172 - THE THINKING DECENTRALIZATION AND RUN-AND-CATCH GAMES IN PHYSICAL EDUCATION CLASSES

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1 Introduction

In Physical Education Programs at schools, we find games that stimulate the running and catching, such as the traditional run-and-catch, where one catcher runs after the fugitives in order to touch one of them. Many times, with the fantasy which is characteristic to this development stage, the children play imagining they are ferocious animals hunting their preys. The Physical Education teacher, when organizing and providing an appropriate environment for the child to experience this game, often becomes anxious and tells the child to run after the closer fugitive, and therefore, easier to get caught, helping the child to successfully accomplish the task.

Kamii and Devries (1991) affirm that the main goal of the Children Education is to create situations that help the development of the children, mainly their move from the heteronomous to an autonomous phase, making them able to act by themselves instead of being ruled by someone else. But to accomplish this, it is necessary that the educational environment be organized in order to give the children the possibility to think and make decisions by themselves.

By analyzing the running and catching tasks related to the Kamii and Devries (1991) statement, with constant observations of the behavior of different teachers, it was evident that the major part of the attitudes were not according to the needs of the different phases of children development, to create an environment to emphasize their decision-making attitudes, since they only showed their concerns in the right hits: the catch-the-closer-fugitive strategy.

By studying the run-and-catch game, Kamii and Devries (1991) affirmed that there are three different ways for the children to behave, related to how the catcher runs after the fugitives. For the first mode, characterized as level 1, the child runs without thinking about his role as a catcher, showing a need for a constant teacher intervention by means of his directions. So, they show they didn't understand the rules of the game. At level 2, the child knows his role and runs to catch only one fugitive all the time. The authors explain that this behavior is influenced by the centralized thinking, meaning the child is focused only in his action and in his point of view. At level 3, the catcher plays accordingly to the rules and understands the whole game. At this level, the child already presents a flexible thinking, being able to change roles with another child, anticipating his movements, inhibiting the success of adversary's strategies and paying continuos attention to all the participants of the game.

This way, the simple run-and-catch game presents a complexity which must be understand, in order to contribute to the construction of class strategies which are compatible to the children development phases and provide them the possibility to think and reflect about their actions thus moving towards thinking decentralization.

Thirty children participated in this study, in ages from 5 to 6 years old, selected randomly, all of them in the pre-operated phase of cognitive development, with ten male and ten female from E. M. Frei Florentino and five male and five female from E. M. Francisca Alegretti, all from Muzambinho - MG.

In order to investigate the problem, a direct descriptive research was used, based on a form containing the classification for the three levels of child behavior for the run-and-catch game, according to Kamii and Devries (1991) studies. The goal of this work was to compare the games that can provide children the opportunity to think and reflect (according to relational pedagogy - Becker, 2001) to those that cannot (according to non-relational pedagogy - Becker, 2001) and to verify whether they both contribute to decentralization of children thinking.

2 Methodology

2.1 Study delimitation

This study had a primary focus in the analysis of the importance of run-and-catch games, strategically oriented (Becker, 2001), to provide the thinking and reflecting during Physical Education classes for Elementary Education, aiming to help children (5 and 6 years old) in the thought decentralization process.

2.2 Type

A qualitative analysis was used because the concern to explain the phenomenon by understanding it. The type of study used can be characterized as descriptive once its main characteristics are observation, registration, analysis, description and correlation of the existing conditions in a given situation.

2.3 Sample

Thirty children were randomly selected, ages of 5 and 6 years old, 15 male and 15 female, students at E. M. Frei Florentino and E. M. Francisca Alegretti, in Muzambinho - MG.

2.4 Instruments

A form was elaborated containing five questions, with three alternatives each question, to analyze the level of behavior for each child, presented during pre- and pos-test.

Thirteen descriptive texts were also elaborated to report children behavior during the thirteen run-and-catch games played in the classes.

