COORDINATIVE CAPACITY DEVELOPMENT TO JUNIOR CADETS ATHLETES IN ORDER TO IMPROVE THE KAYAK PADDLING TECHNIQUE

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Abstract

Kayaking and canoeing is a sport in which branch specific effort is repetitive and technical component plays a decisive role. To acquire accurate and efficient technique, an important role: the quality of training methods and means used, but equally important are: the development of motor skills, motor skills, coordination skills and sportsman, the development of mental capacity to represent and intuition correct movement to be executed correctly.

Keywords: sandolina kayaking, coordinative capacity, skill, coordination, balance, technical training.

The problems

This article deals with specific training to educate kayak coordinative ability (skill, coordination, balance) and its role in improving the technique of rowing in kayak boat. You must remember that this sport discipline relies heavily on technology, which should be effective. A good technique is also a key component. So how the coordinative capacity does collaborates with the improvement of the kayak paddling technique, in order to improve the performance capacity?

Education of the coordinative capacity

Capacity and coordinative qualities found in kayak

Coordinative capacities belong to motor skills area, accompanying motrical actions, it gives some performance indices and can not exist outside, as there can be no acts and actions outside driving motor skills.

Coordinative abilities are largely genetically determined, and their expression is conditioned to the processes of maturation of the nervous system and the number of skills that the subject masters. (Dragnea, A., Teodorescu, M., 2002)

Components of the coordinative capacity

Because there is no research likely to make a definitive classification related to the number, the exact composition and correlations of components, identifying them is a simple guideline applies to training coordination abilities (Frey, 1977)

✓ the ability to adapt
✓ the ability to react
✓ the ability to think and combine
✓ the ability to keep the balance
✓ the agility and skill ability

The kayak coordinative capacity is educated and used to master the motor skills in different situations, characterized by:

- Rapid execution (start, sprints in sandolina-kayak)
- Rational execution (change from release to air attack-phase paddle)
- Prompt execution (attack-blade immersion in water, paddle)
  short execution (pressure control of the blade and paddle)
- Effective executions (minimum effort, maximum efficiency, the ratio of the frequency of paddling and boat speed).
As we know, the coordinative capabilities develop mainly at the age of 6-12 years and 11-12 years is the peak efficiency, according to the opinion of specialists, selection and optimal age for practicing kayak.

**Skill**

Is defined as the „ability to quickly and accurately select and perform motor actions appropriate to unforeseen circumstances with high efficiency. Amid its development is improving coordination mechanisms complicated movements, condition of properties timely and correct technical and tactical skills and use them in different situations” (Nicu,A,.1993)

**Methods of training coordination abilities in training kayak**

In the midst of training coordination abilities must appear new management skills training, polyvalent, and their components. (Harre1976)

- methods and content of the general training (applied to improve the overall value of coordination abilities)
- methods and content of the special training (practical exercise are related to the competition)

Special training methods require a high level of training, depending on age, physical and mental endurance, depending on the level of coordination abilities.

**Methods for the formation of gesture representations**

- methods of optical information
- methods of verbal information
- variation methods and combined exercises, the dynamics of information uptake, of combining the gesture skills.

**The content of coordinative skills in the kayak training**

You can improve coordination skills through complex means:

- a good development skills cannot be achieved except in accordance with the principle of the variations and combinations of constants and methods and means of exercise coordination, skill and poise in the kayak.
- facilitate the development and implementation of sport skills improves both the functions of analysis and coordination functions, so it improves motor learning and acquiring new skills in sports.
- coordinative abilities must be trained in a timely manner, at age 11-12 years, during the selection and initiation in canoeing, as the aging of tissues damaged capture processes and information processing, resulting in a decrease in the effectiveness of the training.
- training of the ability does not have to be in a state of fatigue because the time is not optimal training guiding processes.
- the most important of the physical training of coordinative abilities are capabilities gesture

**Means of investigation**

Skill is a feature-specific branches of sport and resulted from educating ability assets specific to the general means. The first stage of this complex is the qualities of skillful movements, while the second is the movements of skill with character specific to each sports branch.

