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A System of Teaching Tasks to Train the Specific Professional Skill Designing Community Projects

*[Sistema de tareas docentes para la formación de la habilidad profesional específica
diseñar proyectos comunitarios]*

*[Sistema de tarefas de ensino para o treinamento da habilidade profissional específica de
elaboração de projetos comunitários]*

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ABSTRACT

Introduction: The acquisition of professional skills has always been dealt with by science; hence, teaching tasks as components of the teaching process from the existing structural ties reveal its usefulness to create specific professional skills.



Aim: To suggest a system of teaching tasks for the creation of this specific professional skill: to design community projects through the Bachelor's Degree in Physical Culture.

Methods: Some of the methods used in this study were documentary analysis, analytical-synthetic, inductive-deductive, and survey, as well as methods and statistical-mathematical procedures.

Results: According to the theoretical results of this research, the actions and logical operations of the specific professional skill designing community projects in the Bachelor Degree of Physical Culture students are identified according to the stages of the logical modeling method through the heuristic principle of analogy. The potentialities of the main integrating discipline, and particularly, the on-the-job-research practices III were taken into consideration to complete the acquisition of the skill, and design teaching tasks as a system, to favor the skill acquisition process. These teaching tasks are recommended following the actions and operations of the specific professional skill identified.

Conclusions: there are other specific professional skills that still show insufficient treatment from research for the sake of their training, which limits the graduate from adequately fulfilling his community social role.

Keywords: Teaching tasks, acquisition, specific professional skill, designing community projects

RESUMEN

Introducción: la formación de habilidades profesionales ha sido un tema abordado desde la ciencia, y para que esta tenga lugar, el uso de las tareas docentes como célula del Proceso Docente Educativo a partir de los nexos existentes en su estructura, revelan su utilidad para formar habilidades profesionales específicas.

Objetivo: la propuesta de un sistema de tareas docentes para la formación de esta habilidad profesional específica: diseñar proyectos comunitarios; en la Licenciatura en Cultura Física.



Materiales y métodos: entre los métodos aplicados en esta investigación se destacan: análisis documental, analítico sintético, inductivo deductivo y la encuesta, así como los métodos y procedimientos en el orden estadístico-matemático.

Resultados: a partir de los resultados teóricos en la investigación, las acciones y las operaciones de carácter lógico de la habilidad profesional específica *diseñar proyectos comunitarios* en estudiantes de la Licenciatura en Cultura Física, son identificadas teniendo en cuenta las etapas de la *metodología de marco lógico* por el principio heurístico de analogía. Se tuvo en cuenta las potencialidades de la *disciplina principal integradora*, y en particular, de la *práctica laboral investigativa III*, para lograr el proceso de formación de dicha habilidad y elaborar tareas docentes; concebidas como un sistema, con el objetivo de contribuir al proceso de formación de la habilidad. Estas tareas docentes se proponen a partir de las acciones y las operaciones de la habilidad profesional específica identificadas.

Conclusiones: existen otras habilidades profesionales específicas que muestran aún insuficiente tratamiento desde la investigación en aras de su formación, lo que limita que el egresado cumpla adecuadamente su rol social comunitario.

Palabras clave: tareas docentes, formación, habilidad profesional específica, diseñar proyectos comunitarios.

RESUMO

Introdução: a formação de competências profissionais tem sido um tema abordado desde a ciência, e para que isso ocorra, a utilização das tarefas docentes como célula do Processo Educacional de Ensino a partir dos elos existentes em sua estrutura, revelam sua utilidade para capacitar habilidades profissionais.

Objetivo: propor um sistema de tarefas pedagógicas para a formação desta habilidade profissional específica: elaboração de projetos comunitários; na Licenciatura em Cultura Física.

Materiais e métodos: dentre os métodos aplicados nesta pesquisa, destacam-se: a análise



documental, a analítica sintética, a dedutiva indutiva e o levantamento, bem como os métodos e procedimentos de ordem estatístico-matemática.

Resultados: a partir dos resultados teóricos da investigação, identificam-se as ações e operações de natureza lógica da capacidade profissional específica para conceber projetos comunitários nos alunos da Licenciatura em Cultura Física, tendo em conta as etapas da metodologia do quadro lógico. o princípio heurístico da analogia. Considerou-se o potencial da disciplina integradora principal e, em particular, da prática laboral investigativa III, para concretizar o processo de formação desta competência e desenvolver as tarefas docentes; concebido como um sistema, com o objetivo de contribuir para o processo de formação de competências. Essas tarefas de ensino são propostas com base nas ações e operações da habilidade profissional específica identificada.

