

Evaluation of the Physical Education Literacy Plan in Elementary Schools: A Qualitative Research

Maryam Kian ^{a*}, Saeideh Dehghani ^b

^a Department of Educational Science, Farhangian University, Alborz, Iran

^b Department of Education, Yazd University, Yazd, Iran

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*Corresponding Author:

Maryam Kian

Email:

kian.maryam2011@yahoo.com

Tel: +98 26 34322525

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ABSTRACT

Background: The issue of the physical health of students has been taken into consideration by educational systems more than ever nowadays. Among these, literacy in physical education is of special importance. In this regard, the study aimed to evaluate the approved plan in elementary schools and to provide suitable solutions.

Methods: The research approach was "qualitative" and the method was "phenomenology". The "target group" included all the teachers of girls' primary schools in Maybod, who were selected through purposive sampling. Twelve teachers participated in the research. The research tool was an "in-depth semi-structured interview". Data collection ended after reaching theoretical saturation. The data were analyzed by "coding" and "categorization". The validity of the data was confirmed through the "triangulation" in the form of "data" and "researcher" types.

Results: The findings showed 23 main themes and 61 sub-themes. The results were determined in the form of the strengths, weaknesses, consequences, and solutions. The results of the strengths indicated the good design of the plan, attention to the student's basic skills, national implementation, creating interest in sports, the possibility of online implementation, and lifestyle modification. In addition, the weak points were the lack of proper follow-up, poor time and method of implementation, poor knowledge of the teachers, insufficient cooperation of the parents, and the lack of facilities. Also, the consequences included increasing basic skills, promoting learning, improving physical and mental health, and discovering sports talents.

Conclusion: In general, this research showed that to make the plan more effective in elementary schools, some actions should be taken, such as the scientific implementation of the plan, sports play therapy in schools, increasing the time, changing the way of evaluation, more organizational attention and reinforcing the follow-up procedures.

Keywords: Physical education literacy, physical health, qualitative research approach.

Introduction

Today, the "physical education" and "physical health" of students are more than ever before the attention of educational systems. Meanwhile, the issue of "motor literacy" of students is of special importance, which is directly related to their motor development. "Motor development" is recognized as the main part of human growth and development and can play an important role in the development of parameters such as cognitive development and learning (Allan et al, 2017).

From the experts' point of view, "physical education literacy" is one of the factors influencing knowledge about physical development. "Physical education literacy" is a lifelong asset and always enriches life. The International Association of "Physical Education" defines this issue as motivation, self-confidence, motor competence, knowledge, and understanding to value and take responsibility in physical activities for life (Whitehead, 2014).

In the current research, there are various theoretical bases and backgrounds. For example, Whitehead (2014) believes that a physically literate student is capable of potential and confident movements in a range of challenging physical activities. This student is capable of preparing the physical environment anticipating possible movement needs, and can respond intelligently and visually. In contrast, a student who has not yet developed a high level of physical literacy will want to avoid physical activity in every possible situation will have the least self-confidence in their physical ability, and will not be motivated to participate in structured physical activity (Whitehead, 2014).

However, there are some studies in this field. For example, the research "Evaluating physical literacy in Canada through a model of children's capacity for a healthy and active lifestyle, through a Delphi process" was conducted by Francis et al. (2016). They concluded that the Canadian motor literacy assessment model is appropriate includes the components of motor competence, motivation, and knowledge, and is suitable for monitoring the

motor literacy of 8- to 12-year-old children. In addition, the research "Understanding physical literacy in the field of health" by Cornish and his colleagues (2020) showed that physical literacy provides a new and comprehensive framework for student health. Also, the research by Pantiwati et al. (2020), showed that the implementation of the new literacy plan in the phase of habituation and growth has not yet reached the learning stage. These results show that the development of motor literacy programs still has many weaknesses. Studies have also been conducted in Iran. The research "Structuring the model of physical literacy in 10-year-old girls of Ahvaz" by Mir'ali (2018), showed that to increase the amount of physical activity of female students in primary schools, theoretical knowledge should be given as much attention as practical activity. Also, the research "Presenting a Paradigm Model of Physical Literacy Development in Students" by NasreEsfahani (2019) proved that the main factor of teaching and developing motor literacy of students is the appropriate tool for developing motor literacy in society, which unfortunately has not been created in our society. In addition, Khashaninia's research (2019) determined that there is a relationship between physical fitness related to health and the executive functions of elementary school students. Also, Fakharian's research (2019) showed that the experimental sports group was better than the control group in terms of academic achievement.

