

ФІЗИЧНЕ ВИХОВАННЯ РІЗНИХ ГРУП НАСЕЛЕННЯ

ASSESSMENT CRITERIA FOR PROGRAM EFFICIENCY “WRITTEN PROFESSIONAL LANGUAGE TRAINING” AND WRITTEN PROFESSIONAL LANGUAGE VALUES IN PHYSICAL EDUCATION STUDENTS



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Аннотация

У мальчиков младшего школьного возраста со сколиотической осанкой охарактеризованы: костное ремоделирование, структурно-функциональное состояние костной ткани, вегетативной регуляции; доказана необходимость их исследования для определения реабилитационного потенциала.

Предложенный метод оценки реабилитационного потенциала является перспективным в решении вопросов патогенетического подхода к тактике физической реабилитации детей со сколиотической осанкой.

Ключевые слова: реабилитационный потенциал, сколиотическая осанка, костный метаболизм, вегетативная регуляция.

Annotations

In boys of primary school age with scoliotic posture, bone remodeling, structural and functional state of bone tissue, vegetative regulation were characterized and the necessity of their investigation to determine the rehabilitation potential was proved.

The proposed method for assessing the rehabilitation potential is promising in addressing the pathogenetic approach to the tactics of physical rehabilitation of children with scoliotic posture.

Key words: rehabilitation potential, scoliotic posture, bone metabolism, vegetative regulation.

Forming written language skills in students of Physical Education and Sport is one of the main components through which the pedagogical activity - wherein all processes are ensured by a language specific to its field of activity - is realized. Possession of written communication skills helps students become more systematic in thinking, more organized and inventive.

In all its versatility, the training of written professional language to students, hasn't constituted so far the basis of special research in university pedagogical science. Although the absence of studies in a certain direction is not necessarily an argument for their realization, in our case, the object of the research, by all means, reflects not only the linguistic systems as abstract structures, but also the written language in practical use [2, 3].

The students' profound learning of the specialized terminology, its correct use, is a test for the exact and complete knowledge of the concepts of all sports specialties and for the improvement of written situational communication.

One of the basic criteria in students' professional training is their qualitative training, which is expressed by the correct scientific, orthographic, morphological, stylistic



and structural appropriation of all the correct writing techniques and elements, but also their quantitative training - the rational number of phrases, sentences and words in a text, in this given case of determining and explaining specialized terms [1, p.9-14].

After analyzing the working documentation, the results of the sociological survey, the frequency and typology of grammatical constructions mistakes in the scientific texts presented by the students and the examples of the forms of written language usage, we determined 6 evaluation criteria for the written professional language of a scientific text and 10 criteria for assessing the written professional language of a didactic project.

The results of the analysis of all forms of practicing written language in the faculties of Physical Education and Sports, of the sociological survey carried out with the teaching staff and with the students in the university and pre-university education allowed us to determine the optimal development period for the implementation of the TWPLS Program (Training of Written Professional Language Skills) in the instructive-educational process - the first semester of studies (2nd cycle master studies).

This period is fundamental IPT in master students, including the WPL domain. The proposed optional course offers extensive possibilities for intensive training of the PCS in the field of WPL through the improvement and adjustment in the practice of written language forms; it corresponds to the integrity and continuity of the current study process [4, p.46-51].

Methodological developments of the optional course Training of Written Professional Language were implemented in the study process during the 1st year, 1st semester, 2011-2012 academic year.

The process of WPL training (Written Professional Language) included the organization of a set of

lesson types, which were conducted with two groups of students: the experimental and the control group.

In the EGr (Experimental Group) all the lessons of the optional Professional Language Training course were conducted according to the requirements of the methodical developments of the experimental course.

The CGr (Control Group) lessons were taught using traditional methods and according to the curriculum for the subjects Didactic Communication of the Physical Education Teacher and Professional Communication for the Physical Education and Sport Specialist.

In order to establish the level of homogeneity of the experimental and control groups, evaluation tests were carried out regarding:

- Theoretical knowledge and practical-methodological skills (Table 1),

- WPL of a scientific text (Table 2), the comparative statistical data demonstrate the homogeneity of the experimental and control groups at the veracity threshold $P > 0.05$;

- WPL of a didactic project (Table 6) [4, p.46-51].

