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"The Codialization of Physical Rhythm Training and Its Impact on Some Specialized Physical Qualities and the Achievement of the Men's 200m Sprint"

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Abstract

The Aims of Research

- 1 To effectively nullify Qadisiyah University's (200 meters) sprint and learn about the physical vital rhythm cycle.
- 2 Developing a training curriculum according to the physical vital rhythm cycle to develop endurance velocity.
- 3 Knowing how to ration the training load volume according to the physical dynamic rhythm cycle to achieve a sprint of 200 m).
- 4 The researchers used the experimental method for its relevance to the nature of the research problem

Conclusions

The codification of the training according to the physical biorhythm cycle plays a major role in the development of the 200 m sprint contestant's specialized physical characteristics. The development of the speed-bearing characteristic of the 200-meter sprint did not affect the legalization of training according to the physical biorhythmic cycle. A major role in the development of performance for a 200 m sprint contestant is to legalize training according to the physical biorhythmic cycle.

Recommendations

- 1 Monitoring the field and track racers' dynamic physical rhythm cycle because of their great impact on level development.
- 2 Working to legalize the load size according to the dynamic physical rhythm cycle to regulate the training load with the vital inner nature of the competitor.
- 3 In developing training curricula for athletes, consider the vital, intellectual and emotional rhythm cycle.
- 4 Conducting studies to legalize the training load for the rest of the field and tracking the results of level development activities to be identified.

Keywords: Codialization, Physical Rhythm, Men's 200m Sprint.



An Introduction of the Research and Its Significance:

In all aspects of life, the world is experiencing change, life is becoming more complicated day after day, and research is growing in all areas that serve humans, and this progress has been so active that the advancement of sports training and the variety of its styles will play a major role in achieving a certain sport. However, due to some distinct phenomena, like Bio Marin, many people with good training can fail.

Many of the trainers felt that, at specific occasions their players obtained different outcomes and these results were decreased at other times, while the conditions of these competitors were identical, these metrics led specialists to understand the truth of this phenomena and discovered that different waves of action existed. ^(1: 141)

The monthly biorhythm curves are calculated according to the number of days that make up one of its various periods, and each of these curves reflects two positive and negative regions, and from this perspective, several studies have approached the topic of biorhythm, and because biorhythm affects the individual's vitality and the method of maintaining good performance requires concentrated efforts, complete efforts. ^(2: 81)

Up to now, the science that studies biome-related phenomena, such as rhythmic biology, or (for example, biological biology) is only taking the first steps to evolve, as phenomena are facts that have been identified, and science is responsible for clarifying the information and explanations for their existence employing empirical study and theoretical and documenting testing.

The importance of the research lies in identifying the vital physical rhythm cycle for the 200 AD contestants, al-Qadisiyah University team, as well as codifying the training load according to the vital physical vascular rhythm cycle through the size of the load and its manipulation according to the low degree of the vital rhythm.

Problem of Research

Due to the importance of the physical vital rhythm and what happens in terms of physical, psychological and mental changes, and philosophical changes in the internal body systems and changes in the vital rhythms of the contestants among themselves, that is, there is a clear fluctuation in the level of the physical, psychological and mental contestants, which means that there are competitors whose level improves significantly as a result of training and contestants show their slow improvement. Because the researcher is one of the speed effectiveness contestants for the Qadisiyah University team, he noticed the lack of interest of many coaches in the vital rhythm cycle during the development of programs or training units, especially the specialized physical characteristics, including the bearing of speed, so the researcher wanted to legalize the training load according to the physical biorhythm cycle for each contestant.

The Aims of Research

- 1 To effectively nullify Qadisiyah University's (200 meters) sprint, learn about the physical vital rhythm cycle.
- 2 Developing a training curriculum according to the physical vital rhythm cycle to develop endurance velocity.



3 Knowing how to ration the training load volume according to the physical dynamic rhythm cycle to achieve a sprint of 200 m).

The Hypothesis of Research

- 1 Regulating the volume of the training load according to the physical vital rhythm cycle has a positive role in developing achievement.
- 2 The physical vital rhythm cycle has a positive effect on the development of special physical characteristics and (endurance of speed).