2.5 Procedure and data collect

Thirty children of 5 and 6 years old were randomly selected from E. M. Frei Florentino and E. M. Francisca Alegretti, in Muzambinho - MG. They were separated in 3 groups with ten children each (A, B and C).

A one-minute-long run-and-catch game with four children - one catcher and 3 fugitives - was assigned to serve as pre- and pos-test. All the four children were tested in the catcher role.

A space measuring 21.5 m by 6.5 m was marked for the game. In the beginning the children were positioned at predetermined locations with the fugitives 2.75 m away from each other and the catcher 6 m away from them.

Lately, an analysis based on the results was performed in order to evaluate the level of behavior for the catcher, among three possibilities:

a) Level 1 = higher percentage of C answers
b) Level 2 = higher percentage of B answers
c) Level 3 = higher percentage of A answers
Picture 2. Classification for three levels in the run-and-catch game. (Dipe, Reis, 2005)

	I - Runs after the same fugitive?			II - Confuses the role of catcher?			III - Needs help to play his role?			IV - Catches a fugitive and stops playing?			V - Needs to warn who is going to catch?		
N.	A	B	C	A	B	C	A	B	C	A	B	C	A	B	
1															
2															

Legend: A = never; B = sometimes; C = always; N. = child number

Over a period of 3 months, beginning April, 14th, 2005 until July, 7th, 2005, groups A and B participated in classes with run-and-catch activities. There were two 60-minute classes a week. Children from group A were allowed to exchange ideas, elaborate rules, find out different strategies to run from and catch, make decisions and analyze the results for the strategies they decided to apply. For group B, the run-and-catch games were played without the concerns to create an appropriate environment so that the children could think and reflect about their actions. In group C, assigned as control, the children participated in their regular Physical Education classes. For a better analysis and verification of suggested strategies, besides the filling of the form, 13 descriptive texts were elaborated, reporting child behavior in such games and teacher attitudes for groups A and B.

3 Results

The evaluation, based upon data collection, showed the following results:
Table 1 - Results from pre- and pos-test, performed 3 months after beginning of activities

Pre-test				Pos-test			
Groups	Result			Groups	Result		
	Level 1	Level 2	Level 3		Level 1	Level 2	Level 3
A	10	-	-	A	-	10	-
B	10	-	-	B	8	2	-
C	10	-	-	C	8	2	-

3.1 Analysis and data discussion

According to Table 1, we can see that in group A, 10 children previously in level 1 evolved to level 2; in groups B and C, from 20 children previously in level 1, 16 remained in that level while 4 evolved to level 2, generating the following graph:

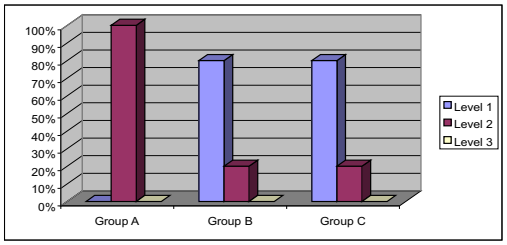

Figure 1 - Pos-test results

The results allow us to affirm that the Physical Education classes, strategically oriented with run-and-catch games, at the same time creating situations for the children to think and reflect about their actions, contribute to the decentralization of childhood thinking.

It is necessary to perform more studies in order to detect the causes that prevented the children to evolve to level 3.

4 Discussion

An excerpt from one of the 13 texts, describing the children behavior in a Physical Education class, is highlighted here, in an attempt to discuss the importance of a class with run-and-catch games, strategically conducted to provide think and reflect and to help the process to thinking decentralization. The text is for the run-and-catch game called "the little fish and the alligator".

At the beginning of the class, the teacher talked to the seating-around children and explained the rules for the game called "the little fish and the alligator". This game presents a mark on the court floor called "river", where the children playing the catcher stands with the fugitives around it.

The rule states that the fugitives must cross the "river" avoiding being touched by the catcher. In case the catcher touches a fugitive, it is his turn to play the role of the "alligator".

