Teaching Free Throw Basketball in the Light of the Theory of Consistency of Content

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Abstract: The research aims to identify the basketball free throw level in light of the content consistency theory. Sample of the research was randomly chosen 45 female students of the second grade of the preparatory stage. The sample is divided to 15 students for each group (15 female students of the regular teaching, 15 female students of the irregular teaching and 15 female students of the integrated teaching). The researcher used 20 female students to conduct the pilot study. In light of the research results and in limits of the research sample; the researcher reached the following conclusions: -The integrated teaching method using the content consistency theory have positive effect in developing the three points shot skill in basketball in both the transition and acquisition stages better than both the regular and irregular teaching methods. -The regular teaching method using the content consistency theory have positive effect in developing the three points shot skill in basketball in the acquisition and preservation stage better than the irregular teaching method. -The irregular teaching method using the content consistency theory have positive effect in developing the three points shot skill in basketball in the transition and thinking stage better than the regular teaching method.

Key words: Content consistency theory · Regular teaching method · Irregular teaching method · Integrated teaching method · Free throw · Basketball · Acquisition · Preservation · Transition · Thinking

INTRODUCTION

Teaching continuity with a great deal depends on the quality and level of information processing of the aims that need to accomplish. Teaching turned to depend on how to teach, acquire and master the skill of the sport activity. Many theories seek the speed of acquiring and mastering the motor skill of the different sport activities, the content consistency theory is one of those theories seeking the best teaching methods of the motor skills and the speed of acquiring and mastering it.

Teaching type and strategy represented in two methods for presenting the content consistency theory as: 1) the low content consistency theory known as regular teaching that follows logical and gradual repeated sequence during teaching motor skills [1, 2], 2) In addition, the high content consistency theory known as irregular teaching that follows repeated and transferred method in an irregular feature or sequence during teaching motor skills.

Charman [3] referred that through applying irregular, regular and integrated teaching, the regular teaching is more efficient and effective when acquiring and learning motor skills while following the irregular teaching method is more efficient and effective in preserving learning stage and moreover, transferring the teaching effect in the same training aim or on a new similar training aim. Magill [4] indicated that the regular teaching leads to a short-term learning based on the recent learning cognition causing visual feedback and classification of the skill, thus improving teaching while the irregular teaching requires the learners to reload the motor cognition many times for each training aim which assists in recovering what ever been taught.

Moreover, Hollis *et al.* [5] confirms that memory is an equal important process as well as teaching. Teaching and memory concepts strongly related, as the results of certain learning experience should memorized and preserved to may be accumulative. Memory has many features as the long-term memory measured with minutes,

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hours and days and may last for years, when the mission is to memorize and preserve the memory for more than one minute thus considered a long-term memory. The second type is the short-term memory, which requires shorter period and easier in preserving its information as long as you are able to repeat and the third kind is shorter in period than the short-term memory known as the sense-memory, which preserve nearly total and accurate feature of the information exposed to senses, although its fast in disappearance.

In addition, Abdel- Khalek [6] confirmed that the sense-memory receives and load information in a relatively raw form, meaning without subjecting to preparation or processing. The short-term memory preserves information for a period that does not exceed 30 seconds unlikely to the sense-memory where information in the short-term memory subjects to preparation and processing in terms of comparing, rearranging or organizing. The short-term memory is limited in capacity which determined by number of periods, where the long-term memory is the most important component of information processing preparation system, teaching types and the reformed and the reprocessed thinking. The long-term memory is the back boon of all the memorizing, preserving, remembering and knowledge strategic thinking. Planning for increasing the basketball beginner's efficiency represented in many matters such as correct planning, how to teach the basic skills and increasing the efficiency of both the physical and skilful levels. That commensurate with Abdel- Khalek [6] and Fawzy [7] as skill means the individual's ability to attain the complex motor perception easily and accurately along with the speed response to the different situations to achieve the best results.

