

Quality Assurance Indicators Evaluation of Teaching Process at Sarajevo Faculty of Sport and Physical Education Based on Testing Academic Curriculum Results

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Abstract

“Testing Curriculum at the Sarajevo Faculty of Sport and Physical Education” is a Tempus project lead by WUS Austria and University of Sarajevo – Faculty of Sport and Physical Education aiming at comparative analysis of curriculum at the two faculties in Bosnia and Herzegovina and Slovenia and research of the final user group needs for the academic education and science research.

Based on the analysis of results this scientific paper tells that different educational processes at the Faculty are coming, which should be directed towards major capacity in the area of organization and management, and no longer exclusively to the processes of physical education (teacher) and training technologies (trainer). Based on this research data, students have a very limited direction in terms of preparation for their future work and in their perception they see their employers exclusively as schools (teaching) and to a lower extent clubs (training). This generally shows in case of all interviewees that there is no good information about possible employers in future outside the schools and clubs. The reason for this situation might be lack of information and interest of students in changes occurring in the society, which is present during enrollment, studies and later.

Key words: curriculum, physical education, quality assurance

Introduction

The transition of university institutions towards liberal democracy and market oriented economy is just one of the challenges that the universities in Bosnia and Herzegovina are facing. It is necessary to develop a sustainable, depoliticized system within the educational reforms (Reichert & Tauch, 2005). This includes the improvement of the quality of lectures and studies at universities through the improvement of study programs by establishing an accountable and sustainable educational system in Bosnia and Herzegovina.

In compliance with the requests and implementation of the Bologna process, and the need for a faster approximation with European mainstream (Reichert & Tauch, 2003), (Group of authors, 2005), the Faculty of Sport and Physical Education of the University of Sarajevo and WUS Austria started the initiative for the launching of the project “Testing Curriculum at the Sarajevo Faculty of Sport and Physical Education”. The project has been developed in close cooperation with the Faculty of Sport, the University of Ljubljana and Ministry of Civil Affairs of Bosnia and Herzegovina.

Testing curricula and introduction of new forms of teaching at the Faculty of Sport in Sarajevo based on needs and requirements of

Sažetak

“Testiranje curriculum-a na Sarajevskom fakultetu sporta i tjelesnog odgoja” je platforma za pisanje naučnog rada koji sadrži istraživanja krajnjih korisnika visokog edukacijskog procesa i naučnih istraživanja.

Ovaj naučni rad, po osnovu analize rezultata, govori da dolazi vrijeme drugačijih edukacijskih procesa na Fakultetu koji bi na osnovu datih rezultata trebali biti usmjereni u većem kapacitetu u područje organizacije i upravljanja, a ne više isključivo u procese tjelesnog odgoja (nastavnici) i trenaznih tehnologija (trener).

Na osnovu dobijenih rezultata vidimo da se percepcija profesora tjelesnog odgoja i trenera u mnogome mijenja i da u sferu obrazovnih procesa sve značajnije ulazi oblast menadžmenta, organizacije i upravljanja procesima. Saznanja u radu podcrtavaju da studenti imaju vrlo ograničeno usmjerenje u smislu pripreme za rad u budućnosti i u svojoj percepciji sagledavaju poslodavca isključivo kao škole (nastava) i u nešto manjoj mjeri klubove (treening). Ovo ukazuje kod svih ispitanika generalno, kako kroz studij ne postoje kvalitetne informacije o tome ko su u budućnosti i kakvi su potencijalni poslodavci van kategorije škole i van kategorije kluba. Razlog ovakve slike može biti slaba informiranost i zainteresovanost studenata pri upisu, u toku studiranja a i kasnije, za promjene koje se dešavaju u društvu.

Ključne riječi: curriculum, tjelesni odgoj, osiguranje kvaliteta

the environment. The testing will be conducted as an internal process in cooperation with students and as an external process in cooperation with sports organizations in Bosnia and Herzegovina and Slovenia.

The Tempus project will improve the reform processes at the Faculty of Sport and Physical Education, which will be fully compliant with the Bologna declaration. By putting this project and work method in the context of general educational reforms, this intervention will ensure exchange of information, discussion and consultations with relevant working groups and bodies in the higher education reform and strengthen the cooperation with the environment, other faculties of sport in Bosnia and Herzegovina and EU countries.