Definition of Terms:

The physical rhythm (red curve) is symbolized by the letter (P), the emotional psychological rhythm (the green curve) is symbolized by the letter (E), and the intellectual rhythm (blue curve) is symbolized by the letter (I). Each of these rhythms has a special system and weight that is repeated in timed cycles. These circles follow a temporal and dynamic rhythm between the positive during the increase and the negative during the decrease. That is happened from the date of birth until his death, where the level of his physical, psychological and mental abilities appears either positive or negative, as a transitional phase between the positive and the negative. Thus, the coach who is aware of the importance of the vital rhythm will notice this so that he can expect the player's performance. ^(3: 5)

Research Methodology and its Field Procedures:

The Experimental Approach:

The researchers used the experimental method for its relevance to the nature of the research problem.

Community Sampling

The research community is represented by the short event athletics contestants (100/200/400 m) as well as the relay race (4 x 100 m/4 x 400 m) and their number was (12). As for the research sample, the number of participants representing (58.3 per cent) the original community has been simply selected by random means (7).

Table (1) Shows the Homogeneity of the sample

Variables	S	W	Coefficient of Skewness
Age	26.29	2.05	-.964
Training Age	4.43	1.18	0.64
Length	175.00	5.01	-.806
Weight	67.29	4.59	-.310

The table above shows the homogeneity of the members of the sample in the following variables (age, age of training, height, performance) where the skew coefficient of all variables was between $(1\pm)$ and confirms that the members of the sample were homogeneous in the previous variables.

The Areas of Research

- 1 The human field: some short-distance contestants in the Qadisiyah University team, totalling (7) competitors.
- 2 The temporal field: the period from 1/1/2018 to 1/3/2018.
- 3 Spatial domain: the stadium of the College of Physical Education and Sports Sciences, Al-Qadisiyah University.



Devices and Tools Used for Research

- 1 Electronic Stopwatch.
- 2 Wooden Firing Device.
- 3 Absolute Device.
- 4 Temporary.
- 5 Using an I Phone 4G Device.
- 6 Use the App Store Software.
- 7 Use the Biorhythm Program

Exploratory Experience:

The two researchers carried out this experiment to identify the negatives they face before performing the main experiment, as well as to identify the obstacles and what is needed during the main experiment, as well as to know the time allocated to the test.

Pre-test:

On Thursday, January 29, 2018, the two researchers carried out the pre-test at the stadium of the College of Physical Education, Al-Qadisiyah University where the 200 m competition for the members of the research sample was conducted. After the end of the competition, the researcher collected information about each contestant to find the bio-physical rhythm, which is the triple name and date of birth, day, year and month.

The two researchers conducted the explosive strength test of the arms and legs, the maximum speed test, and the rapid strength test of the arms and legs on Saturday, 1 February 2018. On Sunday, from a standing position, he conducted a 250 m speed endurance test and then a strength endurance test for arms and legs until the effort was exhausted.

Training Curriculum

The two researchers examined the training curriculum of the trainer and adjusted the curriculum through the physical rhythm ratio and the training load volume through (200 vital rhythms = 100% load volume) (20 degrees = 10% load volume).

If the contestant's dynamic physical rhythm is 200 =, an integrated volume may be required.

The contestant takes 80 per cent of the assigned training volume if the biorhythm is 160 degrees.

If the velocity training endurance size is 1500 meters, then the volume of training is 1200 meters.

Main Experience:

The researchers conducted a race (200 m) after the training course to find out the effect of the training according to the physical rhythm and legal form, as well as the rest of the physical tests and in the same manner as the pre-test.

Statistical Means:

The researchers used the social statistical portfolio, from which:

- 1 Arithmetic Mean.
- 2 Standard Deviation.
- 3 The Ionizing Ratio.