In the opinion of the researcher, mastering the basketball free throw in particular is the opportunity to aim the ball from the free throw point, where the female student can aim the ball easily to score in the opponent's team basket with the greatest number of points. That requires the female student to master the free throw as one of the basketball skills, as well as its included in the basketball curriculum of the second grade of the preparatory stage indicating the importance of shooting from the free throw point in basketball. Experts believe that shooting from the free throw point considered the most basic skills that concerns coaches and players alike, thus without mastering shooting conducting the rest of the skills with no benefit. The researcher believes that the enormous development in the defense plans, the increase in the player's lengths and the skill level of the defense

made it difficult to penetrate the free throw lane for scoring in addition to the occurrence of violations, which requires performing shooting from the free throw lane.

Hence, the importance of this study reveals in helping the female students to learn the skill of free throw in basketball, as well as using all their senses to recognize the movement details and increasing understanding performance, which increases their motivation toward the optimal performance. Therefore, helps to speed learning and mastering the shooting from the free throw lane. The researcher noted that although of the technical and knowledge development in the field of education and the importance of the free throw skill in basketball and its effect to the match results, its teaching processes still conducted in the traditional manner resulting in many mistakes accompanying the skilful performance. Thus, the research problem represented in the attempt to identify developing the free throw level in basketball, in light of the content consistency theory.

Aims of the Research: To identify the basketball free throw level in light of the content consistency theory through the following:

- The effectiveness of using regular, irregular and integrated teaching on the free throw level at the stage of acquisition and preservation.
- The effectiveness of using regular, irregular and integrated teaching on the free throw level at the stage of transition and thinking.

Hypotheses of the Research:

- There are statistical significant differences between the scores average of the free throw skill level by using regular, irregular and integrated teaching in the acquisition and preservation stage in favor of the integrated method followed by the regular and irregular methods.
- There are statistical significant differences between the scores average of the free throw skill level by using regular, irregular and integrated teaching in the transition and thinking stage in favor of the integrated method followed by the irregular and regular methods.

MATERIALS AND METHODS

The Method: The researcher used the experimental method with three experimental groups design. The first

is the regular teaching, the second is the irregular teaching and the third is the integrated teaching, as it suits the nature of the research.

Sample of the Research: Randomly chosen 45 female students of the second grade of the preparatory stage selected from El-Khalil Ibrahim private school of Maadi educational administration for the season 2009/2010. The sample divided to 15 students for each group (15 female students of the regular teaching.

g, 15 female students of the irregular teaching and 15 female students of the integrated teaching). The researcher used 20 female students to conduct the pilot study.

Tools of Collecting Data: Tools of collecting data are a medical scale for measuring weight in kilograms, a restameter for measuring length in centimeters and the shooting test from the free throw lane.

The Researcher Conducted the Following Measurements Homogeneity of Sample: T of the age, height and weight variables on the sample of 45 female students in order to reach homogeneity between them before randomly dividing them into three groups as 15 students for each group (15 female students of the regular teaching, 15 female students of the irregular teaching and 15 female students of the integrated teaching).

Table 1 illustrates that the torsion coefficient of the variables ranged between -0.02 and 0.83, these values are limited between ±3 and located under the equinoctial curve indicating the homogeneity of the sample.

Equivalent: The three points shot test on topics conducted on 29.03.2010 for the regular teaching group, on 30.03.2010 for the irregular teaching group and on 31.03.2010 for the integrated teaching group in order to

reach the equivalence between the research groups before starting experiment, the researcher considered this measurement as the pre-measurement of the groups.

Table 2 illustrates that there are no statistically significant differences between the pre-measurements of the experimental groups (regular, irregular and integrated teaching) in the three points shot test on topics, indicating the equivalence between the research groups on topics in these variables.

The Pilot Study: The researcher conducted the pilot study aimed at finding the scientific coefficients of the free throw test on topics (validity and reliability) on a sample of 20 female students from the research society and outside the main sample within the period from 07.03 to 10.03.2010.

First: Validity: The researcher used the content validity by using (the terminal compare) on 07.03.2010 on a pilot sample of 20 female students from the research society and outside the main sample; both minimum and maximum quarters were reached and compared both by using the T-test to find differences between them.

