



EFFECTIVE SOLUTIONS TO MEET STUDENTS' SATISFACTION FOR PHYSICAL EDUCATION ACTIVITIES AT HO CHI MINH CITY UNIVERSITY OF TECHNOLOGY AND EDUCATIONⁱ

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Abstract:

Through the research, the topic has built four solutions to meet students' satisfaction with physical education (PE) activities at Ho Chi Minh City University of Technology and Education (HCMUTE). These include: strengthening movement activities, and extra-curricular activities; supplementing and updating documents and textbooks; improving teaching staff's qualifications, along with improving teaching, testing and evaluation methods; upgrading physical facilities for sports. After a period of application in practice, the solutions proposed by the topic have proven to be effective and meet the satisfaction of learners.

Keywords: solutions, physical education, satisfaction, efficiency, HCMUTE

1. Introduction

In Vietnam, the quality of educational training, especially at the university level, has long been a pressing issue that is of deep social concern. This concern is not only for experts in the field of education but also for students who are directly studying at universities. In other words, it is necessary to personalize education and democratize the whole training process, that is, to meet as much as possible the needs and learning conditions of students. Thus, in the face of increasingly fierce competition between universities, higher education has become a service industry, meeting the human resources of society. Therefore, the current general trend is that schools need to pay more attention to learners. HCMUTE is a multidisciplinary university in the direction of career - application, in which a number of training fields are oriented toward research - development. It has a

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reputation and a tradition of nearly 60 years, of advanced and quality management and training programs, and has gradually affirmed its position in the domestic and international education sector. At the same time, the school also has a land area sufficient to meet the needs of the renovation and construction of the yard, and the training house for physical activities.

However, the assessment of students' satisfaction with PE work is still not regular. For the above reasons, it is necessary to find solutions to satisfy students' satisfaction with PE work at HCMUTE. The research results will be the basis for better adjustment and improvement of this work for the benefit of learners, thereby contributing to improving the overall educational quality of the school.

2. Methodology

2.1 Research subjects

The subjects of the research were 400 male and female students (school years 1, 2, 3, 4), with normal health, participating in PE classes in non-sports majors of HCMUTE.

2.2 Research method

The authors have collected and selected relevant documents including: legal documents and documents of the Party and State of Vietnam, as well as books, journals, scientific documents and research results of domestic and foreign authors, scientists on the satisfaction of students with PE activities as a basis for research.

In the research topic, a system of questions was also established, then interviewed 400 students (according to a 5-point Likert scale) to assess learners' awareness of the role and effectiveness of improved solutions. Thereby, they meet students' satisfaction with PE activities at HCMUTE. Then, we use SPSS 22.0 software to calculate and process the data.

2.3 Implementation process

The study was carried out from June 2021 to May 2022 at HCMUTE.

3. Research results

3.1. Actual status of PE activities at HCMUTE

Through the actual survey, it is possible to generalize the status of physical activities at HCMU through the following aspects:

A. The content program of the main PE subject

The number of lessons is 150, enough according to the regulations of the Ministry of Education and Training, distributed over 3 semesters. Basically, the content of the main PE subjects is quite diverse, meeting the goals of physical training as well as the needs and interests of learners; In accordance with the professional capacity of the teaching

staff. The content program of the main PE subject is highly appreciated by students; Overall value $\bar{x} = 4.20$ (*Agree*). However, it should be noted that in the observed variable "Pr4_The courses are reasonably distributed in 3 semesters" is not really reasonable when Semester 1 – PE 1 has only 30 periods, Semester 2 - PE 2 is only 30 periods. Meanwhile, Semester 3 - PE 3 takes up a lot of up to 90 periods.

B. System of learning materials

Documents and textbooks for teaching and learning PE are incomplete and have not been regularly consulted by learners. Therefore, it is necessary to encourage lecturers to actively work in compiling to complete the curriculum for the PE subjects. The factor "Documents, textbooks" did not satisfy many of the evaluation requirements when the overall value \bar{x} reached 3.94 (*Agree*). Thus, the majority of students have a high consensus when they underestimate the observed variables of the factor "Documents, textbooks" for teaching and learning PE. Therefore, it is necessary to encourage staff and teachers to actively work in compiling to complete the curriculum for the PE subjects.

