

Designing A Physical Environment Measure According To The Quality Standards And Educational Accreditation For Primary Schools

By

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Abstract

This study aimed to design a school environment measure according to quality standards and educational accreditation to identify the effect of school environment on student's practice of motor activities in primary schools, in addition to identifying the differences between schools with and without quality of accreditation. The researchers used the descriptive method on a sample of primary education teachers in Sadat city in 2015/2016. The results of statistical analysis showed that implementation degree of the school environment measure according to the quality standards in schools with quality of accreditation improve the effectiveness of motor activities practice, with large proportion reached to 70.4%, compared to schools without the quality of accreditation, where the effectiveness of student's practice of motor activities proportion reached 39.9%.

Keywords: school environment, primary stage, motor activities.

Introduction

It is known that the school is a junior social and educational institution within the larger community, where it educate young people, preparing and integrating them into society, therefore it's an institution that allocated to education, and which has a pedagogical role that is no less important than its educational role.

School environment should be an integrated environment in terms of successful management, qualified teachers, educated outstanding, good syllabus, and sports fields with a safe environment in terms of setup and processing, as well as integrated building with the appropriate laboratories, learning classroom, sanitation of water cycles, good places for washing, and dressing rooms; and other requirements of the school environment; This no doubt helps to raise and enhance the educational process, and make them on the verge of school life positively; which is reflected on student's practice of motor activities effectively and

positively.(Pangrazi & Beighle, 2015) (Vitali, 2015)

"Is it possible to guarantee student's practice of motor activities effectively and positively in the educational institutions depending on the standards of quality and accreditation primary education?"

This question was the problem from which the researchers set out these study procedures, aimed at designing a measure which identify the effectiveness of student's practice of motor activities.

What confirming the legitimacy of this question is found in Human Development Report of the Arab Republic of Egypt, information and indicators about the reality of school environment?

As well as some studies and reports confirming the existence of problems related to school environment, many of the operating schools are (busy, unusable and parts of it with cracked buildings, and a number of school buildings are falling

apart). In addition to a report from the General Authority for Urban Planning 2015 indicates new cracked schools as a result of poor implementation in (studies ,whether intentionally or unintentionally and in the implementation of the construction of schools (don't meet the legal rates and specifications for building materials for example) and this may lead to the occurrence of catastrophic incidents. (Anonymous, August; 2015)

In spite entering the second decade of the twenty-first century, and despite that the country efforts to develop ways and means that ensure teaching quality in schools, and encourage them to it through the development of physical and moral incentives, but in many sectors we still don't have enough educational institutions

with the quality of accreditation, which may cause and is reflected on the practice of sports activities in school environment with acceptable specifications (holds a minimum of the set standards by the National Authority to ensure the quality of education and accreditation). the practice of these activities in the environment lacks the minimum of these standards. (Anonymous, September;2015)

Thus, the lack of educational institutions meeting the requirements of the National Authority to ensure the quality of education and accreditation by extension may lead to decreased availability of the basic components or major help to achieve efficiency in the practice of motor activities for primary school students, as presented in (Table 1).

Table (1)

Schools with and without quality of education and accreditation in different educational Levels in Sadat educational district (Sadat - Khatatba - Kafr Daoud)

Educational Levels	Number	with quality of education and accreditation		The percentage of institutions achieved the Quality and Accreditation
		Yes	No	
Primary Education	42	3	39	7.14%
preparatory Education	28	3	25	10.71%
Secondary education	6	1	5	20.00%
Total	76	7	69	9.21%

As seen from Table (1) the total schools, which have the quality of education and accreditation in Sadat educational district do not exceed the percentage of 9.21%.

according to table (1) data, there is insufficiency of schools with the quality of education and accreditation with more than 90% of all schools at Sadat educational district, which indicate a huge difference between schools with and without the quality standards accreditation, and this in turn may affect the

student's practice of motor activities in these school environment.