Theoretical knowledge was evaluated as a result of conducting a test. The practical and methodologi-

Table 1

The results of assessing the level of the theoretical training of master students for WPL formation at the initial stage [4, p. 46-51]

Nr. crt.	Knowledge, skills, attitudes	Initial results (Notes)	
		EGr	CGr
	Theoretical knowledge		
1	Communication. Definitions and principles of communication. Communication and information. The need for communication and its functions. Communication - the main category of professional activity of the physical culture and sports specialist.	6,00	6,07
2	The communication process. Elements of the communication process. Communication levels. Types of communication. Communication as a relationship.	5,78	5,71
3	Concept of self and communication. Particularities of communication. The structural-textual hierarchy of professional communication.	6,00	6,00
4	Communication skills. Types of educational skills. Developing written communication skills.	6,21	6,28
5	Professional-pedagogical communication, the stereotype of professional-pedagogical communication. Principles and rules for streamlining a communication.	5,71	5,78
6	The content and essence of written professional communication. Rules and suggestions on written professional communication.	5,85	6,00
7	Official documents used in professional-pedagogical work. Specific documents used in professional-pedagogical work. Designing the activity for "Physical Education Lesson".	6,14	6,00
8	Presentation, editing and writing technique for scientific works.	5,71	5,57
9	Computer mediated communication.	6,50	6,57



Table 2

**Comparative data of assessment criteria for WPL skills of a scientific text,
the initial stage (notes)**

Nr.	Criteria	CGr n=14 $\bar{x}\pm m$	EGr n=14 $\bar{x}\pm m$	t	P
1	Compliance of the chosen theme content with the completeness of elucidated subject	7,00±0,31	7,10±0,30	0,23	> 0,05
2	Writing skills level	7,15±0,33	7,30±0,32	0,33	> 0,05
3	Written language style	6,99±0,33	7,22±0,35	0,48	> 0,05
4	Use of professional terminology	6,85±0,36	7,00±0,36	0,29	> 0,05
5	Transgressions made	6,88±0,31	7,05±0,32	0,39	> 0,05
6	Relevance of used references	6,85±0,38	7,00±0,37	0,28	> 0,05

n= 28; P - 0,05; 0,01; 0,001;
f = 26; t = 2,056; 2,779; 3,707

Table 3

**Comparative data of the assessment criteria for the training level
in WPL of a scientific text, final stage (notes)**

Nr.	Criteria	CGr n=14 $\bar{x}\pm m$	EGr n=14 $\bar{x}\pm m$	t	P
1	Compliance of the chosen theme content with the completeness of elucidated subject	7,23±0,30	8,07±0,27	2,10	< 0,05
2	Writing skills level	7,35±0,30	8,22±0,28	2,12	< 0,05
3	Written language style	7,33±0,32	8,25±0,30	2,09	< 0,05
4	Use of professional terminology	7,25±0,35	8,25±0,31	2,13	< 0,05
5	Transgressions made	7,25±0,29	8,14±0,25	2,34	< 0,05
6	Relevance of used references	7,19±0,37	8,31±0,32	2,28	< 0,05

n = 28; P - 0,05; 0,01; 0,001
f = 26; t = 2,056; 2,779; 3,70

Table 4

**Comparative data of WPL training levels of writing a scientific text by CGr,
initial and final stages (n = 14)**

Nr.	Criteria	Initial stage $\bar{x}\pm m$	Final stage $\bar{x}\pm m$	t	P
1	Compliance of the chosen theme content with the completeness of elucidated subject	7,00±0,31	7,23±0,30	0,79	> 0,05
2	Writing skills level of training	7,15±0,33	7,35±0,30	0,66	> 0,05
3	Written language style	6,99±0,33	7,33±0,32	1,10	> 0,05
4	Use of professional terminology	6,85±0,36	7,25±0,35	1,21	> 0,05
5	Transgressions made	6,88±0,31	7,25±0,29	1,54	> 0,05
6	Relevance of used references	6,85±0,38	7,19±0,37	0,97	> 0,05

n = 14; P - 0,05; 0,01; 0,001; r = 0,553
f = 13; t = 2,160; 3,012; 4,221



cal skills were assessed in master students through writing a didactic project for a stereotypical Physical Education lesson (with the objectives, contents and organizational forms indicated by us). The results of the assessment of the student training level for WPL training are presented in Table 1, the assessments being made according to the 10 point system [4, p. 46-51].

