A Didactic Game Technology

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Abstract

The article presents a didactic game technology which enables to weaken the control mechanism (irrespective of one’s ethnic or religious background). Children experiencing tight external control (on the part of teachers or parents) have been found to have their motivation for play and game participation decreased by 60% or more than twice (545 children’s play activity was analyzed). That is why many didactic and socio-dramatic games have proved to be ineffective in terms of relaxation, education and development. The results obtained actualize the need for improving the didactic game structure and providing specialized training for teachers to organize and conduct such games. These results demonstrate Russian teachers’ incomplete readiness for using the didactic game in their educational process, lack of continuity between pre-school and elementary education in terms of both ideology and educational process organization practice.

Keywords: Tech game, child abuse, play activity, readiness of a teacher for a game, didactic game.

1. Introduction

The analysis of pre-school education quality poses the following problem: How to make play activity both joyful and educational? Can games provide comfort, joy and high preparedness for school education? Over the past 4 years (2011-2015) we practiced the didactic game as a 4 stage technology:

1. Motivation of play activity, inspiring children to play;
2. Inclusion of children into a game on the level of subconscious analytical activity;
3. Immersion into the game on the level of a subconscious synthesis of components of one’s own participation in the play activity;

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4) Interiorization - transition of internal actions into external ones, i.e. direct participation in the game (transition from intention to action).
From the point of view of the activity approach Phase 4 involves the use of a control mechanism.

1.1. The research tasks are to:

- Analyze the conceptual framework of pre-school education in Russia;
- Determine the degree of popularity of play activity in day-care centres;
- Define the specific features of play activity in day-care centres;
- Define the problems and prospects of play activity development.

2. Materials and Methods

The material for the studies was provided by day-care centres of Kazan, the capital city of the Republic of Tatarstan, Russian Federation. The work was carried out in 1990-2015. The research methods included observation, analysis, mathematical processing of empiric material, and creation of play activity technologies.

3. Results and Discussions

3.1. Characteristics of mothers

The control mechanism is a natural mechanism accompanying the interiorization process (transition of internal actions into external ones). Every person controls himself/herself, up to a degree, in what and how he/she speaks or acts. However, if the control is too strong it suppresses one’s possibility to analyze, synthesize and one’s desire to speak or do something [1], [2], [3], [4].

A child’s behavior is regulated by control. It can be internal (exercised by the child himself) or external (exercised by the teacher). We stated that the motivation of children with strong internal control for play and game participation decreases by 30% (524 children’s play activity is analyzed). As a rule, these are insecure, intimidated kids. A child can be scared by his parents, unversed in pedagogics, teachers and chance people.
Children who experience tight external control by their teachers or parents, have their motivation for play and game participation decreased by 60% or more than twice (545 children’s play activity was analyzed). That is why many didactic and socio-dramatic games prove to be ineffective from the point of view of relaxation, as well as education and development. Many teachers are totally unaware of the fact that their tremendous efforts to organize a good game work against their kids, killing their desire to play. Playing under the teacher’s tight external control makes one lose one’s behavioral freedom and fails to provide self-realization either to the child or to the teacher. Not infrequently, exhibition games (for colleagues or inspectors) turn out to be like that.

About 80% of those in charge of Russia’s day-care centres hold degrees that have little to do with preschool education. The Russian Federation legislation provides an opportunity for people with any higher education to work as heads of day-care centres. Research into the work record and pedagogic competences of the heads of 549 pre-school institutions shows that they do not know much about the theory and practice of pre-school education and see their mission as one of controlling teachers and children.

We have come to the conclusion that play activity should be organized in such a way as to decrease as much as possible the internal (by the child) and external (by the teachers) control. It can be reduced by means of a very fascinating and captivating game, in this game the next result of the child’s activity (cognition) should get into his/her "memory trap" and become his/her own asset. Consequently, the teacher’s efforts should aim not only at organizing a game and filling it with didactic sense but also at neutralizing the mechanisms of internal and external control. It is the environment of a liberated didactic game that produces a strong impulse not only for cognition, but also the development of the child’s intellect, thinking, speech and his system of positive values.
Play both in the context of pre-school and primary education requires that teachers should not only understand the mechanisms of play activity with a didactic content, but also exhibit excellent pedagogical skills. The teacher should organize the cognitive process in the didactic game as an intrigue, an expectation of surprise with culmination and outcome of the play activity. In these conditions both the child and the teacher should improvise, not fearing to depart from the game rules. The main thing in such a game is to place the next result into the child’s "memory trap", to turn the result of the learning into the child’s asset and thereby to secure conditions for his/her full self-realization.

A game like this ensures a child’s relatively high readiness for studying at school as assessed on the basis of scientists’ criteria (diagnostics of the intellect, creativity, etc.) and those of parents, school teachers and the general public (the ability to read and count).

