

# The relationship between psychological compatibility and academic achievement in swimming

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## ABSTRACT

This study aims to determine the relationship between psychological compatibility and academic achievement in swimming class, the subjects were (72) under graduate male students of physical education college at the University of Jordan. (M age = 19.4 SD =1.35). All subjects were students in swimming class and they were learning free style swimming skills. The learning scores for students were measured two times during the second semester in 2016; the subjects went through practical exams only, the med-term exam (30) grades, and the final-term exam (30) grades, the total grades score was out of (60). The researchers designed a questionnaire as a tool for this study to measures the degree of psychological compatibility for the subjects. The total scores for learning free style swimming skills and the scores for the questionnaire were compared to determine the relationship between psychological compatibility and academic achievement in free style swimming, Statistical treatment by using the (SPSS) program was done. The results showed that there was a relation between psychological compatibility and academic achievement during learning free style swimming skills. **Key words:** SWIMMING SKILLS, PSYCHOLOGICAL COMPATIBILITY, ACADEMIC ACHIEVEMENT, QUESTIONNAIRE

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## INTRODUCTION

Social psychology is one of the general psychology fields that deals with behaviors of the individual with himself and with others, the human behaviors have been considered as the output of dynamic interactions of the individual and that reflect his orientation and environmental needs (Abed, 2006). The psychological compatibility is a continuous dynamic process carried out by the individual, it is a process that targets changes in the individual behaviors which makes him more compatible with himself and allows him to occur relations with other people and environment surround him (Mahjob,2003). The psychological compatibility includes harmony with the surrounding environment and the ability to satisfy the individual needs and allow him to face the most physical and social requirements and give him the ability to organize his life and resolve conflicts down to the harmony with himself and with others and raise his self-confidence (Aldamd,2003). There are many circumstances in which psychological compatibility can play a role in sport. Schmidt (1975) mentioned that athletes need to have confidence in themselves and in their sport skills; that will appear when they have good psychological compatibility which in return will call their motivations to perform in their best way. It is likely that if an athlete is confident in his ability to use a specific psychological technique, he will use that technique positively. This line of thinking is reflective of one of Bandura's (1997) key contentions regarding psychological skills the role of beliefs in human functioning: that people's level of motivation, affective states, and actions are based more on what they believe than on what is objectively true". The relationship between psychological compatibility and learning motor skills has been of interest to many researchers in the field of sports psychology, the term psychological compatibility refers to a process by which students make judgments about their capabilities to accomplish a particular task in a sport context (Feltz, 1994; & Moritz et al., 2000).

Swimming course is one of the main practical subjects which is taught for students in physical education college at the university of Jordan, it is one of many practical subjects which every student should pass its exams successfully. Swimming is a special sport based on water, as it is particular playing environment, compared with other land-based sports; it presents higher requirements to achieve high quality outcomes, many studies have tested the effects of physical activity on a host of educational outcomes. Participation in interscholastic sports, intramural sports, or athletics was associated not only with reduced dropout rates (e.g., Mahoney, & Cairns, 1997) and higher grades (e.g., Marsh, & Kleitman, 2003), but also with higher social and academic self-concepts (e.g., Marsh, 1993). Studies have also established a positive relationship between physical fitness and academic achievement. Castelli, et al., (2007) showed that physical fitness was related to academic achievement in third- and fifth-grade students.

This study investigates the relationship between psychological compatibility and academic achievement in swimming, the psychological compatibility contributes in improving the individual's ability to control their emotions through the stages of swimming learning, due to the requirements of the learning process of dynamic interaction from the learner with the aquatic environment and with his colleagues and teacher (Abed,2006) , as the practice of swimming skills has an effect on the emotional conditions of learners in a good or bad way, the thing that may transformed the performance from strength to weak or conversely, Therefore, to improve swimming skills the individual must be aware of his abilities and expect the others reactions ( Mahjob, 2000).

In this light, this study therefore aims to study the relationship between psychological compatibility and academic achievement in swimming, Fitzpatrick et al., (1998) noted that sport appears to be most effective when combined with psychological skills programs which seek to address higher personal and psychological development.