The master students' group grades average for knowledge-capabilities-attitudes related to WPL was used to determine the initial level of their PT, as well as to establish the homogeneity of the experimental and control groups.

In order to evaluate the effectiveness of the program applied at the final stage of the experiment, tests were carried out in the same succession as presented above in the three compartments of competences: theoretical knowledge and practical-methodical skills, the written language of a scientific text, the written professional language of a didactic project (Table 3, 7, 10).

After processing the data from testing WPL evaluation criteria of a scientific text in the final stage (Table 3), we find significant statistical differences between the two groups in favor of EGr ($P < 0.05$).

The statistical and mathematical analysis of the experimental data shows that, for most criteria, results

have been obtained that t calculated for all criteria varies between 0.66-1.54, lower than the table t , which shows insignificant differences ($P > 0, 05$) between initial and final tests (Table 4).

After analyzing the data provided by testing the EGr students for the WPL criteria of a scientific text (Table 5), we notice significant differences ($P < 0.01$).

If we analyze statistically and mathematically the results of evaluating the written professional language of a didactic project in the control and experimental groups at the initial stage (Table 6), we can see that t , calculated for all the evaluation criteria, varies between 0.19-0, the value being less than the table t , which proves that the differences between the two groups are insignificant ($P > 0.05$).

Comparing the statistical and mathematical data presented in Table 6 and Table 7, we notice that the results obtained from the final stage are in favor of the EGr ($P < 0.05$), where the value of t calculated at the final stage for all the tested criteria varies between 2.07 - 2.49 (Table 7) and is higher than the table t , which proves that the differences between the two groups are significant. This being said, it is thus proven that the effectiveness of the program applied at the final stage of the experiment indicates superior statistic indices of

the experimental group vs. the control group at $P < 0.05$ in all the tested parameters.

Analyzing statistically the dynamics of the tests of WPL evaluation criteria of a didactic project in the CGr at the initial and the final stages (Table 8), we see that t calculated for each criterion ranges from 0.56 to 1.31 being less than the table t , which proves that there are no or insignificant differences between initial and final testing of the written professional language evaluation criteria ($P > 0.05$).

At the same time, a statistical and mathematical analysis of the dynamics of assessment criteria tests for the written professional language of a didactic project in the experimental group at the initial and final stages (Table 9), shows that the differences between the two stages are significant in favor of the experimental group ($P < 0.01$ to 0.001). Interpreting the differences between the results obtained at the initial and final stages of the experimental group, we can see that the calculated t varies between 3.77-4.23, being larger than the table t , which proves that the statistical differences obtained are significant.

The statistical and mathematical analysis of the general grades obtained by the students of the experimental and control groups at the official examination shows that the

Table 5

Comparative data of WPL training levels of writing a scientific text by EGr, initial and final stages (n = 14)

Nr.	Criteria	Initial stage $\bar{x} \pm m$	Final stage $\bar{x} \pm m$	t	P
1	Compliance of the chosen theme content with the completeness of elucidated subject	7,10±0,30	8,07±0,27	3,60	< 0,01
2	Writing skills level of training	7,30±0,32	8,22±0,28	3,28	< 0,01
3	Written language style	7,22±0,35	8,25±0,30	3,32	< 0,01
4	Use of professional terminology	7,00±0,36	8,25±0,31	3,91	< 0,01
5	Transgressions made	7,05±0,32	8,14±0,25	3,89	< 0,01
6	Relevance of used references	7,00±0,37	8,31±0,32	3,97	< 0,01

n = 14; P - 0,05; 0,01; 0,001. r = 0,553; f = 13



Table 6

**Comparative data of WPL training levels for writing a didactic project
in the CGr and EGr, initial and final stages (n = 14)**

