Musamus Journal of Physical Education and Sport (MJPES)
http://ejournal.unmus.ac.id/index.php/physical
Volume 8, No. 1, January 2026, Pg. 104-115
DOI: 10.35724/mjpes.v8i1.6716

Impact Of An Online Educational And Guidance Approach On Adaptive Behavior Among Students Of Wasit Education Directorate Athletics Team

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Abstract

Current research aims to investigate impact of these technologies on changing individual behaviors. Specifically, research aimed to design an electronic educational and guidance program and to identify impact of this program on adaptive behavior of track and field athletes in Wasit Education Directorate. The researcher hypothesized that there would be statistically significant differences in adaptive behavior scale among research sample. The researcher used descriptive method as it was most suitable for this type of study. Research population and sample were defined as middle school students participating in competitions organized by Sports and Scouting Activities Department in Wasit General Directorate of Education. total number of students was 84. 24 students were randomly selected as main sample, 50 as application sample, and 10 students were randomly selected as pilot sample. This was done after obtaining official approvals from Wasit Directorate General of Education to implement this experiment. Regarding identification of variables and related tests, researcher consulted scientific sources and references and met with a number of experts and specialists in this field. Subsequently, the researcher developed a scale for adaptive behavior, encompassing several domains and axes. Statistical analyses were conducted to ensure scale's validity and suitability for research sample. After revising scale items and removing those with low reliability coefficients, 48 items were selected, making scale ready for application. scale was administered for pre-testing, and then researcher conducted educational and guidance sessions over 6 weeks, with 2 sessions per week. Students participated in discussions on topics, utilizing an electronic platform to support educational and guidance program. Following experiment, researcher administered post-testing. After obtaining results, researcher compiled them into statistical tables for analysis and discussion to fulfill study's objectives. Therefore, researcher concluded that educational

guidance program played a significant role in bringing about changes in adaptive behavior of research sample . program also reinforced many cognitive concepts among participants, and modern technologies used in educational and guidance programs facilitated behavioral modification, enabling participants to adapt to requirements of participation. The researcher recommends utilizing modern technologies, such as electronic programs, in psychological assessments, as well as applying these programs to other activities, and strengthening guidance role in modifying behaviors exhibited by many of our students.

Keywords: Guidance And Educational Approach, Adaptive Behavior, Students, Athletics.

Introduction

Electronic programs are becoming increasingly important within education system in general, and educational system in particular. Most researchers have found that these programs can be used to develop thinking skills of a large number of students in a short time. These programs can be delivered through software such as Visual Basic, as digital world has become deeply integrated into all aspects of life, including educational platforms. Furthermore, providing these electronic programs enhances effectiveness of educational and guidance materials. Presenting them within a framework of programs designed to meet needs of individuals in educational community at any time is essential, as it influences behavior of these individuals. This fosters positive behaviors among athletes and students. Emphasis on good behavior is also important in selecting students to represent school in sports teams, both to achieve results and to encourage participation in these teams, whether in athletics or other sports . In addition to giving these players confidence in themselves and assigning them tasks and responsibilities that are hardly of any obvious benefit or return to entity they belong to.

Since guidance is one of important aspects of raising awareness among individuals belonging to sports facilities, as it makes athlete a conscious person who can face situations and find positive solutions to them as quickly as possible, and this is very useful during competitions and during training sessions, as well as how to raise technical and cultural level, since guidance creates a psychological atmosphere for athlete that enables him to develop his tendency towards independence and ability to bear responsibility, as well as it deals with relationship between self and environment.

Adaptive behavior is considered a key indicator for assessing an individual's abilities and skills within framework of social, psychological, and behavioral standards. Therefore, many researchers have focused on field of measuring adaptive behavior, and these measures have been considered among most important criteria that researchers rely on to assess individuals' abilities. Adaptive behavior is considered one of important things that an individual learns and acquires in stages of his life, where it is a result of experiences, skills, and knowledge that individual has acquired in first environment. If skills and experiences are sound, they help him to adapt properly, and opposite is true (Matson: 2009).

