



PHYSICAL EDUCATION TEACHERS AS ADULTS TRAINERS AND THEIR PERCEPTIONS OF THEIR EVALUATION ON VOCATIONAL EDUCATION AND TRAINING

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Abstract Introduction: Educational systems and related evaluation policies tend to change and adapt to the demands of society all over the world. In Greece, the latest education policy includes the update and adaption of the educational curricula and the introduction of evaluation of teachers and adult trainers on vocational education and training (VET). The evaluation of teachers and trainers involved in the Public vocational training Institutes (VTI) and specifically in the Specialties of Sports' Coach through an effective evaluation process could identify the strengths and weaknesses of the trainers and create professional development opportunities within their knowledge of content, pedagogy, and curriculum. Purpose: The purpose of this study was to investigate the perceptions of Physical Education Teachers who teach as Adult Trainers in public and private VTIs in the speciality of Sports Coach (e.g., Soccer Coach, Basketball Coach, Track and Field Coach, Tennis Coach, Strength and Conditioning Coach, AEROBICS Instructor), regarding their evaluation on VET. Methods: In this study, 102 participants ($M = 44.9 \pm 11.02$ years old), 55 males (53.9%) and 47 females (46.1%) participated. A relevant questionnaire about Teachers' Evaluation was adapted and

used. Non-parametric statistical tests were applied and descriptive statistics were calculated for all variables. Results: The results showed different perceptions among some items of the questionnaire depending on the work institution - public / private VTIs ($p \leq 0.05$), educational level ($p \leq 0.05$) and teaching experience ($p \leq 0.05$). Conclusions: These results underscore the complexity and variability in perceptions of educational evaluation. These findings suggest the importance of considering various factors, such as institutional type, teaching experience, and educational level, in the design and implementation of evaluation systems to ensure they are effective, equitable, and conducive to professional growth.

Key words: sports coach, PE teachers, education, assessment, vocational education, adult education

Introduction

As stated by Matsagouras (2007) definition of evaluation, educational evaluation refers to a systematic, valid, reliable, objective, and organized array of individual procedures, with procedures that are specifically designed to assess and measure the effectiveness of teaching methodologies, the performance of teachers, the progress of students, the efficacy of the curriculum, and the overall functioning of the school system and plays a crucial role in enhancing the feedback of the educational process (Matsagouras, 2007). Educational systems and related evaluation policies tend to change and adapt to the demands of society all over the world, i.e., the update of educational curricula and the introduction of a Teachers' and Adult Trainers' evaluation system in the case of Greece (Law 4763/2020; Law 5029/2023).

Regarding evaluation systems in education, there are different systems and different views and perspectives among teachers and trainers about their evaluation. For example, the Finnish model of evaluation (Tarhan et al., 2019) utilises flexible methods of evaluation and aims to understand educational needs, while promoting the professional development of teachers (Organisation for Economic Co-operation and Development, 2009; 2016; Tarhan et al., 2019). Teacher evaluation in Finland is a more team-based, reflective and participatory process, with the aim of creating professional learning communities among teachers and administrators (Sahlberg, 2021; Webb et al., 2004). The municipality and school principals carry out teacher evaluation, while the government is not involved in any part of the evaluation process (Finnish National Board of Education, 2012; Tarhan et al., 2019). The principals are also responsible for hiring the teacher and for arranging the school budget provided by the municipality (Sahlberg, 2010; 2021), while the government expects each municipality to fund schools with enough resources so that the teachers can have the opportunity for professional development activities (Williams & Engel, 2012). In Italy, there is not a specific legislative framework exclusively for teachers' evaluation (Tarhan et al., 2019). Regarding teachers' and trainers' views on evaluation, in Finland teachers accept evaluation, while in Italy and Greece they have a predominantly negative view, while several neutral views are also reported (De Angelis et al., 2015; Papakonstantinou & Kolympari, 2019; Tarhan et al., 2019). Evaluation is advised to focus on the quality of teaching and pedagogical practices (Collins, 2004; Ingersoll & Collins, 2019; Robinson & Campbell, 2010), while the impact on teaching staff can be direct or indirect, such as promotion and improvement of teachers' professional profile, respectively (Altrichter & Kemethofer, 2018; Mathison, 2010).

Specifically, the evaluation framework in Greece for the public VET trainers (Law 4763/2020; Law 5029/2023) is carried out through a four-point descriptive scale (excellent, very good, satisfactory and inappropriate). Law 4763/2020, as amended by Law 5029/2023 contains provisions for the implementation of an evaluation system

of the work of the Directors, Deputy Directors and Vocational Training Instructors of the Public Vocational Training Institutes. Trainers are evaluated on four main pillars:

- A) The educational work, the pedagogical climate and the management of the department.
- B) Consistency and competence of the trainer.
- C) In the self-evaluation report of the project, prepared by the vocational training Trainers themselves, one month before the end of the training semester, which is submitted to the Director and the Deputy Director of the VTI.
- D) The evaluation of the work of the trainers by the trainees of VTI, through an electronic evaluation platform. The evaluation is anonymous and refers for example, to the evaluation of the course, the evaluation of the trainer, the learning outcomes and the relations between the trainer and the trainees.

Regarding Pillar A for the educational work provided, pedagogical climate and management of the department, the evaluation process is carried out by the Director and the Deputy Director of the VTI. The evaluation criteria for this pillar are:

- i. Preparation of the course, provision and electronic posting of the necessary educational material in accordance with the provisions of the Training Guidelines.
- ii. Readiness in terms of the subject matter of the training, degree of updating of knowledge and successful transformation of the subject matter to meet the needs of the adults' training, with an assessment of its scientific and practical validity.
- iii. Commitment to achieving the expected learning outcomes.
- iv. Methodology and use of digital media in teaching.
- v. Pedagogical climate, contribution to the active participation of trainees in the training process, management of the department - conflict resolution, promotion of a spirit of mutual trust, mutual respect and equal treatment of all trainees without discrimination and exclusion.

Regarding Pillar B for the consistency and competence of the trainer, the evaluation process is also carried out by the documented by the Director and the Deputy Director of the VTI. The evaluation criteria of this pillar are:

- i. Consistency and interest in the performance of the obligations and duties of the trainer as well as his/her response to the institutionalized framework of the VTI.
- ii. Timely and correct updating of the service records (absence register, books of taught material).

