DEVELOPING PROSPECTIVE PHYSICAL EDUCATION TEACHERS' MOVEMENT-INSTRUCTION DESIGN COMPETENCE THROUGH PROBLEM-BASED SITUATIONAL TASKS

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Abstract: The article examines problem-based situational tasks in movement instruction. Movement-instruction design competence is defined as a working pedagogical construct. A cycle links situation diagnosis, instructional design and adaptive revision. Task conditions are connected to observable products of student learning.

Keywords: movement-instruction design competence, problem situation, instructional design, physical education, pedagogical decision, adaptation, transfer, safety

I. Introduction

The fact that a future physical education teacher performs an athletic movement and teaches that movement to another person is a different pedagogical task. It is precisely the transition between them that is problematic. For example, a student who can technically pass the ball correctly must specifically justify how he or she will organize the training for a small area, limited equipment, and different levels of training. The difficulty in the conditional example is not in ignorance of technique, but in transforming the content of a familiar movement into a pedagogical structure that is appropriate to the new learning situation. The initial problem of the study arises from this distinction.

Khudayberganov raises the issue of the step-by-step development of professional skills through volleyball tools and problem-based teaching [1]. Elova links pedagogical skills with planning, communication, adaptation, and feedback [2]. These local works define the educational context of the topic, but the general recommendations in them are not taken as ready-made, validated methodologies for constructive-action competency. The task of this research is to operationalize the link between the composition of the problem task, the student's decision stages, and the product to be observed.

Constructive-movement competence is defined here in a working way as a unit of the abilities to determine the purpose of teaching movement, design a sequence of exercises, observe a learner's response, and rationally reconstruct the task. The term "constructive" refers to the pedagogical construction of training conditions; it does not in itself refer to the theory of constructivism. "Action," on the other hand, refers not only to the student's physical performance, but also to the content of the motor task being taught. The proposed construct is not presented internationally as a standard competency with the same name and dimension.

The aim of the study is to develop a didactic mechanism for structuring problem-situational tasks in relation to this competency. The main question is posed as follows: which conditions of the assignment can move the student from repeating a finished exercise to analyzing the learning situation and making an evidenced decision? The object is the professional training of the future teacher, while the subject is the relationship between the conditions of the situation, the pedagogical decision and the redesign. The conceptual contribution of the article is seen in the separation of problem complexity from the physical difficulty of the exercise, as well as in the designation of a verifiable product for each decision. This proposal is not a program whose effectiveness has been proven, but rather a theoretical basis for further empirical examination.

II. Materials and Methods

The study was carried out in a theoretical-methodological design. Physical education pedagogy, problem-based teaching, professional learning, and involvement in the design of task conditions were taken into account in the selection. Bibliographic year, author, and page spacing were compared with publisher entries or manuscript copies. The corpus was balanced by geographic group, but this limitation does not guarantee theoretical completeness. The work is not presented as a systematic review or as a meta-analysis that covers all relevant research.

The "pedagogical decision episode" was taken as the unit of analysis. It consists of information about the situation, the learning goal, the alternative solution, the reason for the choice, and the subsequent learning action. From each source, an explanation attributed to this particular unit was distinguished. In conceptual analysis, the performance of the movement, the teaching of the movement, and the design of the conditions for teaching the movement were distinguished. In comparative analysis, practice-oriented professional training [3] and the issues of orientation and control in the mastery of motor movement [4] were used as separate theoretical frameworks.

Using the pedagogical design method, three questions were combined: what should the student determine, what decision would be justified, and which product would indicate that decision? The proposed cycle was first applied to a simple conditional example, then to a modified condition, and its internal consistency was tested. Such an analytical test is not equivalent to conducting an experiment in a real classroom. Examples of training duration, group size, or number of equipment are project parameters and are not given as observed information. The results consist of a new model, an assignment passport, and a description of the products that are suitable for assessment.

