



ISSN Print: 2664-7281
ISSN Online: 2664-729X
Impact Factor: RJIF 8
IJSEPE 2023; 5(2): 111-116
www.sportsjournals.net
Received: 05-09-2023
Accepted: 09-10-2023

Wisam Jalil Sabea
Assistant Professor,
Department of Physical
Education and Sports Sciences,
College of Basic Education,
University of Diyala, Iraq

Dr. Mustafa Mahdi Edan
Lecturer, Department of
Physical Education and Sports
Sciences, College of Basic
Education, University of
Diyala, Iraq

Corresponding Author:
Wisam Jalil Sabea
Assistant Professor,
Department of Physical
Education and Sports Sciences,
College of Basic Education,
University of Diyala, Iraq

International Journal of Sports, Exercise and Physical Education

The effect of special exercises on developing the cognitive speed of football players

Wisam Jalil Sabea and Dr. Mustafa Mahdi Edan

DOI: <https://doi.org/10.33545/26647281.2023.v5.i2b.61>

Abstract

The purpose of this paper is to effect of special exercises on developing the cognitive speed of football players. The researchers used the experimental method by designing the experimental and control groups to suit the nature of the research. The researchers chose the research sample intentionally, Al-Khalis Sports Club Sports football players in Diyala Governorate, who numbered (20) for the year (2022-2023). The sample was divided into two experimental and control groups by drawing a lottery. There are (10) players per group and goalkeepers have been excluded. After completing the tests, appropriate statistical treatments were used to obtain the results, after which the results were presented, analyzed and discussed. The two researchers reached the most important conclusions that special exercises in developing cognitive speed have an effect in increasing the speed of movement of football players. The most important recommendations were the necessity of using the special exercises used in the current study, as the positive results have proven in developing cognitive speed in football, and conducting more research and studies that address the impact of special exercises in other sports events and sports and on different samples.

Keywords: Football players, special exercises, sports

Introduction

The growth look on at by sports, especially the game of football, in recent years, which is represented by the rise in the level of players' performance to advanced levels, did not come by chance, but rather came through deliberate and continuous by specialists in this game. The use of modern methods and methods in training has imposed broad horizons. The use of auxiliary tools in training had a clear impact on this development. In the game of football, the ball is the tool that must be preserved and delivered as quickly as possible to the opponent's goal to achieve the aim, which results in the outcome of the match, and this depends on the player's ability to perform. Football-specific skills, as well as some of the abilities required by the game of football, such as the physical and motor qualities and physical characteristics of the players. The concept of speed of perception is the speed of performing work that requires high speed in understanding a model or visual, sensory and auditory form, as its limits must be determined from among. Models or forms similar to it that are characterized by optical deception. Through their review of many studies that talked about perceptual speed, the two researchers found that perceptual speed is a mental process that depends on some psychological variables, which contribute to the formation of a player who can distinguish the image realistically, without deception or Distortion, which is an important cognitive function that requires speed and accuracy in perception and attention in cognitive speed, and this is what he confirmed (Anwar Muhammad Al-Sharqawi and others: 1993: 15) [2] "The speed of performing tasks that require the speed of understanding the presented visual model or shape and determining its boundaries and properties from among models or shapes similar to it is characterized by optical deception." The importance of the research deceits in preparing exercises to develop cognitive speed on the field and thus directing movements and skills in achieving their goals and not losing the ball when it is easily acquired by football players. Since the researchers are football players, they noticed a weakness in the speed of movement of the players during matches in different situations during receiving the ball, handling, and even while scoring or dribbling, and all of this comes

as a result of a weakness in the players' awareness and correct behavior in different situations.

Research objective

- Preparing special exercises to develop the cognitive speed of football players.
- Identify the effect of special exercises to develop cognitive speed on the results of tests for the variables investigated among members of the research sample.

Research hypotheses

The researchers assumed that there are statistically significant differences between the pre- and post-tests in the cognitive speed test for the control and experimental groups, in favor of the post-test.

Research fields

- Human field: Al Khalis Sports Club football players in Diyala Governorate

- Time field: (7/1/2023) to (18/3/2023).
- Spatial field: Al-Khalis Sports Club Stadium.

Research Methodology

The researchers used the experimental method.