Regarding the Pillar D of the evaluation of the work of public VTIs by the trainees and the anonymous evaluation platform, the results of this evaluation is communicated by the Documentation and Communication Directorate to Planning and Development Directorate of the General Secretariat of Vocational Education, Training, Lifelong Learning and Youth of the Ministry of Education and Religious Affairs to the Director and Deputy Director of the VTI, (Law 4763/2020; Law 5029/2023).

The research community is engaged in various issues related to education and the training of coaches of different Specialties in sport (Athanaïlidi et al., 2015; 2016; Bazylychuk et al., 2018; Deligiannidou et al., 2019; Bezakoplyny et al. 2019; Matthew, 2015; Laios, 2005; Richards et al., 2018), as well as the implementation of evaluative systems in PE teachers and related fields of sports (Gargalianos & Matsaridis, 2017; Kipreos et al., 2016; Todd, et al., 2016). Regarding Greek sports and education, researchers report that although the field of sport in Greece is growing, a lack of strategic planning and qualified sport managers is highlighted and may act as a hindrance (Gargalianos & Matsaridis, 2017). Further specialisation and training could have a positive impact on

the level of knowledge and skills of coaches (Protsenko et al., 2016; Soltys et al., 2017). In the research of Kipreos et al., (2016) where the evaluation factors of coaches were examined according to demographic characteristics (gender, level of education, teaching experience, coaching experience), no significant differences were found, except on the variable level of education, where coaches who held a doctorate recorded statistically significantly lower evaluation values in terms of the importance of coaches' evaluation criteria. However, other studies refer to the importance of education, updating knowledge and professional development, while coaches who had higher averages in their coaching performance and levels of cooperation with other colleagues had participated in several training sessions (Athanaïlidis et al., 2016). Furthermore, evaluation is often linked to the need for training of trainers (Valcke et al, 2007), while further education and professional training is important for the development of trainers (Edy, 2020; Villegas-Reimers, 2003).

The evaluation of teachers and trainers in the various sport coach specialties is limited depending on the country and the sport in which it is investigated (Freitas, et al., 2013; Lyle, 2005; 2016; Stefanik, 2013). The evaluation of the trainers involved in the VTIs in the Specialties of Sports Coaches could identify the strengths and weaknesses of the trainers, in order to record them, and also promote sports trainers to improve through relevant trainings and courses in Adult Education. Therefore, the purpose of this research is to investigate the perceptions of Physical Education Teachers who work as Adult Trainers operating in public and private VTIs in the specialty of Sports Coach (e.g., Soccer Coach, Basketball Coach, Track and Field Coach, Tennis Coach, Strength and Conditioning Coach, AEROBICS Instructor), regarding their evaluation on the Vocational Training Institutes.

Material & methods

Participants

The participants in this study were 102 (Mage = 44.9 ±11.02 years) Physical Education Teachers-Adult Trainers operating in public and private VTIs in the specialty of Sports Coach (e.g., Soccer Coach, Basketball Coach, Track and Field Coach, Tennis Coach, Strength and Conditioning Coach, AEROBICS Instructor).

Of the participants, 55 were male (53.9%) and 47 were female (46.1%). The sample of the present study consisted of higher education graduates of Physical Education and Sport Department in the country or abroad (Figure 3), of which the majority (54.9%) were working in public and 45.1% in private VTIs. Regarding the participants' previous experience, the majority of them had 4–10 years of teaching and professional experience (Figure 1 and Figure 2). Regarding the possession of a certificate in new technologies and computer use, the majority of participants (80.4%) held a relevant certificate, while 54.9% knew one foreign language, 37.3% knew two foreign languages and 7.8% knew none.

