

Study on the sense of gain in high level physical education in primary school -- taking Shaoxing University Affiliated Primary School as an example

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Abstract: The level of students' sense of gain is a standard to measure the effectiveness of physical education carried out in schools and is valued by schools. Therefore, it is necessary to investigate students' sense of gain in sports education. In this paper, 202 students in the fifth and sixth grades of the Affiliated Primary School of Shaoxing University are selected as subjects, and the questionnaire method is also used to investigate the current status of their sense of acquisition in physical culture. The revised Primary School High Level Physical Activity Sense Scale is utilized in this survey for independent samples T-tests and correlation analyses. It finds that (1) The sense of gain of sports in the Affiliated Primary School is extremely strong, and 98% of students are satisfied with sports. (2) There are differences between genders and grades in the sense of sports acquisition of senior students in primary schools. This study suggests that we should appropriately improve the quality of sports in physical education classes for senior students in primary schools and cultivate their interest in sports, giving them more ways to be involved in physical activities.

Key words: sense of gain; physical education; pupil

1 Introduction

In recent years, school sports have entered a period of faster development. In September 2020, related experts emphasized at the Expert Representative Symposium on Education, Culture, Health, and Sports that "we should stick to the concept of health-first education" and "help students enjoy fun, intensify their physical fitness, improve their personality and exercise their volition in physical exercise". From the release of the *Opinions on Deepening the Integration of Sports and Education to Promote the Healthy Development of Adolescents*, to the introduction of the *Opinions on Comprehensively Strengthening and Improving School Physical Education in the New Era*, and then to the suggestion of "Emphasizing the Physical Fitness and Mental Health Education of Adolescents" written in the "14th Five-Year Plan" and the Long Range Goals of 2035, a series of policy documents have made clear the road map, timetable, and mission statement for the reform of physical education. The systematic planning of the top-level design has laid a solid foundation for advancing the reform and development of physical education.

For many reasons, school sports bring students a low level of "sense of gain". In the area of school sports, in the past 40 years of reform and open education, school sports have made great progress, but the long-term "concentration on

construction, not on evaluation" and "concentration on disciplines, not on education" have resulted in the relatively low sense of acquisition provided for students by school sports. And the lack of evaluation mechanisms, especially evaluation systems, has also been a very important factor for the relative weakness of school sports. Under the context of the new era, it is vital for students to improve their sport skills, improve their character and exercise their willpower in physical activities. Making students have a greater "sense of access" in the process of physical education is the greatest concern of the current reform and development of school sports.

2 Concept definition and identification

2.1 The concept of sense of gain

"Sense of gain" originally denotes the feeling of satisfaction coming from the acquisition of a certain benefit. Wang Zhe [1] defines students' "sense of gain in sports" as the students' subjective understanding of their own objective gains in the process of school sports practice, which is a unity of students' sports practice and subjective cognition. The "sense of gain" is not only material, but also spiritual, both visible and invisible. On the spiritual plane, it is necessary to allow everyone to have their own dreams and pursuits, while living a life with greater dignity and decency, and being able to enjoy the same rights in a fair and just manner. On the other hand, the introduction of the concept "sense of acquisition" has made it possible to measure the benefits received by the people by means of indicators, whereas happiness is not measurable. Therefore, in today's China, the "sense of gain" is closer to people's livelihoods and is more attentive to public opinion. This "sense of gain" can generally be transformed into a sense of happiness.