Community and sample research

The researchers chose the research sample in a deliberate manner, namely the players of Al-Khalis Sports Club in football in Diyala Governorate, who numbered (20) for the year (2022-2023). The sample was divided into two experimental and control groups by drawing a lottery, with (10) players per group, and the goalkeepers were excluded (3) Goalkeeper.

Sample equivalence

The researchers conducted the equivalence process between the experimental and control groups to test cognitive speed in football, as shown in Table (1).

Table 1: Shows the equivalence of the sample in the cognitive speed test

Variables	Groups	Measuring unit	N	Mean	Standard deviation	T value	Error percentage	Type Sig
Cognitive speed test	Experimental group	second/ degree	10	11,32	0,076	0,724	0,478	non sig
	Control group	second/ degree	10	11,29	0,072			

From Table (1), it was found that the significance of the differences is not significant. This indicates that the two groups are equivalent in the football cognitive speed test.

Methods and tools

Arabic sources, observation, tests and measurement, measuring tape, electronic scale, test registration form, football number (10), football field, manual stopwatch, legal goal, whistle, electronic calculator, TOSHIBA laptop calculator.

Search tests

To measure the field of cognitive speed in football, the researchers used the following test:

Cognitive speed test: (Yasser Jaafar Abdullah: 2020: 74)

- **Purpose of the test:** To measure cognitive speed motion.
- **Tools used:** (3) signs, a football field, a stopwatch.
- **Performance specifications (performance method):** The test includes two main points: (5-1) the start and end points. The distance from the start to point, (A) is 5 meters and from point (B, C) the distance is 5 metres. Running from number 1 to point A and touching it. Then run towards B and touch the point, then run towards C and touch the point, then run towards A and touch it. Return to the start and finish area at number 5.
- **Recording method:** Calculate the time to the nearest 1/10th of a second and give a second attempt if the tester fails the first attempt, as in Figure (1).
- **Unit of measurement:** (degrees/second).



Fig 1: Shows the cognitive speed test

Exploratory experiments

1. first exploratory experiment: The researchers conducted the experiment on (7/1/2023) on Saturday with (4) players representing the Al-Jadida Sports Club in football, as they were among the research community and on the field of the Habhab Sports Club stadium. The aim of

the experiment was to identify on how to perform the cognitive speed test well and accurately, knowing the time the test takes, and having the assistant work team obtain sufficient information about the method of performing the test and identifying the obstacles that the researchers may face.

2. Second exploratory experiment: The researchers was conducted on (11/1/2023) on Wednesday, at the Habhab Sports Club stadium, with (4) players representing the Al-Jadida Football Club, as they were within the research community to learn how to perform special exercises. In developing cognitive speed, as well as familiarizing the trainer and the assistant work team with how to perform the exercises and knowing the time to perform each exercise.

Pre-tests

Pre-tests were conducted on the research sample on Saturday, January 14, 2023, at exactly 3:00 pm on the Khalis Sports Club stadium. The researchers sought to establish the conditions related to the test in terms of place, time, tools used, the method by which the test is implemented, and the supporting work team. In order to control all conditions as much as possible and provide the same conditions when conducting the post-test.

Main experiment

It is implemented on (16/1/2023) until (15/3/2023) using

special exercises to develop cognitive speed in football, prepared by the researchers. The number of training units reached (24) units, at a rate of three training units per week (Saturday, Monday, Wednesday) The duration of the exercises in the main section was between (40-50) minutes at an intensity of 80% to 100%, and in the repetitive training method, and the duration of the training units was (8) weeks.

Post-tests

The post-test was conducted on the research sample after finishing the exercises on Saturday, March 18, 2023, at (3) pm and on the Al-Khalis Sports Club field. The researchers, with the help of the assistant work team, tried to provide the same conditions in which the pre-test was performed to obtain highly dependable results.

Statistical methods: used the (SPSS).

Results and discussion

Presentation of the results of the test (Pre-post) of the cognitive speed test for the experimental group

Table 2: Shows the results between the test (Pre-post) for the experimental group

No.	Variable	N	Mean		Std. Deviations		Standard error	
			pre	post	pre	post	pre	post
1	Cognitive speed test	10	11.32	9.63	0.076	0.200	0.024	0.063

Table 3: Shows the statistical parameters for the pre- and post-tests of the cognitive speed test for the experimental group.

