

Indicators of Voluntary Activity in Role-Playing games, Based on Spontaneous Grouping of Brazilian children

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ABSTRACT

Background. Play activity is not something innately spontaneous, but depends on social conditions, opportunities and organisation. Ultimately, it is an educational tool that must be encouraged in the preschool level.

Objective. This investigation was aimed at verifying whether there are indicators of voluntary activity in spontaneous playing in groups of Brazilian children.

Design. The study included 27 observations, each lasting 30 minutes, performed during playroom hours in classes for children aged 3 to 6. The observations were accompanied by interviews conducted with children during the game and application of the Assessment of Voluntary Activity in students aged 5 to 6 years.

Results. The results indicate that in conditions of spontaneous grouping there is a kind of interest on the part of children in social role-themed games. However, as there is no guidance from the teacher, children are not able to organise the content of the games with social roles. The children do not vary the theme, they involve few social roles, the dialogues are short, and there is difficulty for definition of rules and solving the conflicts. Children attach themselves to objects and do not create symbols, there are few actions which are indicative of voluntariness. The application of the protocol revealed a low level of development of voluntary activity amongst children aged 5 to 6.

Conclusion. The development could be greater if the teacher acted in the zone of proximal development. Playing with social roles is not a type of natural activity and needs planned introduction and organisation by teachers. Spontaneous development contributes little to psychological development, more specifically contributes little to the development of voluntary activity.

Keywords: Activity theory, voluntary activity, early childhood education, role-playing games, spontaneous grouping

Highlights:

- Preschool children, aged 3 to 6, cannot develop thematic social role play spontaneously.
- Thematic social role play develops at a simplified level, with actions that are not fully explored and with fewer actions that are indicative of voluntariness.
- Without guidance from the teacher, children explore what they can do on their own.
- Thematic social role play is the main activity in preschool, so it should be used intentionally by the teacher as a working tool.

АННОТАЦИЯ

ПОКАЗАТЕЛИ ПРОИЗВОЛЬНОСТИ В СЮЖЕТНО-РОЛЕВЫХ ИГРАХ ПРИ УСЛОВИИ СПОНТАННОГО ОБЪЕДИНЕНИЯ У БРАЗИЛЬСКИХ ДЕТЕЙ

Актуальность. Игровая деятельность не является полностью спонтанной активностью, в высокой мере ее возникновение у дошкольников зависит от социальных условий, имеющихся возможностей и качества ее организации. В конечном счете, игру можно рассматривать образовательный инструмент, который необходимо развивать.

Цель. Целью данного исследования был анализ показателей произвольности в ситуациях спонтанной игровой деятельности в группах бразильских детей.

Дизайн. Были проведены 27 наблюдений продолжительностью 30 минут каждое во время игровых занятий в группах детей в возрасте от 3 до 6 лет. Наблюдения сопровождались интервью с детьми в процессе игры и применением «Методики оценки произвольной активности», предназначенной для этого возраста.

Результаты. Результаты свидетельствуют о том, что в условиях спонтанного объединения наблюдается определенный интерес детей к играм на социальные темы. Однако, при отсутствии руководства со стороны педагога дети не способны самостоятельно организовать содержание игры, включающее социальные роли. Дети затрудняются в варьировании темы игры, задействуют ограниченное число социальных ролей, диалоги носят кратковременный характер, а также наблюдаются трудности в выработке общих правил и разрешении конфликтов. Дети привязаны к конкретным предметам и не создают символы; зафиксировано незначительное количество действий, свидетельствующих о произвольности. Применение диагностического протокола выявило низкий уровень развития произвольной деятельности у детей 5–6 лет.

Заключение. Развитие могло бы быть более значительным при условии работы педагога в зоне ближайшего развития. Игра, в которой присутствуют социальные роли, не является видом естественной деятельности и требует планомерной организации со стороны педагогов. Спонтанное развитие вносит незначительный вклад в психическое развитие, в частности, в развитие произвольной деятельности.

Ключевые слова: Теория деятельности, произвольность, дошкольное образование, ролевые игры, спонтанное объединение

Ключевые положения:

- Дети дошкольного возраста (3–6 лет) не способны спонтанно развивать сюжетно-ролевую игру на социальные темы.

- Сюжетно-ролевая игра развивается на упрощенном уровне, с недостаточно проработанными действиями и малым количеством действий, указывающих на произвольность.
- Без руководства педагога дети создают лишь то, что итак способны делать.
- Поскольку сюжетно-ролевая игра является ведущей деятельностью в дошкольном возрасте, она должна целенаправленно использоваться педагогом в качестве образовательного инструмента.

RESUMEN

INDICADORES DE ACTIVIDAD VOLUNTARIA EN JUEGOS DE ROL, BASADOS EN LA AGRUPACIÓN ESPONTÁNEA DE NIÑOS BRASILEÑOS

Antecedentes. La actividad lúdica no es algo innato y espontáneo, sino que depende de condiciones sociales, oportunidades y organización. En última instancia, es una herramienta educativa que debe fomentarse en el nivel preescolar.

Objetivo. Esta investigación tuvo como objetivo verificar si existen indicadores de actividad voluntaria en el juego espontáneo en grupos de niños brasileños.