2.2 Identification of sense of gain, satisfaction and happiness

Satisfaction and happiness, as social indicators of people's quality of life, are better known than profitability. Satisfaction first comes from consumer satisfaction. Consumers make judgments about the products or services they consume based on expectations, and they will be satisfied if the outcome of the products or services they consume meets or exceeds their expectations. If the outcome of their consumption doesn't meet their initial expectations, consumers will be dissatisfied [2]. Campbell proposes life satisfaction from a cognitive perspective, which is considered as an assessment of people's living conditions based on their own value judgment standards and subjective preferences [3]. Based on a cognitive orientation, Diener et al. integrate affective components and propose subjective well-being. According to him, subjective well-being refers to an individual's satisfaction with life and happiness experience [4]. Ryff and Keyes suggest that subjective well-being overemphasizes an individual's emotional experience, and then propose psychological well-being based on the personal development theory, which focuses on an individual's life goals and the realization of personal potential [5]. Subsequently, Keyes proposes social well-being from the perspective of social life as an assessment of the environment where an individual lives and the quality of their relationships with others and society [5]. It can be seen that there are differences between sense of gain, life satisfaction and happiness, but each of them has its own keynote. First, sense of gain has a more abundant connotation structure. It originates from the reform and development of Chinese society, contains the people's pursuit for a better life and has a close link to every aspect of the people's social life. It not only includes objective material aspects like economic environment and living conditions, but also embraces subjective mental aspects like performance experience and interpersonal communication [7]. Life satisfaction and happiness usually embody an overall understanding and emotional experience of an individual's living conditions, and their connotations are not as rich as sense of gain. Second, sense of gain is more direct and situational than life satisfaction and happiness. Life satisfaction and happiness often indicate people's stable perceptions and emotional experiences of living conditions over a certain period of time, and sense of gain is directly related to meeting personal needs and achieving his or her goals. Third, sense of gain is closer to the base of life and public opinion, not happiness and satisfaction. Sense of gain is linked to

people's social expectations and serves as a bridge between social reform and development and people's satisfaction with life [8]. The cognition and emotional experiences obtained in meeting different levels of personal needs contribute to increasing their life satisfaction [9].

2.3 Conceptual analysis of sense of sports gain of upper students in primary school

Based on the study of the sense of gain of physical education for primary school's upper students, the selected subjects are students in the fifth and sixth grade section of primary school students. They are basically aged 9-12 years old, which is a critical period in the development of children in the later stage of childhood. The positive benefits of brain development lie in the key stage of improving internal structure and function. In primary school stage, it is standing at the transitional stage from low to high with obvious physical and psychological changes. This stage is the best time to improve learning ability, emotional ability, willpower and study habits. Children have changed from passive to active learning and have their own ideas, but their capacity to distinguish right from wrong is still limited and they lack social experience. They often encounter many problems thorny to address, which is the beginning of fear. Therefore, to study the sense of gain of the children in this old stage, it is necessary to make them really enjoy learning and exercise. I recognize the joyful and positive feeling shown by students during the process of physical activities as a sense of gain.

3 Study on sense of gain

3.1 Study on strengthening the sense of gain beyond physical education

At present, most references relevant to sense of gain focus on the analysis of disciplines except for physical education, so by integrating and sorting out articles from excellent disciplines, I summarize the following points: Yang Xiaoyuan's [10] research on the sense of achievement in political science has three conclusions: Firstly, the current status of ideological and political education maintains a relatively stable and good status. Whether it is in the ideological and political theory class or daily ideological and political education, the college student group holds a relatively positive attitude towards it, and has certain emotional expectations and value recognition towards the ideological and political education they receive. Secondly, the existing ideological and political education of college students remains some problems, mainly existing in the college students' own cognition, the supply of educational content and educational carriers and other aspects. Thirdly, focusing on the existing problems, this paper believes that we can improve them from four major directions, including coordinating the expectations and needs of both teaching and learning, promoting the bilateral balance between supply and demand, enriching the supply of ideological and political education content and promoting the optimization and coordination of educational carriers. From college students to teachers, from educational contents to carriers, this paper puts forward suggestions for improvement from all-round angles, and actively promotes the effective enhancement of the sense of gain in ideological and political education for college students. Li Chenzhi, Chen Jiemin, and Ruan Qinxi [11] draw four recommendations for boosting the sense of gain in Chinese. The first is to fortify the confidence of Chinese learning with teaching based on differences; the second is to stimulate interest in Chinese learning, practicing joyful learning; the third is to build a good learning ecological environment, making students feel the charm of the Chinese; the fourth is to establish a platform for peer interaction and teacher-student exchange, realizing the co-construction of classroom teacher-student. Ren Lingfang [12] studies three suggestions for enhancing the sense of gain in mathematics. The first is to use story introduction as a fit point to create a primary school mathematics interesting classroom; the second is to use identity exchange as an extension point to improve students' classroom participation; the third is to use real-life situations as an entry point to heighten students' ability to flexibly use their knowledge.