Table 3 illustrates the existence of statistically significant differences between the minimum and maximum quarters_in the free throw test on topics,_where the calculated "T" value is greater than the indexed "T" value at the significant level of 0.05 indicating the validity of the free throw test on topics.

Second: Reliability: The researcher used the test re-test method with an interval of three days between the first and second applications within the period from 07.03-10.03.2010. Total sample of 20 female students used in finding validity then the researcher reached the Pearson's correlation coefficient to indicate the free throw test reliability on topics.

Table 1: Homogeneity of age, height and weight variables (N = 45)

Variables	Measuring unit	Arithmetic mean	Standard deviation	Medium	Torsion
Age	Year	14.10	0.36	14.00	0.83
Height	cm	142.21	6.34	141.21	0.47
Weight	Kg	43.68	8.45	43.75	-0.02

Table 2: Analysis of variation between the pre-measurements of the experimental groups (regular, irregular and integrated) in the three points shot test on topics(N 1 = N 2 = N 3 = 15)

Tests	S.V.	S.S.	D.F.	M.S.	Calculated F value
Shooting from	Between groups	8.25	2	4.13	0.78
the free throw	Within groups	223.43	42	5.32	

The indexed (F) Value at the level 0.05 and degrees of freedom (2:42) = 3.22

Table 3: Statistical treatments to demonstrate test's validity on topics N= 20

Statistical variables		Minimum quarter		Maximum quarter			
Tests	Measuring unit	A.	S.	A.	S.	Differences	'T' Value
Shooting from the free throw	Number	4.27	2.45	8.00	2.53	-4.27	3.36*

* The value of indexed "T" at the significance level of (0.05) = (2.093)

Table 4: Statistical treatments to demonstrate reliability of the tests on topics (N=20)

Statistical variables		Minimum quarter		Maximum quarter			
Tests	Measuring unit	A.	S.	A.	S.	Differences	'T' Value
Shooting from the free throw	Number	4.27	2.45	4.09	2.38	0.18	0.88

* The value of the coefficient correlation at the significant level 0.05 = 0.444

Table 5: Steps of implementing the study

The skill	The group	Acquisition and preservation stage	Measurement	Rest	Transition and thinking stage	Rest	Measurement
Shooting fro	-Regular	-36 attempts	Measuring the stage	2 days	-27 attempts	---	Measuring the stage
the free throw	- Irregular	-36 attempts			- 27 attempts	30minutes	
	-Integrated	-36 attempts			- 27 attempts	-- -	

Table 4 illustrates the existence of significant correlation between the first and second measurements of the free throw test on topics, where the coefficient correlation have reached 0.88, which is a value greater than the value of the indexed coefficient correlation indicating the reliability of the tests.

Steps of Implementing the Study: After dividing the research society to three groups (regular, irregular and integrated teaching methods) for teaching the basketball free throw skill on topics, the work groups were organized according to the following:

- The researcher explained each skill for each group in the specific teaching dates to learn the skill at the acquisition and preservation stage.
- Three areas determined in the pitch for implementing the skill on topics, (the middle – to the right of the free lane – to the north of the free lane).
- The female student performs the skill 3 times from each lane and repeat it 4 times, $3 \times 4 = 12$ times for each area.
- The total number of attempts to repeat the skill in all areas is $12 \times 3 = 36$ attempts.

The Regular Teaching Group: Each female student was given 36 attempts of the regular method as required without changing the place, moreover dividing the attempts to 12 repeated attempts to be repeated 4 groups,

while each false attempt will immediately repeated, then conducting the measurements of this stage (acquisition and preservation stage).

The Resting Stage: The female students have a rest of two days.

Transition Stage: Each female student were given 27 attempts of the regular method without changing the place, moreover dividing the attempts to 12 repeated attempts to be repeated 3 groups, while each false attempt will immediately repeated, then conducting the measurements of this stage (transaction and thinking stage).

The Irregular Teaching Group: Each female student given 36 attempts, where she will conduct each skill three times from one of the three places and repeat for four groups, then transition to the other second lane then the third lane, provided that each false attempt will immediately repeated, that only in the acquisition and preservation stage. Then measurements of this stage conducted.