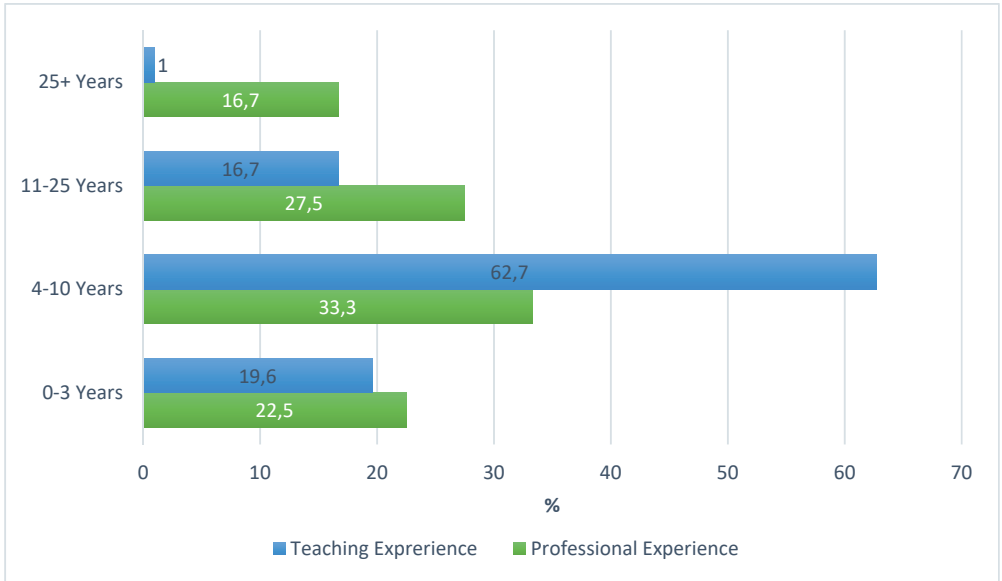


Figure 1. Teaching and professional experience of participants

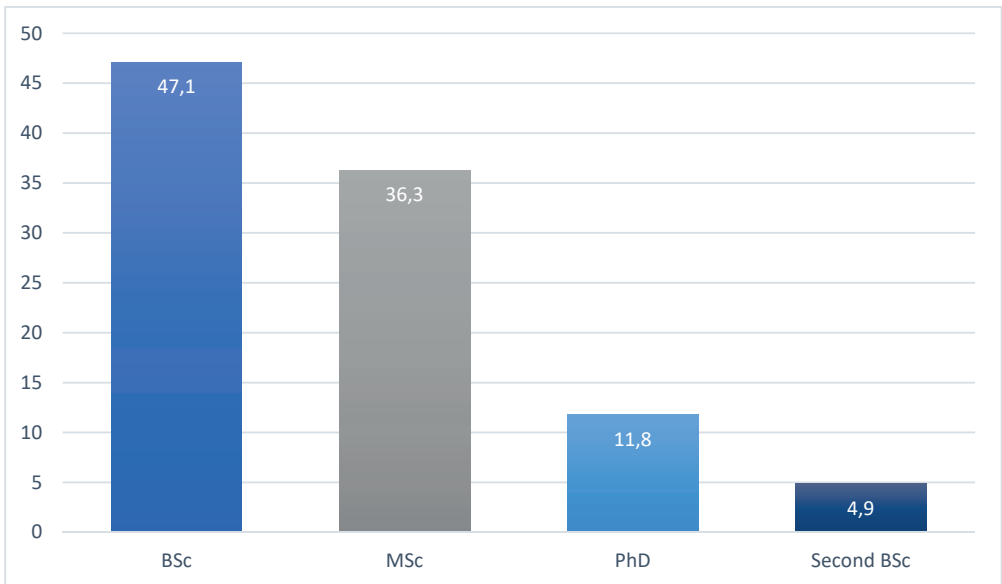


Figure 2. Educational Level of participants

Procedure

The research procedure chosen is the quantitative determination of the perceptions regarding the evaluation of Physical Education Teachers-Adult Trainers operating in public and private VTIs in the specialty of Sports Coach (e.g., Soccer Coach, Basketball Coach, Track and Field Coach, Tennis Coach, Strength and Conditioning Coach, AEROBICS Instructor), through a quantitative survey (Bryman, 2003; 2016; Kyriazi, 2011; Tsiolis, 2011). By measuring theoretical concepts through a questionnaire (Bryman, 2016; Cohen & Hill, 1998; Cohen et al., 2007; Papageorgiou, 2014), researchers are given the opportunity to quantify and compare data between variables (Kyriazi, 2011).

In the present study, the ethical principles of Declaration of Helsinki (World Medical Association, 2010) had been followed. Participation was anonymous and voluntary, in accordance with the principles of the research process (Mertens, 2009), while the sampling method was that of non-probability sampling, specifically convenience sampling (Zafeiropoulos, 2005). Specifically, prior to the submission of questionnaires, all participants involved in this study provided written consent. This consent was obtained after the participants were thoroughly informed about the research procedures, the objectives of the study, and the intended use of the data collected. The information provided to the participants included detailed explanations of the research methodology, the scope and purpose of the research, the nature of the questions in the questionnaire, and assurances regarding the confidentiality and anonymity of their responses. The process of obtaining consent was conducted in accordance with ethical guidelines to ensure that all participants were fully aware of their involvement in the study and the implications thereof. Participants were also informed of their right to withdraw from the study at any point without any adverse consequences. The Physical Education Teachers-Adult Trainers were recruited from both public and private VTIs participated in this study, although the evaluation introduced by the state is for public VTIs only. However, evaluation procedures are also implemented in private VTIs, therefore it was deemed appropriate to explore the differences between private and public VET.

Research tool

The investigation of the perceptions of Physical Education Teachers-Adult Trainers operating in public and private VTIs in the specialty of Sports Coach (e.g., Soccer Coach, Basketball Coach, Track and Field Coach, Tennis Coach, Strength and Conditioning Coach, AEROBICS Instructor), regarding their evaluation, was conducted through a questionnaire designed for school teachers and educators regarding their perceptions about evaluation that has been designed by Kapachtsi (2007) and has been applied in similar studies (Kapachtsi, 2013) in large populations (482 school teachers), with high reliability (Cronbach's $\alpha = 0.85$), and has been used in similar surveys (Kapachtsi, 2007; 2008; 2013). This instrument consists of five parts and is composed of a total of 48 statements, which are answered through a five-point Likert scale from 1 = "I strongly disagree" to 5 = "I strongly agree". The first part consists of 6 statements (e.g., "A1. Evaluation leads to the qualitative improvement of education."), the second part includes 8 main statements with sub-questions (e.g., "B7. The teaching and pedagogical competence of the trainer should be judged on the basis of: B7A. the use of new teaching methods."), the third part comprises 8 main statements with sub-questions (e.g., "C15. Suitable for evaluators are: C15B. The teachers' association and the director - deputy director."), the fourth part is made up of 12 statements (e.g., "D23. The evaluation must be based on a descriptive report by the directors and deputy directors."), and the fifth part contains 3 main statements with sub-questions (e.g., "PART E E35. I consider my knowledge of educational evaluation to be satisfactory.").

In addition, six statements were reversed (A3, A6, B9, B12, B14, C20) as the instructor of the instrument suggest. These statements were reversed during statistical processing and in the presentation of the results (Table 2), so that the highest value expressed the most positive attitude. Because the instrument was initially designed for primary and secondary school teachers, some adjustments had to be made in some statements in order to correspond to the Adult Vocational Education and the evaluation structure of the recent law (Law 4763/2020; Law 5029/2023). These adaptations involved adjusting the terms teachers=teachers and trainers, pupils=students, and in the evaluation bodies. The Cronbach's α of the instrument in previous studies (Kapachchi, 2007; 2008) was satisfactory (Cronbach's $\alpha = 0.85$), as well as in the present study despite the adjustments made (Cronbach's $\alpha = 0.74$).

Statistical analysis

The software IBM SPSS Statistics for Windows software, Version 25.0, Armonk, NY, IBM Corp, (IBM, 2017) was used for the statistical analysis. In this study, the effect size was assessed using two distinct metrics: the rank-biserial correlation coefficient (r) and eta squared (η^2). The interpretation of the rank-biserial correlation coefficient (r) values followed a specific framework within the context of effect strength, where an r value less than 0.3 indicates a small effect, an r value between 0.3 and 0.5 suggests a medium effect, and an r value greater than 0.5 signifies a large effect. Additionally, eta squared (η^2) was utilized to quantify the effect size, with η^2 values interpreted on a distinct scale: a value of 0.01 indicates a small effect, 0.06 represents a medium effect, and 0.14 or higher reflects a large effect. Statistical tests (Mann-Whitney-U-Tests and Kruskal-Wallis H tests) were applied and descriptive statistics were calculated and recorded for all variables. The level of statistical significance was set at $p \leq 0.05$.

Results

Table 1 shows the means and standard deviations for all items in the questionnaire, as well as the percentage of participants who agree or strongly agree with the statements about the evaluation. Responses to questions A3, A6, B9, B12, B14, C20, of the questionnaire were reversed during statistical processing and in the presentation of the results (Table 2), so that the highest value reflects the most positive attitude.