C. PE faculty

Ensure the number of students according to the ratio of students/lecturers. The lecturers meet the standards of professional knowledge, and professional competence, and are quite energetic, enthusiastic, and dedicated to the profession. The Department of Physical Education currently has 11 people. All of them have good expertise and are active in both teaching and movement activities.

However, the method of applying PE teaching is not really innovative, not student-centered and needs to be improved. The inspection and evaluation of lecturers for the PE subject are evaluated quite well and should be promoted (specifically, it is quite objective, accurate and fair; the results of examination and evaluation are public and transparent). In general, the factors related to the teaching staff, teaching methods, testing and evaluation are relatively high rated by students. Specifically, overall value $\bar{x} = 4.03$ (*Agree*). However, the important factors needed to ensure the quality of the teaching staff are "Le4_Standard style, energetic, enthusiastic, dedicated to the profession" which is only evaluated with $\bar{x} = 3.28$, "Le8_Assessment" comprehensive assessment of subject knowledge, skills, techniques and individual learning attitudes" was \bar{x} only 3.92.

D. Facilities, yards and PE learning conditions

Often overloaded, not really adequate to meet training requirements for an increasing number of students. Facilities are rated at a relative level by students. The overall \bar{x} value is only 3.97 (*Agree*). Thus, the survey shows that students have a consensus when they do not appreciate the actual situation of facilities, yards, and PE learning conditions. This is an element that needs to be improved.

E. Movement and extracurricular activities

This is the strength of HCMUTE with key subjects: Football, Volleyball, Basketball, Chess, Chinese Chess. Therefore, it is necessary to continue to invest in and promote the strengths of extracurricular sports activities at the University. Students are quite satisfied with their evaluation of Movement and Extra-curricular Activities. The overall \bar{x} value is 3.95 (*Agree*).

F. The interest of school leaders in PE work

This is the decisive factor in the PE work. However, at present, PE or school sports have not been properly evaluated (just a minor subject in the perception of some school leaders). Therefore, it is necessary to take measures to enlist and mobilize the attention of Party committees, University Staff Council, and Boards of Directors in PE work and school sports activities.

G. Coordination between PE Department and specialized departments and divisions

There has not been high and comprehensive coordination, meanwhile, sports activities in general and school sports, in particular, cannot be conducted separately, but must have a synchronous combination between branches, and functional agencies, among all strata of society. Therefore, it is necessary to create a synchronous link to mobilize many investment sources to develop this work.

3.2. Satisfaction level of students of HCMUTE with physical activities

The survey results shown in Table 1 show that students are satisfied with PE activities at HCMUTE. Overall \bar{x} value of satisfaction reached 4.10 (*Agree*); The \bar{x} values of the observed variables are very concentrated, ranging from 4.07 - 4.13 (within the *Agreed* range).

Table 1: Overall evaluation factor (satisfaction level)

No.	Descriptive statistics				
	Observable variable	N	Mean \bar{x}		Std. Deviation
		Statistic	Statistic	Std. Error	Statistic
1	Sa1_You are satisfied with the quality of educational activities at HCMUTE	400	4,07	0,03	0,67
2	Sa2_You are ready to recommend to your friends to participate in PE activities at HCMUTE	400	4,13	0,02	0,48
3	Sa3_During studying at the school, you will continue to participate in the Advanced PE module of the HCMUTE	400	4,11	0,02	0,42
	Overall average		4,10		

In which, the criteria most appreciated by students is “Sa2_You are ready to recommend to your friends to participate in PE activities at HCMUTE” with \bar{x} value = 4.20; Next is “Sa3_During studying at the school, you will continue to participate in the Advanced PE module of the HCMUTE” \bar{x} = 4.13, finally “Sa1_You are satisfied with the quality of PE activities. at Ho Chi Minh City University of Technical Education” reached \bar{x} = 4.07.