Goal:

Testing the curriculum.

Adoption of a new curriculum and ECTS in undergraduate/postgraduate studies at the Faculty of Sport and Physical Education in Sarajevo, in compliance with the Bologna process.

Methods

The survey consisted of four parts. The first part was related to an assessment of representation indicators of some general characteristics and the importance of knowing and possessing practical skills related to these characteristics (Dizdar, 2006). The second part was related to the assessment of the quality of preparation at the faculty for future jobs. The third part was related to the assessment of the importance of individual areas of application of sport and physical education. These three survey parts were given to all interviewees. The fourth part was given only to students, and it related to the quality of faculty work.

Sample of the examines

In this paper processed are 170 interviewees with complete results in the first three parts of the survey, with 125 of them being students, 15 employers and 30 alumni from the entities.

Sample of the variables

During the first part of processing, we used the questions from the questionnaires for all three groups. There were 89 such questions. In the second part we used questions given only to students. There were 36 such questions, and the overall number of received questionnaires amounted to 111.

The results show that the general indicators show an expressed tendency of equally directed difference among indicators describing the representation at the Faculty and importance of individual characteristics in practice. The importance of these characteristics is always considerably more pronounced than the representation. All interviewees show such attitudes. And the biggest differences are present in case of the alumni. The indicators with the largest differences in representation and importance are the following ones: PRMV 03 – *the importance of the ability to apply knowledge in practice*, PLAV 04 – *the importance of planning skills*, STJV 10 – *the importance of foreign language skills*, ISTV 12 – *the importance of skills necessary for research activities*, MJEV 13 – *the use of measuring methods and techniques*, KREV 19 – *creativity* and ODLV 24 – *decision making*.

These indicators show that the interviewees believe that the representation of all analyzed characteristics (and especially the mentioned ones) is not in compliance with the importance of these characteristics in the immediate professional practice.

In terms of absolute values, the following indicators were assessed as by far the lowest ones:

ISTZ	12	Research activities skills
KRIZ	17	Criticism and self-criticism
PLAZ	04	Planning and time organization skills
STJZ	10	Foreign language skills
MJEZ	13	Use of measurement methods and techniques
IKOZ	32	Ability to work in international environment
ODLZ	24	Decision making
INIZ	22	Initiative and proactive attitude
RAZZ	31	Appreciation of differences (different cultures)
TEHZ	16	Use of technologies in sport and physical education
ANAZ	01	Ability of analytical thinking
KULZ	33	Understanding the culture and customs of other countries

As it may be seen, all these indicators belong to the subgroup of **representation**, which means that all interviewees believe that the presence or development of these characteristics at the Faculty is ignored or insufficiently incorporated. It is evident that in

the general context these indicators represent a group of information related to a specific working method in sport that may be best described as moderate. We may say that the interviewees expect better information during the study, which will enable them to plan, monitor and manage, which would be a signal in managerial sense or process moderator. As it may be seen, the only indicator in this group that shows that it is about sport and physical education is TEHZ 16, and even this one is characterized by technology (Malacko & Radjo, 2008). All other indicators that were mentioned may fully regularly describe any other profession (movie, literature, poetry, music, painting, etc.).

This group of indicators clearly shows that it may be time for completely different education at the Faculty, which, according to these results, should be intensively directed towards the field of **organization** (Bartoluci, 1997), and not exclusively towards conducting trainings (trainer) or physical education classes (teacher). The overall desirable education is obviously considered as acceptable by the interviewees if the study programs include significant knowledge that will enable them to be competitive in the market in terms of all activities that such a market may offer. It seems that the notion of a physical education teacher or trainer is being considerably changed, because the perception of all interviewees (students, employers and alumni) is going into this direction.

Data analyzes methods

In this research provided are next analyzes methods: Regression of all 8 areas in case of the remaining 81 indicators and clique analysis. Next step was the latent dimensionality of the indicators based on the interactions of indicators it was possible to locate 6 important indicators of latent dimensionality (extraction by means of screen technique). The latent indicators were very easily recognizable and identifiable as well as taxonomy of student indicators about the quality of study.