## MATERIALS AND METHODS

This study investigates the relationship between psychological compatibility and academic achievement in swimming, the correlation between the level of psychological adjustment and academic achievement in swimming class among students of the faculty of physical education in swimming class, the subjects were (72) under graduate male students of physical education college at the university of Jordan. (M age = 19.4 SD =1.35). All subjects were students in swimming class and where they learn swimming skills. Permission to conduct this study was received from the head dean of faculty of physical education at the university of Jordan. All subjects were volunteered to participate in the study and they were told the purpose of the study, their rights as participants in the study and asked to sign a consent form. The students learning scores were measured twice during the second semester in the study year 2016, the subjects went through practical subjective exams only, the med-term exam (30) grades, and the final-term exam (30) grades, while the researchers didn't count the writing exam which had (20) grades, the total grades score was out of (60). The instrument for measuring the different variables of psychological compatibility was a questionnaire designed by the researchers, the subjects completed the questionnaire which measures the degree of psychological compatibility, each participant took 15-20 minutes to complete and responses to the questionnaire during a practice session. The participants were told to ask for help if confused concerning either instructions or the clarity of particular items. No problems were encountered in completing either of the inventories or understanding the nature of the questions. The students total scores for learning skills and outcomes total scores for psychological compatibility questionnaire were compared and taken as results for this study.

### **Psychological Compatibility Questionary**

The questionnaire (Appendix A) consists 42- Items, the rating of answers was made on three levels (often, sometimes, rarely). The 42-Items divided into four dimensions:

- 1) Emotional compatibility: contains (12) sentences which are (3, 6, 10, 16, 24, 29, 31, 38, 39, 41, 42).
- 2) Academic compatibility contains (11) sentences which are (2, 4, 9, 11, 15, 17, 20, 22, 26, 34, 36).
- 3) Personal compatibility contains (9) sentences which are (5, 7, 8, 14, 21, 25, 28, 32, 35).
- 4) Social compatibility contains (10) sentences which are (12, 13, 18, 19, 23, 27, 30, 33, 37, 40).

The list of the 42- items was submitted to a jury consisting of ten recognized specialists in the field of physical education and sport psychology in the middle east, who were asked to judge the items concerning their relevancy to and possible adequacy in examining a student's psychological compatibility. The 42 - items scale accepted face validity through the evaluation of the jury, 96 % agreement was reported, which means that the 42-items questionnaire is measuring what it was designed to measure. To assess reliability, the 42-items questionnaire was given to (20) students who took part in a pilot investigation out of the study sample, reliability was measured by a test- retest method over five days between the two distributions of the questionnaire. In addition, the internal Item reliability, variation was based on correlation of item responses in relation to the total variance score, the result yielded a 0,93 score.

## RESULTS

For Statistical treatment the researchers used (SPSS) program, the results of this study were the following:

Table 1. Arithmetic means, standard deviations, percentages and ranking of psychological adjustment dimensions among students (n=72)

No	Dimensions	M	St	Percentage	Ranking	level
1	Emotional compatibility	2,27	0,38	75,6%	1	Moderate
2	Academic compatibility	2,13	0,26	71%	3	Moderate
3	Personal compatibility	2,26	0,30	75,3%	2	Moderate
4	Social compatibility	1,91	0,29	63,6%	4	Moderate
5	Total scale	2,14	0,22	71,3%		Moderate

Table (1) the results indicate the values of means, standard deviations, percentage, and the ranking of psychological adjustment dimensions, showed that total scale among student is moderate.

Table 2. Pearson correlation coefficient between psychological adjustment dimensions and academic achievement in swimming class among students, (n=72).

Dimensions	Emotional compatibility	Academic compatibility	Personal compatibility	Social compatibility	Total scale	Academic achievement
Emotional compatibility	-----	<b>*0, 49</b>	<b>*0, 43</b>	<b>*0, 43</b>	<b>*0, 85</b>	<b>*0, 36</b>
Academic compatibility		-----	<b>*0, 49</b>	<b>0, 17</b>	<b>*0, 73</b>	<b>*0, 38</b>
Personal compatibility			-----	<b>0, 12</b>	<b>*0, 69</b>	<b>*0, 36</b>
Social compatibility				-----	<b>*0, 59</b>	<b>*0, 28</b>
Total scale					-----	<b>*0,48</b>
Academic achievement						

\*significance at level  $\alpha \geq 0,05$

Table (2) the results indicate the values of Pearson correlation coefficient between psychological adjustment dimensions and academic achievement in swimming class among students, the results showed there is

statistically significant relationship at the level of  $\alpha \geq 0.05$  between psychological compatibility and academic achievement.