Table 1. Means, standard deviations and percentages for all the questions of the questionnaire

	M-SD	%
PART A		
A1. Evaluation leads to the qualitative improvement of education.	3.79 \pm 1.27	66.7
A2. The state that supports and maintains public education has the right to evaluate.	3.37 \pm 1.25	52.9
A3.** Evaluation can reduce the teacher's authority.	3.80 \pm 0.82	62.7
A4. The professional development of the trainer should be based on his/her evaluation.	3.29 \pm 1.23	46.1
A5. The evaluation of the trainer is an important feedback process.	3.36 \pm 1.14	55.9
A6.** Evaluation can reduce the trainer's autonomy in carrying out his/her work.	3.60 \pm 0.78	57.8
PART B		
B7. The teaching and pedagogical competence of the trainer should be judged on the basis of:		
B7 _A . the use of new teaching methods.	3.63 \pm 1.03	55.9
B7 _B . the activation of its students and their participation in the educational process.	3.95 \pm 0.83	75.5
B7 _C . its contagiousness.	3.70 \pm 0.95	57.8
B7 _D . its ability to address learning difficulties.	3.65 \pm 0.89	59.8
B7 _E . the use of multiple methods of student assessment.	3.15 \pm 1.01	27.5

	M-SD	% [*]
PART B		
B8. The teacher's initiatives in the formulation of school unit objectives should be evaluated.	3.66 ±0.96	56.9
B9.** Student performance should not be a criterion for teacher evaluation.	3.63 ±0.88	56.9
B10. The cooperation of the trainer with the director should be an evaluation criterion.	3.36 ±0.89	40.2
B11. The teacher's behaviour in the classroom should be evaluated.	3.68 ±0.91	58.8
B12.** The introduction of innovative activities in the school is not a criterion for teacher evaluation.	3.40 ±1.09	52.9
B13. The trainer's individual qualification file should be taken into account in the evaluation process.	3.92 ±0.85	69.6
B14.** The ethics of the trainer is not an area for evaluation.	3.75 ±1.00	65.7
PART C		
C15. Suitable for evaluators are:		
C15 _A . University Committee.	2.66 ±0.91	17.6
C15 _B . The teachers' association and the director - deputy director.	2.73 ±1.15	24.6
C15 _C . The Head of the Directorate of Design and Development Directorate of Vocational Education, Training and Lifelong Learning, the Head of the Documentation and Communication Directorate of Vocational Education, Training and Lifelong Learning	2.77 ±0.85	17.6
C15 _D . Committee from the Ministry of Education, Research and Religious Affairs–Youth and Lifelong Learning Foundation.	2.78 ±0.81	15.7
C15 _E . The Head of the Directorate for the Supervision of Vocational Training and Lifelong Learning Institutions of the General Secretariat for Vocational Training and Lifelong Learning.	2.62 ±0.83	9.8
C16. The evaluation of trainers must be carried out by Permanent Assessors.	2.75 ±0.80	15.7
C17. The head of the school unit should evaluate the teacher's initiative.	2.76 ±0.84	16.7
C18. Local authorities should not be involved in the teacher evaluation process.	2.64 ±0.75	11.8
C19. Students should have a say in the evaluation.	2.59 ±0.87	13.7
C20.** I consider the parents of students inappropriate to be involved in the evaluation process.	2.58 ±0.76	7.8
C21. A consultant is the one who should evaluate the teacher's scientific training.	2.68 ±0.86	12.7
C22. Representatives of trainers' trade unions should not be involved in the evaluation process.	2.66 ±0.97	16.7
PART D		
D23. The evaluation must be based on a descriptive report by the directors and deputy directors.	3.55 ±0.98	52.9
D24. The method of observation by the assessors in the classroom is considered essential in the evaluation process.	3.18 ±0.97	49.0
D25. Evaluation based on video recording of lessons is the most appropriate method.	3.51 ±0.75	43.1
D26. The assessment must be based on a descriptive report by the Consultants.	3.65 ±0.76	51.0
D27. Self-evaluation should be taken into account by the evaluators.	4.22 ±0.77	86.3
D28. Student performance tests are necessary in the assessment.	4.04 ±0.74	78.4
D29. Completion of questionnaires by students is the most appropriate method of evaluation.	3.71 ±0.85	64.7
D30. The evaluation should be done once a year.	3.42 ±1.09	58.8
D31. The interview with the trainer cannot be the only way of evaluating the trainer.	4.00 ±0.82	74.5
D32. The points method should be used by evaluators, with regard to the development of the trainer to an educational administrator (head teacher, counsellor, etc.).	4.16 ±0.75	82.4
D33. The low score of the trainer during his/her evaluation should be used for its own feedback and to refer him for training.	3.63 ±0.77	62.7
D34. The evaluation criteria must be known to the trainer from the outset.	3.90 ±0.81	74.5
PART E		
E35. I consider my knowledge of educational evaluation to be satisfactory.	3.08 ±0.93	28.4
E36. My sources of information are:		
E36 _A . Books and Articles.	2.85 ±0.90	21.6
E36 _B . Discussions with colleagues.	3.29 ±1.01	54.9
E36 _C . Discussions with trade unions.	2.86 ±0.96	24.5
E36 _D . Internet.	3.90 ±0.76	73.5
E36 _E . Training seminars.	2.97 ±0.78	25.5

^{*} Percentage of participants who agree or strongly agree

^{**} The answers of items A3, A6, B9, B12, B14, C20 were reversed

Regarding gender correlations, where 1 represented males and 2 represented females, distinct correlations were observed with certain items. Specifically, item C15E exhibited a Spearman's $r(100) = 0.237$ with a p -value of 0.016, denoting a statistically significant positive correlation between gender and the variables addressed by this item. Conversely, item D26 presented a Spearman's $r(100) = -0.236$ with a p -value of 0.017, indicating a statistically significant negative correlation. No other significant correlations were found for the remaining items. Additionally, for item C15E, the Mann-Whitney U test yielded a statistic of $U = 965$, $p = 0.017$, accompanied by an effect size (rank biserial correlation) of 0.253. Similarly, item D26 displayed a Mann-Whitney U statistic of $U = 968$, $p = 0.018$, with an effect size (rank biserial correlation) of 0.251. For the rest items no statistically significant differences were observed.