Than previously, the researchers determined the focus of the study as: A) designing a measure from which to identifying the effectiveness degree of students motor activities practice, B) identify the degree of implementation of the school environment standards for primary school, so we could identify the differences between schools environments with and without the quality of accreditation

Method

Participants

Participants in the study were 50 teachers (males & females) by 79.37% of the total research community, divided into (25) teachers from schools with quality of accreditation and (25) teachers from schools without the quality of accreditation. The basic experiment sample was chosen intentionally and randomly. The initial sample consisted of (13) teachers representing 20.63% of the total research community and outside the basic sample, and the total basic and initial sample represent all members of the research community's number 63 teachers and 100% from the total community.

Measures

Personal Interview

where making personal interviews with some teachers and supervisors of primary schools and experts in the field of Physical Education with the aim of collecting data that can be used in setting the measure.

Examining and Analyzing the content and documents

By reviewing the documents of Sadat educational district with the aim of collecting and extracting data of Physical Education teachers (males & females) (Appendix 1). As well as reviewing references and studies related to the subject of the research, in addition to the standard levels document to ensure the quality and accreditation of pre-university education institutions with the aim of identifying themes and phrases that can be used in setting the measure.

Designing the Measure

The measure was designed after reviewing data sources and references; (Ahmed, 2009), (Lowenthal & Barbara, 2009), (Anonymous, 2010), (Remon, 2010), (Anonymous, 2011), (Adnan, 2011), (Anonymous, July;2015) which

included: The quality of physical environment of the school and their relationship to the practice of motor activities; Quality standards for the preparation of preparatory education teacher issued in 2009; The standards mentioned by the Arab Organization for Education Culture and Science issued in 2010; The standards regarding primary education level issued in 2011; The standards issued by the National Authority to ensure the quality of education and accreditation -third version- in 2011. In addition to the following resources:

- Reviewing the fields of quality in preparatory education represented in the following seven fields: teacher - student - administration and legislations - spending and supply - educational programs - buildings and equipment - evaluating performance and outputs. (Ahmed, 2009)
- Reviewing the standards of quality and psychological science for primary education teachers in accordance with the requirements of quality systems, which published in the "Reality and prospects for primary education curricula and quality standards" folder. (Ahmed, 2009)
- Reviewing the standards mentioned by "Lowenthal , Barbara" in 1999 represented in the following six fields: the standards concerning students - standards related to space and design - the standards concerning the aesthetic standards - standards related to the economic

aspect - the standards concerning developmental characteristics of students - the standards concerning curriculum primary school students. (Lowenthal & Barbara, 2009)

accreditation, National Authority for Quality Assurance and Accreditation of Education (NAQAEE) issued in 2010/2011 (Appendix 3). (Anonymous, July;2015)

- The National Authority guidelines to ensure the quality of education and

Procedure

The following steps were followed while preparing the Measure:

1- Determining measure axes

First Axe	:	Standards of primary school students.
Second Axe	:	Standards of primary school teachers (males & females).
Third Axe	:	Standards of practice places.
Fourth Axe	:	Standards of sports equipment.
Fifth Axe	:	Standards of health facilities.

- 2- **Determining proportion of agreement:** The measure axes have been shown on a number of five experts (Appendix 2) for their scientific evaluation of: the appropriateness of the proposed axes of the measure to modify by adding axes that fit or delete what they see as inappropriate from the axes. As shown in table 1:

Table (2)

the Expert Agreement Proportion of the Designed Measure Axes (Experts No. = 5)

Axis	School Environment Standards	Times of agreement	Agreement Proportion
1	Standards of primary school students	5	100%
2	Standards of primary school teachers (males & females)	5	100%
3	Standards of practice places	5	100%
4	Standards of sports equipment	5	100%
5	Standards of health facilities	4	80%

From Table (2), the ratio of repetitions of the experts agreement about the measure axes confined between (80%: 100%) and thus a higher percentage of 75% achieved from experts' opinions and this is the percentage that the two researchers satisfied with to accept the measure axes.

designed a survey to check the experts' opinions at the faculties of Physical Education with the aim to determine the relative importance of each axis from the axes related to the measure. As shown in the following table 3:

- 3- **Determining the relative importance:** the researchers

Table (3) The Arithmetic average of the relative Importance of the Axes for School Environment Measure According to the Opinions of Experts (n =5)

Experts	Axes					Total
	First	Second	Third	Fourth	Fifth	
1	15	25	20	15	15	100%
2	15	25	25	15	15	100%
3	10	25	25	15	15	100%
4	15	28	30	19	18	100%
5	20	30	25	20	20	100%
Total	75	133	125	84	83	100%
Average of the relative importance	15%	26.6%	25%	16.8%	16.6%	

It is clear from table (3) that the average of the relative importance of the measure axes is confined between (15% to 26.6%).