No.	Variable	Measuring unit	Mean difference	Standard deviation of differences	T value calculated	Level Sig	Type Sig
1	Cognitive speed test	degree / second	1.682	0.075	22.228	0.000	Sig

* Degree of freedom (10-1=9) with significance level (0.05).

As for the discussion of the results of the experimental group, it appears from Table (3) that there are significant differences in the cognitive speed test. The investigators attribute the reason for these significant variances between the results of the test (Pre-post) and in favor of the post-test to the effectiveness of using special exercises that the researchers used over a period of two months and applied to them. The research sample had a clear impact on the results of the experimental group because it had specific goals, and the exercises were graduated from easy to difficult, with the performance time chosen from the shortest to the longest, as it was appropriate for the sample as well as the goal for which it was set. The exercises were characterized by the realism of the movements and performance and the matching of the movements that were intended. It is performed by the players during the course of the matches, as it was designed and prepared based on what the player faces on the field, in addition to good focus on special exercises that aim to develop variables, and the speed factor was considered as a basic factor when applying these exercises because speed of perception is an important and decisive factor for winning matches and excelling over others. The competitor, as the researchers Hind took into account the preparation of the exercises clearly on the components of the training load, especially the intensity of the exercises, noting that all the exercises that were given to the players simulated the atmosphere of competition or what the player goes through during the match, which made the players able to deal with difficult situations that could it occurs during matches, due to the link between all the variables that were investigated and because this game requires high levels of the physical and physiological aspect

so that the individual can perform the duties assigned to him at the same level throughout the duration of the match, and this is what he mentioned. (Qasim Al-Mandalawi: 1979: 144) ^[10] "Achieving good performance is the result of the interconnection between the physical, skill, tactical and psychological levels." The football player inevitably exerts intellectual and physical effort during the duration of the match, whether in covering distances that may reach (10-12) km during the (90) minutes according to the results of the studies, as well as the performance time from the shortest to the longest, and it is appropriate for the sample and the goal for which Made for him.

The researchers believe that the gradual progression in the components of the training load throughout the training period, which amounts to (8) weeks and at (3) units per week, contributed significantly to raising the efficiency of the players, and thus there was a clear and significant impact on the results of the members of the research sample, and this was confirmed by (Mohamed Reda: 2008): 88) ^[12] "All components of the training load must increase in proportion to the overall improvement achieved by the athlete. That is, the higher the level of improvement of the athlete, the greater the need to increase the components of the training load." The researchers attribute the reason for the significant differences in the results of the cognitive speed test to the use of special exercises, as increasing the number of repetitions during the training process contributed to the development of players in this skill, in addition to the type of exercises that simulated the conditions that the player might go through during the match, which led to making the players Under the influence of a strong incentive, which is to perform the skill correctly for each of the exercises with

high accuracy, the correct performance, with correct movement paths, with few errors, and with repetition, will lead the players to reach the typical performance of performing the skills at high speed, and the automatic result of the performance as a result of repetition is that they have experience in how to act in different and changing situations. During matches, this was confirmed by (Saleh

Radi Amish: 1990: 74) ^[6] “The more experience a player has, the more he will be able to perform skills at the required speed, in the right place, and with the right force.”

Presentation of the results of the test (pre-post) of the cognitive speed test for the control group

Table 4: Shows the results between the test (pre-post) and the control group

No.	Variable	N	Mean		Std. Deviations		Standard error	
			Pre	Post	Pre	Post	Pre	Post
1	Cognitive speed test	10	11.29	10.713	0.072	0.142	0.022	0.044

Table 5: Shows the statistical parameters for the pre- and post-tests of the cognitive speed test for the control group.

No.	Variable	Measuring unit	Mean difference	Standard deviation of differences	T value calculated	Level Sig	Type Sig
1	Cognitive speed test	Degree / second	0.584	0.115	16.008	0.000	Sig

* Degree of freedom (10-1=9) with significance level (0.05).