Table 2: Frequency distribution of learner’s satisfaction for physical activity

Level of response	Frequency	Percent (%)	Cumulative Percent (%)
1. Totally Dissatisfied	0	0	0
2. Dissatisfied	2	0,5	0,5
3. No opinion (Normal)	34	8,5	9
4. Satisfied	284	71	80
5. Totally Satisfied	80	20	100
Total:	400	100	

Through Table 2 on the distribution of student's satisfaction assessment results, it is shown that the vast majority of evaluation opinions are concentrated at level 4 (*Satisfied* with 284 reviews, accounting for 71%); while level 5 (*Totally satisfied*) has 80 comments, accounting for 20%; level 2 (*Dissatisfied*) has only 2 comments, accounting for a negligible rate, only 0.5%.

The above research results have confirmed the fact that in general, students are quite satisfied with the activities of PE at HCMUTE. However, in terms of the degree of influence of the components constituting the scale of the quality of PE work, there are factors that are assessed by students as having a low level of satisfaction and heterogeneity. Therefore, it is necessary to select and propose some solutions to improve students' satisfaction with PE activities.

3.3. Proposing a number of practical solutions to meet student's satisfaction for PE activities at HCMUTE

3.3.1. Specific solutions to meet student’s satisfaction

After finding out the current situation of factors that directly and indirectly affect the work of PE, as well as the satisfaction of learners, the next step is to survey students' opinions to find solutions to improve the effectiveness of PE work.

This factor is conducted through 5 variables (So1_Update and change the curriculum and content of PE subjects; So2_Improve the qualifications of the teaching staff along with improving the teaching, testing and assessment methods; So3_Adding, updating documents and textbooks; So4_Upgrading physical facilities for sports; So5_Strengthening extra-curricular movement and activities), corresponding to 2 statements in the questionnaire (*Agree*: 1 mark; *Disagree*: 0 mark). The convention on which factors (options) are selected as solutions to help improve PE activities in HCMUTE must have a value of > 0.6mark (more than 60% of the opinions *Agree*).

The survey results are presented in Table 3, it is noted that the rate of choice of solutions is as follows: the level of agreement prevails over the level of disagreement in 5 variables in order from high to low: So1_Updating program, PE course content, \bar{x} value = 0.55 marks, with 219/400 positive comments (accounting for 54.8%); So2_Improving the qualifications of the teaching staff along with improving the teaching, testing and assessment methods, with the \bar{x} value = 0.75 marks, with 300/400 *Agree* opinions (accounting for 75%); So3_Adding and updating of documents, textbooks, \bar{x} value = 0.82 marks, with 329/400 *Agree* opinions (accounting for 82.3%); Po4_Upgrading facilities for sport and physical training, \bar{x} value = 0.71 marks, with 284/400 positive comments (accounting for 71%); Po5_Strengthening movement activities, extra-curricular activities, \bar{x} value = 0.89 marks, with 354/400 *Agree* (accounting for 88.5%).

Thus, the obtained survey results show that students have a high consensus when choosing 4/5 solution variables to conduct to improve PE work in order from high to low:

- So5_Strengthening movement and extracurricular activities.
- So3_Adding and updating documents and textbooks.
- So2_Improve the qualifications of the teaching staff along with improving the teaching, testing and assessment methods.
- So4_Upgrading physical facilities for sports.