According to the summaries of above disciplines, they basically summarize how to improve the sense of gain in disciplines, so the research on sense of gain in physical education will be summarized and deeply researched from the

perspective of how to increase sense of gain in physical activities.

3.2 Study on students' sense of gain in sports activities

A review of relevant references reveals that there are fewer studies on the relationship between physical activity situation and sense of gain, and particularly, research on how to improve sense of gain in sports among primary school upper students is fragmented. Wang Zhengliang [13] argues that we should allow primary school students to have a sense of gain in physical education: 1. Choosing appropriate teaching materials, determining moderate goals and letting students perceive the joy of exercise through their efforts; 2. Choosing a reasonable exercise load, so that students can fully experience the sense of joy of exercise; 3. Stimulating students' interest in exercise, so that students will take the initiative to ask for accessing to the sense of joy of exercise; 4. Giving full play to the student's main role in exercise, so that they can consciously want to get the sense of joy of exercise.

Consequently, at present, there are fewer studies on students' sense of gain in physical culture in China, especially for primary school students, who are more scarce in terms of sense of gain of sports, and how to improve sense of gain of sports for primary school students is very important. Therefore, this paper will use documentary study, questionnaire method and other research methods to study, and investigate on how to improve the sense of gain in physical education for primary school students from students' psychological characteristics.

4 Study subjects and methods

4.1 Study subjects

202 students who are aged 11.46 ± 0.699 years in the fifth and sixth grades of the Affiliated Primary School of Shaoxing University in Shaoxing City are selected randomly as the study subjects in this paper. There are 90 students are in the fifth grade, accounting for 44.6%, and 112 students are in the sixth grade, accounting for 55.4%. And there are 96 boys (47.5%) and 106 girls (52.5%).

4.2 Study methods

4.2.1 Documentary study

According to the purpose of the study, we make full use of network resources such as China Knowledge Network and Foreign Language Search Literature Library to search for literature in the past five years through the key words "sense of gain" and "sports". And by reading, organizing and generalizing, we understand the prior researches on sense of gain and provide theoretical support for the subsequent study.

4.2.2 Questionnaire method

The revision of the primary school students' sense of gain of sports scale will be conducted based on the collection of primary school sense of gain questionnaire sets. The factor analysis will be implemented in the revised scale.

4.2.3 Mathematical analysis method

The collected data are organized and coded, and they will be analyzed and counted through SPSS 21.0 statistical software. Independent samples t-test and correlation analysis are used to analyze the data.

(1) Measurement tools

The formal questionnaire is divided into two sections: 1) Basic information: collection of basic information such as age, grade and gender. 2) Main section.

On the basis of the questionnaire on sense of gain of sports, a revision is carried out based on the literature. The questionnaire is revised though consultation with a number of experts and after several rounds of revisions. On this basis, 2 pretests are conducted to identify and correct problems in this questionnaire. The fifth and sixth grade students of Affiliated Primary School of Shaoxing University are taken as the respondents, and factor analysis is used to determine the

dimensions of the questionnaire.

(2) Validity test

Primary School Upper Students' Sense of Gain of Sports Scale: In this study, factor analysis is used to test the structural validity of the questionnaire. Firstly, 30 subjects are randomly selected to test the questionnaire. And the data are handled with factor analysis, using the mandatory factor difference analysis. If there is a serious deviation of an item from its factor correspondence, then this item needs to be considered for deletion, and if the factor loading coefficient value of this item is very low (0.3 is usually used as a criterion), then the deletion of the corresponding item should also be taken into consideration. The loading coefficient value in this paper is set at 0.45. As a result, three factors with good differentiation are extracted (see Table 3-2 for details), and a total of 19 questions are identified. On this basis, a large sample (202 subjects) is validated, and the results show consistency with the factor structure of the pretests, verifying the structural validity of the questionnaire. The factor analysis of Primary School Upper Students' Sense of Gain of Sports Scale:

Table 3-2. KMO and Bartlett tests

KMO and Bartlett tests		
KMO sample suitability quantity		0.837
	Approximate chi square	932.269
Bartlett test of sphericity	Free degree	66
	Significance	0.000

Table 3-2 shows a KMO value of 0.837 which is greater than 0.7, and the Bartlett's test of sphericity corresponds to a p value of 0.000, thus indicating that it is suitable for factor analysis.