Table 2 shows the items of the questionnaire in which significant differences were found by the non-parametric statistical tests (Kruskal-Wallis) for the perceptions of teachers and trainers depending on the working institution (public/private VTI). Significant differences ($p < 0.05$) were identified, in the statements "A1. Evaluation leads to qualitative improvement of education," "B7A. Instructor's teaching and pedagogical competence should be judged based on the use of new teaching methods" "B7D. The teacher's teaching and pedagogical competence should be judged on the basis of his/her ability to deal with learning difficulties," "B7E. Trainers' teaching and pedagogical competence should be judged on the basis of the use of multiple methods of student assessment, and "B8. The instructor's initiatives in the formulation of school unit goals should be evaluated." In the majority of questions, the Physical Education Teachers-Adult Trainers operating in the specialty of Sports Coach (e.g., Soccer Coach, Basketball Coach, Track and Field Coach, Tennis Coach, Strength and Conditioning Coach, AEROBICS Instructor) in private VTIs had statistically higher means than those teaching in public ($p < 0.05$).

Table 2. Items of the questionnaire in which significant differences were found by the non-parametric statistical tests (Mann-Whitney U) for the perceptions of teachers and trainers depending on the working institution (public/private VTI)

Questionnaire Item†	Group	M-SD	U	p	Effect Size (r)
A1	Public VTI	3.59 ±1.29	1013	0.050*	0.214
	Private VTI	4.04 ±1.22			
B7A	Public VTI	3.45 ±1.07	1007	0.050*	0.218
	Private VTI	3.85 ±0.94			
B7D	Public VTI	3.45 ±0.97	959	0.018*	0.256
	Private VTI	3.89 ±0.73			
B7E	Public VTI	2.95 ±0.98	924	0.008*	0.283
	Private VTI	3.39 ±1.02			
B8	Public VTI	3.45 ±0.95	945	0.016*	0.267
	Private VTI	3.91 ±0.91			

* $p \leq 0.05$

†A1. Evaluation leads to the qualitative improvement of education., B7A-E. The teaching and pedagogical competence of the trainer should, be judged on the basis of: B7A, the use of new teaching methods., B7D, its ability to address learning difficulties., B7E, the use of multiple methods of student assessment., B8. The teacher's initiatives in the formulation of school unit objectives should be evaluated.

In the following table, questionnaire's data are reported, in which significant differences were identified by the non-parametric statistical tests (Kruskal-Wallis) for the perceptions of Physical Education Teachers-Adult Trainers operating in the specialty of Sports Coach (e.g., Soccer Coach, Basketball Coach, Track and Field Coach, Tennis Coach, Strength and Conditioning Coach, AEROBICS Instructor) depending on their teaching experience. In particular, significant differences were found in the statement "B13. The instructor's individual qualification record should be taken into account in the evaluation process" between Instructors who had 0–3 years of teaching experience (M.O. = 4.40 ±0.82) and those who had 4–10 years of teaching experience (M.O. = 3.75 ±0.83 teaching experience ($p \leq 0.05$). Similar differences were found in the statement "D24. The method of observation by classroom evaluators is considered essential in the evaluation process," "D31. Interviewing the instructor cannot be the only way of evaluating the instructor" and in the statement "D32. The points method should be used by evaluators, with reference to the development of the trainer into an educational administrator" (Table 3).

Table 3. Differences based on non-parametric statistical analyses (Kruskal-Wallis) for Trainers' perceptions according to teaching experience

Questionnaire Item [†]	Group	M-SD	H	p	Effect Size (η^2)
B13	0–3	4.40 ±0.82	9.04	0.029*	0.089
	4–10	3.75 ±0.83			
	11–25+	4.00 ±0.79			
D24	0–3	3.10 ±0.96	10.09	0.018*	0.099
	4–10	3.08 ±1.01			
	11–25+	3.76 ±0.43			
D31	0–3	4.50 ±0.51	10.79	0.013*	0.106
	4–10	3.89 ±0.83			
	11–25+	3.88 ±0.85			
D32	0–3	4.60 ±0.59	12.34	0.006*	0.122
	4–10	4.02 ±0.74			
	11–25+	4.24 ±0.75			

* $p \leq 0.05$

[†]B13. The trainer's individual qualification file should be taken into account in the evaluation process., D24. The method of observation by the assessors in the classroom is considered essential in the evaluation process., D31. The interview with the trainer cannot be the only way of evaluating the trainer., D32. The points method should be used by evaluators, with regard to the development of the trainer to an educational administrator (head teacher, counsellor, etc.).

In Table 4 the questionnaire items are reported, in which significant differences were identified by the non-parametric statistical tests (Kruskal-Wallis) for the perceptions of the Physical Education Teachers-Adult Trainers operating in the specialty of Sports Coach (e.g., Soccer Coach, Basketball Coach, Track and Field Coach, Tennis Coach, Strength and Conditioning Coach, AEROBICS Instructor) depending on their educational level. Specifically, item "B7D. The instructor's teaching and pedagogical competence should be judged on the basis of his/her ability to address learning difficulties," significant differences were found between those participants who had a Bachelor's degree compared to those who had a Master's degree, and between those who had a Bachelor's degree and a PhD ($p < 0.05$). In statement "D23. Assessment should be based on a descriptive report by managers and deputy managers", differences were found between those who had a PhD compared to both those who had only a BSc's Degree and those who had a Master's degree.

Table 4. Differences based on non-parametric statistical analyses (Kruskal-Wallis) for the perceptions of Trainers according to educational level

Questionnaire Item [†]	Group	M-SD	H	p	Effect Size (η^2)
B7D	BSc	3.87 ±0.92	9.35	0.009*	0.092
	MSc	3.46 ±0.83			
	PhD	3.25 ±0.75			
D23	BSc	3.45 ±0.99	7.14	0.028*	0.070
	MSc	3.46 ±0.96			
	PhD	4.25 ±0.75			

[†]p ≤ 0.05

[†]B7_{A,E}. The teaching and pedagogical competence of the trainer should, be judged on the basis of: B7_D. its ability to address learning difficulties., D23. The evaluation must be based on a descriptive report by the directors and deputy directors.