Selecting a student is that they possess necessary skills for activity they are participating in. This involves passing several tests to qualify for representing education team. Process involves developing various behaviors, culminating in adaptive behaviors that effectively help individuals cope with natural and social stimuli and think in diverse ways that serve their goals. It is well known that students face academic pressures and other pressures from family and community life, due to complexities of modern life. All of these factors necessitate

that students participating in sports teams undergo educational and guidance programs that help them overcome negative behaviors and adopt positive ones, thus supporting their athletic journey. Athletics is a highly competitive sport that demands specific behaviors from athlete, which must be evident during competition. Furthermore, selecting students for this sport is a challenging task for coaching staff, as student must possess characteristics suited to specific event in which they can excel and achieve success. It requires a strong individual capable of adapting to various situations encountered during a race, whether in victory or defeat, depending on type of sport they are participating in. Therefore, importance of this research lies in utilizing electronic programs in educational and guidance aspects to transform developmental trajectory of students belonging to educational teams and to cultivate high-level behaviors appropriate for specific sport they are participating in.

Most educational and sports institutions prioritize those with exceptional technical and skill-based abilities , as evidenced by festivals and competitions organized by sports activity departments in general directorates of education. These events aim to achieve future goals that serve our beloved country. Based on researcher's experience as a practitioner of this sport and an employee of Ministry of Education, and his interest in these sports, observed that most students representing education teams lack cognitive, emotional, and social skills associated with adaptive behavior. Since this behavior is influenced by numerous factors that determine their level of adaptation, and given scarcity of studies on this topic to researcher's knowledge, he designed an educational and guidance program utilizing modern technology to develop adaptive behavior skills among players on education teams. research questions revolve around following: Do electronic programs have an effect on improving adaptive behavior of these students? Is improving students' adaptive behavior important in type of activity that students engage in?

Study objectives represented by designing an online educational and guidance program. To identify impact of that program on adaptive behavior of Wasit Education Directorate's athletics team students.

Study hypothesis: There are statistically significant differences in adaptive behavior scale for individuals in research sample.

Defining terms

Adaptive Behavior: "way in which individuals deal with natural and social demands of their environment, including personal autonomy, responsibility in daily life and social behavior." (Moynahan: 2018)

Research Methodology

The researcher used descriptive method because it is one of most suitable methods for objectives of current study. Research population consisted of middle school students participating in competitions organized by Sports and Scouting Activities Department of Wasit Directorate of Education. total number of students was 84, of whom 24 were randomly selected as main sample and 50 as pilot sample. A preliminary sample of 10 students was also randomly selected. This was done after obtaining official approval from Wasit Directorate of Education to implement this experiment.

Table 1. division of sample members shows

Research sample	
Sample preparation for scale	Sample application of scale

Event type	No.	Event type	No.	Exploratory sample
100 m	8	100 m	14	—
400 m Relay	4	400 m mail	10	—
Long jump	6	long jump	12	—
Discus throw	3	Discus throw	8	—
Javelin	3	javelin	6	—
Total	24	All events	—	10
		total	50	10

Defining research variables

Through the researcher's review of numerous scientific sources and references, and his meetings with several experts and specialists in sports psychology and athletic training, research variables and their appropriate measures were identified, taking into account capabilities of research sample. Therefore, educational guidance program was chosen as independent variable, while dependent variable was determined to be adaptive behavior of students participating in Wasit Education Directorate's athletics teams.

Designing electronic approach (educational and guidance):

The researcher consulted with several experts and specialists in field of software and computers regarding how to create electronic program and its software components that operate according to user's needs. The researcher also reviewed scientific sources and considered opinions of experts in field of psychology and sports training regarding feeding program with accurate information that aligns with training curriculum. During training sessions and competitions, it should clearly outline all behaviors that a student might experience during that time, with possibility of presenting and explaining its details to research sample. Therefore, preparation of such programs requires understanding stages of their creation, which are as follows: Forming concepts and rules, wording, Design and programming, system evaluation.