Table 3: Survey results of students' opinions
on choosing solutions to improve PE work at HCMUTE

Solution		So1_Updating program, PE course content	So2_Improving the qualifications of the teaching staff along with improving the teaching, testing and assessment methods	So3_Adding and updating of documents, textbooks	So4_Upgrading facilities for sport and physical training	So5_Strengthening movement activities, extra- curricular activities
N	Valid	400	400	400	400	400
	Missing	0	0	0	0	0
\bar{x} (Mean)		0,55	0,75	0,82	0,71	0,89
ϵ (Std. Error of Mean)		0,025	0,022	0,019	0,023	0,016
S (Std. Deviation)		0,498	0,434	0,383	0,454	0,319
Sum "Agree"		219 (54,8%)	300 (75%)	329 (82,3%)	284 (71%)	354 (88,5%)
Sum "Disagree"		181 (45,3%)	100 (25%)	71 (17,8%)	116 (29)	46 (11,5%)

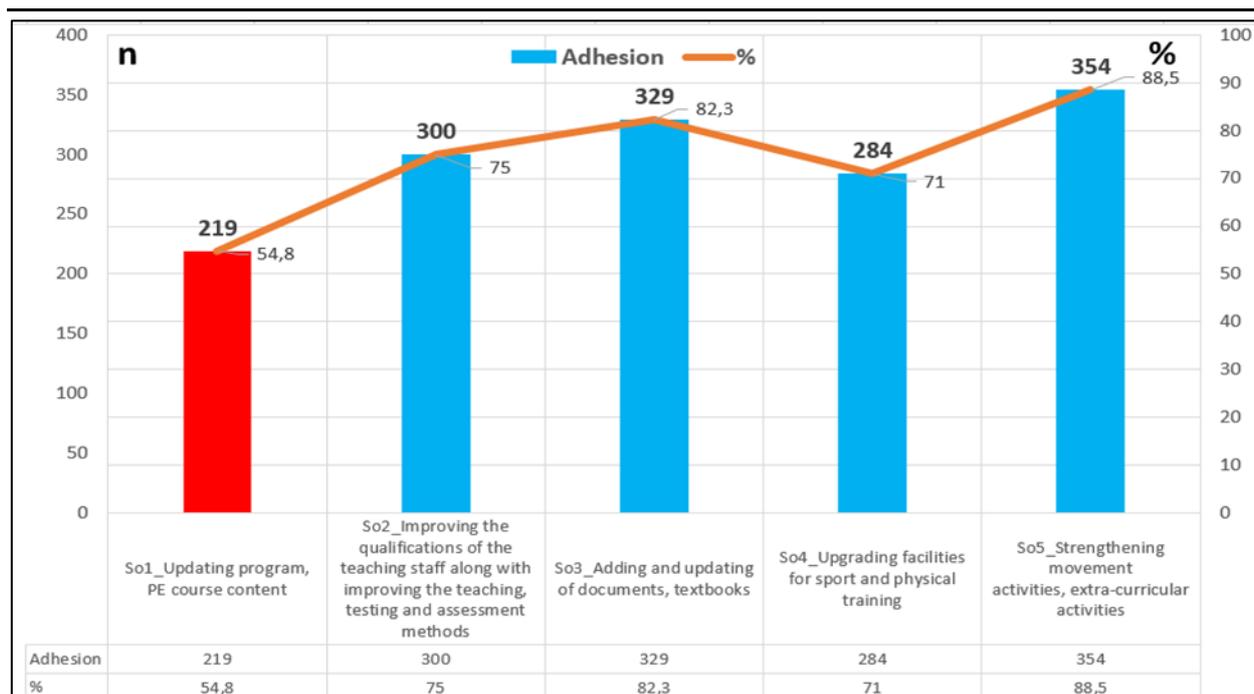


Figure 1: Number and percentage of students' opinions on choosing solutions to improve PE work at HCMUTE

Particularly for the solution So1_Updating to change the program and content of the PE course, it is not necessary because it has the value of $\bar{x} = 0.55$ marks, accounting for 54.8% of the *Agree* opinions (<60% of the *Agree* opinions as stated in the regulation).