4- **Formulate vocabulary for each axis of the measure:** The measure phrases have been formulated, after reviewing the

scientific references (Lowenthal & Barbara, 2009), (Remon, 2010), (Adnan, 2011), (Anonymous, July; 2015). And the following table shows the number of phrases for each axis of the measure according to the relative importance:

Table (4)**Number of phrases According to the Relative Importance for Each Axis of the Measure**

Measure Axes	No. of phrases according to the relative importance	Phrases numbers
Standards of primary school students	9 phrases (15%)	1 : 9
Standards of primary school teachers (males & females)	16 phrases (26.6%)	10 : 25
Standards of practice places	15 phrases (25%)	26 : 40
Standards of sports equipment	10 phrases (16.8%)	41 : 50
Standards of health facilities	10 phrases (16.6%)	15 : 60
Total	60 Phrases (100%)	1 : 60

Seen from table (4) that the scale of 60 phrases has been distributed on the scale axes according to the relative importance, which ranged between 15%: 26.6%.

5- **Determining the evaluation type:** The scale type of

evaluation has been determined where the evaluation comprised a quad-estimate balance, as shown in the table (5):

Table (5) The scale of valuing the measure phrases

Evaluation	Degree
The phrase largely available	3
The phrase moderately available	2
The phrase poorly available	1
The phrase is not available	zero

Seen from table (5) that the estimate balance includes (4) levels with degrees (3, 2, 1, zero).

- 6- After viewing the measure by the experts, the proportion of experts' agreement has been calculated on each phrase of the measure, where Experts agreed to all phrases of the measure with the exception of the phrase number (45) where it got 40%

and thus have been deleted. the experts agreed on the quad-estimate balance, which grades ranged from (zero to three) degrees, and thus reached the final image of the measure, after consulting the experts with number of (59) phrases (Appendix 4), as shown in the following table (6):

Table (6)
Number of phrases of School environment measure in its final image

Scale Axes	No. of Phrases In accordance to the relative importance	Phrases Numbers
Standards of primary school students	9 Phrases	1 : 9
Standards of primary school teachers (males & females)	16 Phrases	10 : 25
Standards of practice places	15 Phrases	26 : 40
Standards of sports tools	9 Phrases	41 : 49
Standards of health facilities	10 Phrases	50 : 59
Total	59 Phrases	1 : 59

Seen from Table (6), that the scale in its final image consists of no. of 59 phrases.
Scientific transactions

Validity

Validity of Internal Consistency: where the measure verity has been found by finding correlation coefficient between each phrase and the total axis to which they belong, and that on the scoping study sample of (13 male & female) teacher.

Where the value of calculated "P" was greater than Tabulated "P" of 0.620 in all the measure phrases that indicates that they are all significant statistically and thus prove the verity of the designed measure.

Reliability

The researchers have calculated the constancy coefficient by using retail midterm method on the scoping study sample, where the midterm constancy

coefficient reached 0.920 and the whole constancy coefficient 0.955 reached using Spearman Brown equation, which is statistically significant and thus prove the constancy the designed measure.

Implementation of the search experience

After consulting experts and conducting scientific transactions for verity and constancy, the measure in its final form consisted of number of five axes and (59) phrases, the axes and phrases were as follows:

- First axis: standards of primary school students, and included a number of (9) phrases with relative importance of 15%.
- Second axis: standards of primary school teachers (males & females), and included a number of (16) phrases with relative importance of 26.6%.
- Third axis: Standards of practice places, and included a number of (15) phrases with relative importance of 25%.
- Fourth axis: Standards of sports equipment, and included a number of (10) phrases with relative importance of 16.8%.
- Fifth axis: Standards of health facilities, and included a number of (10) phrases with relative importance of 16.6%.

Applying the measure

A field application of the scale on the basic study sample of (50) teachers has been done in the period from 01/09/2015 to 01/10/2015.