Diseño. El estudio incluyó 27 observaciones, cada una con una duración de 30 minutos, realizadas durante las horas de juego en clases para niños de 3 a 6 años. Las observaciones fueron acompañadas de entrevistas realizadas a los niños durante el juego y la aplicación del *Protocolo de Evaluación de la Actividad Voluntaria* en estudiantes de 5 a 6 años.

Resultados. Los resultados indican que, en condiciones de agrupación espontánea, existe un cierto interés por parte de los niños en juegos temáticos de roles sociales. Sin embargo, al no existir una guía por parte del docente, los niños no logran organizar el contenido de los juegos con roles sociales. Los niños no varían la temática, involucran pocos roles sociales, los diálogos son breves y existe dificultad para la definición de reglas y la resolución de conflictos. Los niños se aferran a los objetos y no crean símbolos; hay pocas acciones que sean indicativas de voluntariedad. La aplicación del protocolo reveló un bajo nivel de desarrollo de la actividad voluntaria en los niños de 5 a 6 años.

Conclusión. El desarrollo podría ser mayor si el docente actuara en la zona de desarrollo próximo. El juego de roles sociales no es un tipo de actividad natural y necesita una introducción y organización planificadas por parte de los educadores. El desarrollo espontáneo contribuye poco al desarrollo psicológico, más específicamente, contribuye poco al desarrollo de la actividad voluntaria.

Palabras clave: Teoría de la Actividad, actividad voluntaria, educación infantil temprana, juegos de rol, agrupación espontánea

Disposiciones clave:

- Los niños en edad preescolar, de 3 a 6 años, no pueden desarrollar espontáneamente el juego temático de roles sociales.
- El juego temático de roles sociales se desarrolla a un nivel simplificado, con acciones que no se exploran plenamente y con menos acciones indicativas de voluntariedad.
- Sin la guía del docente, los niños exploran lo que pueden hacer por sí mismos.
- El juego temático de roles sociales es la actividad principal en preescolar, por lo que debería ser utilizado intencionalmente por el docente como una herramienta de trabajo.

RESUME**INDICATEURS D'ACTIVITÉ VOLONTAIRE DANS LES JEUX DE RÔLE, BASÉS SUR LE REGROUPEMENT SPONTANÉ D'ENFANTS BRÉSILIENS**

Origines. L'activité de jeu n'est pas quelque chose d'inné et de spontané, mais dépend des conditions sociales, des opportunités et de l'organisation. En fin de compte, c'est un outil éducatif qui doit être encouragé au niveau préscolaire.

Objectif. Cette investigation visait à vérifier s'il existe des indicateurs d'activité volontaire dans le jeu spontané au sein de groupes d'enfants brésiliens.

Conception. L'étude a inclus 27 observations, d'une durée de 30 minutes chacune, réalisées pendant les heures de jeu en salle de classe pour des enfants âgés de 3 à 6 ans. Les observations ont été accompagnées d'entretiens menés avec les enfants pendant le jeu et de l'application du Protocole d'Évaluation de l'Activité Volontaire chez les élèves de 5 à 6 ans.

Résultats. Les résultats indiquent que dans des conditions de regroupement spontané, il existe une certaine forme d'intérêt de la part des enfants pour les jeux à thème de rôles sociaux. Cependant, en l'absence de guidage de l'enseignant, les enfants ne sont pas capables d'organiser le contenu des jeux avec des rôles sociaux. Les enfants ne varient pas les thèmes, ils impliquent peu de rôles sociaux, les dialogues sont courts, et il existe une difficulté pour la définition des règles et la résolution des conflits. Les enfants s'attachent aux objets et ne créent pas de symboles ; il y a peu d'actions indicatrices de volontarisme. L'application du protocole a révélé un faible niveau de développement de l'activité volontaire chez les enfants de 5 à 6 ans.

Conclusion. Le développement pourrait être plus important si l'enseignant agissait dans la zone de développement proximal. Jouer à des jeux de rôles sociaux n'est pas un type d'activité naturelle et nécessite une introduction et une organisation planifiées par les enseignants. Le développement spontané contribue peu au développement psychologique, plus spécifiquement il contribue peu au développement de l'activité volontaire.

Mots-clés: Théorie de l'activité, activité volontaire, éducation de la petite enfance, jeux de rôle, regroupement spontané

Points principaux:

- Les enfants d'âge préscolaire, âgés de 3 à 6 ans, ne peuvent pas développer spontanément des jeux de rôles sociaux thématiques.
- Le jeu de rôles sociaux thématique se développe à un niveau simplifié, avec des actions qui ne sont pas pleinement explorées et avec moins d'actions indicatrices de volontarisme.
- Sans le guidage de l'enseignant, les enfants explorent ce qu'ils peuvent faire par eux-mêmes.
- Le jeu de rôles sociaux thématique est l'activité principale à l'école maternelle, il devrait donc être utilisé intentionnellement par l'enseignant comme un outil de travail.

Introduction

There is a widespread common sense idea that playing is something innate to children. Therefore, play has to be free, as it is something natural that develops as the child grows up. However, what we bring to the discussion are the studies conducted by Elkonin (1980) on the historical emergence of social role-themed games, in which he analysed children's interactions with society so that the game comes to be seen as

an activity of social origin and as a result of historical changes in the place that the child occupies in society.