Results and Discussion

During the initial steps of preparation and data analysis, the values of the last 8 indicator areas (TZK, training, APA) were redirected in such a way that bigger results also show bigger importance of individual areas (the most important = 8, the least important = 1). The indicators of the complete second group (assessment of preparations for future work) show that the interviewees generally show low values, especially in terms of the following indicators: OSOC 62 sports sociology, OTUR 63 sport and tourism, and OAPA 64 adaptive activity. This means that the mentioned areas are considered less important, and they therefore do not deserve a particular attention in planning and definition of the profile of future experts graduating from the Faculty of Sport and Physical Education.

Out of the other indicators from this group, the following indicators have generally low values:

PPRE	49	I had presentations of employers related to motivation
ISKU	53	A large percentage of students has work experience
POSL	48	Before the beginning of studies I knew the employers
POTE	39	Employment potential based on my professional qualifications
ZAVR	52	I had the opportunity to work on projects as a co-author

There were mostly no presentations of employers, there are few student with work experience, and prior to their entry they mostly

did not know the employers, the employment potential based on professional qualifications is low and there were no possibilities for cooperation on projects. This, however, means that all interviewees in general believe that there is no sufficiently good information on potential employers, who they are, how they are and what they offer (Milanović, Jukić, & Šimek, 2003). The reasons for this may be the employers themselves, or lack of information and interest of potential students during enrollment and later on.

It is also not impossible that students decide to become teachers and trainers at enrollment without additional information, and therefore also ambitions related to sport and physical education, and they therefore see employers only as schools (lectures) or clubs (training).

Table 1. Faculty Work Quality Indicators (just students)

Complete answers of students by categories 1 – 7 (frequency) (7 = complete agreement, XA = 'average values')

XX Content of survey questions	1	2	3	4	5	6	7	XA
55 Costs of practical experience are high	6	3	5	13	17	21	46	5.51
56 I have regular consultations with mentors	29	7	23	23	11	7	11	3.41
57 Availability of mentors is excellent	18	14	19	27	14	11	8	3.63
58 I am satisfied with the frequency of contacts / quality of contacts with the mentor	22	14	21	16	23	8	7	3.50
59 I had the necessary support of the mentor (selection of the topic, planning of research)	18	17	20	14	25	7	10	3.65
60 At the Faculty there is the possibility of open discussion with employees	12	13	14	28	16	16	12	4.07
61 The lectures at the Faculty start on time	10	4	15	19	16	22	25	4.74
62 The lectures at the Faculty are conducted as planned	3	10	9	18	25	27	19	4.88
63 Professors at the Faculty encourage students to study	10	7	8	23	24	19	20	4.63
64 Professors at the Faculty provide support to students	6	10	13	27	22	21	12	4.44
65 It is possible to study with other students at the Faculty	14	8	8	19	20	19	23	4.55
66 The costs of teaching materials are high	4	0	6	12	17	25	47	5.71
67 It is possible to evaluate what is expected from a subject	6	3	6	15	33	24	24	5.11
68 It is known what to expect from the mentor	11	9	7	33	26	8	17	4.32
69 The most efficient way of work is in small groups	3	8	8	13	16	16	47	5.41
70 The most efficient form of work is a discussion	3	1	9	14	25	25	34	5.41
71 The most efficient form of work is resolution of problems	5	5	3	13	22	31	32	5.37
72 The most efficient form of work are video presentations	4	7	8	15	21	21	35	5.21
73 The most efficient form of work is the classical form of lectures	13	6	14	24	22	15	17	4.34
74 The most efficient form of work are group discussions	9	4	8	21	21	26	22	4.86
75 The brochures sent to future students include the possibility of employment	17	6	17	29	16	14	12	4.00
76 During the first year, advantages and disadvantages of the (future) job are discussed	13	9	16	25	17	12	19	4.23
77 During the first 6 weeks, advantages and disadvantages of the job are discussed	16	9	16	27	11	19	13	4.05
78 During the first year of the study, the importance of the best possible CV is emphasized	11	12	13	35	18	7	15	4.06
79 Students may talk to sport professors in successful positions	10	8	14	26	15	22	16	4.42
80 Students get help to identify potential employers/companies	18	14	12	29	15	12	11	3.80
81 Jobs can be found both in the study discipline, but also outside	6	7	12	30	21	15	20	4.60
82 Students get help with filling of applications	17	16	18	21	17	12	10	3.73
83 Students are informed about the whole application process	12	17	14	33	19	11	5	3.75
84 Students get help when making their CVs	19	11	18	30	15	8	10	3.68
85 Students get advice on presentation (clothes) during the interview	20	12	16	22	23	9	9	3.71
86 Students are informed about the interview procedure	21	10	12	34	19	6	9	3.67
87 I was informed about what employers look for and appreciate in case of sport teachers	14	11	17	24	21	14	10	3.98
88 I was informed about potential employment possibilities (main employers)	12	10	16	27	14	21	11	4.15
89 I know which skills, knowledge and attitudes employers consider to be important over the coming 4 years	5	10	16	32	20	14	14	4.35
90 Job-related skills are explicitly pointed out	5	13	18	33	21	10	11	4.14