**Ability refers to:**

- kinesthetic sensitivity
- balance under all its forms (oscillating platform)
- the sense of rhythm
- coordination of limbs (Newton's skill test; Barrow's motor ability sample; K.H. Gratim and G.F.Sitikov sample;)


The description of the means and the training model

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Table 1: Medium-cycle with 8 training lessons

The training took place over a period of 90-100 min and were performed 3-4 workouts per week. The training had the following structure:
- Habituation exercises with specific training materials for kayak;
- Learning and fixing grip on the paddle;
- Fixing the firm grip on the right hand and the mobile grip on the left hand;
- Exercises for entrance and exit of the craft;
- Exercises which regulates the boat, setting the centre of gravity;
- Exercises for learning the correct position in the craft;
- Exercises of diving the blade in the water;
- Exercises for learning the attack;
- Maintaining balance exercises;
- Hitting the water to attack;
- Throwing water in clearance;
- Rowing exercises with a wider paddle;
- Exercises of rowing with disabilities (boat sits on the spot; the craft moves back; the boat is moved, balanced etc.)

A. Exercises for learning the coordination in the craft

Game 1. The game’s character: segmentary coordination, strengthen crawl swimming

Place: in the small pool. The juniors are divided into two teams of equal size and are placed on two lines face to face at a distance of 2 m. The interval between teams is half a meter. To order are the first on each team lap swimming crawl through the aisle. They must pass through the aisle to the other end where it aligns at the end of the string from which they left. The players of both teams sprayed on them that crossing corridor. The game ends once all the components of the team have gone through the aisle. You can repeat by decreasing the distance between rows. Wins the team with the fewest penalty points.

Rules: departures in command, during the passage through the aisle is not permitted to touch it; a touch attracts a penalty with a point to the team player. The components of the aisle may not intentionally touch on those who pass through the aisle.

Methodology: to splatter the first games will be easy; it will pass later in the rows back to back as far as possible not to pass through the aisle with your hands covering the face or eyes.

Game 2. The game’s character: segmentary coordination for strengthening of movements of arms and legs in lap crawl swimming.

Location: in water up to their chests. Materials: plastic coils. Players are divided into two teams of equal size. The teams are divided into two groups lined up on two sides of the pool. At the signal, the first being with the coils in their hands, the participants leave by jumping in the water and run across a distance of 10-15 m using only the movement of the legs in the procedure established. Then the hoop is taught departing on the same route. The team that wins the race is the one who finishes faster.

Rules: all players will use the same process, a race shall be considered completed when the last player touch the opposite wall or set point.
Methodology: the more advanced groups is shown to be used in all the known processes. It begins with the movement of the legs, back legs then lap swimming, etc.-you can use combinations of movements, in this case the entire team stays on one side of it. Fix a point back and proceed to exercises with the company. For example, in the start shall go only with the movement of the legs, with hoop in his hands and upon their return they will tuck the legs in the lifeline and it will perform the movement only by force of arms.

Game 3. The game's character: coordination for the upper and lower limbs
Place: small pool. Materials: 4-6 plastic balls. Players are divided into 2-3 teams of 4-5 players. Within each team, the players are seated in a circle. The signal is carried out in a circle, passing specific game of volleyball, each team trying to keep the ball as much as possible in the game without touching the water. The game can take place in deep water to force the participants to step the water.
Rules: when the ball touches the water, the game is interrupted, it is not allowed to keep the ball, it will be continuously on the move.
Variant: the game can be run and against time, including how many times the ball touches the water. For each interruption of the game, the team will be penalized with a point. The team who accumulates the least penalty points will be declared the winner.

B. Exercises to improve and strengthen the balance
Game 4. The game's character: balance, coordination, guidance spirit
Location: deep water. Materials: two mattresses, rafts, lifebuoys, floating objects, watch.
Participating in two teams of 4-6 players each. The materials shall be distributed equally to the two teams who must carry on the opposite side of the pool. The teams are lined up on the bank having the materials placed side by side. At the signal the players jump into the water and load all of the material on the mattress. After the last object was boarded, the mattress can be moved by sliding the beating of the feet.
Rules: the mattress can be pushed or drawn; any fallen object represents a point penalty; transport is considered finished when the entire team is aligned on the shore. The team that WINS is the one with the fewest penalty points.
Methodology: objects must be as diverse; the crews moving in the same direction at the second of the race, teams can go in opposite directions, following that road to meet and in this case they are allowed to clash, penalty points so it doesn't matter to the result and winning becomes the team that finishes first.