4 Interconnected Samples.

View, Analyze and Discuss the Results**1 Presentation and analysis of the arithmetic mean and standard deviations of the variables under study**

Table (2) It shows the arithmetic mean and standard deviations of the variables under study

No.	Test Name	Measuring Unit	Mean	Variable
1	High Speed	Sec	5.27	0.20
2	Explosive Power to Both Arms	Meter	8.69	0.91
3	Explosive Power to Both Legs	Meter	286.43	11.55
4	Stretching Exercises, Speed 250 M	Sec	30.11	0.95
5	Quick Arms Power	Number / Sec	13.29	2.12
6	Quick Legs Power	Number / Sec	10.55	0.87
7	Carrying Strength for Arms	Number	43.71	11.28
8	Carrying Strength for Legs	Number	64.29	10.62
9	Performance	Sec	23.17	0.66

The above table shows the arithmetical mean and standard deviations of the study variables under study and the 200-sprint efficiency achievement. This also shows that most of the variables were closely related to efficacy, and this is confirmed by many sources that technically and physically analyze speed activities.

2 Presentation, analysis and discussion to show the difference between the arithmetic mean and standard deviations of the variables under study for the pre and post-test and the (T) value of the correlated samples.

Table (3) To indicate the difference between them, it shows the arithmetical mean and standard deviations of the variables understudy in the pre and post-test, the value of (T) and the level of significance.

No.	Test Name	Measuring Unit	The Pretest		The Posttest		T Value	Indication Level
			S	W	S	W		
1	High Speed	Sec	5.27	0.20	5.03	0.21	18.080	0.000
2	Explosive Power to Both Arms	Meter	8.69	0.91	9.59	1.34	-4.500	0.004
3	Explosive Power to Both Legs	Meter	286.43	11.55	310.00	16.90	-5.420	0.002
4	Stretching Exercises, Speed 250 M	Sec	30.11	0.95	29.61	0.64	2.400	0.053
5	Quick Arms Power	Number / Sec	13.29	2.12	15.43	2.26	-8.210	0.000
6	Quick Legs Power	Number / Sec	10.55	0.87	13.10	1.57	-3.29	0.017
7	Carrying Strength for Arms	Number	43.71	11.28	52.00	12.11	-16.80	0.000
8	Carrying Strength for Legs	Number	64.29	10.62	74.00	9.91	-8.300	0.000

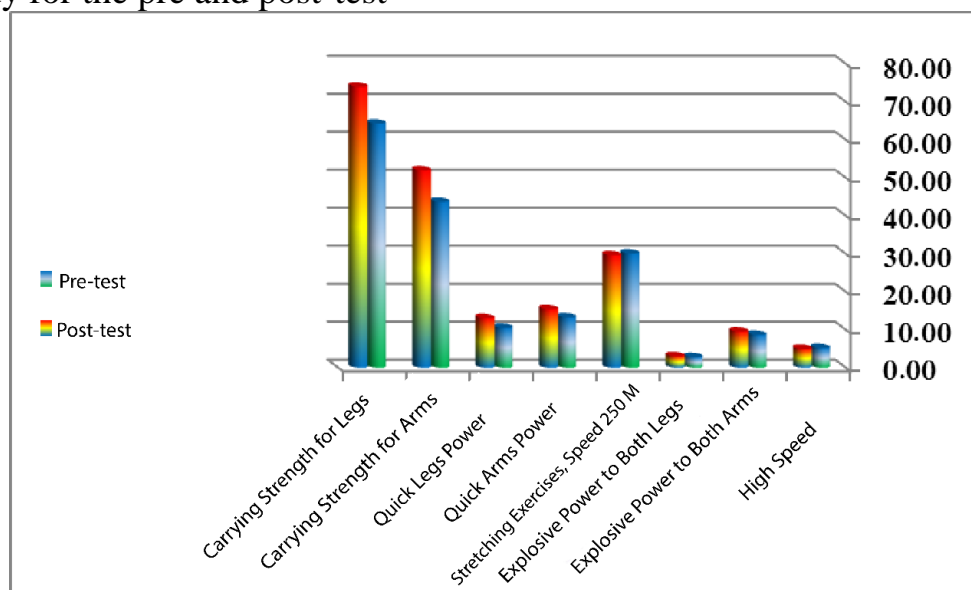
This table indicates the difference between the pre and post test, the arithmetic means and standard deviations of the study variables and the (T) value of the



correlated samples show the difference between the pre and post test, where the difference between the maximum velocity variable between the pre and post test was significant because the value of (T) was significant at the significance level (0.000), where the velocity variable was significant.