It is obvious that the highest average values belong to indicators related to lectures, and the lowest to advisory services provided to students in terms of applications, interviews and contact with employees.

It is obvious that these results include a certain number of indicators that are considerably "moved" towards the zone of higher values:

- 55 costs of practical experience are high
- 66 costs related to lecture materials are high
- 69 the most efficient form of work is work in small groups
- 70 the most efficient form of work is a discussion
- 71 the most efficient form of work is resolution of problems
- 72 the most efficient form of work are video presentations

It is more than clear how these indicators belong to **lectures** themselves that is being conducted. This shows that students see lectures as a gathering, but also that the solutions for high-quality lectures should be looked for in various types of implementation.

In case of a certain number of indicators it is obvious that the distribution is oriented towards uniformity:

- 58 "I am satisfied with the frequency / quality of contact with the mentor"
- 65 At the Faculty it is possible to study with other students
- 82 Students get help when filling the applications
- 85 Students get advice on presentation (clothes) during the interview

These indicators point to **assistance** and **cooperation** with other persons at the faculty, but not professors, but rather **mentors**, **technical staff** and **colleagues students**. Based on this we may conclude that students probably do not have adequate information on situations described in these indicators, and therefore there are different attitudes on this.

In case of most other indicators, there is a tendency of "normal" distribution, which would mean that students have different approaches to phenomena and situations described by these indicators, and probably due to a series of reasons and conditions.

Relations between indicators

-Latent dimensionality of indicators

The overall group of 170 interviewees based on 89 indicators by means of the classical factor procedure (including screen technique of dimensionality reduction) was reduced to 6 relevant and important latent dimensions. These dimensions describe the phenomena that cause the attitude described in the survey based on initial results. The relevant values amounted to: 19.59, 11.34, 4.46, 2.57, 2.39 and 2.16. Every latent phenomenon had an easily recognizable character, and after the transformation in the orthogonal position, they were identified as:

1. Representation of skills indicators
2. Importance of skills indicators
3. Quality of studies in terms of preparation for the job
4. Information on employers
5. General knowledge
6. Integration in the social community

Such dimensionality describes the 6 most important latent indicators that exist in the data related to 170 interviewees. The overall group of representation indicators is in the first dimension, and the overall group of importance indicators in the second. The quality of the study is described in the third group, employer information in the fourth, general knowledge in the fifth and social field integration in the sixth dimension.

The associations of latent indicators also show some phenomena, and of course the *representation of perceived characteristics is directly and closely related to the integration in the social community, and the importance of these characteristics and general knowledge (table 2).*

Table 2. Latent indicators phenomena

Representation of perceived characteristics and integration in the social community (0.72)
Importance of these characteristics and general knowledge (0.61)
Representation and importance of these characteristics (0.25)
Importance of these characteristics and integration in the social community (0.23)
Quality of studies and information on employers (0.20)

The areas are integrated in an interesting way: physical culture, tourism and APA are poorly projected to the dimension of the quality of studies in terms of preparations for the job (TZK and APA negative). Training, management, psychology and medicine are projected to the dimension of general knowledge, whereby management is even projected negatively.