Conclusões: existem outras competências profissionais específicas que ainda apresentam tratamento insuficiente desde a pesquisa em prol de sua formação, o que limita o egresso a cumprir adequadamente seu papel social comunitário.

Palavras-chave: tarefas docentes, formação, competência profissional específica, elaboração de projetos comunitários.

INTRODUCTION

Syllabus adjustment progress in Cuba is under the E version. The Bachelor's Degree in Physical Culture was implemented in 2016. One of the specific professional skills found in the professional model is designing community projects with a transforming perspective, based on the diagnostic of sociocultural needs and the physical activity of the population, as part of the contexts where their working and researching activities are performed, hereto referred to as *designing community projects*. It is part of the skills included in the main integrating discipline (DPI), named Research-Work Education (FLI), which is made of three subjects: Research-Work Practice I (PLI-I), Research-Work Practice II (PLI-II), and Research-Work Practice III (PLI-III).



There are also subjects outside the discipline, which influence the familiarization of students with assessment activities or forms that help them acquire the previously mentioned skill. However, from statement of the skill in the contexts of research and work where acquisition takes place (the proper setting), it requires no particular subject (elective or part of the program), considering that the solution rests in the application of science and that the new generation of syllabi calls for time optimization, with more hours for practical activities.

This work and research activity takes place at the base (schools and sports facilities) where the teaching process is performed in the four areas of professional influence (physical education, sports, recreation, and therapeutical-prophylactic physical culture). this activity is directed to the systematic practice of physical activity to favor comprehensive education in children, adolescents, and young adults (MES, 2016).

The bibliographic review evidenced the existence of research studies targeting basic and specific professional skill acquisition. They aim to manage and plan the teaching-learning process in physical education, sports, and recreation, as the most commonly dealt with in the PLI setting. Despite the relevance of their outcomes, they fail to tackle the specific professional skill *designing community projects*.

The Cuban policy stated by the Ministry of Economy and Planning (MEP, 2020) for local development and the adjustment of the economic and social model demands local development, so the acquisition of skill designing community projects constitutes a need for the Bachelor's Degree of Physical Culture graduates to fulfill their social roles as local game changers. Training made possible the integration of higher education professionals capable of leading local development is a demand and a priority.

Generally, professional skills acquired through PLI in the Bachelor's Degree of Physical Culture have been dealt with by several authors, such as Rodríguez *et al.* (2014) who have studied research skills through PLI, though limited to theoretical-practical actions (summarize, explain, analyze, assess, diagnose, design, implement, and apply contents) as part of research skills. Among the authors that refer to the acquisition and



development of specific professional skills through PLI are Ruiz & Aguiar (2014) and Reyes *et al.* (2014), who show their findings and results through PLI, with recreation as the main setting. Among the skills used to diagnose, program, manage, and assess is *designing community projects*, though it is not frequently treated.

Other researchers, like Williamson (2019) and Palacios *et al.* (2022) worked on professional pedagogic skills to improve the Research-Work Practice. Román & Scott (2018) and Grillo *et al.* (2019) recommended methodological indicators and strategies based on the insufficient development of professional skills in second and third-year Physical Culture students to develop professional skills through *Research-Work Education in Recreation and Physical Education*. Their studies limited to the elementary education context and failed to consider the characteristics of the other educational levels and the community setting.

Moreover, Román *et al.* (2021) referred to the development of professional pedagogic skills in third-year Physical Culture students. The diagnostic performed revealed shortcomings in the behavioral modes during the internal practical lessons and the research-work practices, thus concluding that there were few research studies about PLI associated with *Research-Work Education as a main integrating discipline in Physical Culture*. Hence, the number of theoretical and practical results that respond to the poor development was observed to be low in the Physical Culture students.

Despite the diversity of specific professional skills in the Bachelor's Degree of Physical Culture, the authors consider that most studies consulted refer to planning and managing. However, there are no references to research dealing with the specific professional skill *designing community projects* despite the relevance it has in the current Cuban reality.