3.3.2. Application of solutions and practical effects

From the above survey results, the topic continues to bring 4 selected solutions to apply to practical PE work at HCMUTE in the school year 2021-2022. The specific results are as follows:

a. Upgrading facilities for sport (Solution 4)

In addition to the multi-purpose artificial grass football field (can be converted from 06 five-person fields to 02 seven-person fields or 01 eleven-person fields). We have advised and persuaded the University's leaders to allow investment in new construction: 01 multi-purpose gymnasium (zone A) with an area of 1450m² (with 01 basketball court, 01 volleyball court, 02 badminton courts); 01 Sports and entertainment house (zone E) with an area of 1800m² (with 01 tennis court, 02 volleyball courts, 02 badminton courts). This is a necessary condition to serve the main PE teaching and extracurricular activities of sports clubs, as well as a healthy sport environment for after-hours health training for staff and lecturers throughout HCMUTE.

b. Improve the qualifications of the teaching staff along with improving the teaching, testing and assessment methods (Solution 2)

PE lecturers have actively studied to improve their professional skills (100% achieved a master's degree or higher), 03 lecturers are working as doctoral students, 01 lecturer is promoted to associate professor - high-class lecturer).

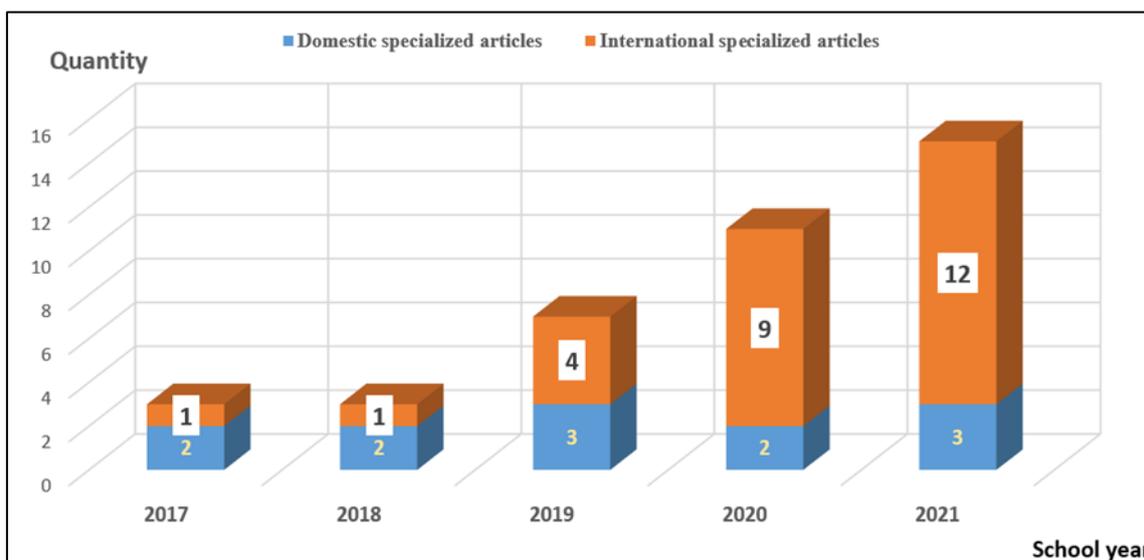


Figure 2: Number of articles in domestic and foreign journals

Every year, PE lecturers participate in at least 02 key school-level and school-level projects; In the academic year 2021-2022, they have participated in 03 national-level scientific conferences, and written 06 international scientific articles (including 01 article in the Scopus list - ranked in Q3, 05 published in peer-reviewed journals at National Scientific Conference). In general, the number of scientific articles next year is higher than the previous year; 95% of lecturers are rated as excellent and excellent in teaching by students.

c. Supplement and update documents and textbooks (Solution 3)

70% of PE lecturers participated in compiling the curriculum for the subject. Up to now, PE lecturers have actively compiled and accepted, published 06 textbooks (including modules: Athletics, Volleyball, Football, Chess, Karate, Tennis) under the program PE subject. There are also Badminton Syllabus and Basketball Curriculum that are about to be completed. This has significantly contributed to meeting the needs of materials and textbooks for students.



Figure 3: Textbooks of PE subjects have been compiled and published

d. Strengthening movement and extracurricular activities (Solution 5)

With advantages from many aspects (the University's attention and direction; strong and well-trained staff of lecturers and staff; secure facilities; annual increase in funding for movement activities); so, the achievements of HCMUTE's sports movement have been constantly developing, reaping many remarkable successes year by year. The results are shown in Table 4 and Figure 4.