Discussion

The results from our study reveal significant differences in perceptions of evaluation among trainers, aligning with the perceptions observed in educational evaluation systems globally. These differences are influenced by factors such as the type of vocational training institute, teaching experience, and educational level. In our study, trainers from private vocational training institutes (VTIs) generally exhibited more favorable perceptions towards evaluation methods compared to their counterparts in public VTIs. This finding resonates with the flexible approach to evaluation seen in the Finnish model, as discussed by Tarhan et al. (2019), where the emphasis is on understanding educational needs and promoting professional development, a perspective supported by the Organisation for Economic Co-operation and Development (2009) and Snider (2011). Furthermore, our survey indicated that teaching experience impacts trainers' attitudes towards evaluation. Newer trainers showed different perceptions compared to those with more years of experience. This variation in views among trainers based on experience mirrors the differing national attitudes towards evaluation, such as the general acceptance in Finland and the predominantly negative view in Italy and Greece, as noted by De Angelis et al. (2015) and Papakonstantinou & Kolympari (2019). Additionally, the educational level of trainers also influenced their perceptions of evaluation. This aspect of our findings aligns with the literature's emphasis on the quality of teaching and pedagogical practices in evaluations, as advocated by Collins (2004), Ingersoll & Collins, (2019) and Robinson & Campbell, (2010). The impact of evaluations, as highlighted by Altrichter & Kemethofer (2015) and Mathison (2010), can be multifaceted, affecting aspects such as promotions and professional development.

Specifically, in the present study several significant differences were found regarding the perceptions of Physical Education Teachers-Adult Trainers operating in public and private VTIs in the specialty of Sports Coach (e.g., Soccer Coach, Basketball Coach, Track and Field Coach, Tennis Coach, Strength and Conditioning Coach, AEROBICS Instructor), about their evaluation on VET, depending on the work institution - public / private VTIs, teaching experience and educational level (Bakker et al., 2011; Kafritsa et al., 2021; Kipreos et al., (2016). However, researchers point out the potential influence of the socio-cultural aspects on trainers' views about methods of evaluation on the coaching process (Bakker et al., 2011).

The literature on adult education indicates that teaching adults is approached differently from that of formal education in children and adolescents (Collins et al., 2004; Knowles et al., 2014). School teachers are likely to determine their own teaching methods based on their personal experience and the influence of other teachers (Todd et al., 2016). In contrast, adult education has its own specific characteristics (Thompson, 2018; Tight, 2012)

and in order to transfer the required knowledge, specific adult training methods are needed (Collins et al., 2004; Knowles et al., 2014; Kokkos, 2008). For this purpose, educational level, specialization on Adult Education and teaching experience are crucial factors for a successful and active learning educational environment among adults.

Specifically, it is noted that PE teachers usually choose direct teacher-centered teaching methods because they are more familiar to them and because it is the way they were taught (Gurvitch, et al., 2008; Jose & Lopez, 2023; Kozubal et al., 2022). Regarding teaching experience, it did not affect the teaching of physical education and PE teachers (Hammond, & Perry, 2005; Kipreos et al., 2016). Although in order to create an active and successful educational environment in adult education, researchers suggest additional training of the trainers, about new knowledge and trends among Adult Education, in order to enable them to perform more effectively (Brinia, et al., 2019), especially for those educators who have no teaching experience and exhibit increased educational needs (Kafritsa, et al., 2021).

The evaluation of coaches and the coaching process is limited depending on the country and the sport in which it is investigated, and conclusions cannot be easily generalized (Freitas, et al., 2013; Lyle, 2005; 2016). Although different perceptions of evaluation were identified among Physical Education Teachers-Adult Trainers on their evaluation on VET, an effective evaluation process could have a positive impact on the educational process of adults and on trainers' professional development regarding their knowledge of content, pedagogy, and curriculum. The aim towards further education and training through specific courses in Adults Education could positively contribute to the improvement of their teaching and professional development (Protsenko et al., 2016; Soltyk et al., 2017).

In conclusion, our study's results underscore the complexity and variability in perceptions of educational evaluation, reflecting the diverse approaches and attitudes observed in different educational contexts globally. These findings suggest the importance of considering various factors, such as institutional type, teaching experience, and educational level, in the design and implementation of evaluation systems to ensure they are effective, equitable, and conducive to professional growth. Due to the small size of the study group, the research is of a pilot nature and future researches could be investigate the perceptions of Physical Education Teachers as Adults Trainers regarding their evaluation on vocational education and training more systematically.

References

- Altrichter, H., & Kemethofer, D. (2018). Does accountability pressure through school inspections promote school improvement?. In *Educational Effectiveness Theory* (pp. 29–53). Routledge. <http://doi.org/10.4324/9781315231037-3>
- Athanailidis, I., Laios, A., Arvanitidou, V., Mourtziou, C., & Zaggelidis, G. (2016). Self-assessment of tennis coaches relating to athletes, parents and their educational level. The case of Greece. *Journal of Physical Education and Sport*, 16(3), 901–904. <http://doi.org/10.7752/jpes.2016.03141>
- Athanailidis, I., Zangelidis, G., & Laios, A. (2015). The educational system of coaching schools in tennis. *Journal of Physical Education and Sport*, 15(IKEEART-2020-1931), 208–211. <http://doi.org/10.7752/jpes.2015.02032>
- Bakker, M. E., Roelofs, E. C., Beijard, D., Sanders, P. F., Tigelaar, D. E., & Verloop, N. (2011). Video portfolios: The development and usefulness of a teacher assessment procedure. *Studies in Educational Evaluation*, 37(2–3), 123–133. <http://doi.org/10.1016/j.stueduc.2011.04.007>
- Bazylichuk, O., Putrov, S., Bazylichuk, V., Sushchenko, L., & Galina, I. (2018). Problems of implementing innovational educational technologies in the process of vocational training of future specialists in physical therapy in higher educational establishments in Ukraine. *Journal of Physical Education and Sport*, 18(2), 606–613. <http://doi.org/10.7752/jpes.2018.02088>