## DISCUSSION

The results indicated that there was a positive relation between psychological compatibility and academic achievement during learning swimming skills among students of Physical Education College at the University of Jordan, the results suggested that the moderate level of psychological compatibility among students had a positive impact on their academic achievement in swimming exams. Considering the research results and the fact that the correlation between all dimensions of the scale and academic achievement was significant, it can be claimed that when students have a moderate level of psychological compatibility that provides them with an appropriate ground for demonstrating abilities, competence, motivations and abilities to express their thoughts and feelings more, which raised their academic achievement, Banadura and Jourden (1991) indicated that an individual's ideas, feelings and behavior are all effected the self-efficacy.

The results also showed that the moderate level of psychological compatibility helped in improving the individual's ability to control their emotions through the stages of swimming learning, and helped them work harder to complete the swimming tasks the thing that reflected on their academic achievement in a good way in this area Abed (2006) mentioned that a certain level of psychological compatibility gives the learner the ability to control his emotions through the different stages of learning, due to the requirements of the learning process of dynamic interaction from the learner with the aquatic environment and with his colleagues and teacher. The results in this study showed that the individual who was able to control his emotions adapted easily to different situations while learning different swimming skills and did the best performance.

The researchers also found that the moderate level of personal and social compatibility with the surrounding environment, leading to feeling of relax and comfort, which reflected positively on the students motivations and this contributes to providing the best performance in swimming among learners and raised their academic achievement, in this area Nicholls (1989) mentioned that motivation relates strongly to individual's behavior, as individual will decide how much effort, time and ability to put in, and this will depend on their behavior goal orientations, which will influence on self-evaluation and how they feel satisfy by their movements. whereas, performance requires a sense of satisfaction which considered one of the most important incentives that drives motivation to the learner in sport skills domain, as good success and achievement in the process of motor learning associated with satisfaction, from which the learner can determines his movement goals and his physical abilities (Aldamd, 2003 & Rateb, 2001).

## CONCLUSIONS

The results of this study indicated that there was a positive relation between psychological compatibility and academic achievement during learning swimming skills among students of Physical Education College at the University of Jordan, the results suggested that the moderate level of psychological compatibility among students had a positive impact on their academic achievement in swimming exams.

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**APENDIX A**

## Psychological Compatibility Questionnaire

No	Items	Often	Sometimes	Rarely
1	I have the ability to control myself during swimming exams			
2	I enjoy learning swimming			
3	I feel upset when my swimming performance is weak			
4	I am sensitive toward my swimming teacher			
5	I have the confidence that I can lead others			
6	I can describe myself as a good speaker			
7	I describe myself as a good speaker			
8	I can take responsibilities during swimming lessons			
9	I enjoy it more when swimming skills become more difficult			
10	I am concerned, and it is hard for me to return to a natural state when unexpected things happened during swimming lessons			
11	I can perform swimming skills with high intensity			
12	I deal with my colleagues with good sport manners			
13	I am worry of what other people think about me			
14	I blame others when I fail in my swimming exam			
15	I look forward to the next swimming lesson			
16	I am easily stirred during difficult performance positions			
17	I criticize the teacher teaching method			
18	I mostly don't start a conversation with other people			

19	I find it difficult to make a discussion with my colleagues			
20	I am not sure about my swimming skills abilities			
21	I don't participate in things that are not going my way			
22	I possess a high degree of swimming skills performance level			
23	I don't want to take swimming lessons with other students			
24	I quickly go back to my normal cases after my teacher criticizes me			
25	I have a high self confidence			
26	The level of my swimming skills performance is not commensurate with my real abilities			
27	I avoid blaming one of my colleagues			
28	I feel confident during practice competitive sport activities			
29	I can easily sow fun during swimming lesson			
30	I consider myself a good helping hand for the swimming teacher			
31	I consider myself stable emotionally			
32	I am a stubborn person			
33	I consult my teacher before I take important decisions			
34	I think I am capable to succeed with distinction in swimming course			
35	I have the willingness to deal with my responsibilities			
36	I am bored and lack of desire to participate in swimming lessons			

37	It is difficult for me to find words to express myself when I meet new people			
38	when I face a difficult situation during swimming lesson I have the ability to make quick response			
39	I lose my temper quickly If my teacher bothers me			
40	It is difficult for me to have people my side			
41	I can control my emotions during hard situations in swimming lesson			
42	I can keep calm when other people are teasing me			