The children randomly picked out catcher and fugitives. New rules began to show, such as: the "alligator" could not step out of the "river" and the "little fish" could only cross the "river" after the "alligator" said he was ready to catch.

The child playing the "alligator" has always a puppet, he stands in his mark and the fugitives begin to ask him:

" -- Alligator, what are you doing?"

He answers:

" -- I'm taking a bath".

Again, the "little fish" ask:

" -- Alligator, what are you doing?"

" -- I'm having lunch".

" -- Alligator, what are you doing?"

Now he answers:

" -- I'm ready to catch you!".

The fugitives run to the other side of the court and the catcher tries to catch them.

The "alligators" kept catching the little fish until no fish was remaining around the mark.

After 30 minutes the teacher talked again to the children and suggested a different way to play the game, with the children standing on two sides of the mark on the floor.

The game goes on with the "little fish" asking the "alligator", and, at the right moment, crossing the "river". One of the children suggested to put fugitives at the four sides, making the game more complex. Thus the children have the opportunity to enlarge their point of view.

The game went on until the end of the Physical Education class.

"When children are able to play chasing games, these stimulate the decentralization process [...]" (KAMII; DEVRIES, 1991, p. 65).

During these games, if the teacher suggests rules instead of imposing them, the children have the opportunity to elaborate them. The rules creation is such an activity which implies several decisions (KAMII; DEVRIES, 1991).

The essence of cooperation relies on rules elaboration. [...] The term "cooperation", here, doesn't stand for acceptance; "cooperation" means "to operate" together, in negotiating rules to be accepted by all the players involved (KAMII; DEVRIES, 1991).

In these games, the roles of "fugitives" and "catcher" are interdependent, since none of them can exist without the other. To run away implies running away from someone trying to catch you and to chase implies chasing someone trying to run away from you. These rules are opposite because the catcher and fugitive intentions are to prevent the other part to be successful in accomplishing their goals. This implies the possibility to use strategies (KAMII; DEVRIES, 1991).

The run-and-catch games must be played along with music or dialogues, providing a long time for the children to elaborate strategies, as in the previous example, when the child playing the "little fish" talks to the one playing the "alligator". Meanwhile the dialogue the "alligator" warns: "I'm ready to catch you!". At this moment the catcher, after having some time to elaborate his strategy runs after the "little fish". And the "little fish", who also had the same amount of time to elaborate escape strategies, run away from the "alligator".

The run-and-catch games, according to Kamii and Devries (1991), help cooperative relationships, which are developed by means of exchange of ideas and points of view. If a culture is essentially coercive, valorizing compulsory postures and unilateral respect, children will hardly grow toward autonomy [being able to rule himself by himself].

"The cooperation or coordination of different points of view cannot start without decentralization. The run-and-catch games are valuable since they allow relationships with the partners to become balanced and pleasant, setting the children free to think and make their decisions (KAMII; DEVRIES, 1991)".

Physical Education classes with run-and-catch games create situations for the children to think and reflect about their actions, directing the development of their cognitive skills, and this way, to thinking decentralization.

5 Conclusion

This study's goal was to compare the run-and-catch games that provide the children the opportunities to think and reflect (relational pedagogy according to Becker, 2001), to games which don't provide such opportunities (non-relational pedagogy), and to check if both contribute to children thinking decentralization. The results showed that for 30 children: 10 belonging to group A evolved from level 1 to level 2 and for 20 children from groups B and C, 16 remained at level 1 and 4 evolved to level 2.

Analysis of the results confirm that the games must be significant to the children: it is not enough to play mechanically by the rules, it is necessary to understand them. The child needs to evaluate his performance, analyze his results, know why, how and where he made mistakes. The Physical Education teacher, providing the children run-and-catch games along with opportunities to reflect about their actions, will be contributing to the formation of subjects who can think, thus preventing them to become subject maneuverable by others, toward their autonomy.