This includes stage of establishing rules and concepts upon which such programs are based in their operation. Because it includes all vocabulary of work within that system. Its vocabulary contributes to its success. Initially, programming language chosen by expert programmer was Visual Basic latest version for programming activities like these systems. This language is highly flexible in facilitating dialogue between user and program. Its most important feature is its great flexibility in handling most applications necessary for learning, such as creating drop-down menus or adding keys that execute specific commands when pressed. It also allows easy access to language's code editor to work with or modify code according to students' abilities and what suits them to achieve desired educational goal. Furthermore, program incorporates cognitive aspects that contribute to changing certain user behaviors. This enables them to modify their behavioral patterns or perspectives on mathematical concepts and complex problems, thus adapting their behaviors to activity. They can also switch between different behavioral patterns to effectively influence others. This program was also enriched with all guidance aspects that could add some ideas and concepts to these students about this activity and what it

contains of situations that competitor may go through during training units or competitions, so that they can address those situations and find solutions for them as quickly as possible.

Developing an Adaptive Behavior Scale

After the researcher reviewed several studies that dealt with adaptive behavior scale, most of which were related to intellectual disability, including study of (Nawal Koko: 2004), study of (Nagham Omar: 2012), and study of (Israa Ahmed: 2023), researcher did not find a study that was concerned with this type of behavior in sports aspect. Therefore, the researcher decided to study such behavior and design an educational guidance program integrated with electronic aspect, and he prepared a scale for adaptive behavior through a set of scientific procedures that researcher used in process of preparing this scale .

Initial image of scale

The researcher adopted scale prepared by (Al-Kilani and Al-Batsh: 1981), which includes (17) dimensions, and these dimensions consist of several items. Each item consists of several statements . researcher provided multiple possible answers, from which examinee selects only one using one of answer keys in instructional program. answers are then stored in a single calculator held by researcher. Simultaneously, the researcher included sections within program that provide guidance on each answer selected by examinee, indicating whether it is correct, incorrect, or consistent with one of marking schemes for that scale.

Preparing scale items

The first step in preparing scales is to prepare necessary and appropriate items for nature of research and its objectives. researcher prepared a scale consisting of 3 areas of adaptive behavior, and each area consists of two axes, and each axis consists of 12 items for students participating in competitions and festivals held by General Directorate of Education of Wasit Department of Sports Activity. Therefore, total number of items in scale became 72 items, and researcher followed following steps in formulating scale items: Paragraph should not be too long in its vocabulary to point of causing boredom in answer. It should be clear and understandable in meaning and purpose. Paragraph measures one behavior, i.e., one goal.

Scientific Foundations of Scale

First: Honesty: Scale, in its initial form, was presented to a number of experts and specialists in educational, psychological, sports, testing and measurement sciences, for purpose of evaluating and judging it and making appropriate modifications to it (by deleting or reformulating a number of items) while stating validity of alternatives. This procedure is considered an appropriate means to ensure validity of test. The researcher used face validity because it "is used to indicate what test appears to measure, that is, test includes items that appear to be related to variable being measured, and content of test is consistent with its purpose and is generally desirable" (Ali Samoum and Sadiq Jaafar: 2020: 172). Validity of expert panel was determined by percentage of agreement among its items. percentage of expert agreement on its items reached (80.28%) , using chi-square χ^2 method. As Salman Al-Janabi (2019: 8) states, "When calculated chi- square value is greater than its tabulated value, it favors answer corresponding to most frequent opinions of expert panel. However, when calculated chi-square value is less than its tabulated value, component is not considered valid because there is no agreement among expert panel on its validity ."The researcher used statistical methods to analyze items,

specifically internal consistency coefficient, to determine degree of homogeneity of items in measuring behavioral phenomenon. This method has several advantages: it provides a scale with homogeneous items, where each item measures behavioral dimension that scale measures as a whole, and it is able to highlight correlation between items . Pearson's correlation coefficient was also used to find correlation between score of each item on scale and total score.

Second: Stability: Reliability is defined as “test or scale giving same results if it is reapplied to sample and under same conditions more than once.” (Salman Al-Janabi: 2019: 22). The researcher used split-half method to calculate reliability coefficient, and reliability coefficient reached 89.011. This coefficient is considered acceptable for calculating reliability compared to values provided when compared with significance tables of correlation coefficient. Scale was applied to a sample of (50) students, with a degree of freedom of 48 and a significance level of 0.05.