Díaz-Canel *et al.* (2020) noted that the plan of action approved by the Regional Conference of Higher Education in Latin America and the Caribbean (2018) agreed that higher education is defined by its transforming local social responsibility. Likewise, it responds to the sustainable development goals (SDG) comprehensively. It co-creates



knowledge and innovation; it requires the integration of teaching, education, research, and social engagement to fulfill its mission.

These authors think that the integration of Cuban university processes and their ties with the local communities to promote greater social and economic impacts is still insufficient. The ties between universities and the different levels to generate development are imperative. Knowledge must be produced in universities with a foundation in social practice.

In the professional model of the Bachelor's Degree in Physical Culture, the specific professional skills include *designing community projects*. Rodríguez *et al.* (2014), upon a diagnostic conducted, found "poor student inclusion in local development projects and other community activities" (p. 82), which confirms the little attention given to this specific professional skill in the professional education process.

This skill, contextualized in PLI as a subject, and FLI as DPI, suggests full acquisition through PLI III, considering that the basic link is the sports facility in the community, which not only tackles three performance areas (sports, physical culture, and recreation) but also is closely related to the local educational institutions, though physical education is not directly treated. It ensures greater possibilities for students to change their reality.

The significance of the acquisition of this skill can be determined through the policy for local development of the country to promote and strengthen the local potentialities. It will permit much broader possibilities for the graduates as carriers of a social mission, and to reinforce interdisciplinary alliances needed among the disciplines of the Bachelor's Degree of Physical Culture, along with the disciplines of other converging degrees, through the graduates. It is a joint and multidisciplinary work to be done in the local communities.

Hence, it can be outlined that there is clear evidence that the studies related to the skill acquisition process specific professional skill *designing community projects* in the Bachelor's Degree of Physical Culture students can have a theoretical rationale,



particularly the search of educational ways for acquisition depending on the potentialities of the local development projects included in the Local Development Policy for the transformation of the social reality. PLI is the proper setting where this educational process takes place.

Accordingly, the acquisition of specific professional skill *designing community projects* is necessary (and the purpose of this research), to work on a teaching task proposal for the acquisition of this specific professional skill in the Bachelor's Degree of Physical Culture.

MATERIALS AND METHODS

The study had a descriptive, non-experimental perspective. The sample was made up of 76 students who ended their third year between 2018-2019, 2019-2020, 2021-2022.

The theoretical methods used were analytical-synthetic, inductive deductive, historical-logical, and systemic structural. The empirical methods were used as well. The mathematical method used was descriptive statistics, particularly percentage calculation. Upon the application and analysis of the several instruments, a system of teaching tasks was designed to encourage the acquisition of specific professional skill *designing community projects*. The procedures followed the ethical standards of the Ethics Committee, in which all the participants expressed their agreement to be part of the study.

RESULTS AND DISCUSSION

The current state of the skill acquisition process-specific professional skill *designing community projects* was described after a diagnostic of third-year students of the Bachelor's Degree in Physical Culture. Their placement in the second period of the third year can be explained by the fact that it is before PLI III, where the authors considered



the implementation of the teaching tasks system to be more suitable. Moreover, in previous years and periods, the students complete their curricula and acquire skills that lead to the acquisition of the specific professional skill in this paper. The diagnostic permitted determining the main deficiencies of students to design a community project, based on the actions declared in Chapter I.

Upon finishing PLI II, the students who took this subject in the 2018-2019, 2019-2020, 2021, and 2022 periods, were asked to respond to a questionnaire containing a problematic situation with questions about their assessment of the cognitive dimension of the specific professional skill. To address this task they needed to reactivate previous knowledge related to the actions and operations to be performed in the diagnostic as a process and starting point, as well as the elements to consider to conclude scientific research successfully. In this particular case, the determination of actions and operations to run a community project based on the common points of knowledge acquired through the subjects completed up to the sixth period.

The students from the 2018-2019 course were the first graduating in 2019-2020 at the University of Cienfuegos' Faculty of Physical Culture, who went through syllabus E. Of the thirty students in the third year (2018-2019), only 30% (9) could identify that the diagnostic was the starting point for the possible solution of the problematic, and 76.7 % (23) could not recognize the actions for the diagnostic. Furthermore, 80% (24) identified instruments that might be applied to gather relevant information, among them, interviews and surveys. Only 26.7% (8) mentioned some social actors that took part in the solution of the problem, being the physical culture graduate the most frequently named. However, the community actors and the relation that might be established among other professionals for a multidisciplinary solution were disregarded. No student thought the community project could be a possible solution to the problem, while only 13.3 % (4) considered the diagnostic, design, and implementation positive steps.



