LEARNING OUTCOMES APPROACH IMPLEMENTATION: FUTURE PHYSICAL EDUCATION TEACHERS' DIDACTIC COMPETENCE ASSESSMENT

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Abstract. *Education process in Latvian Academy of Sport Education (LASE) is directed to provide all education level physical education (PE) teacher adequate preparation. Everyone in any country has the right to a quality education, which is determined by the contribution in student preparation, teacher qualification, learning environment organization, investment in education, and the planned outcomes. Contextual approach to quality is not determined; it depends on the creativity and continuous development. Learning outcomes assessment approach is the basis for an objective study achievement assessment. In the result of the research are obtained assessments of future PE teacher's ability to develop lessons, choose their content, conduct them using holistic approach, critically analyze their performance and make decisions for the improvement of their qualification. Education leaders will use the obtained results in long-term program changes.*
***Keywords*:** *physical education teacher qualification, learning outcomes approach, study programs.*

Introduction

All members of the educational process should be aware of assessment goals and accordingly developed assessment criteria. Education International (2011) accepts the role of the professional management in securing quality education. In education process it is essential to enhance current and future teacher autonomy and professional development. It requires a high degree of qualification, based on scientific and empirical research.

The **aim** of the research: the evaluation of future physical education teacher learning outcomes assessment procedures in the context of the acquisition of basic qualification.

The **research methods**: content analysis, expert assessment and descriptive statistic.

The methodological background of the research

Comprehension of "learning outcomes approach" and "learning outcomes" categories is based on the ideas of education researchers: learning outcomes approach to education can be defined as meaningful (Entwistle, 2005, Nygaard, Holtham, & Courtney, 2009). Learning outcomes are vital to provide clarity of who, how, what and when teaches, learns, and assesses and raises the fundamental question of approaches to education and of emphasis to student-centred approach (Nygaard, Højlt, & Hermansen, 2008).

Theoretical basis for the formulation of the criteria for learning outcomes was determined, considering the indicators, developed by educational research scientist professor A.Rauhvargers (2010).

- learning outcomes are formulated so that they are controllable and measurable;
- learning outcomes are not confused with the aims of the particular study course;
  learning outcomes are determined so that they do not reflect the outlay of the content of the study courses;
- each and every learning outcome results from common aims of the study programme.

Learning outcomes assessment approach is the basis for an objective study achievement assessment. In the result of the research will be obtained assessments of future physical educations teacher's ability to develop lessons, choose their content, conduct them using holistic approach, critically analyze their performance and make decisions for the improvement of their qualification. Education leaders will use the obtained results in long-term program changes.

Expressed in measurable units learning outcomes serve as a tool or instrument that clarifies the outcomes of the educational programme for the learner. It also helps the teacher and school to identify the overlaps between subjects in curriculum and assessment be objective rather than comparative (Adam, 2004). Learning outcomes are statements about what LASE Bachelor Programme in Sport Science students know, can do and what competences have developed, upon graduation from LASE. The conducted research is an attempt to include competencies in measurable outcomes and specific descriptors.

What will be the benefits? The assessment learning outcomes will develop a deeper understanding about how to benefit the pupils, prospective sport professionals, employers and Latvian society as a whole. In LASE the evaluation will serve as the basis for the adjustment of study programs, because learning outcomes and their achievement show the quality of study programs. The analysis of the situation in sport education in 30 European countries, summarized in European Commission, Eurydice report, indicates the topicality of the problem.

Physical education at schools not only contributes to pupils' immediate fitness and good health, but also helps young people to perform and understand physical activity better with positive lifelong repercussions. Moreover, physical education at schools brings about transferable knowledge and skills, such as teamwork and fair play, cultivates respect, body and social awareness and provides a general understanding of the 'rules of the game', which students can readily make use of in other school subjects or life situations (European Commission/EACEA/Eurydice, 2013).

This is European Commission's attempt to identify the main problems of

implementing physical education at schools, so prospective specialist qualification evaluation will help to long-term improvement of study process in LASE.