In the interpretation of the evidence, the type of publication and the context studied were distinguished. A summary of

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school physical education does not directly prove the professional competence of a university student; a theoretical article does not provide a causal effect amount. The use of work with no full text was limited to verifiable content in the publishing annotation. Similarity of views among sources does not imply equality of results. The criteria for justification were defined as objective and instrumental coherence, sensitivity to reader response, safe organization, and possibility of revision. The matrix developed on the basis of these criteria is an author's proposal; expert consensus, diagnostic accuracy, or practical superiority were not measured within the scope of this study.

III. Results

Based on conceptual analysis, five necessary elements of a problem-situation task were proposed: the teaching objective, the context constraint, the point of decision, the proof to be observed, and the redesign condition. When none of the elements are present, the didactic task of the task changes. For example, the requirement only "show the transfer technique" checks the demonstration. The requirement "Construct a sequence that teaches transmission for the initiating group" adds to the design. Only when new information is introduced about the learners' response is the flexibility of the initial plan checked. Thus, competence is not the exterior of the task, but rather the decision that is required in it.

The first consequence is to define problemality as a controlled uncertainty. Not giving the student all the information does not in itself create a useful problem. The missing information must be relevant to the pedagogical choice, while it must be shown how it can be identified. For example, instead of a vague assessment of "the group is slow," the observation is given that the students have heard the assignment but have chosen the wrong starting location. The student develops alternative explanations to look for reason in a technique, instruction, environment, or organization. One of these is not immediately declared as the only truth.

The second outcome is the recurrence of the didactic cycle. It is suggested that the plan drawn up after diagnosis be put into a small, controlled test. When the learning response is not as expected, the student not only increases the number of repetitions, but reconsiders the goal, instruction, or task condition. Casey and MacPhail discuss model-based practice [5]; this paper takes from this direction the need to substantiate the choice of method with the learning goal. However, the mechanical addition of existing models or the application of one of them to the entire situation is not a requirement of the author's cycle.

The third result is to differentiate content constraints as a pedagogical tool. Roberts et al. highlight the issue of changing task conditions in a school setting [6]. On this basis, the space, equipment, rules, and form of cooperation in the proposed assignment are replaced depending on the purpose of the instruction. However, the introduction of restriction does not serve to put the student in a difficult position, but to create the necessary observation and decision opportunity. The increase in pedagogical difficulty is not provided at the expense of increased physical risk. This distinction was introduced as a separate normative condition for the choice of assignment.

The following matrix combines the situation, the student decision, and the assessment argument. It is not a diagnostic standard, but rather a proposed tool for the design of the exercise. An assignment can cover the entire stage, but it is initially suggested that it is advisable for students to uncover the decision points sequentially. The relationship between theoretical interpretation, practical execution, and revision will then be able to be observed separately.

In the use of the matrix, how the decision is developed is taken to be more important than the final response. Two students who choose the same exercise may exhibit different justification qualities. The former may explain the exercise solely by their own athletic experience, while the latter may take into account the student's preparation, understanding, and observed error. The assessment should note exactly this difference. The evidence in the table is not intended to make a judgment about an individual's overall ability or perspective in the sport.

The assignment passport is suggested to write the purpose, the expected action, the initial condition, the permissible adaptation, and the discontinuation criterion. The unexpected new condition is then given through a separate sheet. For example, it is informed that one piece of equipment is no longer in use, or that the student understood the instruction differently. The student has the right to both cancel and justify the previous plan. The important product is not the change itself, but the explanation that shows what has been preserved and why it has been rebuilt.

For practical application, the following conditional situation is proposed. A student should be taught to direct the ball to a partner to a group with a variety of backgrounds. A portion of the field is not used; the equipment does not reach all pairs at the same time. The goal is not to achieve high athletic performance, but to create an opportunity for each student to understand and practice targeted movement. The situation is not seen as a phenomenon derived from real experience, but as a didactic example constructed for the practice of professional thinking. Specific age, medical condition, and school rules must be taken into account separately by the teacher.