As for the discussion of the results of the control group, it appears from Table (5) that there are significant variances in the test in the field of cognitive speed. The researchers attribute the reason for these significant differences between the results of the test (pre-post) and in favor of the post-test to the effectiveness of using the curriculum prepared by the trainer, as the curriculum used by the coach, as it was prepared in a sound and scientific manner. The coach took into account the players' levels, abilities, and abilities, through the process of choosing the correct and appropriate method in dealing with the players, as the gradation from easy to difficult was used in applying the approach. This is what was confirmed by (Muhammad Subhi Hassanein: 1995: 267) “It is noted that reaching exemplary performance with a small percentage of errors comes through effective and appropriate training, as the learner reaches fast and accurate performance, and this is one of the signs of mastery of learning and reaching the automatic stage in

performance.” The researchers believe that the trainer gave sufficient space of time for the training units for the skills and with appropriate repetitions, which led to the development of physical and motor abilities because they are closely linked to skill performance, and each skill requires different movements, and this means that each skill has its own compatibility, which requires precise work of the neuromuscular system. This was confirmed by (Coerver: 2011: 27) ^[15] “Distinctive skill performance occurs with precise nervous and muscular coordination in terms of acceleration and deceleration of the parts of the body that make up the movement and according to the tactical behavior accompanying that situation.”

Presentation the results of the test (post-posttest) of the cognitive speed test for the experimental and control groups

Table 6: Shows the statistical parameters, for the post-tests of the cognitive speed test for the experimental and control groups.

No.	Variable	Measuring unit	Experimental group		Control group		T value calculated	Level Sig	Type Sig
			Mean	Std. Deviations	Mean	Std. Deviations			
1	Cognitive speed test	Degree / second	9,63	0,200	10,71	0,142	13,817	0.000	Sig

* Degree of freedom (10-1=9) with significance level (0.05).

As for the discussion of the results, it appears from Table (6) that there are significant differences in the cognitive speed test. The researchers attribute the reason for these significant differences between the test results and in favor of the experimental group in the cognitive speed test to the effectiveness of the use of special exercises by the experimental group, which were developed according to sound scientific foundations. Which was appropriate to the abilities and characteristics of the sample, as a gradient was used in applying the exercises from easy to difficult, controlling repetitions and rest periods. As he mentions (Saad Moneim Al-Sheikhly: 2002: 63) ^[4] “The approach desires to prepare and increase the level of the athlete who is revealed in programs according to science, and this comes as a result of dedication to the basic principles of exercise science, and one of those principles is the rule of gradualness in, and the direction that suits the exercise load with the abilities and ability of the.” The use of exercises on a regular basis has helped in the emergence of development in the level of players by creating

physiological changes for the players and thus increasing the physical and skill level. This is what was confirmed by (Muhammad Hassan Allawi and Abu Al-Ala Ahmed: 1984: 22) ^[11] “However, the training load is the main means of inducing physiological effects on the body, which achieves improved responses, and then adapts the body's systems and raises the level. Therefore, it is considered one of the most important factors for the success of the training program and thus improving the level.” And the arrangement and coordination of the implemented exercises that were prepared according to Theories of sports training science in terms of alternating the work of muscle groups to avoid stress, as well as the succession of training physical attributes, since the exercises that have been prepared are special exercises according to the training method followed, which is the repetitive training method. This is what was indicated by both (Saad Moneim Al-Sheikhly and Haval Khurshid: 2012: 105) ^[4] “Repetitive training works to develop these abilities and develop their level in the player who practices it, which must be emphasized, especially in

special preparation during times of competition, and that these repetitions performed must resemble the level of competition, and there must be a positive correlation between the components of the training load.” When using this method, which requires the necessity of harmony between the intensity used and the player’s current level, as in this method the performance of the training load, which is part of the special competition requirements, is repeated many times during the training unit, and the running speed in this method is 80-100% of the ability. Maximum intensity for the player, ensuring that the intensity is consistent with the player’s current level or with the goal of the annual competition.”