The progression of these factors has contributed to the growth of speed over this distance, decreasing time to cut the distance and increasing the energy supply of the muscles which has improved their strength and therefore their function, as a result of the high speeds of exercise during training. This would lead to fast muscle contractions. ^(4: 84) Figure (1) demonstrates.

Figure (1) It shows the values of the arithmetic mean of the research variables understudy for the pre and post-test



As for the explosive power characteristic of the arms, the value of (T) reached (-4.500), which is also significant at the level of significance (0.004), where the explosive force plays a large role in the movement of the explosion, which the rider needs, especially at the start of the race. This confirmed (Khaled Abdel Hamid, 2006) that the competitor must take the best position for the legs and arms, as well as the best position for the incline of the torso, which gives the best position for the centre of gravity of the body during the set-off to record the lowest possible time in response and start, especially in situations that require an explosive force to resolve it. ^(5: 31)

The explosive power of the two legs was at (T) (-5.420), which is also significant at (0.002), where explosive power plays a major role in the explosive movement that the racer needs, especially at the start of the race.

As for the characteristic of Carrying Strength, the value of (T) reached (2.400), which is random at the level of significance (0.053). As for the Quick Arms Power, the value of (T) reached (-8.210), which is also significant at the level of significance (0.000), where the Quick Arms Power plays a large role in the race, which the rider needs throughout the race distance because it is the specialized characteristic of the 200-sprint effectiveness, where the weighted movement of the arms is the main engine for the body to rush forward and record good time in the past, and without it, the competitor cannot be effective in this competition.



As for the characteristic of the Quick Legs Power, the value of (T) reached (-3.29), which is also significant at the level of significance (0.017), where the Explosive Power to Both Legs plays a large role in the race, which the rider needs over a distance where the nature of the sprint is the body's resistance to its weight and the air and it needs to force to overcome this resistance and the nature of this force requires that the performance is at a high speed, and this requires a rapid force from the rider, as it is possible for the human body to make circular movements with parts of his body from the hip and knee joint. ^(6: 223)

As for Carrying Strength for Legs, the value of (T) was (-8.300), which is also significant at the level of significance (0.000), where bearing strength plays a major role in deciding the end of the race. It plays a big role in deciding the end of the previous one, as the rider in the 200-meter event depends directly on the length of the step in the last meter of the race. Many experts emphasized that the last stage of performance (the stage of enduring speed) during which the decrease in speed is a normal matter compared to previous distances. ^(7: 252)

4.2. Presentation, analysis and discussion of the arithmetic mean and standard deviations to achieve the effectiveness of 200 m sprint for pre and post-testing and the (T) value of the correlated samples to show the difference between them.

Table (4) shows the arithmetic means and standard deviations of the pre and post-test (achievement) and the (T) value of the correlated samples and the level of significance to indicate the difference between them.