3.2. Children’s Readiness for Studying at School

Different countries employ different ways to evaluate children’s readiness for studying at school. According to L.M. Veraksa [5] and N. Veraksa [6], in Britain, for example, the purpose of the day-care centre consists largely in developing independence and self-service, forming a schoolchild’s social stance, his motivational and communicative readiness to study in primary school. Underlying this approach is the principle: "you can’t get ready for school before it starts". In contrast to it, Russia has traditionally focused on developing the cognitive and regulatory components of getting ready for education. An attempt to implement the British model which lies at the basis of the pre-school education standard and programs does not enjoy the support of either teachers or parents so far.

Traditionally, Russia uses different methods of evaluating 6-7 year-old children’s readiness for education (tests to diagnose intelligence, thinking, memory, etc.). But, as a matter of fact, teachers and parents are concerned only with two indicators - the ability to read and the ability to count. The ability (or inability) to read forms a basis for linguistic literacy acquisition and the ability to count lays down the foundation for mastering mathematical literacy. That is why pre-school training in Russia (at 6-7 years) is an additional educational service and more often than not aims at developing linguistic and mathematical literacy. Such training ensures children’s academic progress in primary and secondary schools; it is understandable to parents and receives their most enthusiastic support.

To define a student’s readiness for studying at school with the help of a didactic game we used the following simple criteria:

1) The ability to read:
   - A low level of reading – syllable-by-syllable reading;
   - A medium level of reading – slow reading;
   - A high level of reading – fast reading;

2) The ability to count:
   - A low level – counting up to 10 (deduction and addition ≤ 10);
   - A medium level – counting up to 100 (deduction and addition ≤ 100);
   - A high level – counting up to 1000 (deduction and addition ≤ 1000).

12 day-care centres in Kazan used didactic games for 5 years (2010-2015), analyzing the progress of 547 kids aged 6-7 years during the period. The results are given in Table 1.

| Table 1. Readiness of children for studying at school (in experimental day-care centres) |
|---------------------------------------------|---------------------------------------------|
| Ability to Read | Ability to Count |
| Level | Low level | Medium level | High level | Low level | Medium level | High level |

12 day-care centres in Kazan used didactic games for 5 years (2010-2015), analyzing the progress of 547 kids aged 6-7 years during the period. The results are given in Table 1.
For comparison, we used the data obtained from day-care centres (they were 12 of them, too), which provided no pre-school training with the help of didactic games (See Table 2).

Table 2. Readiness of children for studying at school (in regular day-care centres)

<table>
<thead>
<tr>
<th>Level</th>
<th>Ability to Read</th>
<th>Ability to Count</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low level</td>
<td>Medium level</td>
</tr>
<tr>
<td>B %</td>
<td>78</td>
<td>14</td>
</tr>
</tbody>
</table>

As we can see, the data differs considerably: the experimental groups, which used didactic games with control neutralization, showed a high level of reading ability in 30% of its children (compared to 8% in the control groups) and a high level of math training in 27% of the children (compared to 11% in the control groups). The medium level is also typical both for the reading ability (38% against 14%) and for mathematical preparedness (65% against 25%). The results in the control groups are accepted by teachers and parents as being normal rather than low: they are typical for the majority of Russian day-care centres.

We once again underline that the indicators of the control groups do not have a discriminatory meaning; they are relative (specific for Russia) but objective and are unofficially set by virtue of the formed traditions of cooperation of the primary school and day-care centre.

4. Research Results and Conclusions

The results obtained show that play activity is gaining currency as a leading type of activity in Russian day-care centres. After the pre-school education standard was adopted, every teacher was expected to use games. The research shows that in reality play takes up only 36% of the time, allocated for children’s education and development. It should also be noted that not all of the games are educational.

According to L. Vygotsky [7], education results in development. In practice some games are educative, some are developing, while others are entertaining and so on. At the same time, not all games enable children to feel like children: they are treated as schoolchildren.

Many didactic games have been found to tighten control and thus to suppress children’s desire to play. It has been shown that this control may be decreased providing the game is exciting and capturing enough. In this case the efficacy of learning (education through play) becomes obvious.

Consequently, it is necessary to use control mechanism neutralization techniques when playing didactic games: children make mistakes which tend to be provoked by this control, i.e. their fear of making a mistake. It is essential to bend the strict rules of a game more often, to improvise and stimulate the children in the game, even if they make mistakes.

Didactic games help to overcome religious and ethnic differences, neither do they provoke aggression based on ethnicity. They positively influence the education and development of pre-school age children (6-7 year-old children).

5. Guidance

The research results actualize the need for both improving the didactic game structure and providing special training for teachers to organize and conduct such games. These results show a lack of continuity between pre-school and primary school education in Russia both on the standards ideology level and on the practical level of educational activity organization.
References