At the outset, the student distinguishes between known and unknown conditions. He does not consider the group's preparation to be identical in advance and plans for an initial brief observation. In the observation, technical error, incomprehension of the instruction, and a barrier in location are distinguished. Two alternative forms of organization are then constructed: alternating small stations or adapted pairs within the same task frame. For each option, the possibility of avoiding the learner's waiting, the fact that the lines of action do not clash, and the possibility of giving feedback are explained. A reasonable comparison of the alternatives is required, not a large number of alternatives.

In the next step, the short lesson is performed in a microsetting with peers. The observer notes the argument for the goal, not the student's general fluency speech: the intelligibility of the instruction, the appropriateness of the training condition to the student's response, and correction when necessary. Renshaw and Chow caution against using a constraint-based approach as an automatic solution [7]. Therefore, when the task condition is changed, what learning response is expected from it is written first. If the change does not yield results, it

Table 1. Problem-Situational Assignment and Professional Decision Matrix

Phase	Pedagogy of Vazifa	Product to Track	Metodik had arrived
Diagnosis	Separation of purpose and missing information	Situation Map and Clarifying Question	Not taking an assumption as evidence
Alternative project	Comparison of at least two fundamental solutions	The sequence of exercises and the reason for the choice	Don't rely solely on sports habit
Small test	Instruction and Verification of Establishment	Lesson Fragment and Observation Record	Not to compromise security
Alignment	Changing the condition as per the reader's answer	The difference between old and new plan	Justifying change with purpose
Transfer	Applying the principle to another situation	Annotated solution for new keys	Mechanical Displacement of an Exercise

will be information to reconsider the hypothesis, not to blame the student.

The final product is a combined copy of the initial plan, the observation note, and the revised plan. The student interprets the change through explicit observation and learning goal, not by a generic phrase such as "it will be better." The same principle is then transferred to another sporting content: the logic of creating a purposeful condition, not a chosen exercise, is preserved. Peer training does not prove effectiveness in the actual school classroom. It is a proposed intermediate stage to practice certain elements of complex pedagogical activity in a safer and more analyzable manner.

IV. Discussion

The main theoretical contradiction of the proposed mechanism is between the search for an independent solution and pedagogical guidance. Anticipating the entire path can turn the task into a simple instructional performance. Conversely, throwing the student into a complex situation without basic information is likely to turn the student's decision into a sum of assumptions. This paper offers step-by-step help: at the beginning, the purpose and analysis questions are openly asked, then the student himself is required to separate the important information. The optimal pace of this sequence must be determined in the experiment, it is not assigned to the whole group in the same way.

Korthagen discusses the limitations of explaining professional learning only through the transfer of theoretical knowledge [8]. The methodological conclusion that follows from this paper is that the assignment should allow the student to both express his or her experience and critically examine it. Personal experience, however, is not an unconditional criterion. The fact that an instruction that is effective as an athlete may be incomprehensible to the novice student is discussed through a conditional contradictory example. In this way, the experience is not denied, but rather requires a justification for which part of it works in a different context.

The second problem is to equate teaching techniques with student learning. The lesson may be fluently organized, but the competency argument will be limited unless the student examines how the student perceives the intended action. Therefore, the author's protocol records the teacher's action and the student's response as two different information. The statement "I explained" is not a substitute for the conclusion "he understood." However, even one failed attempt does not mean that the teacher's decision was necessarily wrong; it is necessary that the conditions of prior preparation and task be analyzed.

The third problem is the ratio of standardization and individualization. Giving all students the same situation simplifies the comparison, but does not lose the difference in familiarity according to the sport specialization. It is therefore proposed to use familiar and relatively unfamiliar action content while maintaining common pedagogical criteria. In the evaluation, the excellence of sports technique and the validity of the teaching decision are noted separately. As a result, experience in one sport is not equated with the entire level of professional training. This differentiation is a principle for designing a bank of assignments, and its fairness should be tested in the next test.