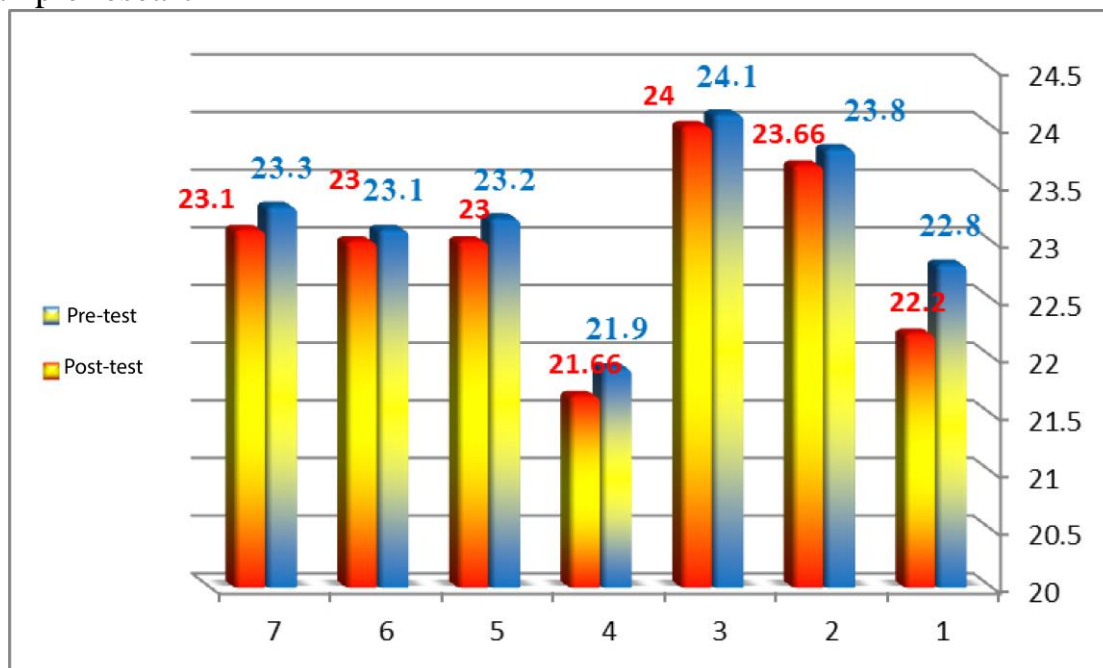
No.	Test Name	Measuring Unit	The Pretest		The Posttest		T Value	Indication Level
			S	W	S	W		
1	200Meter	ثانية	23.17	0.66	22.95	0.74	3.44	0.014

This table shows the disparity between the pre- and post-test, the preceding table shows the mean of the arithmetic means, the standard deviations and the (T) value of the correlated samples. The value of (T) was (3.44), which, at the degree of importance, is significant (0.014).

The development of the individuals of the research sample in the post-test where the codification of training according to the vital physical rhythm cycle was an expression of the individual's true potential and not what the contestant claims about the feeling of the training direction and that the codification of training according to the equation of the decline in the degree of physical rhythm was proportional to the level of the athlete (his vital physical cycle) in that training day, which makes the training unit more appropriate for him, and this is the goal of the training for the training units to be compatible with the individual's immediate (daily) potential so that they are not greater than his potential, so he cannot bear it and lead to a large demolition of his functional apparatus, nor less than his potential so that it does not affect him and this Explained in Figure (2).



Figure (2) Shows the values of achievement understudy for the pre- and post-test of the sample research



This was confirmed by (Qassem Hassan Hussein) quoting (Petrig Thompson, 1996), through the use of a well-founded training style, considering the individual situation and the readiness of each individual's functional equipment for training that can develop the training situation well and the achievement as required. ^(8: 13)

Conclusions and Recommendations

Conclusions

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- 2 The development of the speed-bearing characteristic of the 200-meter sprint did not affect the legalization of training according to the physical biorhythmic cycle.
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Recommendations