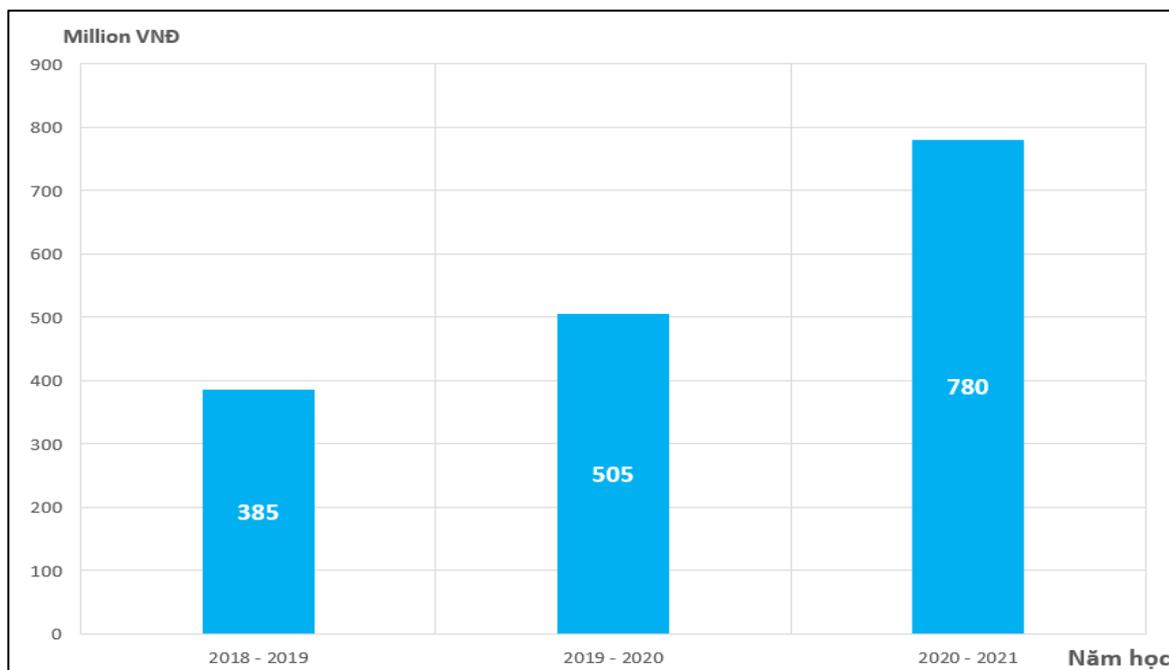


Figure 4: Funding for sports activities at HCMUTE over the school years

Table 4: Some typical sports achievements of students in HCMUTE

No.	Tournaments	Individual / Team achievements			Group achievements
		Gold medal	Silver medal	Bronze medal	
School year 2020-2021					
1	Ho Chi Minh City Student Basketball tournament - 2020				Grade 3
2	Coc Ky Vuong Chess tournament 2020 (hosted by FPT University)		03	01	Second in the whole team
3	Humanity Chess Prize "Tet Sharing, Giving Love" HCMC (Hosted by Student Culture House)				Best of the whole team
4	The tournament of HCMC Open Teakwondo for student in 2021	03	03	04	Best of the whole team
5	The tournament of HCMC Open Chess and Chinese Chess for student in 2021	02	02		Best of the whole team
School year 2021-2022					
1	The tournament of HCMC Open Chess and Chinese Chess for student in 2021(Hosted by Student Culture House)		01	01	Third place in Chess
2	Ho Chi Minh City Student Chess Championship opens the 6th Van Lang Cup competition in 2021	01			Men's Team First Place, Best of the whole team
3	The Open Banking University Student Chess Tournament 2022	06			First Place Men's and Women's Teams
4	The 2nd Open Saigon University Student Volleyball Tournament in 2022				Men's Team Champion, Women's Team Champion
5	The 4th Ton Duc Thang University Open Volleyball Tournament in 2022 (TDT Volleyball Cup 2022)				Men's First Class, Women's Third Place
6	Ho Chi Minh City Student Football Tournament in 2022				Third place

e. The results achieved on the mind - body of students after completing the PE modules