Good, thoughtful planning and control of the components of the training load lead to the emergence of adaptations that increase and improve the internal functions of the player’s body. This is what was confirmed by (Al-Owais Al-Jabali: 2000: 30) ^[8] “Good planning of the training process leads to an organization of adaptation processes, as adaptation processes are linked to the extent of the impact of training processes on the level of improvement of physical functions. With the decrease in the counseling process, the adaptation process proceeds slowly, and thus the importance and role of active rest in the events of the adaptation process is highlighted, starting from the training unit and ending with it. “The long-term plan that should take into account individual differences as well as the balanced relationship between intensity and volume in the training load. ”This is what was confirmed by (Saad Moneim Al-Sheikhly: 2019: 254) ^[5]. “Distributing the training load during the training periods during the annual program and thus developing the skill level for the better through the use of appropriate training methods and methods.” And this is what was mentioned by (Amrullah Ahmad Al-Bisati: 2015: 23) ^[1] that “The level of athletic condition is developed and maintained throughout the training processes through physical, skill, tactical and psychological preparation using various exercises with different directions, the type, shape and characteristics of which are determined according to the quality of training during the periods and stages of training.” He mentioned (Furat Jabbar Saadallah and Haval Khurshid Al-Zahawi: 2011: 236) ^[9] “The purpose of practical training is to make the player ready to perform the movements required in the game of football during the real match.” The goal of the training process is to develop all aspects, especially the basic skills of football in general and the scoring skill in particular, as it is “It establishes an aspect of the daily training based on the basic skills are the foundation of the game of football, as without them the player cannot carry out the tactical duties assigned to him. A football player can be a good player if he comprehends the basic skills and masters them in the required manner.” Therefore, the most important training duty is to work to bring the players to the highest level of training status.” (Saad Moneim Al-Sheikhly: 2019: 265) ^[5], the process of controlling repetitions and the rest period between repetitions and between exercises has been developed scientifically, allowing the player to regain energy to perform the next exercise. This is what was mentioned by (Abdul Rahman Abd al-Hamid: 2000: 251) ^[7] “The rest should not be too long so that it does not lead to recovery, nor should it be too short so that it does not lead to tiredness and a drop in the level of performance.”

Conclusions and Recommendations

Conclusion: Through the results presented and obtained by the researchers, they concluded that special exercises in developing cognitive speed have an effect in increasing the speed of movement of football players.

Recommendations

Need to use the special exercises used in the current study, as the positive results have proven in developing cognitive speed in football, and to conduct more research and studies that address the impact of special exercises in other sports events and sports and on different samples.

References

1. Amrullah, Ahmed Al-Basati. Sports Training (Theories and Applications). 1st edition. Riyadh: King Saud University Publishing House; c2015.
2. Al-Sharqawi AM, and others. Factorial Cognitive Test Battery (Ekstrom, French, Harman-Dermin), Numerical Factor. Cairo: Anglo-Egyptian Library; c1993. p. 15.
3. Saad Moneim Al-Sheikhly. The effect of using a proposed training curriculum on the results of the Cooper test for football referees. Journal of the College of Physical Education, University of Baghdad; c2002, 13(1).
4. Saad Moneim Al-Sheikhly and Haval Khurshid Al-Zahawi. Football training principles and applications. Sulaymaniyah: Beh Nad Printing and Publishing Office; c2012.
5. Saad Moneim Al-Sheikhly. Studies and Visions in Physical Education and Sports, Part 1. 1st Edition. Baghdad: Shams Al-Andalus Printing and Publishing Office; c2019.
6. Saleh Radi Amish. The effect of the most important elements of physical fitness and sports skills on the level of achievement. Unpublished master’s thesis, College of Physical Education, University of Baghdad; c1990.
7. Abdul Rahman Abd al-Hamid Zahir. Physiology of Jumping and Jumping Competitions. 1st edition. Cairo: Al-Kitab Publishing Center; c2000.
8. Owais Al-Jabali. Sports Training Theory and Practice. 1st edition. Amman: G.M.S Printing, Publishing and Distribution House; c2000.
9. Firat Jabbar Saadallah and Haval Khurshid Al-Zahawi. Cognitive and mental training for football players. 1st edition. Amman: Dar Degla; c2011.
10. Qasim Hassan Al-Mandalawi and Ahmed Saeed. Sports training between theory and practice. Baghdad; c1979.
11. Muhammad Hassan Allawi and Abu Al-Ala Ahmed. Physiology of Sports Training. Cairo: Dar Al-Fikr Al-Arabi; c1984.
12. Muhammad Reda Ibrahim Al-Madamkha. Field application of theories and methods of sports training. 1st edition. Baghdad: Al-Fadhli Office; c2008.
13. Yasser Jaafar Abdullah. The effect of special exercises on developing speed of perception and field of vision when performing some basic skills for young football players. Doctoral dissertation, College of Physical Education and Sports Sciences, University of Diyala; c2020.
14. Hasan APDBB, Hilal ET, Mahmood HR. Rehabilitation Exercises and a Designed Device (Laser Balance) and their Effects on (Muscle Strength, Range of Motion,

and Motor Balance) for Football Players after ACL Surgery. Wasit Journal of Sports Sciences. 2023, 16(3). DOI: <https://doi.org/10.31185/wjoss.369>

15. Stoneback, Alfred Galustian, Charlie Cooke. Coerver Coaching Northwest. United States: Sports method Northwest LLC; c2011.