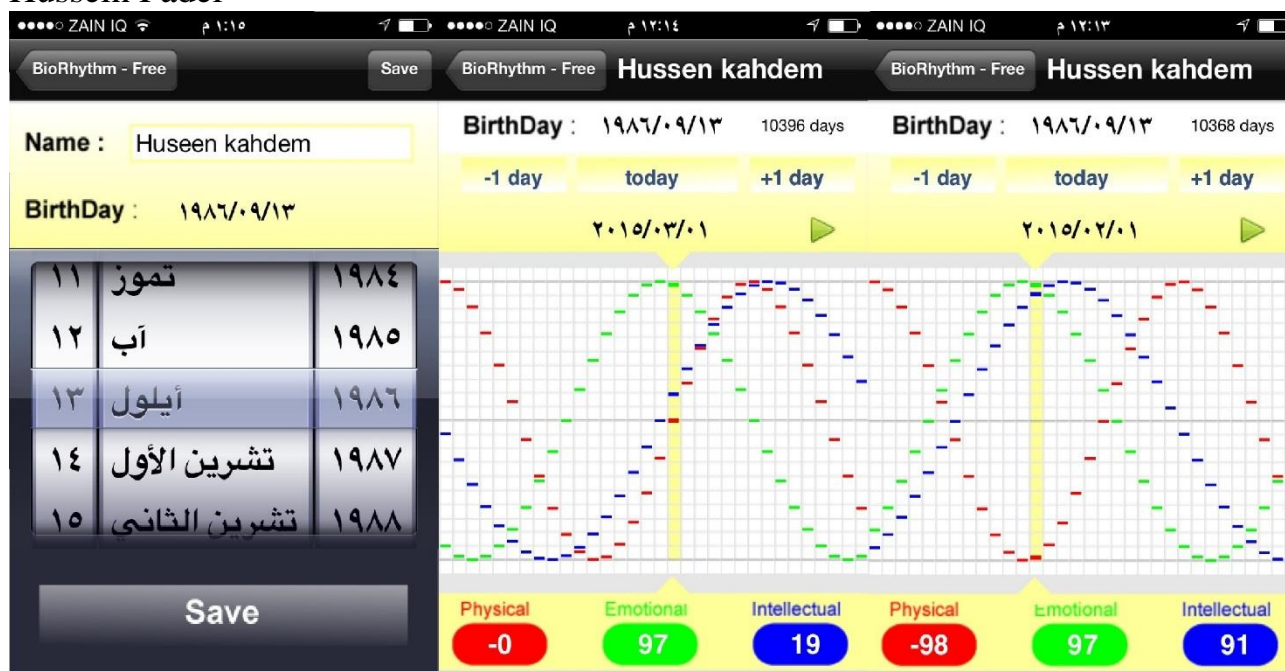
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- 2 Working to legalize the load size according to the dynamic physical rhythm cycle to regulate the training load with the vital inner nature of the competitor.
- 3 In developing training curricula for athletes, consider the vital, intellectual and emotional rhythm cycle.
- 4 Conducting studies to legalize the training load for the rest of the field and tracking the results of level development activities to be identified.



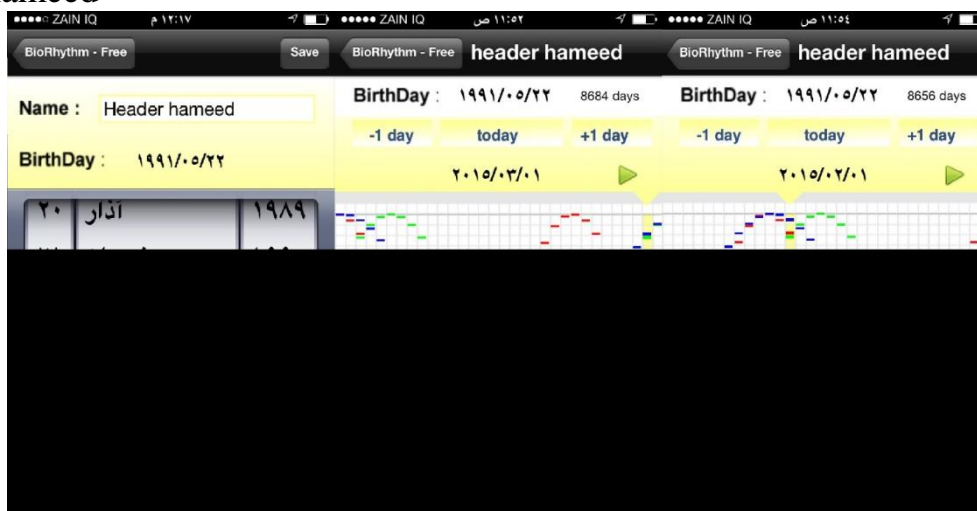
Appendix (1) This Illustrates the Terminology of Training Curriculum for the 200m Contestants