Nr.	Criteria	CGr n=14	EGr n=14	t	P
1	Compliance of the chosen theme content with the completeness of elucidated subject	7,21±0,46	7,33±0,45	0,19	> 0,05
2	Attained level of skills for describing the used means and methods	7,00±0,38	7,19±0,36	0,36	> 0,05
3	The ability to formulate and write the chosen didactic strategy	6,92±0,46	7,10±0,45	0,28	> 0,05
4	The level of skill formation and correct writing of milestones	7,21±0,46	7,34±0,45	0,20	> 0,05
5	Abilities in formulating and correct writing of trained sub-skills	7,00±0,46	7,21±0,45	0,33	> 0,05
6	Written language style of the didactic project	7,00±0,46	6,80±0,44	0,31	> 0,05
7	Use of professional terminology specific to the taught subject	7,00±0,33	7,18±0,32	0,39	> 0,05
8	Relevance of the bibliographic sources used in the didactic project	6,92±0,43	7,20±0,42	0,47	> 0,05
9	Level of self-assessment skills and elucidation of hence concluded recommendations	7,00±0,46	7,22±0,47	0,33	> 0,05
10	Level of formed abilities for describing the didactic scenario (didactic content)	6,78±0,45	7,05±0,46	0,42	> 0,05

Legend: n = 28; P - 0,05; 0,01; 0,001
 f = 26; t = 2,056 2,779 3,707
 f = 13; t = 2,160 3,012 4,221

Table 7

**Comparative data on WPL training levels for writing a didactic project in the EGr and CGr,
final stage (notes)**

Nr.	Criteria	CGr n=14	EGr n=14	t	P
1	Compliance of the chosen theme content with the completeness of elucidated subject	7,50±0,44	8,97±0,40	2,49	< 0,05
2	Attained level of skills for describing the used means and methods	7,27±0,37	8,36±0,29	2,32	< 0,05
3	The ability to formulate and write the chosen didactic strategy	7,36±0,44	8,58±0,40	2,07	< 0,05
4	The level of skill formation and correct writing of milestones	7,60±0,44	8,87±0,40	2,15	< 0,05
5	Abilities in formulating and correct writing of trained sub-skills	7,42±0,44	8,72±0,39	2,20	< 0,05
6	Written language style of the didactic project	7,24±0,45	8,49±0,40	2,08	< 0,05
7	Use of professional terminology specific to the taught subject	7,42±0,34	8,33±0,27	2,12	< 0,05
8	Relevance of the bibliographic sources used in the didactic project	7,43±0,41	8,71±0,38	2,28	< 0,05
9	Level of self-assessment skills and elucidation of hence concluded recommendations	7,46±0,45	8,87±0,41	2,31	< 0,05
10	Level of formed abilities for describing the didactic scenario (didactic content)	7,29±0,44	8,68±0,42	2,27	< 0,05

Legend: n = 28; P - 0,05; 0,01; 0,001
 f = 26; t = 2,056; 2,779; 3,707



Table 8

**Comparative data of WPL training levels for writing a didactic project in the CGr,
initial and final stages (n = 14)**

Nr.	Criteria	Initial stage	Final stage $\bar{x}\pm m$	t	P
1	Compliance of the chosen theme content with the completeness of elucidated subject	7,21±0,46	7,50±0,44	0,69	> 0,05
2	Attained level of skills for describing the used means and methods	7,00±0,38	7,27±0,37	0,77	> 0,05
3	The ability to formulate and write the chosen didactic strategy	6,92±0,46	7,36±0,44	1,05	> 0,05
4	The level of skill formation and correct writing of milestones	7,21±0,46	7,60±0,44	0,93	> 0,05
5	Abilities in formulating and correct writing of trained sub-skills	7,00±0,46	7,42±0,44	1,00	> 0,05
6	Written language style of the didactic project	7,00±0,46	7,24±0,45	0,56	> 0,05
7	Use of professional terminology specific to the taught subject	7,00±0,33	7,42±0,34	1,31	> 0,05
8	Relevance of the bibliographic sources used in the didactic project	6,92±0,43	7,43±0,41	1,27	> 0,05
9	Level of self-assessment skills and elucidation of hence concluded recommendations	7,00±0,46	7,46±0,45	1,07	> 0,05
10	Level of forms abilities for describing the didactic scenario (didactic content)	6,78±0,45	7,29±0,44	1,21	> 0,05