The Resting Stage: The female students have a rest of two days.

Transition Stage: After two day's rest of finishing the acquisition and preservation stage, each female student were given 27 regular attempts of the acquisition and

preservation stage, with a ratio of 3 attempts of each lane repeated for the three groups without repeating the false attempts, then conducting the measurements of this stage 30 minutes after finishing the 27 attempts.

Integrated Group:
Acquisition Stage: Each female student were given 36 attempts, as in the two preceding groups, but in the following sequence: 3 times to the skill from each lane repeated 4 groups and each false attempt immediately repeated, that is only in the acquisition and preservation stage. The resting stage: the female students have a rest of two days.

Transition Stage: After two day's rest of finishing the acquisition and preservation stage, each female student were given 27 attempts of the transition, thinking and remembering stage, with a ratio of 3 attempts of each lane repeated for three groups along with repeating the false attempts, then conducting the measurements of this stage immediately after finishing the 27 attempts.

The Main Experiment: The researcher applied the research main experiment to the research sample of Ibrahim Khalil private school of Maadi educational administration within the period from 04.04-29-04.2010.

Statistical Processing: The researcher used the SPSS program along with the descriptive statistics (arithmetic mean, standard deviation, medium and torsion), in addition to Pearson's coefficient correlation test (F) and the differences percentage.

RESULTS AND DISCUSSION

Differences Between the Scores Average of the Free Throw Level by Using Regular, Irregular and Integrated Teaching in the Acquisition and Preservation Stage: Table 6 illustrates the existence of statistical significant differences between the pre-measurements of the experimental groups (regular, irregular and integrated) in the free throw test on topics in the acquisition and preservation stage. While the calculated 'T" value is greater than the indexed 'T" value at the significant level

Table 6: Analysis of variation between the scores average of the free throw level by using regular, irregular and integrated teaching in the acquisition and preservation stage (N 1 = N 2 = N 3 = 15)

Tests	S.V.	S.S.	D.F.	M.S.	Calculated F value
Shooting from the free throw	Between groups	60.38	2	30.19	9.93*
	Within groups	127.72	42	3.04	

The indexed (F) value at the significant level 0.05 and degrees of freedom of (2:42) = 3.22

Table 7: The differences direction between the pre-measurements of the research groups in the free throw test in the acquisition and preservation stage by the most valid significant difference method "Tiouky"

Tests	Groups	Arithmetic mean	Regular	Irregular	Integrated	Tiouky
Shooting from the free throw	Regular	7.12	-	1.01*	2.31*	0.47
	Irregular	6.11		-	1.30*	
	Integrated	8.42			-	

Table 8: Analysis of variation between the scores average of the free throw level by using regular, irregular and integrated teaching in the transition and thinking stage (N 1 = N 2 = N 3 = 15)

Tests	S.V.	S.S.	D.F.	M.S.	Calculated F value
Shooting from the free throw	Between groups	69.67	2	34.84	11.31*
	Within groups	129.47	42	3.08	

The indexed (F) value at the significant level 0.05 and degrees of freedom of (2:42) = 3.22

Table 9: The differences direction between the pre-measurements of the research groups in the free throw test in the transition and thinking stage by the most valid significant difference method "Tiouky"

Tests	Groups	Arithmetic mean	Regular	Irregular	Integrated	Tiouky
Shooting from the free throw	Regular	6.24	-	1.07*	2.41*	0.68
	Irregular	7.31		-	1.34*	
	Integrated	8.65			-	

of (0.05) and degrees of freedom of 2:42 that required conducting individual comparisons between the measurements averages to identify the differences direction by using the Tioukey method.

Table 7 illustrates the existence of differences between the pre-measurements averages of the experimental groups by using regular, irregular and integrated teaching to teach the free throw skill in the acquisition and preservation stage. Differences were in favor of the third experimental group, which used the integrated method, while the first experimental group, which used the regular teaching method, came in the second rank, followed by the second experimental group, which used the irregular teaching method came in the third rank.