Regression of all 8 areas in case of the remaining 81 indicators

These analyses were done with the aim to try explaining the impact of primary indicators to variations of the selection of significance of individual areas offered in the questionnaire (TZ culture, training, sport management, sport psychology, sport medicine, sport sociology, sport tourism, and APA). Since everyone is interested in these problems, these analyses were made for a group of all 170 interviewees.

We see that not all regressions are important, but just two, namely those related to sport medicine and APA. The regressions in case of sport management and sport tourism are fully irrelevant (p around 0.80), whereas the others partly are to a certain extent near possible relevance (p around 0.20).

These facts already speak for themselves. It is therefore necessary to ask the question how it is possible to explain the importance of the regression of sport medicine and APA, when it was already noticed that these two areas gave quite a poor result in the classification among other areas, where TZ culture and training were preferred, and in case of which it is not possible to explain the differences even with the indicator of 81! It seems that the interviewees were unconsciously motivated to show why these areas are not important for them.

The interviewees expect to acquire additional knowledge in sport medicine, use of computers and overview of possible careers are important. But, at the same time they do not see any need for searching for literature and acquiring new information, nor in

the work on projects with employers, they consider oral communication not that important (2008 Malacko, J.; I. Radjo), they do not think that they are sufficiently prepared for the continuation of their studies and they do not see the consideration of ethical principles in sports in the field of sports medicine.

All this together means that they are in a way eliminated from this field and that they do not have a positive opinion on this, so that basically the prediction is generally negative. The interviewees assume that the evaluation of the APA area requires criticism and self-criticism, interdisciplinary work and use of knowledge in practice and overview of career possibilities. They also believe that no interpersonal skills, practical abilities, information from various sources and project design are necessary. It seems that in the APA area, the interviewees do not see the body, but rather themselves, which, if it is true, does not represent particularly good indicators. In both cases we have to admit that in relation to sport medicine and APA area the interviewees do not show particular interest, and part of such considerations should certainly be related to their insufficient specialist knowledge on the one hand, and non-existence of information on these areas that would explain the possible importance and problems.

It seems that the Faculty of Sport, when it comes to their attitude, that also include the area of interest and long-term program guidelines, should not educate experts in these two fields, because it is obvious that serious education requires completely different programs, and maybe even profiles. The true question, of course, should be asked in terms of the potential employers from these two areas, who will certainly devote more attention to graduates from the medical education sector to the detriment of graduates from the Faculty of Sport, which is also one of the reasons for the described situation.

It was not possible to explain other areas based on the selected prediction indicators, although the same determinants are quite pronounced and vary between 0.43 and 0.53, and multiple correlations between 0.66 and 0.73. However, even in this case, the residual of an unexplainable part is still very high and does not allow a generalization in terms of importance. It should be mentioned that such a situation appears always when there are strong nivellization generators of information within the group of primary information, whose source is in the non-neutral social sphere and is related to the indicators of status, salary, social recognition, purchasing power, etc., when these generators simply win over all other sources of information. However, this also means that the answers were obtained under an extraordinary impact of nivellization, so that answers for successful learning, employment, work, recognition, salary, career, etc. Cannot be found in local segments of the institution itself (Faculty), but have to be looked for in the wider social environment, because these strong sources of information simply marginalize professional and other type of information important for the understanding of predictions of specific areas as in this case.

Clique analysis

For the purposes of this project, we conducted a clique analysis (impact analysis) with the goal of establishing the key originators of all activities generated by the entities themselves based on selected indicators. The clique number was isolated based on the screen function of specific activity values.

The results showed the following:

There are two cliques, and they are both defined by indicators or representation or importance.

There are no indicators of the quality of preparations during the studies for the job or individual areas.

All values are positive and the first clique is *representation*, and the second is the *importance* of indicators.

Cliques were recognized as:

1. **the representation** of analyzed characteristics (skills or knowledge),
2. **the importance** of these characteristics (skills or knowledge).