Game 5. The game's character: improving balance through fun
Place: small pool. Confined space 10/10 m. A player in the group receives the task of Pike, the others are 5-6 little fishes. One of the little fishes is elected Guardian and has the task of defending others. The signal, as Pike is allowed to attack the fishes appear to be fleeing and hiding behind the keeper. It is allowed to remove the Pike by sprinkling. To defend better, fishes, you can stay one behind the other behind the keeper taking in the waist. With catching a fish by the Pike, the game goes by changing the roles.
Rules: it is not allowed to leave the playing area, in this case the little fish sought and Pike is considered to be caught can attack and underwater where they play with the more advanced groups; in case the pike dose not cache any fish in 3 minutes, it will be changed.

C. Training and exercises to enhance the boat balance: Kayak
1. water games with specific tools (mattresses, inflatable balls, etc.). These activities allow familiarization with and overcoming of fears due to the capsize in the water; stimulates balance allows conditioning of organic, especially if they are carried out in the form of small competitions and promote sensory and sensitive analyzers in water situation.
2. the same thing and in the case of paddle. All the activities of the first group can be achieved using oars, giving in this way, a range of information about the operation of these instruments.
3. boat games, kayaking. With the introduction of the specific asset, carry out a direct knowledge and experience of all the components of the craft, the degree of stability, giving him the subject can always refining and development of sensory information, sensitive and kinesthetic.
4. **boat games: Kayak and paddle.** Adding the paddle in the above games offers an opportunity to introduce movements and maneuvers executed with greater speed and accuracy than the use of hands, giving the sensation that an extension of the paddle belongs to them and not a stranger object.

5. **Kayaking and paddle gaming and other tools (milestones, slalom Kayak polo, etc.)**

This latest series of activities is the end point of the whole process of learning «kayak» ride and makes a point of connection with sport specialties (downhill, slalom, Olympic canoe polo and canoe). You can resume and use these types of games and subjects with higher to maintain a certain degree of stimulation of coordinative capacity. All of these games must be held, for safety reasons, in the pool or in the safelists pools, offering the possibility of a rapid intervention in the event the instructor to unforeseen events. The water temperature from the outside must be high enough, bearing in mind that the athletes will stay in the water a long time. The means used (kayaks and paddles) must be workable and primarily robust and stable.

### Sampling and testing standards


**Task:** navigate the trail on a trajectory as straight, bounded by the buoys, with paddle. **Performance:** the athlete must be pursued at high intensity and row to master the craft; at the signal he throws the paddle up front and then recovers the go and continue the movement so as not to strike A and B buoys and reach the final of the C-D gate.

**Conditions:** K1: Kayak and boat paddles. The 200 m track must be equipped with 40 buoys and a gate.

**Appreciation:**
- Navigate the route without touching the buoys: 10 points
- For each buoy touched: minus one point
- Arrival at the gate: 10 points
- Flipping involves the elimination of athlete
- Touching the gate pillars: 5 points
- Arriving outside the gate: 0 points

**1. Direction. Balance. Navigate a route of 100 linear meters**

**Task:** navigate the trail on a trajectory as straight forward, delimited by buoys without paddle, and propulsion is done with palms. **Performing:** Athlete pursued must master the craft in such a way as not to strike A and B buoys and reach in the final of the C-D gate. **Conditions:** K1: Kayak and boat paddle. Track 100 m must be fitted with 20 buoys and a gate.

**Appreciation:**
- Navigate the route without touching the buoys: 10 points
- For each buoy touched: minus one point
- Arrival at the gate: 10 points
- Touching the gate pillars: 5 points

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<th>Table No. 1: Initial testing</th>
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Conclusions and methodological recommendations:

1. Based on the analysis of data from the literature consulted, we found that issues related to increasing the capacity of coordinative programs in practice for juniors are insufficiently treated in a kayak, and the means proposed in connection with the training has a general nature, unstructured programs specific exercises. In this context, any approach aimed at optimizing the process of preparation of the debutants in the light of specific technical skill levels is updated and welcomed.

2. Within our experiment were discovered, selected and elaborated a few means of increasing the capacity, coordination and balance, coordination and technical training have been analysed and which have been included in a set of proposed new instruments.

3. The experiment demonstrates that technical and coordinative education by means of auxiliary in canoeing ensures maximum availability of exploit athletes, contributing to a rapid progress in acquiring the technical process of rowing.

4. A precision drive system in respect of the technical training enhances the educational process efficiency in the training of canoeing for the juniors at the age of 12-14 years.

5. Optimization and rationalization of the sports training is a current requirement, through the selective approach of effective structures, with a view to the correct technique of paddling properties in canoeing.

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