Table 8 illustrates the existence of statistical significant differences between the pre-measurements of the experimental groups (regular, irregular and integrated) in the free throw test on topics in the transition and thinking stage. While the calculated 'F" value is greater than the indexed 'F" value at the significant level of (0.05) and degrees of freedom of 2:42 that required conducting individual comparisons between the measurements averages to identify the differences direction by using the Tioukey method.

Table 9 illustrates the existence of differences between the pre-measurements averages of the experimental groups by using regular, irregular and integrated teaching to teach the free throw skill in the transition and thinking stage. Differences were in favor of the third experimental group, which used the integrated method, while the second experimental group, which used the irregular teaching method, came in the second rank, followed by the first experimental group, which used the regular teaching method, came in the third rank.

DISCUSSION

Difference Between Regular, Irregular and Integrated Teaching Methods in the Acquisition and Preservation Stage: There are differences between regular, irregular and integrated teaching methods in the acquisition and preservation stage in favor of the integrated teaching method, followed by the regular and irregular methods. The researcher returns these differences to repeating the taught skill by both regular and irregular teaching methods with 36 attempts for each female student. Therefore, learning the skills was easy and fast within the acquisition and preservation stage. Repeating attempts for the same skill led to the occurrence of feedback for the

female students, which contributed in acquiring them the skills on topics, through correcting mistakes and performance motor paths leading to the increase of their sense-motor perception thus leads to the speed in acquiring the free throw skill on topics.

The irregular teaching group of the acquisition and preservation stage delay in rank was due to not allowing juniors to use the feedback because of the education scheduling that does not give the female student the opportunity to benefit from the taught skill direct feedback. That was due to not repeating the false attempt leading to decrease the performance level in the acquisition and preservation stage.

The results of the acquisition and preservation stage were high, supported by the validity of the content consistency theory that teaching skills need experience and knowledge to assist in teaching and training processes.

This confirms the validity of the first hypothesis, which states" There are statistically significant differences between the scores average of the free throw skill level by using regular, irregular and integrated teaching in the acquisition and preservation stage in favor of the integrated method followed by the regular and irregular methods.

Difference Between Regular, Irregular and Integrated Teaching Methods in the Transition and Thinking Stage: There are differences between regular, irregular and integrated teaching methods in the transition and thinking stage in favor of the integrated teaching method, followed by the irregular and regular methods. The researcher returns these results to the content consistency theory with its branches (regular, irregular and integrated). The results show high content consistency, as the female student in basketball was able to learn the free throw skill by the regular teaching within the acquisition and preservation stage that led to increase their abilities to learn these skills in the transition and thinking stage. On the contrary to the irregular teaching group of understanding where learning the three shot skill in the transition and thinking stage has the greatest effect to the female student's ability to learn within this group. That led to surpass of the female students of the irregular teaching group to their pairs in the regular teaching group in the transition and thinking stage.

This confirms the validity of the second hypothesis, which states"There are statistically significant differences between the scores average of the three points skill level by using regular, irregular and

integrated teaching in the transition and thinking stage in favor of the integrated method followed by the irregular and regular methods.

CONCLUSION

In light of the research results and in limits of the research sample, the researcher reached the following conclusions:

- The integrated teaching method using the content consistency theory have positive effect in developing the three points shot skill in basketball in both the transition and acquisition stages better than both the regular and irregular teaching methods.
- The regular teaching method using the content consistency theory have positive effect in developing the three points shot skill in basketball in the acquisition and preservation stage better than the irregular teaching method.
- The irregular teaching method using the content consistency theory have positive effect in developing the three points shot skill in basketball in the transition and thinking stage better than the regular teaching method.

Recommendations: In light of the research results, the researcher recommends the following:

- The importance of using the content consistency theory when teaching the three points shot skill in basketball.
- The importance of paying attention to the integrated teaching method then the regular and the irregular teaching methods, when scheduling teaching the basketball skills for the female students at the Faculty of physical education for girls.

- The importance of conducting similar researches for the remaining basketball skills
- The importance of conducting similar researches in different sport activities

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