This means that the key information are of internal type (considering the research), defined based on the first questionnaire, whereas other indicators had **no impact on the establishment of the clique**. It seems that here you see a basic divergence in the values that were impossible to discover otherwise. Namely, there is an obvious lack of adjustment between the attitudes about the importance and the opinion on the presence of certain characteristics of the institution, so that this information is continuously presented.

Clique 1	Clique 2
Out of a total of 170 entities, 109 of them belong to the first clique, and 29 of them belong to the second clique. 32 do not belong to any clique.	Out of 125 students 81 belong to the first clique, 17 belong to the second clique and 27 of them do not belong to any clique.
Clique 1	Clique 1
Out of 15 employers, 11 of them belong to the first clique, 3 of them belong to the second clique, and 1 belongs to no clique.	Out of 30 alumni, 17 of them belong to the first clique, 9 belong to the second, and 4 belong to no clique.

Clique 1 predominantly includes employers and students, and clique 2 predominantly includes alumni and employers, whereas the students and alumni are outside the clique.

It is evident that the cliques are poorly saturated in the field of indicators, which means that their constitution is not too strong, but nevertheless harmonized, because all important projections in the first case amount to 0.20, and in the second case to 0.10. The clique correlations show us that there is a weak negative link among them, which means that these two characteristics of establishment of reactions are nevertheless distant, and do not match with reactions at higher levels. At first this seems to be somewhat surprising, because if we imagine the first clique as a group of persons who wish a much better representation of certain skills and knowledge in the faculty programs, and the other one as a group of persons who emphasize a greater importance of some skills and knowledge, then we obviously have not a small problem resulting from the eternal thinking about theory and practice. Or, at least, the interviewees do not see ways how to reconcile these differences at this moment.

The attitudes of students about the Faculty

-The latent dimensionality of the indicators

Latent information that could be distinguished were obtained from the indicators that were given in the questionnaire only for students. There were 36 such indicators, and the overall number of interviewed persons amounted to 111. After the normalization of data, the associations of indicators and other multivariate analyses were calculated.

Based on the interactions of indicators it was possible to locate 6 important indicators of latent dimensionality (extraction by means of screen technique). The latent indicators were very easily recognizable and identifiable.

Most of the indicators of the projections are sufficiently pronounced in order to determine their primary latent contents. A certain number of indicators were projected in a multiple way, which means that there is no single latent content, which is probably caused by the complexity of the content of the indicator itself. The latent indicators were identified as:

1. Counseling service during job application
2. Teaching process and forms of work
3. Consultations with supervisors
4. Professors and the quality of their relations with students
5. Information about the study at the beginning of education
6. Assessment of future job opportunities

As you may see based on these 6 dimensions, the essence of the educational process at the Faculty is almost fully completed. The students realistically expect the institution to provide them with information about the study at the beginning of education, (OBQ5), to have good consultations with the supervisors (OBQ3), to organize the teaching process or conditions in a good way (OBQ2), to have the teaching staff working well with them (OBQ4), to ensure an assessment of future job opportunities (OBQ6), and finally to get the assistance from the Faculty through advisory services when applying for a job (OBQ1).

It seems that the students have quite good attitudes about what they want, how they see the whole institution. But to what extent this was preserved and how it really functions, this is something completely different, *but it is impossible to negate that they know what they need.*

In this respect we might say that the institution generally forms good attitudes. Two latent indicators of the widest scope were identified at the following level (table 3.):

Table 3. Two latent indicators of the widest scope

	F1	F2
1. Advisory role when applying for a job	0.86	-0.13
2. Teaching process and forms of work	-0.22	0.94
3. Consultations with the supervisors	0.67	0.11
4. Teachers and the quality of their relations with the students	0.16	0.69
5. Information about the study at the beginning of education	0.64	0.31
6. Assessment of future jobs	0.70	-0.10

It is visible that the first one represents a complete group of **consultative activities**, and the second group of **teaching processes**, which confirms clear attitudes of the students. Future efforts should therefore meet these two key bases. The relation of these two dimensions was +0.40, which is also positive as a system of values, because these prerequisites are realistically not separable.