The first step in examining the proposed methodology may be to assess the substantive appropriateness of the assignments through experts. Experts should not be limited to the general verdict that "the assignment is good," but should indicate which condition requires exactly which decision. If the assignment can be accomplished without pedagogical analysis, only by knowing the technique, its constructive component is weak. If the task is overly general, it becomes more difficult to evaluate the products on the same criteria. Therefore, the examination is directed to examine the compatibility between the goal, the field of response, and the argument.

In the next pilot phase, it is proposed to determine how the student understands the assignment. In this, the inaccuracy of the answer is not immediately attributed to a lack of competence: an unfamiliar term, redundant text, or vague instruction can also cause an error. A verbal comment and a written outline are compared to check whether the assessment tool adequately represents the student's opinion. In particular, the language of the instruction and the content of the action should be consistent. Complex academic expressions should not deprive the student of the opportunity to demonstrate a professional decision. The pilot's job is to clarify the tool before proving the impact.

It is suggested that a comparison condition is necessary for the evaluation of effectiveness, in addition to simple before-and-after growth. The study time of groups engaged in problem assignments and receiving substantively similar but different organized training should also be considered. The evaluator should be able to determine as far as possible what conditions the student was enrolled in, while preliminary and final studies should be examined on the basis of the same instruction. No sample size or statistical superiority is announced here. This design is provided only as a methodological direction to reinforce future causal interpretation.

During the introduction, it is recommended to prepare a bank of assignments, observation questions for the teacher and a redesign sheet for the student. It is not enough to fill the bank with only a large number of cases: each case should have a variable related to the goal and evidence of the assessment. The teacher does not give the sample answer as the only possible solution, but reveals the criteria for an acceptable solution. Such organization determines the practical form of the theoretical proposal. Its resource requirements, students' comprehensibility and suitability for various subject modules should be noted separately, and the limits of the methodology should be clearly indicated.

This work builds on a small, targeted body of selected literature and conceptual design. Because the sources cover different countries, educational stages, and occupational groups, their conclusions were not combined as results in the same context. The factor structure, evaluator consensus, impact on learning outcome, and long-term transfer of the proposed matrix have not yet been investigated. Therefore, the article does not declare the model to be a ready-made standard or an experimentally validated technology.

Practical limitations are the complexity of the assignment language, the familiarity inherent in specialization, and the difference between simulation with peers and a real school lesson. To mitigate these, it is proposed to add alternate situations, independent assessment, and real-world practice observation. In this, the phase in which school students participate should only be carried out when appropriate permissions, security conditions, and data protection procedures are in place.

V. Conclusion

It has been suggested that the development of constructive-action competence through problem-situational assignments should focus on uncovering the content of the pedagogical decision, rather than on complicating the exercise of movement. The paper defined competency as a working unit of goal definition, design of learning conditions, observation of student response, and grounded restructuring. The main methodological outcome is a matrix linking the initial conditions, decision points, and observable products of the situation. It is envisaged that the diagnosis, alternative plan, small test and redesign cycle serve to show how the student justifies the choice, not what he or she chooses. In the assignment, safety, inclusive participation, and learning purpose should be kept together; pedagogical difficulty is not equated with physical risk. In practice, the experience of sport is taken as a base, but the ability to perform a familiar action is not considered to be a complete evidence of the competence of the training. It has been suggested that the evaluation of the results should be based on a comparison of the initial plan, the observation, and the edited product. The theoretical consistency of this solution is not a substitute for empirical effectiveness. Further research should examine task intelligibility, expert consensus, growth in comparison conditions, and transfer to a new situation. Only then will it be possible to draw a limited, evidence-based conclusion about which group, sporting content and organizational setting the proposal would provide pedagogical benefits.

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