Based on this theoretical foundation (Elkonin, 1980; Vygotsky, 1933-1934/2006), the social role-themed game is not something innately spontaneous but depends on social conditions and opportunities. Ultimately, it is an educational tool that must be encouraged at the preschool level since it is configured as the main activity, that is, the activity of greatest interest in the phase from 3 to 6 years old. This is the one that will leverage the development of new psychological formations.

The emergence of a new type of personality structure and its activity contributes to the development of different social interactions and self-awareness. Among the new formations of the preschool level are imagination, mediation through signs and instruments, and voluntary activity (Solovieva & Quintanar, 2016). For this research, our focus relates to indicators of voluntary activity in games with social roles based on the spontaneous grouping of Brazilian children.

Assuming that voluntary activity is the “ability to develop one’s conduct in correspondence with the requirements of the concrete situation, anticipating the intermediate and final results of the action and selecting the corresponding means”, we may understand the importance of this psychological neoformation for the child’s involvement in the study activity (Salmina & Filimonova, 2001, p. 12). The development of voluntariness in the preschool age is allowed through social role-themed games that make use of an imaginary situation and favour the later work of games with rules, which appear at the end of the preschool level. These games with rules enable the child to submit consciously, bringing them closer to school activity (Salmina & Filimonova, 2001).

Collective games have an important meaning for the development of children’s voluntary activities, as the game reflects the social relationships that children experience. Thus, “submitting oneself to the discipline of the game is the child’s first school of a voluntary act” (Gurevich, 1960, p. 400).

The evolution of games and recreational activities follows children’s development, being possible from the moment the child develops their sensorimotor skills. This sensorimotor development favours the manipulation of objects, as the child is able to look at the object, pick it up, put it in the mouth, and interact with it (Elkonin, 1980).

The manipulation game or game with objects and toys provides fertile ground for the emergence of representative symbolic play, in which the child represents actions of sleeping, eating and walking around, among others. According to Mukhina (1996), in the third year of life, there is important intellectual development that allows for more complex forms of consciousness. This progress is called the symbolic function of consciousness, which enables the child to use one object in place of another.

The development of play in children from a genetic point of view follows the following order: simple manipulation; playing with objects or objectal games; symbolic games and social role-themed games. Thus, “the thematic role play can only be developed on the prior basis of the richness of the objectal and the symbolic games” (Solovieva & Quintanar, 2016, p.38).

Structurally, the social role-themed game can be characterised as follows: it involves several participants; has a previously decided and planned theme; can use con-

crete objects; happens through several situations interrelated with the theme; and, in its most developed phase, is initiated and regulated by children creatively and independently (Solovieva & Quintanar, 2016).

In practice, several training experiments were performed in Mexico and Colombia with children in the preschool level, who used as their main activity the formation in stages of the most developed level of the thematic game of social roles. These presented results that in their particularities pointed to important psychological development in both the voluntary and regulatory spheres. In the voluntary sphere, there were findings on the formation of reflective thinking and adequate execution. In the regulatory sphere, there were findings on the use of language in functions of generalisation and mediatisation of playing actions; the development of voluntary activity and motivation for knowledge; symbolic function favouring; verbal and non-verbal voluntary actions in the content of games with social roles. (Bonilla -Sanchez & Solovieva, 2016; González & Solovieva, 2014; Solovieva et al., 2024). Studies by Vygotsky (1933-1934/2006) and Elkonin (1980) identify the importance of play in the development of imagination, language, and personality. Moreover, play that promotes psychological development is intentionally planned by an experienced teacher and supported by theoretical knowledge, not free play, which is seen as something that develops naturally in children. We need to overcome the worldwide trend of focusing on the cognitive development of young children with practices distanced from play (Fleer, 2022).

Plays with social roles are the main activity or guiding activity of preschoolers. This activity, when consciously oriented and guided by the teacher, promotes the appearance of psychological neoformations at the end of preschool age (Solovieva & Quintanar, 2016).

However, the guiding documents for Early Childhood Education in Brazil present playing as something natural in childhood, which needs time and free space to develop, leaving the teacher with the role of organising the environment offering toys as they learn spontaneously and in interaction with other children.

The provision of Early Childhood Education in Brazil is lost amid two concerns. On the one hand, we have institutions that understand that the preschool level needs to be free, an informal space and with a curriculum built by the child himself (Prado & Azevedo, 2012). On the other hand, we find an Early Childhood Education system that suffers from an emphasis on early literacy. However “for children to actually learn to read, write and deal with numbers - with understanding, resourcefulness and autonomy — much has to be ensured in the formation of their mental processes” (Saviani, 2012, p. 70).

Therefore, this investigation was aimed to at verifying whether there are indicators of voluntary activity in social role-themed games based on the spontaneous grouping of Brazilian children.

Methods

The study included the method of direct observation and registration (based on scripts) of spontaneous playing activity. The data refers to 27 observations, each of 30

minutes, conducted during playroom hours in the 3 to 6-year-old classes. Qualitative assessment of voluntary activity was provided to the group of children from 5 to 6 years old.

Participants

Sixty-nine children (aged 3 to 6) participated in the research from three classes at a Municipal Early Childhood Education Centre (Centro Municipal de Educação Infantil - CMEI), a public institution located in the interior of the state of Goiás (Brazil). In class I, children aged 3 to 4 were included; class II included children from 4 to 5 years old, and class III included children aged 5 to 6.