- Bezokopynyi, O., Bazylchuk, O., Bazylchuk, V., Dutchak, Y., Sushchenko, L. & Ostapenko H. (2019). Peculiarities of application of interactive educational technologies in training of future teachers of physical culture to work with health protection in secondary school. *Journal of Physical Education and Sport*, (20)1, 291–297. <http://doi.org/10.7752/jpes.2020.s1040>
- Brinia, V., Fotakeli, M., & Vasileiou, C. (2019). Adult tutors' views on their educational needs: the case of a Public Institute of Vocational Training in Greece. *International Journal of Higher Education and Sustainability*, 2(4), 327–340.
- Bryman, A. (2003). *Quantity and quality in social research*. Routledge.
- Bryman, A. (2016). *Social research methods*. Oxford University Press.
- Cohen, D. K., & Hill, H. C. (1998). Instructional policy and classroom performance: The mathematics reform in California. <http://doi.org/10.1111/0161-4681.00057>
- Cohen, L., Manion, L., Morrison, K., & Morrison, R. B. (2007). *Research methods in education*. Routledge. <https://doi.org/10.4324/9780203029053>
- Collins, J. (2004). Education techniques for lifelong learning: principles of adult learning. *Radiographics*, 24(5), 1483–1489. <http://doi.org/10.1148/rg.245045020>
- De Angelis, M., Marzano, A., & Iannotta, I. S. (2015). Teacher evaluation in Italy: problematic nodes and critical features. In *EDULEARN 15 Proceedings* (pp. 1782–1790). IATED.
- Deligiannidou, T., Athanailidis, I., Laios, A., & Stafyla, A. (2019). Variation of perceptions of Physical Education teachers on the principal's level of effectiveness according to their age, gender, years of service in the same school and stage of service. *Journal of Physical Education and Sport*, 19, 134–142. <http://doi.org/10.7752/jpes.2019.s1020>
- Deligiannidou, T., Athanailidis, I., Laios, A., & Stafyla, A. (2020). Determining effective leadership qualities of a school principal from the perception of PE teachers in Greece. *Journal of Physical Education and Sport*, 20, 2126–2135. <http://doi.org/10.7752/jpes.2020.s3286>
- Edy, D. L. (2020). Revisiting the impact of project-based learning on online learning in vocational education: analysis of learning in pandemic Covid-19. In 2020 4th International Conference on Vocational Education and Training (ICOVET) (pp. 378–381). IEEE. <http://doi.org/10.1109/ICOVET50258.2020.9230137>
- Finnish National Board of Education. (2012). *Teachers in Finland – trusted professionals*. Helsinki: Finnish National Board of Education.
- Freitas, S., Dias, C., & Fonseca, A. (2013). How do elite soccer coaches prepare their players and teams psychologically? *Journal of Physical Education and Sport*, 13(3), 321. <http://doi.org/10.7752/jpes.2013.03053>
- Gargalianos, D., & Matsaridis, A. (2017). Evaluation of the total quality management maturity of the hellenic national sport federations using the EQFM model. *Journal of Physical Education and Sport*, 17(2), 675. <http://doi.org/10.7752/jpes.2017.02101>
- Gurvitch, R., Lund, J., & Metzler, M. (2008). Chapter 1: Researching the adoption of model-based instruction—context and chapter summaries. *Journal of Teaching in Physical Education*, 27(4), 449–456. <http://doi.org/10.1123/jtpe.27.4.449>
- Hammond, J., & Perry, J. (2005). A multi-dimensional assessment of soccer coaching course effectiveness. *Ergonomics*, 48(11–14), 1698–1710. <http://doi.org/10.1080/00140130500101213>
- Ibm, C. R. (2017). IBM SPSS Statistics for Windows, Version Q3 25.0. Armonk, NY: IBM Corporation.
- Ingersoll, R. M., & Collins, G. J. (2019). Accountability and control in American schools. In *Teachers Matter—But How?* (pp. 75–95). Routledge. <http://doi.org/10.1080/00220272.2016.1205142>
- Isoré, M. (2009). Teacher evaluation: Current practices in OECD countries and a literature review.
- Jose, P., & Lopez, C. (2023). Formative assessment of physical education teachers and self-concept level of primary school children. *Central European Journal of Sport Sciences and Medicine*, 41(01). <http://doi.org/10.18276/cej.2023.1-04>
- Kafritsa, V., Anagnou, E., & Fragoulis, I. (2021). Educational needs of adult refugees' educators: A Greek case study. *Education Quarterly Reviews*, 4(1). <http://doi.org/10.31235/osf.io/wjtf7>
- Kapachtsi, V. (2007). *The evaluation of the teacher: attitudes and perceptions of teachers of secondary education in the region of V. Thessaloniki* (Master's thesis).
- Kapachtsi, V. (2008). The evaluation of the teacher's work. Attitudes of Greek secondary school teachers towards evaluation. *Thessaloniki: Kyriakidis Publications*.
- Kapachtsi, (2013). *Teachers' evaluation. Research data*. C.V.P. PAIDAGOGIKIS & EKPAIDEFSIS (In Greek: Ο θεσμός της αξιολόγησης του εκπαιδευτικού. Ερευνητικά δεδομένα. C.V.P. ΠΑΙΔΑΓΩΓΙΚΗΣ & ΕΚΠΑΙΔΕΥΣΗΣ).
- Kipreos, G., Papailiou, D., Perrea, A., Travlos, A., & Strigas, E. (2016). Evaluation of coaches and differences of perspective due to demographic characteristics. *Journal of Physical Education and Sport*, 16(3), 831. <http://doi.org/10.7752/jpes.2016.03131>