Creating Bachelor's Program in Sports Science in qualification "Physical educations Teacher“, were defined learning outcomes, emphasized the importance of teacher didactic competence. Didactic competence is an ability to choose the correct solution in the variety of situations in the general system of differentiated and integrated solutions (Cartelli, 2006). Didactically competent teachers will carefully consider and substantiate the choice of the contents, methods and study literature. Pušnik and Zorman (2004) indicate eight main teacher competences (1) knowledge about study program, (2) knowledge about the branch of study subject, (3) planning, (4) resourcefulness in class organization, (5) student progress monitoring, (6) assessment, (7) personal professional development and (8) the use of information technologies. For the assessment of acquiring qualification were selected the following descriptors:

1. Can plan physical education lesson according to student age group.
2. Can form physical education lesson environment and organize students for activities.
   Can practically apply pedagogically psychological knowledge in physical education lesson.
3. Is able to combine and apply in physical education lesson various physical exercises and drills.
4. Can plan, modify and combine games and movement games in different parts of
5. Can integrate in teacher role basic professional skills acquired during studies.
6. Is able to change and creatively modify exercises and drills.
7. Can structure in logical sequence didactic principles and use them in physical education lesson.
8. Is able to discuss physical education lesson educational, developmental and socializing capacity.

State final exam lesson was chosen as integrative indicator for the evaluation of achieved learning outcomes. Within the selected descriptors were determined the evaluation criteria, which were shown in the Table 1.

Table 1

Evaluation criteria of achieved learning outcomes

Number of descriptor/ maximum points	Evaluation criteria	
	Points	Description of the evaluation criteria
1. / 5	**2**	The Choice of lesson tasks, content and methods meets the age of the students, their physical preparedness and the requirements of the Standard.
	3	Methodological elaboration of learning tasks, including the phase of movement acquisition.
2. / 5	**1**	Lesson environment is prepared in accordance with lesson tasks.
	1	Versatile equipment rationally planned the use of the gym.
	1	Efficient choice of teacher location and ways of student rearrangement.
	2	Planning lesson organization, have been taken into account safety regulations
3. / 10	**2**	Teacher motivates students to work in a precise and interesting way (especially at primary school).
	2	Workload increases gradually. In the lesson are included exercises for developing attention, improving breathing and posture.
	2	In the complex of condition exercises is used equipment or one of lesson conducting methods, considering student age peculiarities.
	2	Exercises are connected with the contents of the main part of the lesson.
	2	Efficient rearrangement for work in the main part of the lesson.
4. / 12	**4**	Appropriate content and methods are chosen for performing learning and improvement (indicated the difficulties) tasks (two different study contents).
	2	For performing the tasks, concerning the improvement of bio-motoric abilities, is chosen appropriate contents, amount and intensity.
	2	Student activity is organized in subgroups (except Grades 1 and 3).
	2	Student manages the class and can work with all the subgroups.
	2	Games, relays and movement games are conducted without mistakes.
5. / 4	**2**	The content and load dosage in the final part of the lesson are connected with the main part of the lesson.
	2	Games and movement games are of low intensity, they are conducted without mistakes.
	2	Resume is upbringing and stimulating.
6. / 1	**1**	Teacher professional language, posture and lesson conducting style is professional.
7. / 1	**1**	Efficient timing of the physical education lesson. In the physical education lesson is used musical accompaniment**.**
8. / 1	**1**	Lesson conducting methodology corresponds to primary, basic and secondary school.
9. / 1	**1** **3**	Tasks of the lesson are performed partly. Tasks of the lesson are performed thoroughly.

Results

Physical education lessons conduction in primary, elementary and secondary school were evaluated by 10 experts. Evaluating 55 LASE state final exam lessons, conducted in study year 2012/2013, according to set study descriptors and the corresponding criteria we obtained the following outcomes:

1. Can plan physical education lesson according to student age group

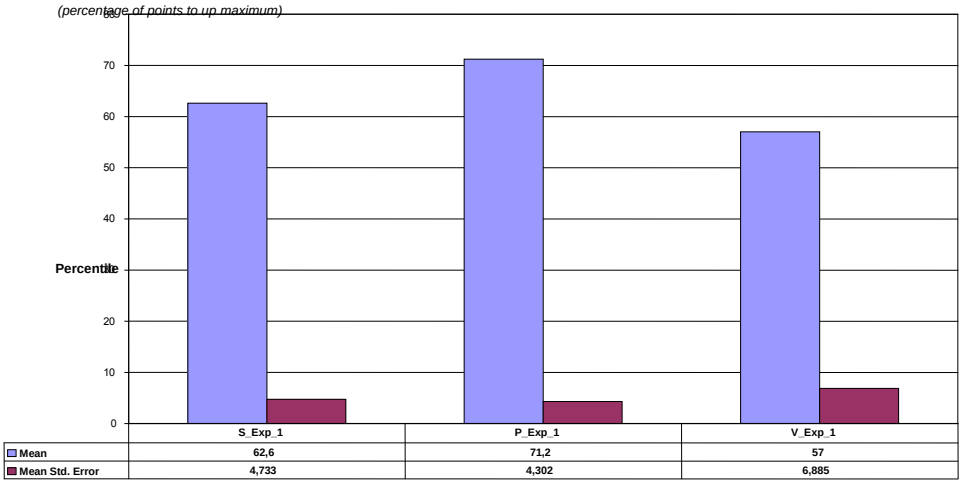


Figure 1 **Expert evaluation of descriptor number 1** (S – primary school; P – elementary school; V – secondary school)

Student ability to plan lesson we evaluate as satisfactory (57 – 71.2% to up maximum points). High variance (185 – 474) shows very different student readiness for professional activity (see Fig.1).

Can form physical education lesson environment and organize students for activities

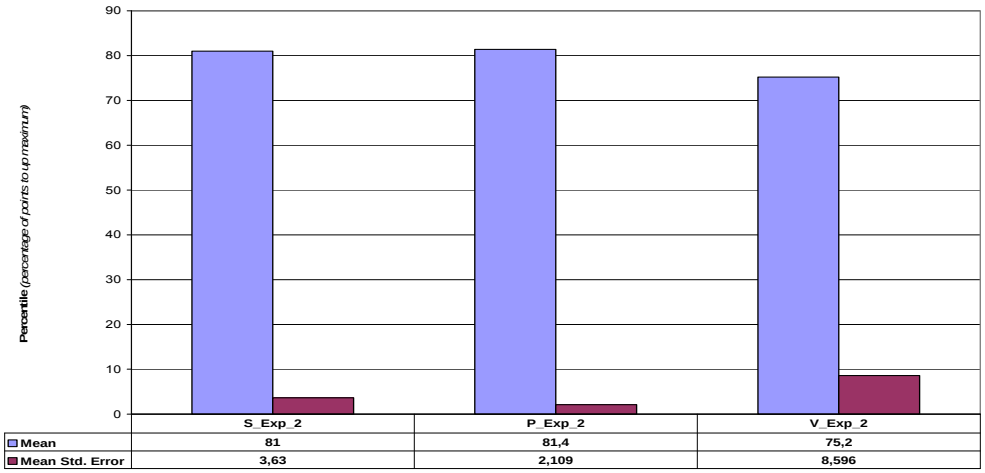


Figure 2 **Expert evaluation of descriptor number 2** (S – primary school; P – elementary school; V – secondary school)

Student ability to organize lesson environment and student activities in expert view us satisfactory high (75.2 – 81.4% to up maximum points), also variance in this descriptor are much more less in elementary school (see Fig.2).

Can practically apply pedagogically psychological knowledge in physical education lesson

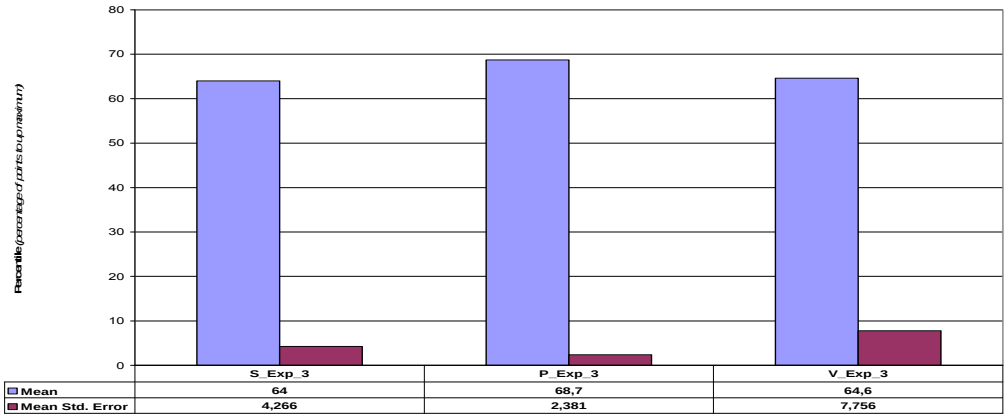


Figure 3 **Expert evaluation of descriptor number 3** (S – primary school; P – elementary school; V – secondary school)