This way, we can affirm it is important to create unbalanced situations for the children to reflect about their actions, contributing to the decentralization process. We suggest new studies must be performed to a clear understanding of the results.

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THE THINKING DECENTRALIZATION AND RUN-AND-CATCH GAMES IN PHYSICAL EDUCATION CLASSES

The aim of this study was to evaluate the possibility to estimate children's decentralization process, focusing the necessity to give them opportunity to reflect about their actions. Thirty children were randomly selected, all between 5 and 6 years old, from two city schools: E. M. Frei Florentino and E. M. Francisca Alegretti, in Muzambinho - MG. They were divided in three groups with ten children each (A, B and C) each group with different activities. Groups A and B, with two 60-minute classes per week, were assigned identical run-and-catch games. In group A, appropriate strategies allowed the children to exchange ideas, elaborate rules, find out different run and catch strategies and make decisions. In group B the games were played without concerns of creating an appropriate environment in order to allow the children to think about their actions. No special activity was

suggested to group C. The children from groups A and B were observed during a game session conducted as follows: each group of four children played for a one-minute period, three fugitives and a catcher. The game was repeated with a different catcher until all four played the catcher role. The results showed that all children belonged to level 1 since they were always trying to catch the same fugitive and constantly confused the roles of catcher and fugitive. After three months, the children were observed again. Group A, with better results, confirmed the need to create situations where the children reflect about their actions, contributing to the decentralization process. As for group B, it was clear the fragility of the results, compared to the control group, confirming the need to stimulate children to reflect about what they do.

Key-words: physical education; run-and-catch games; decentralization

LA DÉCENTRALISATION DE LA PENSÉE ET DES JEUX GLISSANT ET AU CROCHET DANS LES LEÇONS DE L'ÉDUCATION PHYSIQUE INFANTILE

Cette étude il a eu l'objectif pour vérifier la possibilité pour stimuler le processus de la décentralisation de la pensée de l'enfant, étant focalisé la nécessité pour donner la chance de penser à lui et de réfléchir sur son action. Trente enfants de 5 et 6 ans, des écoles municipales Frei Florentino et de Francisca Alegrett avaient été rédigés, dans la ville de Muzambinho/MG. Les enfants avaient été divisés dans trois groupes de dix (A, B, C), chacun avec différentes activités. Aux groupes et au B, avec deux leçons hebdomadaires de soixante minutes chacune, avait été offert les jeux identiques glissant et au crochet, étant cela dans le groupe, à stratégies proportionnées que les enfants avaient laissé, changer des idées, d'élaborer des règles, de découvrir quelques formes pour courir loin et pour attraper, pour prendre des décisions. Dans le groupe B, les jeux elles avaient été employées sans souci pour créer à environnement proportionné de sorte que les enfants aient pu réfléchir sur son action. Pour grouper C, aucune activité spéciale n'était proposition. Les enfants du groupe et du B avaient été observés pendant l'accomplissement d'un jeu coulissant et pour attraper, organisés ainsi : chaque groupe de quatre enfants a joué pendant une minute, étant trois fugitifs et attrapants. Le jeu a été répété changeant attrapant, successivement, jusqu'à ce que tout ait ainsi agi. Le résultat a démontré que tous enfants étaient dans le niveau 1, donc avaient couru derrière un même fugitif et avait constamment confondu les papiers d'attraper et de fugitif. Après trois mois, on avait observé les enfants encore. Les meilleurs ont résulté présenté pour le groupe, comparé à du groupe B et C confirment la nécessité de si créant l'enfant de situations pour la refléter sur ce qu'elles font.

Clef de mots : éducation physique ; jeux glissant et au crochet ; décentralisation.