The history of the "Physical Education Literacy Plan" in Iran's educational system, this plan was prepared by the Office of Physical Education and Sports Activities of the Ministry of Education of Iran in 2022 and was communicated to schools. This project aimed to promote the physical activities of students by benefiting from the capacity of physical education teachers and trainers (Hosseininia, 2021). In this regard, the Vice-Chancellor of Physical Education and Health of the Ministry of Education, based on the operational objective number 1 and strategy 3-4 of the



fundamental transformation document in the 2022 announced program, has put the transformational package "Improving physical education literacy" of primary school students in its agenda. In this project, while informing the stakeholders, the physical education literacy of primary school students is evaluated and improved with a specific training program (Ahmadi, 2022).

The problem is that the issue of physical education literacy assessment in Iranian schools has no research history and after it was announced to elementary schools in 2020, some schools tried to take steps towards its implementation. But in the meantime, the implementation of this plan in different cities of Iran did not develop equally. Investigations show that the evaluation of the effectiveness of the mentioned plan was less common in scientific research. In this regard, the

need for academic research on the implementation and effects of this plan seems necessary. In the meantime, the review of studies indicates a research gap in this field. Therefore, the current research has tried to analyze the effectiveness of the physical education literacy plan in elementary schools and provide suitable solutions to improve it.

Methods

The research approach was "qualitative" and the method was "phenomenology". The "target group" included all the teachers of girls' elementary schools in Meybod. Through "purposive" sampling, 12 teachers were subjected to in-depth semi-structured interviews. After reaching theoretical saturation, data collection was finished. The characteristics of the target group are listed in Table 1.

Table 1. Characteristics of the research participants

The participant	Code	education	Field of Study	work experience	Project implementation period
1	H	B.A	Physical Education and Sports Science	7	2
2	G	B.A	Physical Education and Sports Science	10	2
3	Z	M.A	sport psychology	10	2
4	J	Ph.D	Movement behavior	23	2
5	S	M.A	Sport physiology	12	2
6	X	M.A	Physical education behavior and training	18	2
7	D	M.A	Learning and motor control	16	2
8	C	B.A	Physical Education and Sports Science	9	2
9	B	M.A	Management of sports facilities and facilities	18	2
10	A	M.A	Sport Management	14	2
11	F	M.A	Sport Management	16	2
12	k	B.A	Physical Education and Sports Science	12	2

The research tool was an "in-depth semi-structured interview". The data were analyzed through the method of "coding" and "categorization". In data analysis, three stages of open, central, and selective coding were implemented. Validation of the data was confirmed by using the "triangulation" method in the following formats:

1- Data triangulation: It was done in the form of using various sources such as documents and stakeholders. Also, based on the opinion of

Denzin (2014), who expanded the three types of data and considers it to include time and space (Denzin, 2014; Madani Borojni and Nasr, 2009), in this research, data collection was done at different times of the academic year. Also, it was done in different situations such as training classes, sports hours, and teachers' brainstorming sessions.

2- Researcher triangulation: Denzin (2014) also reminds the necessity of having more than

one researcher in the validation process. In the present study, the opinions of three qualitative researchers were used in qualitative data analysis.

Results

The findings of the research indicate the results of the "Physical Education Literacy" project in elementary schools, which are summarized in the conceptual diagram below:

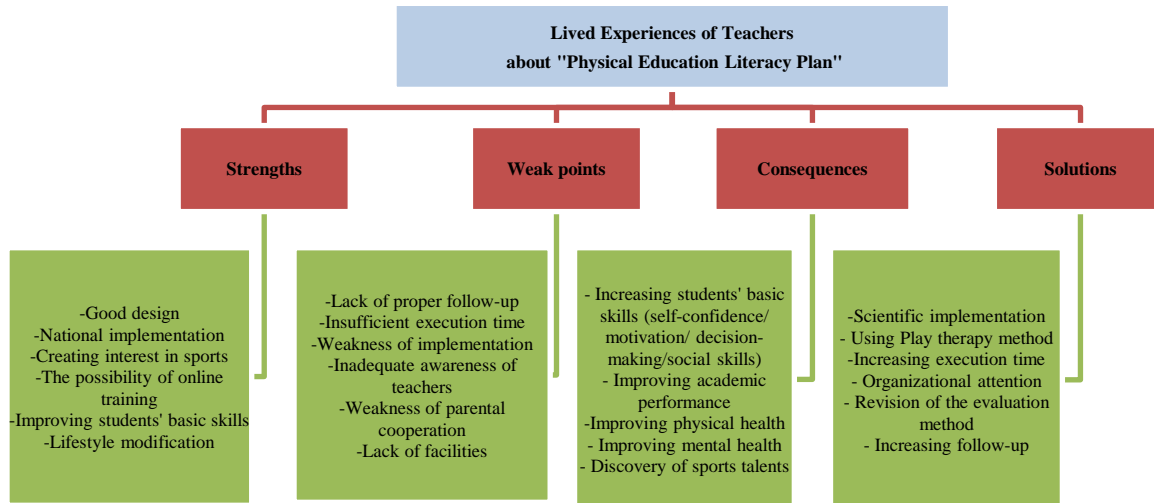


Figure 1. Overview of the research findings

Discussion

Regarding the strengths of the Plan, the finding expresses the theme of "optimal design", which includes appropriateness to the age and needs of students, and the useful use of their time and energy. This finding is in line with NasreEsfahani's research (2019). Based on the study, adopting operational strategies such as using students' free time to target and plan the development of physical education literacy, creating coordination between organizations in charge of sports as well as evaluation, and increasing the skills and motivation of teachers can have positive results in improving physical education literacy and creating an active lifestyle for students. In explaining this finding, it can be said that optimal design in education means using the best methods, tools, and technologies to convey concepts and information to students. The optimal design includes creating appropriate educational content, using optimal teaching methods, and also accurately evaluating student performance to improve the education process. The purpose of optimal design is to increase learning, facilitate students, and improve their performance.

In the plan suited to the needs of the students, the needs and characteristics of the students should be taken into account and the educational content and physical education methods suitable for them should be presented. For example, individual differences such as the level of knowledge, age, talents, and special needs of students should be taken into account and a specific and suitable educational plan should be provided for each student. Good use of student's time and energy based on physical education literacy means using activity-oriented methods in education. In this way, students strengthen their learning by doing activities such as practical exercises, groups, and educational games. This method is effective for different learning styles, students with attention deficit disorder, and other learning problems.

According to the theme of promoting "student's basic skills", these results are in line with the research of Dudley et. al (2017). In this research, the effect of physical education literacy on improving students' cognitive skills was investigated. The results showed that the physical education literacy plan improves students'

cognitive skills. For example, by performing motor and brain activities, students' problem-solving skills and memory improved significantly.

Regarding the theme of "creating interest in sports" which includes the sub-themes of making students and teachers interested, it can be said that the physical education literacy plan is designed to create interest in sports and movement in students. Considering that many students, due to their lack of interest in sports and movement, reduce movement activities to the lowest possible level or do them aimlessly, this plan, by providing attractive and suitable movement activities for every age level, tries to attract and Make students interested in movement activities. For example, by providing movement games, competitions, and engaging exercises, students experience improvements in their motor skills, which can foster interest in sports.

Another finding of the research indicated the weak points of the plan, which included various sub-themes, including weak and irregular evaluation, lack of encouragement by administrators, need for organizational follow-up, dishonesty in implementation, interference with other subjects, weak cooperation of teachers, weak implementation in schools, impossibility of individual training, lack of knowledge of teachers, lack of expert and efficient sports coach, Weak follow-up and cooperation of parents, inappropriate school sports facilities, large number of classes, short time for sports, and lack of facilities for implementation. In explaining these results, it can be said that the physical education literacy plan is one of the important plans in the field of health, which is designed to improve the physical and mental health of students. However, there are some problems and weaknesses in the implementation of this plan. These weaknesses show that due to the newness of this plan, schools do not have the necessary preparations to implement it. It seems that to make this plan more effective, these weaknesses should be resolved with appropriate management measures.

The results of the implementation of the

evaluated plan showed various points, including, improving basic competencies, increasing self-confidence, motivation, and decision-making skills, improving social and cognitive skills, improving academic performance, improving physical health, fitness, improving vitality and happiness, improving emotions control, interpersonal relationships, and mental health and an introduction to professional sports. This finding is in line with the findings of Whitehead (2013). He showed that physical education literacy can create a positive attitude in students to participate more in physical activity and active lifestyle and have an active lifestyle choice, not only for the future or the present but for their whole life. In explaining this point, it can be said that the physical education literacy plan in schools can have many positive effects on students by providing suitable and attractive movement activities. Some of the consequences of the implementation of the physical education literacy plan include the following:

- Improving basic sports skills: movement activities can lead to the improvement of students' movement skills, increasing their physical abilities, as well as improving their balance, coordination, and fitness. The physical education literacy plan, by providing basic sports concepts and skills, helps to increase the level of individual literacy and improves the individual's performance in sports activities. By implementing this plan, the student can improve basic skills such as balance, strength, breathing, flexibility, and speed, and as a result, show better performance in sports activities. By increasing the level of physical education literacy, students can perform better in their daily activities and avoid problems such as sports injuries and physical discomfort. In addition, increasing the level of physical education literacy also improves a person's mental and physical health. As a result, considering the importance of exercise and movement activities for physical and mental health, the implementation of this project can help improve the quality of life of individuals and society as a whole.