Student ability practically applies pedagogically psychological knowledge in physical education lesson we evaluate as satisfactory (64 – 68.7% to up maximum points). High variance (601.6) in secondary school shows very different student readiness for professional activity (see Fig.3). In forming the content of lessons students lack the variety of exercises, knowledge and their application, confirmation is found also in statistics.

Is able to combine and use in physical education lesson various physical educations exercises and drills

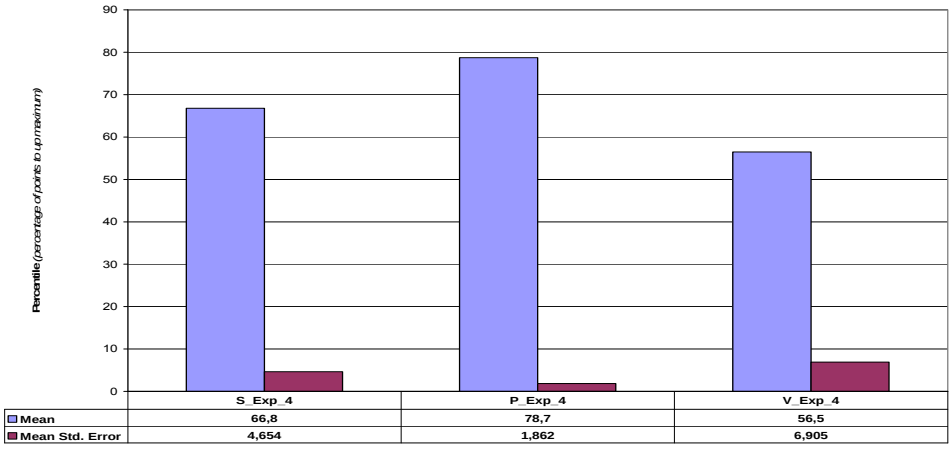


Figure 4 **Expert evaluation of descriptor number 4** (S – primary school; P – elementary school; V – secondary school)

Students ability to combine and use in physical education lesson various physical educations exercises and drills (see Fig.4) we evaluate as satisfactory

(56.5 – 78.7% to up maximum points). Similar results characterize also the skills to choose exercises in different sports in accordance with the requirements of the Standard.

Can plan, modify and combine games and movement games in different parts of the lesson

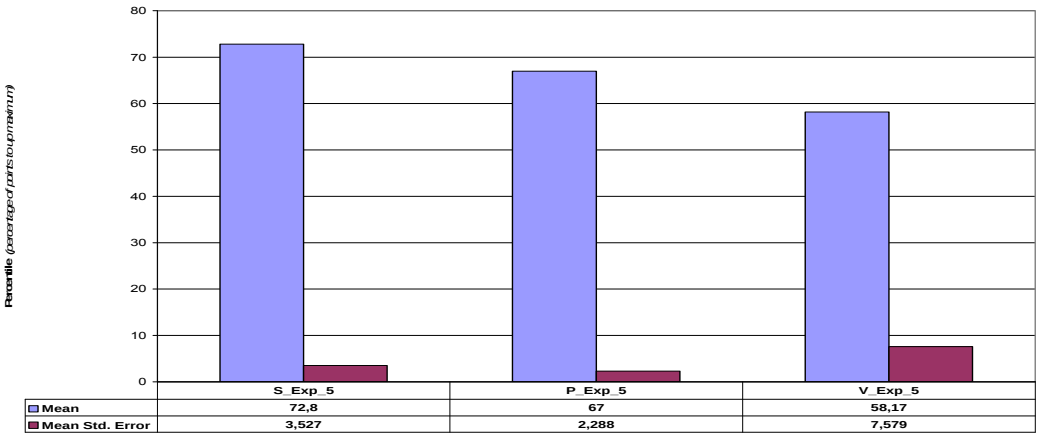


Figure 5. **Expert evaluation of descriptor number 5** (S – primary school; P – elementary school; V – secondary school)

Student skills and knowledge, necessary for the introduction of movement games and other games in lesson, is satisfactory (58.2 – 72.8% to up maximum points), also variance in this indicator are the lowest in the elementary school (see Fig.5), comparing with other descriptors (52.3).