During the 2019-2020 academic year, the survey was applied to 28 students who finished the third year. Then, only 46.4 % (13) were able to identify the diagnostic as the starting point to address the said problem; however, 71.4 % (20) ignored the diagnostic actions. The survey, interview, and observation guide were the most frequently mentioned documents, with 89.3 % (25) for information gathering. Only 17.9% (5) mentioned some social actor that took part in the solution of the problem, being the physical culture graduate the most frequently named. Again, these students did not think the community project could be a possible solution to the problem, while only 21.4 % (6) considered the diagnostic, design, and implementation as positive steps.

The 2021 school year was influenced by COVID-19; however, teaching was adjusted so that DPI implementation was not affected. On this occasion, the samples selected for the survey consisted of seven students, of which only 22.2 % (2) considered the diagnostic the starting process in addressing the problem. Moreover, 88.9 % (9) were unaware of the diagnostic actions to be taken. The same students mentioned the survey, interview, and observation guide as instruments that can be used to collect information. Overall, 55.6% (5) mentioned some social actors that took part in the solution of the problem, being the physical culture graduate the most frequently named, but they failed to acknowledge the role of the community itself, along with the inhabitants, as social actors. Students also were unaware of designing community projects as the possible solution and only mentioned a plan for recreational activities as a solution resource. Only 22.2 % (2) considered the diagnostic, design, and implementation as positive steps.

Finally, in the 2022 school year, nine third-year students answered the survey. Of them, 66.7 % (6) could not determine the diagnostic as the starting point to find a solution to the problem, while only 22.2 % (2) recognized some implicit actions in the diagnostic. Overall, 77.8 % (7) mentioned the survey, interview, and observation guide as instruments that can be used to collect information about the problem, and 33.3 % (3) said that the only social actor is the physical culture professional. No student considered the community an actor of the community project. Their responses were more in favor of plans or programs of activities with a marked emphasis on community recreation. The



diagnostic, design, and implementation are thought to be positive steps by 33.3 % (3) of the sample.

According to the survey of students from different school years, several shortcomings were revealed:

- To identify the diagnostic as the starting point to address the most diverse problems of physical culture.
- To determine the actions and operations for the diagnostic.
- To conceive the diversity of instruments that permit the search and compilation of information to determine the main community issues.
- To consider the greatest number of actors that can contribute to the community problems.
- To conceive the community problem as the possible solution, which means a lack of knowledge about its essence and usefulness.
- To identify the diagnostic, design, and implementation, as actions to address the community problems.

These shortcomings lead to the general objective of the teaching tasks system for the acquisition of the specific professional skill *designing community projects*, and the fundamentals of the proposal. Before conceiving the system of teaching tasks, the actions and operations of the specific professional skill were identified.

For a successful process, it is important to consider the findings of Müller (1984), who referred to the relevance of rules, strategies, and heuristic procedures in the search for new knowledge, and also new ideas to address several problems. Among the general heuristic principles, analogy consists of the content and form similarities. Polya (1985), in a study about analogy, said that two systems are analog if the relationships of their parts are definable. Analogy, as a positive heuristic factor to meet the goal of this research, permits the utilization of ways to solve problems or exercises (designing community projects).



The Logical Modeling Method (LMM) is one of the most popular to conceive and implement projects. A review of research, such as Centeno de López & Zuriaga (2020), Cárdenas *et al.* (2022), and Prado *et al.* (2023), stressed similarities in determining LMM stages. There are four stages in LMM: the identification of a problem and alternatives to its solution, project planning or design, project execution or follow-up, and project evaluation.

An analysis of LMM stages or phases, through analogy, favors a correspondence between every LMM stage for the design of projects and actions of professional skill *designing community projects* (Table 1).

