TOWARDS EFFECTIVE PRESCHOOL TO PRIMARY SCHOOL TRANSITIONS - RECOGNIZING THE POTENTIAL OF ICT

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Abstract*: The present article focuses on a subject of topical interest: the impact of digital teaching resources on the beginning of school and the teacher's role in developing some learning circumstances that should encourage the use of ICT. The debate is one with major implications in our area of interest, as ICT means can decisively influence, even during the kindergarten years, the training and development of intellectual work skills. In point of fact, the digital resources have many advantages from the point of view of improving the teaching-learning- assessment process, widely considered in the following pages, which comprise a critical and comparative analysis of the phenomenon, with a stress on the characteristics of the education system in Romania and on the benefits of exploiting, at national level, digital products that should support the transition from preschool to primary school.*

Keywords*: preschool/ primary education, transition, ICT*

The most definitions of transition from kindergarten to school are built around the concept of *change*, either we speak about the dynamics of group relationships or about the teaching style, about the classroom space, or about the time allotted for learning; the change involves not only the enthusiasm of a new beginning, but also the fear of the unknown, which, in some cases, may leave a lasting imprint on the behavior of the young age pupil. The specific requirements of the primary cycle, intensified and multiplied, add further uncertainty and discontinuity in child's daily life, for whom the constant support of the family often represents the balance item that is so necessary to prevent the risk of early school dropout.

Recent research conducted on this topic have proved that „*it is much more effective to ensure a continuity of the key components of any early education program than act for decreasing the distance between the various kinds of such programs*"(Lombardi, 1992). In this context, the adaptation to the new institutional circumstances of school requires both the existence of a permanent support from the adults involved in the process, as well as positive experiences capable to ensure children's successful integration in the school life. Moreover, we must not ignore the identity changes experienced by each family that plays the part of co-participant in this genuine „rite of passage"; the verbal and nonverbal communication of parents/teachers' expectations, the conversations about school and about its operational mechanisms is the best training method for the future pupils.

The huge contribution of ICT in education, in a century when the technological boom is an unprecedented one in the history of mankind, thus becomes completely justifiable by the richness of contexts and learning experiences they make available to the preschool and young age school pupils. The studies performed in various states of the world have already emphasized the positive role of inserting such modern means in the educational process, while affirming at the same time the need to train the teaching staff in this respect.

In countries like Scotland, Denmark or Germany, there have already been launched several initiatives able to facilitate the transition from the preschool education to primary education; built on the basis of principles of continuity and progression, they could represent a starting point in the achievement of similar programs at national level. The most important actions are focused on the

organization of weekly visits paid by preschool children to the school they will attend later, but also on their involvement in various learning activities meant to evoke the idea of maturation and transformation; this way, children acquire a more profound understanding of their mental and physical development, become familiar to the new space and become more confident, while the teachers have the opportunity to get a contact with their future pupils more easily and more naturally. Moreover, throughout the program, educators can provide their primary cycle colleagues with favourite photos, drawings or stories of each child, so that the primary cycle teachers may manage to know their interests and skills in advance and to plan the transition activities accordingly.

The generally shared opinion remains the one according to which the proactive approaches are the most recommended among the issues of the transition from kindergarten to school and of preventing school failure. Such an approach must develop the interest for learning and ensure a positive emotional climate throughout the entire transitional period, as it is known that the emotional balance has a pivotal role in child's school existence. The transfer of some familiar elements from the preschool environment in the classroom space or the perpetuation of some routines may determine the recent pupils to become aware and to fully accept the new educational challenges they are facing; some authors (Winnicott, 1974) recommend in this respect the use of some transitional objects (for instance, the favourite doll) meant to help the child relax and keep the connection with the loved ones in his/her life, even when they are not together. Such empathic marks coming from the familiar, day to day world of the child offer him/her the psychological and emotional wellbeing he/she needs to effectively counter-balance the anxiety and stress triggered by the meeting with a new field of knowledge.