Can integrate in teacher role basic professional skills acquired during studies

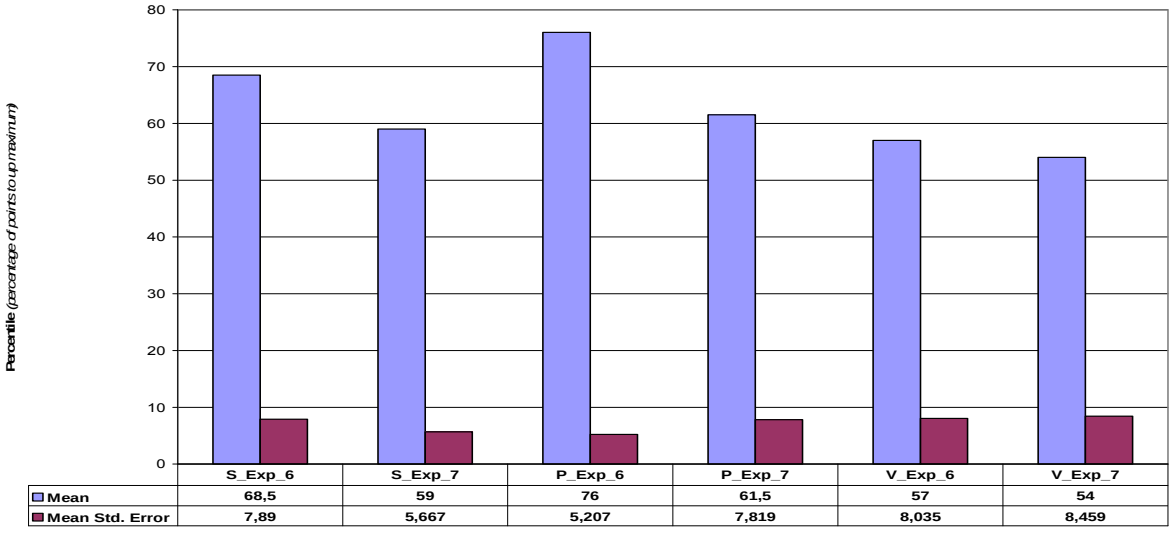


Figure 6 **Expert evaluation of descriptor number 6 and 7** (S – primary school; P – elementary school; V – secondary school)

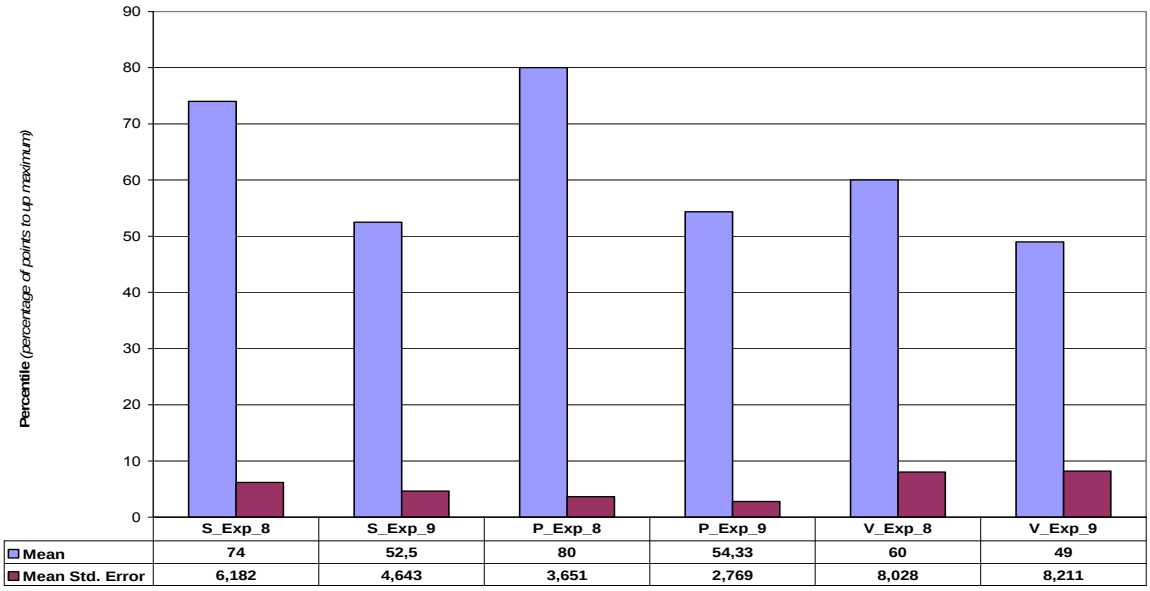
Students ability to integrate in teacher role basic professional skills acquired during studies we evaluate as satisfactory (57 – 76 % to up maximum points).