Statistical analysis

The Statistical Package for the Social Science (SPSS / PC) for a statistical treatment (statistical analysis) were used:

Mean, Std. Deviation (+/-SD), Median, Skewness, Correlation Coefficient and test "t", duplicates, percentages.

Result

The results indicated that the standards of the measure for schools with the quality of accreditation got percentages as following:

Phrases got percentages ranging from 60%: 85% for the first axis, 55%: 82% for the second axis, 50%: 75%, for the third axis, 51.2%: 70 % for the fourth axis, and 55.7%: 70.3% for the fifth axis. This refers to the existence of effectiveness of rates ranging from 51.2%: 85% of student's practice of motor activities in schools that got the quality of accreditation.

This suggests that serious regulatory procedures by schools primary staff (Director - teachers of primary school - the specialist social), led to students commitment to adhere to athletic uniform, also the students commitment to the process of warming up before the start of motor activities practice, which contribute to the adaptation of the heart, muscles and joints for the performance and raises body temperature, and helps to employ the largest number of muscle fibers during motor practice.

The results showed also the studiousness of students to comply with the directives related to the system, personal hygiene and health, which is a natural product of family role in upbringing their children, in addition to the role of teachers in supporting the system and aiding family role, which impact positively on the student's practice of motor activities.

Regarding axes arrangement for schools sample with the quality of the accreditation, the order of axes came as shown in the following tables (7),(8),(9):

Table (7)
Axes arrangement for schools with the quality of accreditation

Axes	percentage of the effectiveness of practice	order
Standards of primary school students	68.9 %	second
Standards of primary school teachers (males & females)	71.8 %	first
Standards of practice places	67.6 %	Fourth
Standards of sports equipment	68.5 %	Tuesday
Standards of health facilities	64.5 %	Fifth
total scale	70.4 %	first

Seen from table (7) that the percentage of the axes of the sample from school that got the quality of accreditation, ranged between 64.5%: 71.8%.

For ordering the axes for sample of schools that not got the quality of accreditation, the order of axes came as shown in the following table:

Table (8)
Axes arrangement for schools without the quality of accreditation

Axes	percentage of the effectiveness of practice	Order
Standards of primary school students	45.3%	First
Standards of primary school teachers (males & females)	40.1%	Second
Standards of practice places	38.1%	fourth
Standards of sports equipment	37.2%	Fifth
Standards of health facilities	39.4%	Third
The whole Scale	39.9%	Second

It is clear from table (8) that the percentage of the axes for sample of schools that not got the quality of accreditation ranged from 37.2%: 45.3%.

Table (9) The differences between sample of schools with and without quality of accreditation accreditation n=50

Standards	sample of schools with the quality of accreditation n=50	sample of schools without the quality of accreditation n=50	difference between two samples	in Favor of
	Percentage	Percentage	Percentage	
Standards of primary school students	68.9%	45.3%	23.6%	accreditation quality schools
Standards of primary school teachers (males & females)	71.8%	40.1%	31.7%	accreditation quality schools
Standards of practice places	67.6%	38.1%	29.5%	accreditation quality schools
Standards of sports equipment	68.5%	37.2%	31.3%	accreditation quality schools
Standards of health facilities	64.5%	39.4%	25.1%	accreditation quality schools
the whole scale	70.4%	39.9%	30.5%	accreditation quality schools

It is clear from table (9) that the differences between each sample of schools that got the quality of accreditation and schools that not got the quality of accreditation ranged between 23.6%: 31.7% for schools that got the quality of accreditation.

Discussion

It is clear from table (7) that school environment in schools with the quality accreditation help on the effectiveness of students motor activities practice. percentages ranging between 64.5%: 71.8%, and this shows that male and female teachers in primary education have sufficient performance skills for the preparation and processing of school environment, from where the place of the motor practice, and the development of instructions and guidelines and appropriate means of display that can be relied upon to regulate the practice of safe and appropriate level of motor activities (70.4%).