Third: Objectivity: Objectivity means "removing judge's opinion from correction process, or that examinee's mark does not depend on who corrects his paper, or that his mark does not differ according to judges." (Hassan Hadi Attia: 2023: 221) The researcher used simple correlation coefficient (Pearson's) between results of two referees tests proved to be highly objective, as correlation coefficient values were found to be higher than tabulated correlation coefficient value. 0.81 is below significance level of 0.05.

After researcher conducted scientific foundations of scale, presented those areas and axes to a number of experts and specialists in field of psychology and sports training. A number of items for those areas were excluded because they did not match field to which they belonged, as well as difficulty of student understanding these items. Consequently, researcher excluded these items so that scale would be ready in its final form and consist of 48 items, answer to which is through several alternatives shown in form of pictures within program. researcher distributed scores on these pictures that reflect meaning of answer, and scores are from 1-3, as each picture carries a certain score that researcher determined, and total score of scale is from 42-144, and highest score obtained by examinee indicates enjoyment of adaptive behavior. The researcher also calculated correlation coefficient between scores of these images in order to find internal consistency of scale items. Correlation coefficients were calculated between score of each item and dimension to which it belongs, and some items with a low correlation coefficient were deleted. correlation coefficient between dimensions and total score of scale was also calculated, and Table 2. shows this.

Table 2. Correlation coefficients among each item and dimension to which it belongs, and between each dimension and overall scale score

First dimension: Autonomy functions		Second dimension: Withdrawal before participation		Third dimension: Social adaptation	
First axis: Self-care		Trust and responsibility		Dealing with competitors	
Paragraph number	Correlation coefficient	Paragraph number	Correlation coefficient	Paragraph number	Correlation coefficient
1	0.514	1	0.644	1	0.724
2	0.456	2	0.649	2	0.736
3	0.653	3	0.652	3	0.578
4	0.705	4	0.710	4	0.545

5	0.684	5	0.729	5	0.493
6	0.579	6	0.588	6	0.648
7	0.718	7	0.716	7	0.622
8	0.612	8	0.729	8	0.634
Second axis: Awareness and self-defense		Second axis: Responding to competition		Second axis: Repeated stereotypical behavior	
Paragraph number	Correlation coefficient	Paragraph number	Correlation coefficient	Paragraph number	Correlation coefficient
1	0.687	1	0.655	1	0.723
2	0.577	2	0.726	2	0.755
3	0.645	3	0.672	3	0.759
4	0.709	4	0.588	4	0.789
5	0.633	5	0.609	5	0.734
6	0.667	6	0.676	6	0.699
7	0.485	7	0.702	7	0.775
8	0.649	8	0.489	8	0.729

Table 2. shows that all values of correlation coefficients are correct between items of axis to which they belong, as well as correlation coefficients between dimensions and total score of scale. Therefore, these values are statistically significant, which indicates internal consistency of scale.

To calculate reliability coefficient of scale, the researcher used two methods: Cronbach's alpha coefficient for each dimension of scale. Halving method. First: Alpha coefficient Kornbach : Table (3) shows values of this method.

Table 3. Cronbach's alpha coefficients

Scale dimensions	Alpha coefficient - Cronbach's
First dimension: Independent functions	0.944
Second dimension: Withdrawal before participation	0.941
Third dimension: Social adaptation	0.958
scale as a whole	0.978

Second: halving method: Table (4) shows this method.

Table 4. Half-division shows

Dimensions	Correlation coefficient between two halves	Correlation coefficient after correction
First dimension: Independent functions	0.914	0.958
Second dimension: Withdrawal before participation	0.918	0.952
Third dimension: Social adaptation	0.948	0.964
Scale as a whole	0.978	0.979

Tables (3) and (4) show that all reliability coefficients are significant in dimensions and overall score of scale, as values of alpha coefficients - Cornbach's and split-half scores came in high, which confirms reliability of scale. It also shows us that scale in its final form is valid and reliable, and its results can be trusted and relied upon in measuring adaptive behavior.