The results, summarized in figure 6, confirm high variation (271.1 - 645.5) in student total professional readiness.

Is able to change and creatively modify exercises and drills

Similar results (see Fig. 6) characterize student creative expressions. Students ability to change and creatively modify exercises and drills we evaluate as satisfactory (54 – 61.5 % to up maximum points). The results confirm high variation (321.1 - 715.5) in student creative expressions.

Can structure in logical sequence didactic principles and use them in physical education lesson



	S_Exp_8	S_Exp_9	P_Exp_8	P_Exp_9	V_Exp_8	V_Exp_9
Mean	74	52,5	80	54,33	60	49
Mean Std. Error	6,182	4,643	3,651	2,769	8,028	8,211

Figure 7 **Expert evaluation of descriptor number 8 and 9** (S – primary school; P – elementary school; V – secondary school)

Results confirm high variation (133.3 – 644.4) in the application of didactic skills - in some cases is high, in other: low (see Fig.7). Students ability to structure in logical sequence didactic principles and use them in physical education lesson we evaluate as satisfactory (60 – 80 % to up maximum points).

Is able to discuss physical education lesson educational, developmental and socializing capacity

Student ability to discuss physical education lesson educational, developmental and socializing capacity (see Fig.7) is less satisfactory (49 – 54.3% to up maximum points), also variance in this indicator are the lowest in the elementary school (76.7), comparing with other descriptors. Less than a half of the students can evaluate physical education lesson educational value and socialization capacity.

Discussion

The research results show that in LASE are provided the conditions for the transition from teacher-centered education to student active learning. At the basis of study outcome evaluation is competence based approach, built on academic and professional knowledge and skills, applicable in practice.
The results of LASE final examinations show that at present student ability to apply the acquired knowledge and skills in a real pedagogic process – lesson conducting - are mostly moderate. The research included the following descriptors:
- Sports lesson is health promoting;
- Sports lesson is meaningful and inspiring;
- Sports lesson motivates physical activity execution;
- Sports lesson tasks correspond to the requirements of Standard in Sports;
- Physical abilities are developed in accordance with the sensitive periods;
- In lessons are achieved the planned outcomes.

The research shows that students are not always able to evaluate pedagogical situations and to find an adequate solution.
LASE lecturers should improve the description of learning outcomes to be achieved with proper and specific descriptors, thereby contributing to an increase in pedagogical competence.
The formulation of learning outcomes for the whole Program or the evaluation of study achievement with specified descriptors is provided also in the European standards and guidelines for quality assurance in higher education and its increasing.

Conclusions

If the dispersion around the arithmetic mean is smaller, then the results are denser, if it is larger, the coefficient of variation is higher. Our research shows moderate student professional preparedness and expert heterogeneous ability to evaluate skills, using the set criteria. The resulting statistics shows that the coefficient of variation is high enough.
The results show what learning outcomes we have achieved in 2012/2013 academic year in LASE, regarding Year 4 students, aiming to obtain the qualification of „physical education teacher“. Most of the students' results are moderate, although the requirements are devised so that for average student in systematic study process their implementation is applicable and measurable. Evaluation of study results is the basis for the adjustment of study program, which was also the aim of our research.

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