asking for students' ideas about the themes and/or problems they wished to develop in school projects. Traditional lecturing is the principal method used, however they usually applied techniques to involve the participants during these lectures, providing the students with the responsibility of listening actively.

Active alternative methods to lecturing were also used by the majority of these teachers to totally replace the lectures, like isolated strategies to deal with themes in a more entertaining and active way or to reinforce lectures.

The majority of teachers never tried experiential learning, including action-oriented learning, because they did not have technical preparation to carry them out.

Therefore, the majority of these teachers, in spite of asking for students' ideas about the themes and problems of sexual health that they wished to develop in school projects, did not discuss with them what a healthy life is. In addition, despite their worries about using active strategies, they did not allow students to genuinely participate in the sex education projects that were intended to change the causes (determinants of health) of the problems. In fact, the majority of teachers are not able to carry out action-oriented projects.

In this context, because today the key concept in health education is action competence, which refers to the abilities and motivation of students to act in order to create and facilitate changes for health promotion, in-service teacher training including the holistic concept of health and action-oriented knowledge is a priority in the promotion of health education.

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