But it is interesting that students do not see the institution exclusively as the center of teaching processes, so that this is certainly a basis for the development of future plans, programs, and activities in general.

Taxonomy of student indicators about the quality of study

Since the registered structure of the attitudes towards the institution, and since it is obvious (based on data on individual indicators) that some parameters are not satisfactory, another analysis was necessary in order to detect divergences within global attitudes (Radjo & Wolf, 2001). Without this, just based on the indicators and latent dimensionality, it would be impossible to discover which part of the overall values was not satisfactory and what needs to be changed or supporter to a larger extent. Such an analysis was made in the field of distinct taxons based on the Uditax model that defines the clusters of entities based on extreme distances of representative individuals by adding other entities based on minimum cluster distances. These taxons group the entities in exclusive distinct groups and then projections are calculated based on initial variables, or, in this case, the survey indicators.

Three distinct taxons were obtained (the criterion for the extraction was the screen technique). It is evident that the taxons are unequally represented given the number of entities defining them. The first includes only 7 entities (around 6%), and the second 34 (around 30%), and the third most of them, as many as 71 (around 63%). The third reason that gathers the largest number of interviewees was very clearly defined by all negative projections, which were not particularly pronounced, because all maximum values of the indicators vary between -0.30 and -0.45. We therefore may conclude that this is an **moderately negative** taxon constitution. These interviewees have under average values in literally all indicators, but without extreme results. It may be said that the majority of attitudes of students from this group are directed towards a grade that might amount to 3.0 on a scale from 1 to 7, which means that these interviewees believe that the overall work at the Faculty is just under the average as compared to possible expectations. This piece of information is very important exactly because of a large number of entities in this taxon, because it includes around 2/3 of all interviewees.

The second taxon includes a somewhat less than 1/3 of all interviewees and it is defined by literally all positive values of indicators, but they are much more pronounced than in case of the indicators of the third taxon, so that most of the indicators are above +0.50, with upper values even up to +0.93. we therefore may say that this is an **extremely positive** constitution of the taxon. It may be said that the major attitudes of the students from this group are directed towards a grade that might be around or above 5 on a scale from 1 to 7, which means that these interviewees believe that the work of the Faculty has a quality above the average in all segments described in the indicators.

Finally, the first taxon that gathers the smallest number of interviewees has a particular structure, with pronounced extremely negative, and sometimes also positive values, so that the interviewees belonging to this taxon basically act pronouncedly *negatively* as compared to the offered indicators. These interviewees believe that the lectures should be improved and here they give their pronouncedly positive grades that would amount to approximately 5.5 on a scale from 1 to 7. However, they see the possibility of learning with other students with the same intensity, even more, but in a negative way, and they believe that the costs of lectures are very low, and believe that students do not know the job application procedure, so that the value of these answers are around and below 2 on a scale between 1 and 7. There is a series of negative values varying between -0.40 and -1.00, which corresponds to values of 2.5 – 3.0 on a scale between 1 and 7, which is a clear under average value. It is mostly about a pronounced dissatisfaction with the institution, with several averagely expressed values of indicators.

Conclusion

A research was conducted for the Tempus project "Testing Curriculum of the Faculty of Sport and Physical Education in Sarajevo", which included 170 interviewees and 3 subsamples. 125 students, 15 employers and 30 alumni (graduate students of the Faculty of Sport and Physical Education or holders of MA in sport and physical education).

The measuring instrument (survey) was structured into four parts:

The first part related to an assessment of the indicators of representation of general characteristics and importance of knowledge and skills for the practical application of these characteristics.

The second part included an analysis of the quality of preparation at the Faculty for future jobs.

The third part included an analysis of the importance of individual areas of application of sport and physical education.

These three parts were tested on all interviewees.

The fourth part of the assessment was conducted only on students, and it is related only to the quality of work at the Faculty.