Table 1. - LMM tasks and analog actions for the acquisition of skill *designing community projects*

| Stages of the Logic Frame Methodology | Actions of specific professional skill <i>designing community projects</i> |
|--|--|
| Identification of the problem and alternative solution | To determine the significant elements of the intervention |
| Project planning or design | Designing the community project |
| Project execution or followup | Execution of the community project |
| Project evaluation | Evaluation of the community project |

Skill acquisition requires knowledge of its actions and operations, which helps conceive its essence according to the goal set. The actions and operations in each case of *designing community projects* must be taken into account to achieve a product or result that entails community transformation. Its relationship with LMM makes it flexible, with feedback processes, and a greater opportunity for students to be more creative and feel comfortable at doing teamwork. At the same time, logic permits proper conditions to design community projects.

To determine the actions and operations of specific professional skill *designing community projects* LMM is used as a reference, then the analogy is established between its stages and the actions of the previously mentioned skill. There may be one or several



operations for every action, and they, in turn, may also function as an action. The actions and operations suggested are shown below (Table 2).

Table 2. - Actions and operations of specific professional skill designing community projects

| Actions | Operations |
|--|--|
| To determine the significant elements of the intervention | To analyze the characteristics of the community and its participants. To characterize the community socially and demographically To diagnose the sociocultural and physical activity needs of the community. To determine the beneficiaries (direct, indirect, neutral/rejected, and affected/opponents) To analyze problems: To design the problematic tree: To identify the existing problems: To determine, among the problems identified, the most critical one, around which most information gathered can be arranged. To determine the grounds causing these problems. To set up the effects caused by the main problem. To determine causal relations. To design a causal relationship diagram To analyze the goals: To design the goals tree To change the problems identified into objectives when possible. To determine additional means considered important to ensure the intervention logic. To check the mean-ends relationship. To design an inverse tree (positive) from the problems. To analyze the alternatives and/or strategies To assess the most suitable alternatives and/or strategies, including the resources available, estimated time, priorities, risks, goals, effects, beneficiaries, and feasibility. To identify the most interesting mean-ends relationships in the goals tree. To compare the alternatives and/or strategies depending on the criteria matching the previous opinions. To select the most suitable alternative and/or strategy. To detail the general and specific goals of the future project. |
| Designing the community project | To determine the vertical logic: To establish general and specific goals. |



| | |
|--|---|
| | <ul style="list-style-type: none"> To determine the possible results. To plan activities that respond to goal fulfillment, depending on the resources and costs. To determine the horizontal logic: To establish the intervention logic. To conceive the objectively verifiable indicators To determine the sources of verification. To establish the assumptions/hypotheses/external factors. To redact the project's document |
| To execute the community project | <ul style="list-style-type: none"> To implement the activities planned in the community project. To spread the final document among the participants. To communicate the activities in the community. To monitor the execution of activities. |
| Evaluation of the community project | <ul style="list-style-type: none"> To define the type of evaluation [before (evaluation of design), during (process evaluation), or after (final or impact evaluation)] To determine the evaluation tools to be used. To redact the evaluation report. To assess the possible transference of the project conceived for other settings or communities. |

The system of teaching tasks for the acquisition of skill *designing community projects* consists of four teaching tasks containing actions and operations. The inner structure of the teaching tasks are actions and operations of the specific professional skill. The structure of the teaching task assumed was dealt with by Corona *et al.* (2011), according to which, it contains the following elements: objective, actions, operations, and evaluations.

The objective of every task coincides and it is an action to be performed by students for the acquisition of specific professional skill *designing community projects*. The teaching tasks have defined actions to be performed by students, which coincide with the operations set for this skill. That is, the operations detailed for every teaching task include the necessary conditions so that the students perform the task's actions, and consequently, achieve their objective (skill acquisition). Each task includes actions of the skill in this research, taking into account the previously-acquired knowledge by the students through the subjects and disciplines in the curriculum.



The teaching tasks define the elements to be considered for evaluation, depending on the fulfillment of the objective, which includes the student performance assessment (self-assessment), and their teamwork assessment (co-assessment). It also includes didactic suggestions in the application of teaching tasks. All these elements permit the conception of teaching tasks as a logical algorithm of LMM that confirms their systemic character in the acquisition of specific professional skill *designing community projects*.

It is also important to consider the relationship established between the actions and operations of the specific professional skill explained and the system of teaching tasks suggested for education. In it, there is a correspondence between the actions and operations known for the specific professional skill *designing community projects*, and the system of teaching tasks. The fulfillment of the research goal requires an equivalence of all these elements.