Week	Today	Terminology	Repetition	Intensity	Rest Between Repetitions	Groups	Rest Between Repetitions	Training Size	The Suggested Training Size According to The Biorhythm
1	Monday	150Meter	6	80%	2 -3 Minute	4	3	3600Meter	Adjust the Size According to The Physical Cycle of Each Contestant
	Thursday	200Meter						4800Meter	
2	Monday	150Meter	5	85%	3-4 Minute	3	2	2250Meter	
	Thursday	200Meter						3000Meter	
3	Monday	150Meter	4	90%	4 Minute	2	2	1200Meter	
	Thursday	200Meter						1600Meter	
4	Monday	200Meter	3	80%	3-4 Minute	4	3	2400Meter	
	Thursday	250Meter						3000Meter	
5	Monday	300Meter	3	85%	3-4 Minute	3	2	1800Meter	Adjust the Size According to The Physical Cycle of Each Contestant
	Thursday	400Meter						2400Meter	
6	Monday	200Meter	2	90%	4 Minute	2	2	800Meter	
	Thursday	250Meter						1000Meter	
7	Monday	300Meter	3	85%	2 -3 Minute	4	2	3600Meter	
	Thursday	350Meter						4000Meter	
8	Monday	300Meter	2	90%	3-4 Minute	2	2	1200Meter	
	Thursday	400Meter						1600Meter	

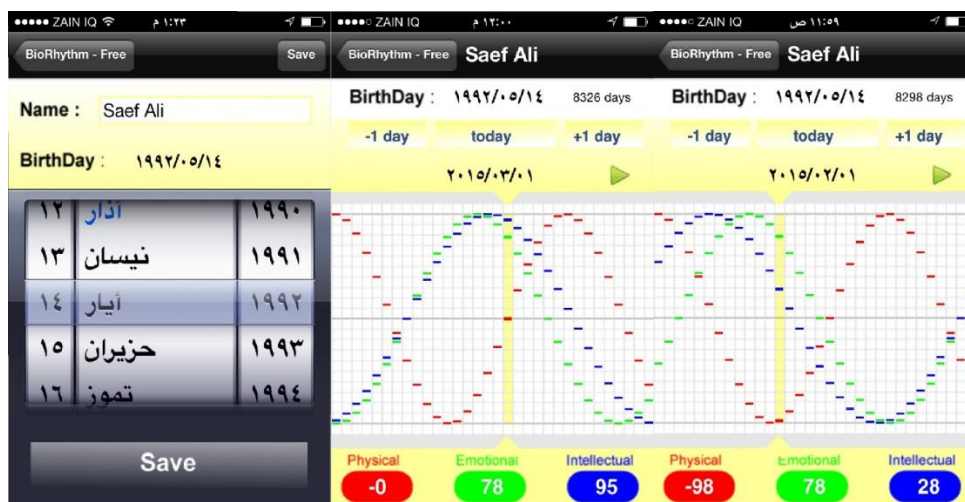
Appendix (2) Demonstrates rhythm cycles for contestants during training periods Hussein Fadel



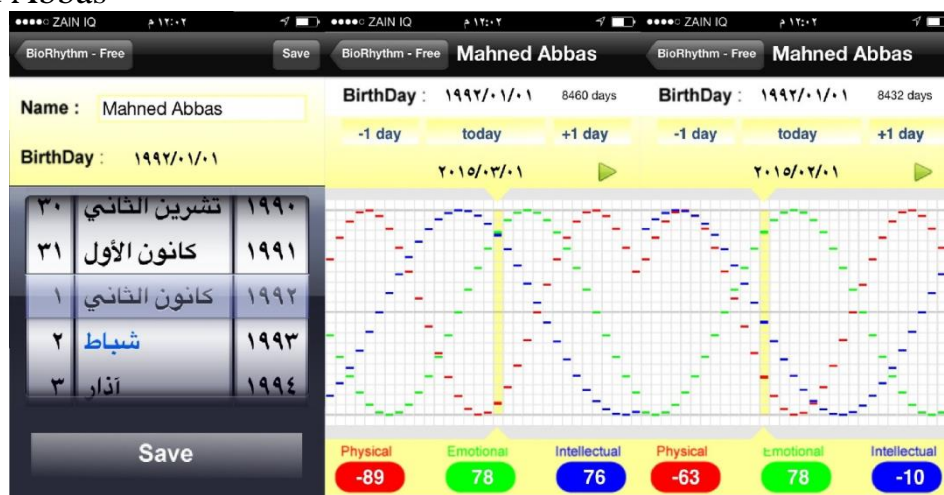
Hayder Hameed



Saif Ali



Muhammed Abbas



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