Exploratory Experiment

The researcher conducted exploratory experiment on a sample of 10 students from outside original research sample on 2/7/2024 corresponding to Wednesday). Purpose of this experiment was to identify obstacles that researcher might face when applying scale, as well as extent of student's ability to answer items of scale and how to answer through electronic program and extent to which he obtained guidance that would change behavior of student being tested.

Applying scale to research sample (pre-test)

The researcher administered scale to research sample on 11/2/2024, which corresponds to Sunday. The researcher took into account time required to answer, clarifying and explaining how to answer scale using electronic program and what examinee should do when answering scale items. Note that time to answer scale items is (25-30) minutes. The researcher gave each examinee opportunity to do a test for one item outside scale items, with guidance and direction for each area, item, or one of dimensions in scale.

Main Experiment

The researcher conducted main experiment on research sample on Wednesday, February 14, 2024. Program lasted six weeks, with two sessions per week Monday and Wednesday. Each session covered everything a student needs to know about participating in competitions. Each session lasted 40 minutes, during which students learned about most important behaviors they encounter during competitions and even during training sessions. Official approval was obtained from Wasit Directorate of Education to hold sessions in Directorate's computer department, which has computers necessary to implement electronic (educational and guidance) program. Through this program, students receive comprehensive information about athletics, including specific sports they participate in, their responsibilities, and cultural awareness they possess during competitions.

researcher, in his current program, considered arrangement of behaviors according to their degree of difficulty within each measurement area and its axes. This was done to assess adaptive skills evaluated by program. true benefit of program is that participant learns and adapts to highest level of behaviors. Furthermore, research sample possesses ability to learn and train in specific skills and areas, which they utilize through their participation in sports. Consequently, research sample improves.

Educational and Guidance Sessions

In educational and guidance sessions, the researcher focused on role of adaptive behavior in cognitive, social, and emotional aspects, and all challenges that students participating in sports competitions might face. Also addressed how to deal with these challenges, as adaptive behavior is cornerstone of preparing an athlete capable of facing difficult circumstances during competitions, finding solutions to complex situations, and managing them and their opponents during competition. Furthermore, it emphasized accepting defeat with sportsmanship and preparing for it beforehand. These sessions included presenting an electronic program to research participants, featuring numerous images and videos that reflected positive experiences among participants in sports races, situations they encounter, and how they best dealt with them. The researcher also encouraged participants to share their knowledge about various aspects of event and what happens to them before, during, and after race. purpose of this was to identify most prominent behaviors exhibited by research participants.

Applying scale to research sample (post-test)

The researcher conducted post-test on 16/4/2024, corresponding to Tuesday. The researcher took into account procedures and conditions that were carried out in applying pre-test.

Statistical methods

The researcher used following statistical methods through statistical package SPSS. Mean, Standard deviation, Pearson correlation coefficient, Cronbach's alpha, Split-half, Standard regression.

Results and Discussion

In order to achieve research objectives and hypotheses, the researcher placed results obtained through application of scale under study in tables for purpose of presenting and analyzing them:

Results of means, standard deviations, tabulated (T) value and significance of differences for adaptive behavior scale.

Table 5. Means, standard deviations, and significance of differences for research sample

Variables	Pre-test		Post-test		(T) value	Sig. level	Sig. type
	M.	St.d	M.	St.d			
Independent functions	52.7	5.48	56.9	3.42	6.112	0.001	Sig.
Withdrawal before	49.42	4.33	54.23	3.78	5.14	0.000	Sig.

participation							
Social adaptation	51.011	5.12	55.14	3.85	5.56	0.000	Sig.