Before the study, interviews were conducted with the participating teachers. When interviewed, the class teachers pointed out that playing is important for the development of creativity and language. However, in the teachers' speech, the idea is that playing has to be free, being just a moment of socialisation and an essential activity of relaxation, in contrast with pedagogical activities.

Playroom

At the school where this research was undertaken, children aged 3 to 6 use the toy library (playroom) at least once a week. There is a space full of toys where they can play freely for half an hour under the supervision of an adult, who's participation is limited to resolving conflicts and controlling impulses.

The playroom is a large space, separate from the classrooms, where there are various toys donated by society. The smaller toys are placed on shelves at the children's height, such as: cars, trucks, aeroplanes, dolls, teddy bears and stuffed animals, buckets and paddles, musical instruments, balls, cubes and plug-in toys. The larger toys are on the floor, such as a cooker, a table with chairs, a sink, a mattress, a dressing table and a basket with pieces of wood.

Script for Registering Voluntary Actions

To construct the observation script, with emphasis on indicators of voluntary actions, it was necessary to observe and analyse how the children organised the playful activities. Thus, initially, all children were observed in their process of choosing toys. The attention of the researchers turned to the groups, as it was from the group meeting that the thematic game of social roles emerged. The following topics for observation were used:

Groupings

- a) How are they grouped?
- b) How many children are there in the groups?

Theme

- a) What is the theme?

Social role

- a) Do the characters match the theme?
- b) Do the actions of the characters correspond to the social role?

Choice of toys/objects

- a) How do they choose?
- b) What do they choose?
- c) Do they replace toys?
- d) Are the objects they choose in line with the theme?
- e) Do the actions with the objects correspond to the imaginary social theme?

Language

- a) Are there dialogues related to the chosen social role?

Rules

- a) Do they set any rules?
- b) Is there any conflict? How do they resolve any conflict?

Symbols

- a) Do they build symbols?¹

Time spent in the game

- a) Do they stay in the game until the end, keeping to the same role?
- b) How long does each group stay involved around the same theme?

Assessment Tool for Voluntary Activity

This activity guide was performed by the researchers with children aged 5 to 6 at the investigated school institution, which is in line with the recommendations of the assessment tool manual, as they are accessible to them. Finally, it makes it clear that children of other ages can carry out the activities, always respecting the specificities of each case and offering different types of help (Quintanar & Solovieva, 2013; 2019).

The application was administered individually in a private room during school hours and lasted half an hour each. All the children from the 5 to 6-year-old class, totalling 11 participants (whose parents/guardians had signed a consent form). The protocol was applied playfully, trying to respect the child's interests and motivating and involving the child in the activity without it being mechanical. The protocol does not aim to classify children's development in a standardised way. On the contrary, it aims to investigate not only the child's current level of development but also proximal development, considering what the child is capable of doing with the applicator's help.

The protocol aims to indicate the level of formation of voluntary activity among children aged 5 to 6. It is divided into five axes of activities: playful activity, voluntary activity in the motor sphere, voluntary activity in the auditory sphere, voluntary activity in the graphic and involuntary recall (Quintanar & Solovieva, 2013; 2019).

Each axis of activities is organised based on tasks that involve free or guided games, incomplete drawings, body movement and memorisation. For each task, we constructed three levels of help, the first of which involved repeating instructions

¹ The construction of external symbols is an orientation strategy to guide children's verbal and non-verbal actions. It is a proposal from the Programme for the Formation of Play Activity in the pre-school institution (Solovieva & Quintanar, 2016).

and verbal incentives for the child to perform the activity. At the second level, the objective was to offer a clue and/or model of what was requested, and, finally, at the third level, the help was more explicit to the point of realising the activity together with the child.

Procedure for Data Analysis

To find the unit that represents the game and preserves the properties of the whole, Elkonin used a method based on historical and dialectical materialism, in which it is possible to understand a lower level from a higher level; that is, through the anatomy of man, it was possible to understand the anatomy of the monkey. Therefore, we start in the most developed way to arrive at the history of its appearance, that is, the unit that represents the played game are the relationships between people, the role and their associated actions (Elkonin, 1980).

According to these principles, the voluntary actions as the content of the game may represent the unit that carries the whole. This emphasis offers the necessary data to understand whether there is voluntary activity, directed to the goal of the play, in the social role-themed game based on spontaneous grouping of children. The elements of analysis of the game, included for the scripts during observation, were as follows: theme, social role, symbols, rules, use of objects and dialogue.

The protocols of assessment of voluntary activity was applied individually to 11 children from the oldest group (aged 5 to 6 years). The data obtained by the protocol were analysed quantitatively, using descriptive statistics of the tasks that were performed correctly, correctly with help and those that were not performed.

For the qualitative analysis, reflection was ongoing throughout the research, which allowed, for example, some adjustments to the observation protocol. The records in the field diary were added to the theoretical readings, which enabled specific analyses throughout the process. From the descriptive analysis, the data were presented in the format of central themes that guided the discussion (Creswell, 2010).