5 Study results

5.1 Differential gender representation of sense of gain in physical education among primary school upper students

As shown in Table 4-1, there is a significant difference in spiritual level: $p=0.018<0.05$. According to its average value, the mean M in mental level of male and female students are 15.85 and 14.71, respectively. Boys score higher than girls in mental satisfaction, reflecting the fact that after sports, boys gain more sports satisfaction than girls.

Table 4-1. Results of t-test for differential gender representation of sense of gain in physical education among primary school upper students (n=202)

Variable	Male			Female			t	p
	N	M	SD	N	M	SD		
Material satisfaction	96	11.00	2.411	106	11.40	2.258	-1.206	0.229
Social interaction satisfaction	96	19.84	3.793	106	18.94	3.651	1.718	0.087
Mental satisfaction	96	15.85	3.412	106	14.71	3.431	2.378	0.018
Total score of sense of gain of sports	96	46.70	7.754	106	45.05	7.177	1.571	0.118

5.2 Correlation analysis of exercise time and exercise frequency with sense of gain of sports

As shown in Table 4-2, total sense of gain in physical education and the time spent on exercising are very significantly correlated ($p<0.01$), with a positive correlation coefficient of $r=0.2$. Total sense of gain in physical culture and exercise frequency are very significantly correlated ($p<0.01$), with a positive correlation coefficient of $r=0.18$. It indicates that the longer the exercise duration, the stronger the sense of gain of sports, and the higher the exercise frequency, the stronger the sense of sports gain. Exercise duration is very significantly correlated with exercise frequency ($p<0.01$) with a positive

correlation coefficient of $r=0.376$. For the students in Affiliated Primary School of Shaoxing University, increasing the duration and frequency of exercise can improve the satisfaction of sports.

Table 4-2. Correlation analysis of exercise time and exercise frequency with sense of gain of sports

Variable	1 Duration	2 Frequency	3 Total sense of gain
1 Duration		0.000**	0.004**
2 Frequency			0.010*

** . At the 0.01 level (double tailed), the correlation is significant.
 * . At the 0.05 level (double tailed), the correlation is significant.

6 Conclusion

According to data provided, the conclusions are drawn as follows: (1) Fifth grade students in Affiliated Primary School of Shaoxing University are significantly more satisfied on material level and mental level than sixth grade students. (2) Male students in Affiliated Primary School of Shaoxing University score significantly higher than female students in mental level. (3) The longer the exercise duration and the higher the exercise frequency, the stronger the sense of sports gain.

7 Advice

7.1 From the school level

Firstly, primary schools can scale up their publicity and promotion of physical education so as to enhance students' interest and knowledge in sports. They can organize activities such as sports events and sports cultural festivals to encourage students to actively participate in sports and to promote the importance of sports to parents. Secondly, schools can stipulate targeted education programs on gender equality to bolster awareness and respect of gender differences and eliminate gender discrimination.

7.2 From the teacher level

Firstly, in physical education, teachers should adopt various teaching methods and strategies to meet the physical education needs and interests of different students. Secondly, in learning interests and curriculum instruction, teachers should pay attention to and respect the learning interests and needs of different students and adopt different teaching strategies and methods to satisfy their learning needs.

7.3 From the parent level

Firstly, parents can encourage their children to participate in physical culture and raise their interest in and awareness of sports. They can also accompany their children to participate in physical activities or encourage them to take part in sports clubs at school or in the community. Secondly, parents can attach importance to their children's learning interests and needs, and communicate and cooperate with teachers to create an excellent environment and conditions for their children's learning and growth.

Conflicts of interest

The author declares no conflicts of interest regarding the publication of this paper.

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