The results of the survey of students' opinions show that there are many positive changes after completing the PE modules. In terms of ideas *Agree* and *Totally Agree* more after studying PE, the specific results are as follows:

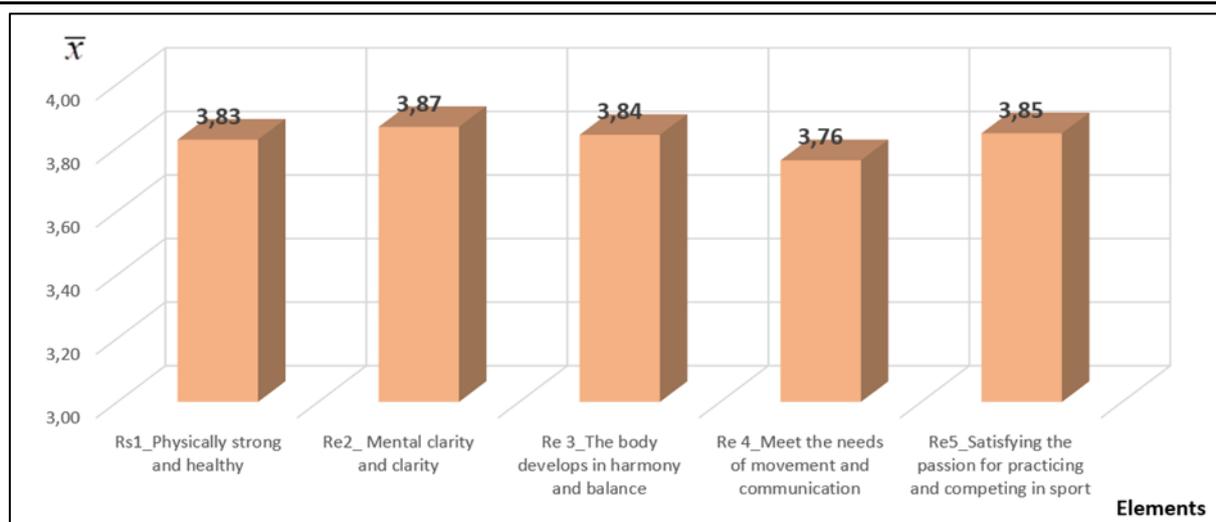


Figure 5: Results of students' mind-body transformation after completing PE modules

70.5% of students rated their own physical strength as being strong ($\bar{x} = 3.83$); 69.8% of students said that the spirit was refreshed and more lucid ($\bar{x} = 3.67$); 66.6% of students admitted that the body was developed in harmony and balance ($\bar{x} = 3.84$); 65.3% of students confirmed that they could meet the needs of movement and communication ($\bar{x} = 3.76$); 70.3% of students showed satisfaction with their passion for sports training and competition ($\bar{x} = 3.85$). The details are shown in Figure 5.

Thus, it can be confirmed that the effect of mind-body transformation in the positive direction for students after completing the PE modules.

4. Conclusion

By synthesizing the theoretical and practical basis of related works and surveying 400 students, the study has examined the current situation of PE and proposed four solutions (strengthening movement and extra-curricular activities; supplementing and updating documents and curricula; improving the qualifications of the teaching staff along with improving teaching, testing and assessment methods; upgrading physical facilities for sport) to meet the satisfaction of the students. students for PE activities at HCMUTE. After a period of practical application, the solutions proposed by the topic have proven to be effective in meeting learners' satisfaction. The survey results also show that students perceive many positive changes after completing the PE modules.

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Conflict of Interest Statement

The authors declare no conflicts of interest. We agree with the contents of the manuscript and certify that it is our original work and is not under review at any other publication.

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