Table 5. shows us that there are significant differences between pre- and post-tests of adaptive behavior scale for research sample. This came about through concept of educational guidance program that the researcher designed according to modern electronic technology, through which examinees can answer items of that scale with complete transparency. Moreover, program simulates educational concepts required for participation in sports competitions and what is required of participant in them in terms of how to deal with events and situations that student participating in these activities goes through. The researcher also wanted in his program for each student to learn how to analyze task, as it is one of most widespread methods. It is a method that depends on analyzing behavior and clarifying situation and its components. In this program, all paragraphs related to situations that student participating in races is exposed to were formed through system used in program. Thus, student reaches goal he aspires to, as breaking down behavioral units of participating individual is easy for him in order to respond to stimulus. As Awatif Hassanin (2024) states, "Breaking down behavior into small behavioral units, as each of these behavioral units is considered a response to a specific stimulus, and it is a stimulus response to another response, and so on." researcher believes that improvement observed in research participants resulted from educational and guidance program's content, which included skills supporting adaptive behavior. These skills encompassed independence and motor skills, such as freedom to choose activities that align with student's understanding and abilities, as well as freedom to select suitable training times. program also incorporated time management skills, including focusing on time awareness and type of activity in which student participates. Furthermore, it included self-direction skills, perseverance in competitions, and how to manage sports activities according to their schedules. All these tools within program enhanced development of adaptive behavior among research participants.

The researcher also notes that one of factors that enhanced improvement in research sample was addressing students mentally through electronic environments. This aligns with characteristics of these students, indicating their need for additional support factors. This is further demonstrated by results presented in table above. It was found that enhanced support through electronic programs accessed by individual or student via electronic environments plays a significant role in reinforcing educational and athletic concepts.

As Muhammad Riyad et al. (2023) observed, "use of electronic environments leads to positive results if integrated within training or educational program used to support participation in effective activities." All these factors contributed to improvement of research sample in educational aspects, which in turn led to a change in their behavior, aligning it with requirements of competitions and behaviors involved in participating in them.

Regarding guidance aspects, program included many of them that serve to change behaviors of research sample. Guidance is one of applied fields to promote desired goals of forming attitudes and values and forming different skills. Mahja Ahmed (2021) believes that "paying attention to psychological energies of students and showing them in their best state when performing and making effort, as well as focusing on educational aspects, leads to great psychological satisfaction, which generates a change in student's behaviors."

Educational guidance program played a major role in adding many behaviors that were correct and that were believed by research sample to be wrong when applying training units or participating in competitions. Psychological states play an important and effective role in controlling athletic achievement and are among basic elements in achieving points that participants compete for in athletics. This activity is considered one of activities that are characterized by difficulty for students participating in races, especially those outside governorate. When we find that a student hesitates to participate in race and intends to withdraw despite being good at this activity, this type of hesitation cannot come spontaneously. Mahja Ahmed (2021) states, "reasons for student's hesitation are either from external or family sources. Therefore, participating student needs self-

affirmation, and this affirmation comes through success experiences he obtains, and through it, self-confidence increases."

The researcher gives a role to educational and guidance sessions that he prepared within his program, which added a kind of interaction between research individuals in terms of participating in analyzing situations they are exposed to during competitions. Program added many experiences to research sample, as experiences learned by group members in session were repeated by discussing one of topics related to session's subject and using that through what was explained. The researcher aimed to strengthen social reinforcement in educational and guidance program. Through program, students receive praise for positive and appropriate behavior. All reinforcement phrases included in program provide students with social reinforcers because they have a significant and effective ability to reinforce desired behavior. This is achieved through method used in managing sessions. Hassan Abdullah (2022) states, "researcher's active listening during guidance sessions and giving participants freedom to engage in objective and open discussions encourages them to express their opinions without fear or hesitation. This, in turn, enhances self-confidence by showing interest in opinions presented, their acceptability, and respect."Therefore, researcher believes that research hypothesis has been confirmed by these results.

Conclusions

Educational and guidance program has a major role in bringing about a kind of change in adaptive behavior among individuals in research sample. Educational guidance program enhanced many cognitive concepts among research sample. Modern technologies in educational and guidance programs have contributed to ease of modifying behaviors, which has enabled research sample to adapt to requirements of participation. Program contributed to adding a socio-educational concept to research sample, which enhanced self-values when participating in athletics competitions.

Recommendations

Utilizing modern technologies from electronic programs in psychological assessments. Applying electronic programs to a number of other activities. Strengthening guiding role in changing behaviors that many of our students exhibit.

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