- Improving learning: movement activities can increase students' concentration and attention to different lessons. Also, these activities can improve students' memory and learning process. Learning motor skills allows a person to improve their mental performance and be able to use these skills to perform their daily activities. Also, practicing movement skills can help a person perform as well as possible in their daily activities and prevent sports injuries. Considering the importance of learning movement skills in childhood and adolescence, the movement literacy plan can be effective in the best possible way in the learning process of students, and the implementation of this plan in schools regularly can help improve the quality of education and learning in students.

- Improving physical health: movement activities can improve the physical health of students. These activities can strengthen the cardiovascular system, reduce excess fat, improve breathing, and reduce the risk of various diseases. Movement and sports activities increase physical strength and endurance and reduce obesity and chronic diseases. By implementing the physical education literacy plan in schools, students will perform in the best possible way in their sports activities and will benefit from these benefits. In addition, paying attention to the physical health of students can also help improve their mental health. Movement and sports activities allow students to reduce daily tensions and stress, and then feel more satisfied and happy. Considering the importance of physical and mental health in people's lives, the implementation of the physical education literacy plan in schools can help improve the quality of life of students and promote the health of society as a whole.

- Improving mental health: movement activities can improve students' mood, reduce stress and anxiety, and improve their morale. Considering the importance of mental health in people's lives, the implementation of the physical education literacy plan in schools can help improve the quality of life of students and promote the health of society as a whole; therefore, this plan can become one of the

most important educational plans in schools that help improve the mental health of students.

- Discovery of sports talents: School sports activities can help students discover their talent and interest in sports and grow well in this field. Considering that many students have potential talents in different sports fields, the physical education literacy plan allows students to better identify their sports talents, strengthen their skills, and work in different sports fields.

In addition, creating a positive attitude and a healthy lifestyle can be considered another result of physical education literacy (Chen, 2015). Tempest et al. (2014) associate physical literacy with lifelong participation in physical activities and sports success. They stated that physical literacy leads to participation in sports activities, having a healthy life in the long term, and sports success. Also, the lack of development of physical literacy causes children and teenagers to withdraw from physical activity and tend to be inactive, and make unhealthy choices in their free time. Also, this issue has positive effects on people's lives and jobs and increases the health of society. This finding is consistent with the results of Keegan et al.'s study (2019). They stated that a physically literate person uses his various capacities to promote health throughout his life.

Conclusion

Based on the results of the research, it is possible to express the strategies to make the physical education literacy plan more effective in elementary schools as follows:

- Scientific improvement of the plan: To increase the effectiveness of the physical education literacy plan, scientific research, and their results can be used in the optimal design. For example, using the results of scientific research, it is possible to design appropriate health programs for elementary schools.

- Play therapy: play therapy and group activities can help to increase the cooperation and companionship of students in performing movement activities. Also, play therapy can

improve social interaction and create a positive and creative atmosphere for students.

– Increasing the execution time: increasing the execution time of this plan can help to increase its effectiveness. For this purpose, movement training can be provided to students in the form of continuous sports classes at school.

– Change in the way of evaluation: regular and accurate evaluation of student's progress in this project can improve and increase its effectiveness. This assessment can include observing and monitoring the students' sports activities, performing physical tests, and evaluating their health changes.

– More organizational attention: More organizational attention to this plan can help to monitor its results more closely. For this purpose, it is possible to use the periodic meetings of the planners with the teachers implementing the plan and discuss and agree on the progress of the plan and solve its problems.

– Increasing follow-up: continuous follow-up of students' progress in the physical education literacy plan can provide a more accurate understanding of the quality of this plan and its effects on students. This solution is possible with the continuous cooperation of the Department of Education in the continuous monitoring of project results.

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Conflict of Interest

The authors declare no conflict of interest.

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None

Ethical considerations

This study was conducted in line with the principles of the Declaration of Helsinki. Approval was granted by the office of research of Yazd University. Before starting, the subject, the method of implementation, and the purpose of the study were explained to the participants and informed

consent was obtained. It was also assured that the personal information of the subjects would be kept confidential.

Code of ethics

The ethical commitment document number of the research is EP/F013, EP/F005, date 19 Sep. 2023.

Authors contributions

M.K. conceptualized the study, did the supervision, and wrote & approved the final article; S.D. conducted the methodology and gathered the data.

Open access policy

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