Legend: n = 14; P - 0,05; 0,01; 0,001. r = 0,553
f = 13; t = 2,160; 3,012; 4,221

Table 9

**Comparative data of WPL training levels for writing a didactic project in the EGr,
initial and final stages (n = 14)**

Nr.	Criteria	CGr n=14	EGr n=14	t	P
1	Compliance of the chosen theme content with the completeness of elucidated subject	7,33±0,45	8,97±0,40	4,10	< 0,01
2	Attained level of skills for describing the used means and methods	7,19±0,36	8,36±0,29	3,77	< 0,01
3	The ability to formulate and write the chosen didactic strategy	7,10±0,45	8,58±0,40	3,95	< 0,01
4	The level of skill formation and correct writing of milestones	7,34±0,45	8,87±0,40	3,82	< 0,01
5	Abilities in formulating and correct writing of trained sub-skills	7,21±0,45	8,72±0,39	3,77	< 0,01
6	Written language style of the didactic project	6,80±0,44	8,49±0,40	4,23	< 0,001
7	Use of professional terminology specific to the taught subject	7,18±0,32	8,33±0,27	4,10	< 0,01
8	Relevance of the bibliographic sources used in the didactic project	7,20±0,42	8,71±0,38	3,97	< 0,01
9	Level of self-assessment skills and elucidation of hence concluded recommendations	7,22±0,47	8,87±0,41	3,93	< 0,01
10	Level of forms abilities for describing the didactic scenario (didactic content)	7,05±0,46	8,68±0,42	3,88	< 0,01

Legend: n = 14; P - 0,05; 0,01; 0,001. r = 0,553
f = 13; t = 2,160 3,012 4,221



Assessment results of the theoretical training level of master students for the professional-written language at the final stage

Nr.	Knowledge	Final results (grades)	
		E Gr	C Gr
	Theoretical knowledge		
1	Communication. Definitions and principles of communication. Communication and information. The need for communication and its functions. Communication - the main category of the professional activity of the physical culture and sports specialist.	9,21	8,14
2	The communication process. Elements of the communication process. Communication levels. Types of communication. Communication as a relationship.	9,07	8,14
3	Concept of self and communication. Particularities of communication. The structural-textual hierarchy of professional communication.	9,28	8,07
4	Communication skills. Types of educational skills. Developing verbal written communication skills.	9,11	8,35
5	Professional-pedagogical communication, the stereotype of professional-pedagogical communication. Principles and rules for streamlining a communication.	9,14	8,35
6	The content and essence of written professional communication. Rules and suggestions on written professional communication.	9,42	8,28
7	Official documents used in professional-pedagogical work. Specific documents used in professional-pedagogical work. Designing the activity for "Physical Education Lesson".	9,35	8,21
8	Presentation, editing and writing technique for scientific works.	9,28	8,64
9	Computer mediated communication.	9,78	8,57

average scores of the group in the experimental sample represents a clearly superior pedagogical category compared to the control sample (9.78-8.64), which confirms a substantial contribution to the students' general success in the optional course «Written Professional Language» (Table 10).

The analysis of the data and the results evaluation of the professional language training experiment in the two samples are an opportunity to become aware of important issues regarding streamlining the process of written professional language for master students, confronted with the modern academic environment [218, p. 46-51].

The experimental application of the TWPLS program, designed to eliminate the gaps and contradictions in the theory and practice of the professional-communicative training of the students of Physical Culture, has achieved its intended

purpose, this activity resulting in advanced professional pedagogical skills and advanced professional-communicative skills in comparison to the control group (9.78-8.64).

Generalizing the above, it can be said that the optional course curriculum contributes to the formation of knowledge and skills of written professional pedagogical communication in future teachers of Physical Education, by enhancing the productive level with elements of creation.

The conceptual-theoretical value of these results is certified by the interaction at the level of pedagogical finalities of the research subjects with the theoretical-practical advocating for the modern quality of the Physical Education and Sports pedagogy that combines theoretical and practical training through professional communication skills.

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