Appendix (1): Shows the exercises used

No.	Exercises	Notes
1	Ball handling exercise to the moving player Method of performance: Player 1, who is the player who performs the exercise, performs the rolling skill between three colored markers in front of three separate groups and at a distance of 20 meters from the line of performing the handling skill. The coach stands between the groups and when giving the instruction using the whistle, he The player performs the roll between the three signs, and upon hearing the second instruction, the player performs a quick transfer to the group and to the color of the sign, which is designated by the coach without the player's knowledge in advance and before arriving at the line for performing the transfer.	
2	Bounce handling exercise for numbered terraces Method of performance: The area for performing the exercise is determined by the starting line behind which the player stands, and 10 terraces are placed on either side of the player, noting that the measurement of the terrace is 1 square meter, so five terraces are placed on each side, the distance between the terraces is 2 meters, and the distance between the two sides of the terraces is 5 meters, and the whistle is heard, he performs the tackle to pad No. 1. After that, he handles the ball to pad No. 2, which must be hit. When the ball bounces, the player handles the ball to pad No. 3, noting that the pads are not sequential from number 1 to 10. It may be the pad. The first one is number 3 and the corresponding straight line is 7.	
3	Handling exercise to colored flags Method of performance: Colored flags are distributed in approximately equal distances, with the distance between the flags being 3 metres, so the player rolls the ball for a distance of 10 metres, and upon hearing the instruction from the coach in the name of the color, the player handles to the required flag, and each player has five repetitions or attempts. In the same exercise, according to the coach's instructions, each color is determined by the coach. Note that the distance between the handling line and the flags is 5 metres.	
4	Ball handling exercise to the moving player Method of performance: Player 1, who is the player who performs the exercise, performs the rolling skill for a distance of 5 meters between 6 colored signs. Each person has one color, the first may be red, the second is blue, and the third is yellow in three separate groups, and the coach stands between the groups. When the instruction is given for the specified color, the player performs the roll between the two characters for the specified color, and upon hearing the second instruction (The second whistle), the player performs the intermediate roll to the group or the person carrying the same color and before reaching the line in front of the group.	
5	Rolling the ball between the numbered checkers Method of performance: An area is defined as a square of 10 meters x 10 metres, inside which 10 checkers are placed, numbered from 1-10. The player stands outside the square and when the whistle is heard, he begins to roll towards the numbered signs, where he rolls the ball around the signs, noting that the signs are not sequential.	
6	The exercise of rolling the ball between the numbered frames. Method of performance: The area for performing the exercise is determined (A square of 10 x 10 meters), inside which 5 frames are placed, numbered from (1-5). The player stands outside the square and when he hears the whistle, he begins to roll towards the numbered frames in sequence.	
7	Scoring exercise towards the numbered circles Method of performance: The player performing the exercise starts or runs for a distance of 10 metres, and upon reaching the line of performing the scoring skill, player (2) makes a short tackle, and then player (1) scores on the squares in the goal, according to the sequence from (1-4).	
8	Scoring exercise towards the colored circles Method of performance: The player performing the exercise starts or runs for a distance of 10 metres, and upon reaching the line of performing the scoring skill, player (2) makes a short tackle, and then player No. (1) scores on the colored circles in the goal, according to instructions. The trainer towards the color determined by the trainer.	
9	Scoring exercise towards numbered circles Method of performance: The player performing the exercise starts or runs for a distance of 10 metres, and upon reaching the line to perform the scoring skill, player number (1) shoots the balls on the line, numbering (6), as the player scores on the squares in the goal. According to the sequence from (1-6).	
10	Scoring exercise towards sequentially numbered circles Method of performance: The player performing the exercise starts or runs for a distance of 10 metres, and when reaching the line to perform the scoring skill, player number (1) shoots the balls on the line, numbering (6). The player scores on the circles located in Goal according to the sequence from (1-6).	