PLI III, PLI I, and PLI II are organized didactically through a guide of activities. It is the reference documents used by the students, advisors, and tutors to accomplish the PLI objectives. The activity guide made by the DPI staff, for the Bachelor's Degree of Physical Culture, at the University of Cienfuegos, has five main elements: frequency, objective, actions, teaching tasks, and deadline.

The frequency is set to locate the participants in PLI in the weekly planning and the periods, according to the year's teaching graph. Each PLI period has a defined objective, depending on the expected results. The actions respond to the activities performed by the students, which are used to compile a diary containing the results of PLI, and it is also a document that validates assessment. It has three important elements: the description of the day (the students describe all their activities), significance (the students comment on the most productive learning moment), and pedagogical reflection (the students assess the new knowledge theoretically in class and the reality of the teaching practice).



Furthermore, teaching tasks are oriented, in this research, to the acquisition of a specific professional skill. The knowledge system is not limited to the references made about the specific professional skill *designing community projects*, but also how these aspects are dealt with in the teaching-learning process of physical activity in the elderly, pregnant women, and pre-school children, non-transmissible chronic diseases, rehabilitation, sports initiation, and massive sports at different ages, in addition to the physical recreation process. The last element of this guide of activities refers to the deadlines for teaching tasks, which records the results of the tasks in writing and electronically, on the Moodle platform.

The relationship of these components, actions, and operations of the specific professional skill explained and the system of teaching tasks suggested for education can be improved with the promotion of autonomous learning strategies with enhancing characteristics. The theoretical-practical-methodological character of PLI is evidenced through the main principle of associating theory and practice, as well as training for the job. PLI III ends, as oriented in the DPI program, with a term paper, thus evidencing its integrating and productive character. Students can show their potential with the application of knowledge and skills acquired according to the PLI requirements. The term paper is the design of the community project.

Below, the teaching tasks that contribute to the acquisition of specific professional skill *designing community projects*, are described.

Teaching task to determine the intervention element.

Objective: To determine the significant elements of the intervention.

Action: To analyze the possible participants in the conception of the community project.

Operations:



- To perform a social and demographic characterization of the community where the graduate was placed for PLI using pre-conceived instruments (or designed by the student class according to the objectives of the diagnostic).
- To diagnose the sociocultural needs of the community using pre-conceived instruments (or designed by the student class according to the objectives of the diagnostic).
- To determine the beneficiaries (direct, indirect, neutral/rejected, and affected/opponent) who might be interested, and receive benefit or harm directly and indirectly, from the community project, through their roles, motivations, relative power, and participatory capacity.

Action: To analyze the existing problems considering their causes and effects.

Operation: To design the problematic tree and its causal relationship.

This operation demands the following actions:

- To identify the existing problems:
- To conceive a ranking of problems identified using different techniques (brainstorming, role games, and other assisting techniques for decision-makers).
- To determine, among the problems identified, the most critical one, around which most information gathered can be arranged.
- To formulate the main problem with a negative perspective without mixing the existence of a problem with the absence of a solution.
- To determine the causes of this problem, try to respond to this question: Why is such an undesirable situation happening?
- To set up the effects caused by the main problem.
- To determine causal relations.
- To design a causal relationship diagram, verifying its logic and integrity.



Action: To analyze the objectives:

Operation: To design the objective tree

This operation demands the following actions:

- To turn the problems identified into objectives when possible, and coherently.
- To determine additional means considered important to ensure the intervention logic.
- To check the mean-ends relationship established to ensure the scheme's logic and integrity.
- To design an inverse tree (positive) of the problems, in which the causal relationship becomes an instrumental relationship.

Action: To analyze the alternatives and/or strategies

Operation: To assess the most suitable alternatives and/or strategies, including the resources available, estimated time, priorities, risks, goals, effects, beneficiaries, and feasibility, using multi-criteria decision analysis.

This operation demands the following actions:

- To identify the most interesting mean-ends relationships in the objective tree.
- To compare the alternatives and/or strategies depending on the criteria matching the previous opinions.
- To select the most suitable alternatives and/or strategies with an adequate combination of positive results.
- To detail the general and specific goals of the future project.



Assessment:

The students' capacities were assessed as to:

- To determine the possible individuals involved in the community problems, and assign the corresponding roles.
- To design the problematic tree on the main problem and its causal relationships.
- To design the objective tree emphasizing the mean-ends relationship.
- To select the alternatives, and/or most suitable strategies depending on the participants, the problem identified, and the most significant elements to be considered.
- To detail the general and specific objectives of the project.