LA DESCENTRALIZACIÓN DEL PENSAMIENTO Y LOS JUEGOS DE CORRER Y PERSEGUIR EN LAS CLASSES DE LA EDUCACIÓN FÍSICA INFANTIL

El presente trabajo tiene la finalidad de verificar la posssibilidad de estimular el processo de descentralización del pensamiento del niño, siendo enfocado la necessidad de proporcionar la oportunidad de pensar y reflexionar sobre sus acciones. Fueron sorteadas treinta ninãs de 5 y 6 años de las escuelas municipales Frei Florentino y Francisca Alegreti, en la ciudad de Muzambinho/MG. Se dividió a las niñas en tres grupos (A,B y C) de 10 (dies), cada uno con distintas actividades. A los grupos A y B, com dos lecciones semanales de sesenta minutos cada un, fueron ofrecidos juegos identicos de correr y perseguir (juego conocido como 'pillado"), siendo que en el grupo A, estrategias adecuadas permitieron a las niñas intercambiar idéias, elaborar las reglas, descubrir muchas formas de fugarse, pegar y tomar decisiones. En el grupo B, los juegos fueron utilizados sin la preocupacion de crear un ambiente adecuado para que las niñas pudiesen reflexionar sobre sus aciones. Al grupo C, ninguna actividad especial fue planteada. Las niñas del grupo A y B fueron observadas durante la realización de un juego de correr y perseguir, organizado de la seguiente forma: cada grupo de cuatro niñas jugó durante un minuto, siendo tres fugitivas y una perseguidora. El juego fue repetido cambiando la perseguidora, sucesivamiente, hasta que todas actuasen de la misma forma. El resultado demonstró que todas las niñas estaban en el nível 1, ya que corrieran siempre atrás de la misma fugitiva y confundian constantemente los papeles de perseguidora y fugitiva. Después de tres meses, las niñas fueron observadas otra vez. Los mejores resultados presentados por el grupo A, comparados a los del grupo B y C, confirman la necessidad de crear situaciones para que las niñas puedan reflexionar sobre lo que hacen, afin de contribuir para su proceso de descentralización.

Palabras-claves: educación física; juegos de correr y perseguir; descentralización.

A DESCENTRALIZAÇÃO DO PENSAMENTO E OS JOGOS DE CORRER E PEGAR NAS AULAS DE EDUCAÇÃO FÍSICA INFANTIL

Este estudo teve o objetivo de verificar a possibilidade de estimular o processo de descentralização do pensamento da criança, enfocando a necessidade de dar-lhe oportunidade de pensar e refletir sobre suas ações. Foram sorteadas trinta crianças de 5 e 6 anos, das Escolas Municipais Frei Florentino e Francisca Alegrett , na cidade de Muzambinho/MG. As crianças foram divididas em três grupos de dez (A, B, C) , cada um com diferentes atividades. Aos grupos A e B, com duas aulas semanais de sessenta minutos cada, foram oferecidos jogos idênticos de correr e pegar, sendo que no grupo A, estratégias adequadas permitiram as crianças, trocar idéias, elaborar regras, descobrir várias formas de fugir e pegar, tomar decisões. No grupo B, os jogos foram utilizados sem a preocupação de criar um ambiente adequado para que as crianças pudessem refletir sobre suas ações. Ao grupo C, nenhuma atividade especial foi proposta. As crianças do grupo A e B foram observadas durante a realização de um jogo de correr e pegar, assim organizado: cada grupo de quatro crianças jogava durante um minuto, sendo três fugitivos e um pegador. O jogo era repetido mudando-se o pegador, sucessivamente, até que todos assim atuassem. O resultado demonstrou que todas as crianças estavam no nível 1, pois correram atrás de um mesmo fugitivo e confundiram constantemente os papéis de pegador e fugitivo. Após três meses, as crianças foram novamente observadas. Os melhores resultados apresentados pelo grupo A, comparados a aos do grupo B e C confirmam a necessidade de se criar situações para a criança refletir sobre o que fazem.

Palavras chave: educação física; jogos de correr e pegar; descentralização.