Results and Discussion

Volunteer Activity Indicators: Children's Group Formation

Role-playing only happens if a group is formed and organised around the same goal. The initiative to group and remain together until the game ends signals the development of voluntary activity. Therefore, it is necessary to analyse how the children stay in spontaneous groups and how they are involved in the play. Yet, in all classes, we observed children only playing with the objects alone. This event appeared more often in class I (3 to 4 years old), with a reduction in class III (5 to 6 years old). In the clipping from the researcher's notes (below), it is possible to identify this:

A girl starts playing with another doll, and after 3 minutes, her fellow leaves her. After another 3 minutes, another girl appears and starts playing. This second girl who arrives spends around 10 minutes playing with the dolls. Each one handles, takes care of, combs their hair, and pretends to be feeding them (Class II — 4 to 5 years old).

Another similarity in group formation is associated with the choice of toys. In all classes, the groups were formed on the basis of the initial selection of specific toys. However, in class I (3 to 4 years old), most of the time, children sat close together to handle similar objects, which were more important than their relationships with the mates. Elkonin (1980) calls this *action-play*, the solitary play. Even when more than one child plays around the same toy, they play next to each other but do not play together.

In class II (4 to 5 years old), the grouping, most of the time, also emerged from the choice of toys, but sometimes a kind of topics arose in relation to the objects themselves.

In class III (5 to 6 years old), the same way of grouping as class II was also sometimes observed but less frequently. Group formation was registered in this class due to the interest in the relationship with the playmate.

The number of children per group increased between classes. In class I (3 to 4 years old), we registered groups of a maximum of two children engaged in gaming activities. In class II (4 to 5 years old), there were a maximum of 3 children involved, with the majority forming a group of two. Finally, in class III (5 to 6 years old), the majority were grouped into two, three or four members, and there was even a group of 8 children. Still, not all of them were fully involved with the topic, as some left the corner where the game was taking place to be in other corners, handling other objects that had no relation to the theme, and after a while, they returned.

The maximum time of involvement between groups around the gaming activity increased between classes. In class I (3 to 4 years old), the maximum time recorded was 10 minutes. In class II (4 to 5 years old), it was 20 minutes, and in class III (5 to 6 years old), 30 minutes. Finally, it is worth noting that the short duration of the game is related not only to the variety of stimuli (toys) that distracted children but also to the lack of knowledge surrounding the social situation of the theme, with no variety of characters, of verbal and non-verbal actions for each character and the lack of symbols.

As the toys spread around the room, it became more difficult to stay in the game, and children ended up changing groups and activities. In interventional research, Marcolino and Mello (2015) realised that the excess of toys in the space hinders the grouping and development of interactions between children. Therefore, they created simpler scenarios that suggested varied interactions, as well as the creation of other scenarios based on what existed, providing support for the imaginary situation and favouring the development of the argument.

The playing with social roles can only emerge from the grouping of children. When working in a group, the child shares characters and actions, learning to fulfill their role and trusting in the fulfillment of the other's role. It develops language since the roles require dialogue. In short, playing in groups is essential (Quintanar & Solovieva, 2016).

Staying in a group around the same objective for a longer time signals the development of voluntary activity, as children direct their attention to completing the activity and control their impulses by directing their actions to respond to the theme of the social role game. Thus, it is in the relationship with others, and it is from the

encounter with peers, that the possibility of performing the social role-themed game arises. The school space, in turn, is the most attractive social situation that can contribute to the child's psychological development.

***Volunteer Activity Indicators:
the definition of Themes and Social Roles***

Data relating to the themes of the games played by children indicate thematic preferences and the level of knowledge surrounding existing social roles. Before reaching the level of social role-play, in which the main concern is to represent role relationships, children reproduce actions with objects. Therefore, it was possible to observe different elements of objectal game themes in the three classes. To record the themes, when they were not announced, the scenes were named by their content (Marcolino & Mello, 2015). The symbolic game's themes, recorded in the three classes, were taken from the actions performed with the toys available: hammering a house, playing the guitar, washing clothes, washing pets, repairing a stroller, making food, giving injections, typing on the computer, changing the doll's clothes. No kind of complex substitutions were noticed in this games and no kind of role representations.

The variety of actions in objectal play indicates that children have a varied repertoire of actions with objects. Therefore, this repertoire could be the basis for the development of themes and arguments that are also varied in role-playing, such as mechanic's workshop, bricklayer, hospital, vaccination post, office, restaurant, clothing store, car sales, laundry, veterinaria, and music concert, among others.

However, when evaluating the themes of the role-playing games in the three classes, we were surprised by the fact that only the theme of "mother with daughter/son", with the social roles of mother/father and children, was the one that appeared most, being the only one in class II (4 to 5 years old). In research conducted by Marcolino and Mello (2015), the theme of little houses appeared in the nine observed schools, and this can be justified by the fact that it is a topic close to children and also because all schools have available toys related to this theme. For the Historical-Cultural theory, creative activity is related to the experiences accumulated by human beings. In this sense, the teacher's intentional and planned action in role-playing must involve the presentation of human activity to children with the purpose of expanding experiences (Marcolino & Mello, 2015).

In class I (3 to 4 years old) and class III (5 to 6 years old), the theme "hairdresser" appeared, with two social roles, that is, hairdresser and client, due to the presence of the dressing table that was placed in the playroom. However, this same interest did not appear in class II (4 to 5 years old), which suggests that the presence of the themed toy is not enough to arouse interest in the topic. According to Elkonin (1980), children need to know about social roles to develop the game.