Teaching task to design the community project

Action: To design a logic frame planning matrix considering the relation between its vertical and horizontal logic.

Operation: To design the vertical logic of the logic frame planning matrix.

This operation demands the following actions:

- To set up the general objective (end) and specific (purpose) that the project contributes to significantly upon implementation.
- To determine the possible results (components) to achieve throughout the project.
- To plan activities that respond to goal fulfillment, depending on the components determined, based on the resources, time, and costs.
- To design the Gantt graphic that will be attached to the logic frame planning matrix.



Operation: To determine the horizontal logic of the logic frame planning matrix.

This operation demands the following actions:

- To establish the intervention logic through a narrative summary of the objectives and activities.
- To conceive objectively verifiable objectives explained in terms of quantity, quality, and time, which will become the specific results and their impacts.
- To determine the possible sources or means of verification.
- To set up assumptions/hypotheses, external factors that entail risks (environmental, financial, institutional, social, political, climatic, etc.).

Action: To redact the project's document based on the specifications of the presentation.

Operation: To describe the project as such according to the specifications for its presentation.

Assessment:

The students' capacities were assessed as to:

- Determine the vertical logic of the logic frame planning matrix.
- Determine the horizontal logic of the logic frame planning matrix.
- Build the logic frame matrix using all the necessary elements.
- To redact the report about the community project with the expected quality, based on its specifications.

Teaching task to implement the community project

Objective: To implement the activities planned in the community project.

Action: To execute the activities conceived in the project depending on the planning.

Operations:



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- To spread the final document among the participants to complete the activities planned successfully.
 - To communicate the activities in the community using visual aids.
 - To monitor activities before, during, and after the execution to keep a real-time record of the results, and correct the errors that might occur.

Assessment:

The students' capacities were assessed as to:

- Spread the final document among the participants for approval.
- To communicate the activities in the community using creative means that draw the attention of a high number of residents.
- Monitor the execution of activities using tools that permit further assessment of the results.

Teaching task to assess the community project.

Objective: To evaluate the community project.

Action: To determine the type of evaluation depending on the project's stage.

Operation: To define the moment of evaluation.

Action: To determine the evaluation tools to be used.

Operation: To conceive the resources according to the moment established for evaluation.

Action: To redact the evaluation report.

Operation: To make descriptive reports for determining changes, adjustments, partial results, and the project's impact.



Action: To assess the possible transference of the project conceived for other settings or communities.

Operations: To establish the content, procedure, and skill relationships that can be applied in other contexts or settings while performing their jobs.

Assessment:

The students' capacities were assessed as to:

- To determine the type of evaluation depending on the project's stage chosen for evaluation.
- To select the evaluation resources properly, depending on the type of evaluation to conduct.
- To make the evaluation report considering the possible modifications and/or adjustments, and the partial results and impact of the project, depending on the moment chosen for evaluation.
- To create awareness of the possibilities of transferring the new knowledge into other settings or contexts while performing their jobs.

The work of the PLI advisor and tutor is to monitor the performance of students and the team through every teaching task, mainly, which will help design a community project at the end of the subject. This project must meet, obviously, the needs of the community chosen, so its presentation and dissertation will be considered the final exam of PLI III and will be executed in the community. The advisor, together with the tutor will facilitate a first approach and introduction of the students to the main actors of the community to make their work official throughout PLI.

Encouraging students to work individually and on teams in every task, is a way of motivating the continuation of the activity. Therefore, the personal aspects should be attended, so that each student feels fully useful and supported in the task, depending on their traits. It permits the students to gain motivation and have conscious knowledge of their advances in the completion of the tasks, and determine how important they are in



their professional performance, thanks to the marked international trend in project-based work.

CONCLUSIONS

Managing and planning are among the most popular specific professional skills in the education of the Bachelor of Physical Culture. However, other specific professional skills are still insufficiently dealt with in research papers, thus limiting the graduates to fulfill their social roles in the community.

Through the heuristic principle of analogy and the rationale of the Logical Modeling Method, various actions and operations of the specific professional skill designing community projects were identified as the base of the teaching tasks system suggested. It will be useful to conceive proper education using the curriculum of the Bachelor's Degree in Physical Culture.

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