- Knowles, M. S., Holton III, E. F., & Swanson, R. A. (2014). *The adult learner: The definitive classic in adult education and human resource development*. Routledge. <http://doi.org/10.4324/9780429299612>
- Kokkos, A. (2008). Adult Education in Greece. *Convergence*, 41, 59–73.
- Kozubal, A., Kozubal, K., Warchol, K., Bartosiewicz, A., Łuszczki, E., Król, P., ... & Stępień-Słodkowska, M. (2022). The influence of lockdown on the physical activity and subjective health in the teachers of physical education in Poland. *Central European Journal of Sport Sciences and Medicine*, 38, 27–37. <http://doi.org/10.18276/cej.2022.2-03>
- Kyriazi, N. (2011). *Sociological Research Critical Review of Methods and Techniques*. Πεδίο, Athens.
- Laios, A. (2005). The educational system for training coaches in Greece. *International Journal of Educational Management*, 19(6), 500–504. <http://doi.org/10.1108/09513540510617445>
- Law 4763/2020, *National System of Vocational Education, Training and Lifelong Learning, incorporation into Greek legislation of Directive (EU) 2018/958 of the European Parliament and of the Council of 28 June 2018 on the proportionality check prior to the adoption of new legislation on professions (OJ L 173), ratification of the Agreement between the Government of the Hellenic Republic and the Government of the Federal Republic of Germany on the Hellenic-German Youth Foundation and other provisions*, FEDERAL LAW GAZETTE 31A/21-12- 2020. Greece.
- Law 5029/2023, *"We Live Together in Harmony - Breaking the Silence": regulations for the prevention and treatment of violence and bullying in schools and other provisions*, Government Gazette 55A/10-3-2023. Greece.
- Lyle, J. (2005). *Sports coaching concepts: A framework for coaches' behaviour*. Routledge. <https://doi.org/10.4324/9780203994986>
- Lyle, J., & Cushion, C. (2016). *Sport coaching concepts: A framework for coaching practice*. Taylor & Francis. <http://doi.org/10.4324/9780203126424>
- Matsagouras, E. (2007). *Teaching strategies*. Athens: Gutenberg.
- Mathison, S. (2010). The Purpose of Educational Evaluation. In P. Peterson, E. Baker, & B. McCaw (Eds.), *International Encyclopedia of Education*, 792–797. <http://doi.org/10.1016/B978-0-08-044894-7.01592-X>
- Matthew, B. T. (2015). Systematic analysis of physical education standards, benchmarks and related teacher decisions. *Journal of Physical Education and Sport*, 15(2), 277. <http://doi.org/10.7752/jpes.2015.02042>
- Mertens, D. (2009). *Research and evaluation in education and psychology*. Athens: Metahmio.
- Organisation for Economic Co-operation and Development. (2009). *Teacher evaluation. A conceptual framework and examples of country practices*. Organisation for Economic Co-Operation and Development.
- Organisation for Economic Co-operation and Development. (2016). *PISA 2015: Results in focus*. PISA.
- Papageorgiou, G. (2014). Quantitative research. Retrieved from: http://sociology.soc.uoc.gr/pegasoc/wp-content/uploads/2014/10/Microsoft-Word-Papageorgiou_DEIGMATOLHPTIKH1.pdf (2014).
- Papakonstantinou, P., & Kolympari, T. (2019). A bone of contention: teacher evaluation system in Greece. *International Journal of Management in Education*, 13(1), 40–58. <http://doi.org/10.1504/IJMIE.2019.10016610>
- Peterson, P. L., Baker, E., & McGaw, B. (2010). *International encyclopedia of education*. Elsevier Ltd.
- Petty, J. (2013). Interactive, technology-enhanced self-regulated learning tools in healthcare education: A literature review. *Nurse education today*, 33(1), 53–59. <http://doi.org/10.1016/j.nedt.2012.06.008>
- Protsenko, U., Pantiuk, T., Romanchuk, O., & Danylevych, M. (2016). Improvement features of the Ukrainian physical education system. *Journal of Physical Education and Sport*, 16(1), 113–117. <http://doi.org/10.7752/jpes.2016.01019>
- Richards, K. A. R., Gaudreault, K. L., Starck, J. R., & Mays Woods, A. (2018). Physical education teachers' perceptions of perceived mattering and marginalization. *Physical Education and Sport Pedagogy*, 23(4), 445–459. <http://doi.org/10.1080/17408989.2018.1455820>
- Robinson, W., & Campbell, J. (2010). *Effective teaching in gifted education: Using a whole school approach*. Routledge. <http://doi.org/10.4324/9780203855065>
- Sahlberg, P. (2010). The secret to Finland's success: Educating teachers. *Stanford Center for Opportunity Policy in Education*, 2, 1–8.
- Sahlberg, P. (2021). *Finnish lessons 3.0: What can the world learn from educational change in Finland?* Teachers College Press. <https://doi.org/10.25656/01:11098>
- Snider, J. (2011). Keys to Finnish educational success: Intensive teacher-training, union collaboration. *The Huffington Post*. https://www.huffpost.com/entry/keys-to-finnish-education_b_836802

- Soltyk, O., Pavlyuk, Y., Vynogradskyi, B., Pavlyuk, O., Chopyk, T., & Antoniuk, O. (2017). Improvement of professional competence of future specialists in physical education and sports during the process of vocational training. *Journal of Physical Education and Sport*, 17, 964–969. <http://doi.org/10.7752/jpes.2017.s3148>
- Stefanik, R. (2013). Sociopolitical aspects of the work of physical education teachers in the West Pomerania in the years 1945–1950. *Central European Journal of Sport Sciences and Medicine*, 4(4), 11–17.
- Syauqi, K., Munadi, S., & Triyono, M. B. (2020). Students' Perceptions toward Vocational Education on Online Learning during the COVID-19 Pandemic. *International Journal of Evaluation and Research in Education*, 9(4), 881–886. <http://doi.org/10.11591/ijere.v9i4.20766>
- Tarhan, H., Karaman, A., Lauri, K., & Aerila, J. A. (2019). Understanding teacher evaluation in Finland: A professional development framework. *Australian Journal of Teacher Education (Online)*, 44(4), 33–50. <http://doi.org/10.14221/ajte.2018v44n4.3>
- Thompson, J. L. (Ed.). (2018). *Adult education for a change*. Routledge.
- Tight, M. (2012). *Key concepts in adult education and training*. Routledge. <http://doi.org/10.4324/9780203434086>
- Todd, E. L., Begoña, C. R., & Carol, C. I. (2016). An evaluation of teachers' knowledge and use of physical education instructional models. *Journal of Physical Education and Sport*, 16(4), 1310. <http://doi.org/10.7752/jpes.2016.04208>
- Tsiolis, G. (2011). The relationship between qualitative and quantitative research in the social sciences: From the polemic of “paradigms” to synthetic approaches. Dafermos, M. Samatas, M. Koukuritakis, S. Hiotakis (eds.) *Social sciences in the 21st century: Contentious issues and challenges. Issues and challenges*. <http://doi.org/10.4236/oalib.1107855>
- Valcke, M., Rots, I., Verbeke, M., & Van Braak, J. (2007). ICT teacher training: Evaluation of the curriculum and training approach in Flanders. *Teaching and teacher Education*, 23(6), 795–808. <http://doi.org/10.1016/j.tate.2007.02.004>
- Villegas-Reimers, E. (2003). *Teacher professional development: an international review of the literature*. Paris: International Institute for Educational Planning.
- Webb, R., Vulliamy, G., Hämäläinen, S., Sarja, A., Kimonen, E., & Nevalainen, R. (2004). A comparative analysis of primary teacher professionalism in England and Finland. *Comparative education*, 40(1), 83–107. <http://doi.org/10.1080/0305006042000184890>
- Williams, J. H., & Engel, L. C. (2012). How do other countries evaluate teachers?. *Phi Delta Kappan*, 94(4), 53–57. <http://doi.org/10.2307/41763737>
- World Medical Association. (2010). *WMA declaration of Helsinki – Ethical principles for medical research involving human subjects*.
- Zafeiropoulos, K. (2005). *How a scientific work is done*. 2nd Edition. Athens: Kritiki Publications.

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