In view of this, we emphasise the need for teacher's orientation in the games developed by children to expand the thematic repertoire and arguments of the games. To this end, the teacher can use different strategies, such as visits to external spaces, books, photos and videos. Expanding the repertoire, with a view to awakening the

child's interest and motivating her to explore other themes, will favour the development of voluntary activity and other psychological functions, as the child will experience verbal and non-verbal actions associated with different activities. Gradually, each child becomes aware of the various social roles that exist in society, which may arise from her life experience and the teacher's guidance.

The variety of themes, arguments and social roles allows children to have different experiences and face other problems as they agree on the division of roles, what each one will do, how they will organise the scene and objects/toys, and what the beginning and end of the game will be like. These arrangements favour the development of voluntary imagination as the child learns to control and organise the imagination process. "In the absence of new themes that require the development of different imaginary situations, children stop creating new imaginary situations and become disinterested in the activity" (Marcolino & Mello, 2015, p. 466).

Volunteer Activity Indicators: the Use of Replaced Toys

The use of replaced toys is an indication of the development of the symbolic function. Also, it signals the development of voluntary activity as the child chooses and replaces objects in order to achieve the objective of the game.

In a quantitative evaluation, the substitution of objects in games appeared in 11% of the observations conducted in class I (3 to 4 years old), 18% in class II (4 to 5 years old), and in 57% of the observations in class III (5 to 6 years old). These ranges indicate that there was an increase in the replacement of objects among the observed classes.

The substitution of objects is indicative of the symbolic function development. However, substitution is just one of the characteristics, also involving representation without the presence of objects and the use of imagination, in creating actions with and without a substitute object.

In the imaginary play, "the child learns to act based on what she has in mind and not on what she sees" (Vygotsky, 1933-1934/2006, p. 29). This aspect indicates a qualitative leap in child development, as perception no longer commands actions, just as it did in early childhood (1-3 years). Thus, a piece of wood can be a doll, a broomstick, or a horse.

In this sense, the initiative to replace an object to achieve the objective of playing around a theme indicates not only the development of voluntary activity but also of symbolic thinking, an extremely important function for the psychological development of the individual. It is not the aim of this work to address the development of the symbolic function. Hence, it is known that at a psychological level, functions develop in a dialectical way (Vygotsky, 1927/1995), so this highlight is important.

Despite the evidence that there was an increase in the use of replaced toys, it is worth pointing out that there were difficulties in accepting the replaced object in class I (3 to 4 years old), suggesting that the real object is important and that without it the game does not happen and, in class III (5 to 6 years old) when – for example - a saleswoman does not accept a small puzzle piece as money.

The fact that the game stops happening when the object is not present signals a low level of symbolic function associated with low initiative and independence to choose another object or even act without it. The separation of the idea, the object, that is, the semantic field, from optics, is not something that happens easily and spontaneously, and it is the play that will make this transition possible. During the game, by projecting the idea of a horse onto the broomstick, the child moves towards actions based on the free mental image of the objects (Vygotsky, 1933–1934/2006).

Given this, we point out that replacing objects is a way to develop actions without material presence. Therefore, it is up to the teacher to contribute to this process through verbal suggestions and/or models of action. This remark on the adult role was found in an investigation with children between 1 and 3 years old at a boarding school, in which it was observed that the child who used objects together with adults, when acting alone, used the objects in the way the adult had used or been taught it (Frádkina, 1946; Elkonin, 1980).

Volunteer Activity Indicators: the Constructed Dialogues

The use of dialogue throughout the role-playing game signals the development of voluntary activity, as the children independently use their language to guide their actions and the actions of others in accordance with the game goals. For this purpose, it is necessary to analyse this point to verify how dialogue is used and whether it is in accordance with the social role.

The recording of dialogue in role-playing is indicative of the development of communication and, consequently, of voluntary activity, since by mastering verbal actions and adapting them to the activity they are engaged, children can regulate their conduct, facilitating the achievement of goals and objectives (Solovieva & Quintanar, 2001).

In the three observed groups, the record of dialogue was small, and when it appeared, it was punctual. There was a record of the speech of a character directed to another who responded with non-verbal actions. In class I (3 to 4 years old), they talk most of the time alone, to themselves, while playing. In class II (4 to 5 years old), the speeches are punctual, from just one character who receives the response to his speech with actions from the other interlocutor. In class III (5 to 6 years old), the number of speeches recorded increased, but we did not record qualitative gains, such as longer dialogues associated with the role. This characterisation is presented in the following records:

“Two girls sit near some kitchen toys (stove and sink) to look at some books, and one of them says: ‘Oh, daughter, there’s a book here that mommy has bought for you.’ ‘Oh, daughter, look for the story about the little horse.’ ‘Oh, daughter, which book do you want?’ ‘The daughter chooses and starts reading the duck story’” (Class I - 3 to 4 years old).

“Suddenly a boy approaches, and his mother looks at him and says: ‘Son, here’s a doll for you to play with’” (Class II — 4 to 5 years old).

“The mother calls her daughter and says: ‘Take care of your sister, give her a little toy to entertain her’” (Class III — 5 to 6 years old).