After the application of mathematical and statistical procedures and processing of the obtained results, the following conclusions were reached:

Representation and Knowledge and Skill Importance Indicators

- There are tendencies of equally directed differences among the same indicators that determine the representation at the Faculty and importance of analyzed individual characteristics in practice. The intensity of the importance of these characteristics is always significantly more pronounced than the representation that is present in the attitudes of all interviewees, particularly significant differences were present in case of the alumni. The indicators with the greatest level of differences in representation and importance are the following ones:
 - the importance of the ability to apply knowledge in practice
 - the importance of the planning skill
 - the importance of foreign language skill
 - the importance of skills necessary for research activities
 - the use of measuring methods and techniques
 - creativity
 - decision making

These indicators reflect the opinions of the interviewees who believe that the representation of all analyzed characteristics, especially the ones that were mentioned, is not in compliance with the importance of these characteristics in immediate practice.

- In the conclusion based on the obtained results, we particularly emphasize by far the weakest evaluation in relation to the following indicators:
 - The skills necessary for research activities
 - Criticism and self-criticism
 - Ability to plan and organize time
 - Foreign language skills
 - Use of measuring methods and techniques
 - The ability to work in an international context
 - Decision making
 - Initiative and entrepreneurial spirit
 - Appreciation of differences (different cultures)
 - Use of technology in sport and physical education
 - Ability of analytical thinking
 - Understanding of cultures and customs of other people and countries.

All the mentioned indicators belong to the subarea of representation, which leads us to the conclusion that all interviewees believe that in the previous curriculum of the Faculty the presence or development of these characteristics at the Faculty neglected or insufficiently present in the program curricula. The interviewees expect better information during the study that will enable them and show them the tools for process planning, monitoring and management.

Based on the mentioned indicators that belong to the subarea of representation, only one indicator in this group speaks about sport and physical education (use of technologies in sport and physical education), all other indicators may truthfully describe any other profession (literature, film, painting).

The first general conclusion based on the analysis of results tells us that different educational processes at the Faculty are coming, which should be directed towards major capacity in the area of organization and management, and no longer exclusively to the processes of physical education (teacher) and training technologies (trainer).

Based on the obtained results the fact is that the perception of professors of physical education and trainers is significantly changing and that process management, organization and management are increasingly penetrating the sphere of educational processes.

Evaluation Indicators for Preparation for Future Jobs

The interviewees generally show low values as compared to the following indicators: sport sociology, sport and tourism, adaptive physical activity.

Physical education and sport are at the top of the scale, followed by management, sport psychology and sport medicine, and these are areas that need to be considered when creating future educational curricula.

The second general conclusion is that students have a very limited direction in terms of preparation for their future work and in their perception they see their employers exclusively as schools (teaching) and to a lower extent clubs (training). This generally shows in case of all interviewees that there is no good information about possible employers in future outside the schools and clubs. The reason for this situation might be lack of information

and interestedness of students in changes occurring in the society, which is present during enrollment, studies and later.

After determining the factors for the overall group of 170 interviewees, based on 89 indicators, we conducted a factor analysis and got 6 latent dimensions that show that the association of latent indicators shows that the representation of the analyzed characteristics is directly and closely related with the integration into the social community and the importance of these characteristics with general knowledge.

In the clique analysis, the cliques were recognized as the **representation** of the analyzed characteristics (skills or knowledge), and the **importance** of these characteristics (skills and knowledge). A general conclusion would be that key information of internal type (considering the research) were modeled based on the first questionnaire, whereas the other indicators for the establishment of cliques had no impact. There is an obvious disagreement between the attitudes and importance and opinions on the representation of certain characteristics at the institution, so that this information is continuously emphasized.

Latent information that was obtained from the indicators in the questionnaire was offered only to students, and 6 important latent dimensions were obtained. Based on these we can fully see the essence of the educational process at the Faculty.

Students realistically expect the institution to give them information on:

- The study at the beginning
- To have good consultations with the mentors (teachers)
- To have a well organized teaching process (conditions)
- To have teachers work well with them,
- To get the assessment of future working places,
- And finally to be helped by the Faculty in terms of advisory services when searching and applying for future jobs.

Based on these indicators, the Faculty should re-examine to what extent it meets the expectations of the students.

Based on the results, the students do not see the Faculty only as the center of teaching processes, but as an institution with a wider field of activity, which is a good indicator for future plans and programs and general activities of the Faculty.

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