This percentage reflect the efficiency of the academic preparation program to have in connection with the aspect applied, which reflects the importance of the use of signs and graphics that can be used to shorten the time used in giving directions, and the impact on more than one sense at the same time for students which contributes to the achievement of effective practice

For schools without the quality of accreditation the measure presented the percentages data as following:

Phrases of the first axis got percentages ranged from 35 % : 65%, and from 40% : 64.5% for the second axis, and the third axis phrases got percentage from 25%: 50%, and for the fourth axis phrases got percentages from 33.4% : 51.9%, and the fifth axis from 40% : 52.6%, and that indicates to the existence of effectiveness with percentages ranged from 25% : 65% of student`s practicing of motor activities.

This indicates that the school environment helps intermediately on student`s practice of motor activities, with percentages ranged from 25% : 65%, and that indicates that male and female teachers have average performance skills

sufficiency for the preparation and processing of school environment and organizing in terms of guiding the students from and to the class properly, and then prepare them f properly through reconciling the appropriate practices for the objectives of each part of the motor practice units, and providing tools, equipment and the alternative necessary tools for its implementation. and their selection of organizational effective combinations moderately which allows them freedom of movement among students and to provide them moral and technical support through student`s practice of motor activities in educational appropriately manner characterized by suspense and excitement, and thus achieve the main aim for each unit of motor practice which allows achieving the overall aim of the primary program and this has been achieved according to the results described previously with percentages ranged from 25%: 65%.

It is clear from table (8) that the school environment in schools that got the quality of accreditation helps on the effectiveness of student`s practice of motor activities but weakly where percentages of the effectiveness of the practice ranged came as a table (8) between 37.2%: 45.3%, this shows that male and female teachers in primary education need to strengthen the performing skills that allow them to provide safe and enjoyable motor practice environment.

Provide adequate motor activities for students that emphasize their development and development of the teachers of primary education stage through professional development programs, and this is consistent with what referred (Wafaa, 2014) that the main difficulties that prevent teachers from enabling them from professional competence necessary are the lack of educational resources, the lack of specialized educational courses, the lack of many of the elements of professional competence programs in the educational courses in the preparation of teachers of primary school, in addition to a

lack of supervisory flyers to direct teachers to self professional growth.

Consequently, the researchers believe that these results indicate a weak level of effectiveness of the practice of motor activities for primary school students according to the quality standards for schools without the quality of accreditation, which shows the weakness in student's practice of motor activities in general, and this agrees with what indicated by (McMasters, 2013),(Mohamed, 2014),(Sally, 2015) that there is a shortage in providing security and safety factors in each of (stadiums, attention to sports equipment, attention to sports equipment, attention to school health facilities).

Regarding the differences between the schools with and without the quality accreditation in the degree of application and the order of the school environment standards for the practice of motor activities for primary school, table (9) present these differences.

It is clear from table (9) that schools with the quality of accreditation are positive in providing motor practice for students, in comparison with other schools without the quality of accreditation, where the total differences is 30.5% in favor of quality accreditation schools.

The results also indicate differences between schools with and without the quality of accreditation in favor of the quality accreditation schools, and therefore indicates that there are differences between the two types of schools at the level of application of the school environment standards associated with health facilities, regarding to the practice of the motor activities. Represented in the availability of health conditions in water cycles in terms of lighting and ventilation, and availability of health conditions in washing places after practice of motor play activities, which came in favor of the quality accreditation schools.

And therefore the above results indicate that the school environment in schools with the quality of accreditation helps in the effectiveness of motor activities practice for students with large proportion reached to 70.4%, compared to schools without the quality of accreditation where the effectiveness of students practice of the motor activities was a weak proportion reached 39.9%, and this refers to the necessity of paying attention to the motor activities in these schools.

Conclusions

- The total proportion of the effectiveness of school environment to practice the motor activities for primary school students according to the quality standards reached 70.4% regarding the schools sample with the quality of accreditation.
- The total proportion of the effectiveness of the school environment to practice the motor activities for primary school students according to the quality standards reached 39.9% regarding the schools sample without the quality of accreditation.
- The total proportion of the differences between the samples of schools with and without the quality of accreditation in their effectiveness on the practice of motor activities for primary schools students according to the quality standards reached 30.5% and came in favor of the quality accreditation schools.

Recommendations

- Organizing training courses for primary school teachers to provide them with the appropriate ways for how to activate the practice of motor activities for primary school students.
- Conducting more researches and similar studies on the stages of secondary and preparatory education.

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