The development of language not only allows the child to regulate their actions but also enables the construction of an internal language “through which the child fixes the meanings and purposes of actions, enabling her to carry them out in accordance with a given planning”. When speech is poorly developed, there is a need for adult interference (Martins., 2010, p. 81).

Another important statement observed in the three classes was the record of dialogue associated only with the theme of “mother and daughter/son”, which suggests that children have greater knowledge and involvement with the roles of mother and child and, therefore, are capable of inserting dialogues independently. However, with the aim of expanding children’s repertoire and awakening interest in other social roles, teacher mediation is necessary, based on the presentation of new themes with varied social roles and models of verbal actions.

Research conducted by Soares (2013) with children between 6 and 7 years old, aiming to verify the regulatory role of language in role-playing, presented results that the dialogical relationships built during role-playing among children and among them and the adults make the activity of playing more complex, favours learning and the structuring of children’s personality. Through speech, children express what they think about society and how they are integrating into it.

It is worth pointing out that there was no record of the construction of symbols, which are an important resource in role-playing games, as they become a guide for the development of verbal and non-verbal actions. The suggestion and construction of the symbol require the participation of the adult, who is the most experienced partner in the relationship.

To this end, we highlight the importance of the teacher’s role in offering models of verbal actions, as it helps children to create varied situations for themes that are also different from what they are used to. As mediation strategies, besides the dialogue model, the teacher can build external symbols together with the children that guide their language and participate in the game together with the students.

Volunteer Activity Indicators: the Use of Rules

The definition of rules before the game begins signals the development of voluntary activity and favours voluntariness as the children involved in the game follow the guidelines defined to achieve the activity goal. Conflict, in turn, appears when the rules are not explicit, requiring the character to have strategies to resolve the impasse according to the role, thus requiring independence and initiative.

By defining rules, children create conditions for the development of actions, and by following these rules, they control their behaviour to achieve their goals, thus signalling the development of voluntary activity. In class II (4 to 5 years old) and class III (5 to 6 years old), we observed the emergence of rules in the middle of the game, usually when a child/character with greater independence and initiative announced the conditions to her peers. Still, the other children do not always accept them.

Conflicts appeared in all the classes, most of which revolved around toy ownership. In classes I and II, there was a greater number of disputes, and in class III, there was a reduction. The resolution of the conflict, according to the social role the child is playing, signals self-control and maintenance of the game goal, indicating voluntariness. However, in all three classes, conflicts are difficult to resolve. They do not remain in their role and use force to dispute the toy, threaten to tell the adult or ask for help from the closest adult. Below, we present two clippings:

“The brush is a new object in the room, so it attracts attention, and some people get into conflict because of it. This object changes hands. They use it to comb each other’s hair and also the dolls’ hair” (Class 3 to 4 years old).

“The daughter took a piece of building block and says she is putting on lipstick. The mother asks to borrow it, but she doesn’t give it. The girl whose role is the mother tries to take it and uses arguments unrelated to the role, for example, ‘I’m not going to play anymore with you’, and in the end, she gets the lipstick” (Class of 4 to 5 years old).

There was a small record in class III (5 to 6 years old) in which one of the characters resolved the situation of toy ownership by stating that only the mother should iron clothes, and this convinced her playing partner, generating respect for the rule:

“Another girl approaches and says: ‘Then, will you let me pass afterward?’. The girl who irons the clothes answers: ‘No, I’m just taking care. Maria is the mother’” (Class of 5 to 6 years old).

We realise that there is potential for the development of voluntary activity within the scope of creating rules and managing conflicts, but intentional and planned action by the teacher is necessary in the three moments: planning/organisation, execution and reflection. And guidance at a verbal and non-verbal level, with action models that move from external support to internalisation.

The teacher must offer children planned and guided activities and act in the zone of proximal development according to the specificities, offering levels of help that vary from the presentation of concrete models through images, moving towards the definition without a model and with the support of objects, until the children create on their own, based on their ideas and choice of objects (Martins, 2010).

Conscious/voluntary control of their conduct indicates a qualitative leap in the children’s psychological development, which moves from external control to internal control. There is, therefore, an “increase in the power of concentration and stability of attention, in the duration of conservation time for retaining material in memory and in the enrichment of imagination” (Lazaretti, 2016, p. 142).

Finally, considering all the items related to the play performed in the toy library, we conclude that there is a difference in voluntary behaviour among the classes, and sometimes, class III presents a higher level of voluntary behaviour than the other classes. However, this is not constant because, at the same time that we identify advances, we also spot stagnation in the primary stages of the game. We understand that all of this could be different if there was intentional action by the teacher aiming to promote psychic development.

Nevertheless, it is not enough to build spaces and provide objects/toys for the children; the teacher needs to mediate through dialogue; models and examples of actions; by presenting existing social roles. “In many cases, schools for children are still

trapped in a methodological dualism in which sometimes play is free and sometimes play is pedagogised, with the sole purpose of teaching academic content imposed by the curriculum” (Steinle, 2013, p. 124).

Assessment of the Development of Voluntary Activity in Children Aged 5 to 6

We present below, in *Table 1*, the data regarding the performance of the tasks applied to children in class III (5 to 6 years old), with the purpose of evaluating the level of development of voluntary activity.

Table 1

Percentage of execution by the 11 students from class III (5 to 6 years old) in each of the plans of the Assessment of Voluntary Activity protocol

Action plan	Tasks	%		
		Correct performance	Correct with help	No performed
Playful activity	Free game	45	55	0
	Guided game	18	82	0
Motor sphere voluntary activity	Free walk	90	10	0
	Regulatory walk with claps	55	45	0
	Regulatory walk with language	64	36	0
	Actions performed	90	10	0
Auditory sphere voluntary activity	Songs identification	73	27	0
Graphic design voluntary activity	Table with Schulte numbers	27	73	0
	Incomplete drawings	62	20	18
	Table with figures	72	18	10
Involuntary memory	Involuntary memory	100	0	0
Average		63.3	34.2	2.5

Regarding the free game, there was a lower percentage (45%) of correct performance independently. While the majority (55%) needed first and second-level help to start the game, in some cases, the researcher had to tell the children that they could play so that they could start the game. A girl, at the end of the time, that is, after 6 minutes of playing with feeding a doll, realised that she could play with other toys but

only played with the doll, thinking that the researcher would tell her when she could switch and play with another toy.

In the guided game, most of the children (82%) required second-level help. In the motor sphere, most performed free walking. However, almost half needed second-level help to walk, according to the claps. The majority regulated their movements according to language, but 34% needed second-level help.

In the auditory sphere, most (73%) of the children performed the activity correctly, while 27% needed first-level help, i.e., the activity had to be explained in other words. In the graphic sphere, most (73%) needed first-level help (more detailed explanation) and second-level help (guided instruction to analyze one line at a time) to accomplish the goal of circling the numbers on the Schulte table. The difficulty in identifying the numbers meant that the majority (64%) circled up to 10, while 26% circled up to 15 and only 10% challenged themselves and went up to 25.

Concerning the incomplete drawings, the majority (62%) got it right, the remaining (20%) needed third-level help, and 18% could not perform. Finally, in the table with figures, the majority (72%) performed correctly, 18% required third-level help, and 10% failed to meet the goal of circulating them all.

All the children remembered what was in the room. We can analyse the fact that the activity was performed in the toy library, which is a space that they know well and know everything that has inside, but most (54%) mentioned other objects that were not in the room, such as objects that we used to apply the protocol.

They accomplished the proposed tasks independently in 63% of the situations, indicating a positive level of voluntary activity consolidation. On the other hand, performing tasks with the help of the adult, with his motivation or constant repetitions, occurred in 34% of the situations, evidencing that they are in the zone of proximal development.

Conclusion

The analysis showed that the children in the institution under investigation can play games with social roles only in simplified format, with very few voluntary actions. Children can not organise dialogues directed to the object of the game, which indicate poor development of verbal voluntary actions. The children have no strategies for resolving conflicts, they spend the most of the game time by manipulating the objects and toys with no specific goal. There is no kind of use symbols, there are even no variation in verbal and non-verbal actions related to the role and the same social situation is constantly repeated, specifically that of “mother and daughter/son”.

However, the fact that children between the ages of 3 and 6 develop the thematic game of social roles in a spontaneous group indicates that this activity arouses their interest. They need social communication, and role-playing is the reason they seek it, as it allows children to be like adults.

Nevertheless, although we have recorded indicators that the children can perform social roles a more advanced level, we have also recorded that they do not spend most of their time playing more complex games.

The assessment pointed out what the researcher observed during the playroom sessions: the children in class III (5 to 6 years old) develop voluntary activity and can develop even more if they are offered different levels of help according to their needs, following the rules for an Action-Guiding Basis that leads to the formation of mental health in a step-by-step process (Galperin, 1986).

When left to their own devices, children explore what they can perform alone, and this does not promote any kind of development. As Vygotsky (1924-1932/2001) states, learning/development occurs in the Zone of Proximal Development (ZPD), in contact with what the child is capable of doing with the help of others. The same was observed by Singer et al. (2014) in a survey of Dutch nurseries, where teachers spend most of their time moving around without getting involved in the children's play, and this has a negative impact.

In conclusion, we suggest further research in the field of Early Childhood Education that could use formative experiments in which the social role-themed game is the main activity, as has been undertaken in Mexico and Colombia. The formative experimental method favours the formation by steps of psychological processes important for the child's academic success. Still, it enables pedagogical practice within the framework of a didactic approach that really contributes to child development and quality education.

Limitations

It was not possible to carry out a formative experiment in order to record the adult's role in organising the thematic game of social roles, so future work could complement what was found in the spontaneous game.

Ethics Statement

As this was a study involving human subjects, all precautions were taken in accordance with the Ethical Criteria for Research Involving Human Subjects, as set forth in Resolution No. 466/12 of the National Health Council, which deals with standards for research involving human subjects in Brazil. This project was approved by the Research Ethics Committee of the Federal University of Goiás (Brazil), under number CAAE: 62903616.5.0000.5083.

Informed Consent from the Participants' Legal Guardians

Written informed consent to participate in this study was provided by the participants' legal guardian/next of kin.

Author Contributions

M.C.M., Y.S. and M.A.M. conceived the idea. M.C.M. collected the data. Y.S. and M.A.M. supervised the results of this work. All the authors discussed the results and contributed to the final manuscript.

Conflict of Interest

The authors declare no conflicts of interest.

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