The benefits of such systematic practices and adapted to the situations are obvious, both for children, as well as for the adults around them, whether parents or teachers. However, despite the appearances, they are not at all easy to implement; time-consuming and requiring the involvement of a large number of resources, the transition activities meets the greatest obstacle in the differences of conception and understanding of the educational process which separate the preschool education teachers from their primary cycle colleagues. However recent date efforts give us the right to believe that this ideological fracture tends to decrease and to look optimistically to the future development of some coherent and widely applicable configurations, able to actually facilitate the transition from kindegarten to school and to prevent the learning lags in this period. Their constant use could lead to the enrichment and/or strengthening of some skills, abilities or knowledge such as:

  logical and spatial thinking;
  spirit of observation, insight;
  visual memory;
  voluntary attention;
  creativity;
  computer work skills, individually or in a team;
  ability to use information received through educational software.

The analysis of such computer products, that are already in the educational circuit, emphasizes a number of indisputable advantages of their integration in the basic curriculum:
  - *An increased interest for learning*, by stimulating the curiosity and child's active involvement in solving work tasks;
  - *An increased self confidence, respect for his/her own person* due to the autonomous nature of learning and optimization of the self-assessment process (by the immediate feedback);
  - *The development of operational skills*, by the direct handling of the components of a computer/ laptop/ iPad etc. and the intuition of the running mechanism of these devices;
  - *The individual participation or the capitalization of cooperative learning to discover the environment* by the simulation of some exploratory experiences hard or even impossible to access in the real life.

Inevitably, we find in the studies dedicated to this topic also the critical aspects of the phenomenon, of which we mention:

- enhanced directing of the learning process;
- the danger of fatigue installation and/ or dependence due to the reduced possibilities of human interaction;
- the presentation of some fixed training segments, simplified substitutes of reality, which take the value of assimilated knowledge only at the time of their validation by the teacher;
- high acquisition costs of such digital products, factor that explains, to a good extent, their use mainly in the urban kindergartens and schools.
- If we take into consideration all these elements, we find that, in the development of the activities that require the use of digital resources, teacher's support and monitoring are absolutely necessary, irrespective of the level where they manifest (verbal, non-verbal and paraverbal communication); a simple gesture such as the one of laying one's hand over the hand of the child who uses a mouse or the enunciation of a set of questions meant to guide the preschool pupil/ young age pupil in his/her learning and to strengthen his/her recently acquired knowledge by the help of a certain educational software are examples of supporting conduct which must be developed by the teachers eager to insert the ICT means in the daily learning activities. In this respect, we emphasize once more the importance of training such teachers, both for the preschool and primary school education, who should have strong digital literacy and who should be prepared to design or to select from the already existing offer playful-educational learning tasks, structured and matching the age level considered. It is teacher's responsibility to adopt a critical approach for the inclusion of ICT in the teaching-learning-assessment activity and to capitalize, through them, children's freedom of expression and creativity, not only with the help of some specific educational software (for instance, computer games), but also by resorting to various other tools of such kind, such as photo/video cameras, microscopes, touch sensitive blackboard or digital toys of educational potential.
- Such a selection should always be based on the nine criteria for the adaptation of ICT resources to the particular requirements of early education, as they were developed by the British specialists:

Table 1. Criteria for the assessment of developmental appropriateness of ICT tools to the early education development levels[1]

1. The ICT tool should be educational	Applications (tools) employed in the early years should be educational in nature, and this effectively excludes all applications where clear learning aims cannot be identified.
2. The ICT tool should encourage collaboration	In the early years, we know that activities that provide contexts for collaboration are especially important. Working alone as well as in collaboration and in a range of other ways in interacting with technology is important too. However, 'joint attention' and 'children learning to share' and/or 'engaged jointly' provides a better cognitive challenge for young children).
3. The ICT tool should support integration	ICT applications should be integrated as far as possible with other established early childhood education practices (play, project work) which make the curriculum relevant to the children. Another important reason for employing an integrated approach to ICT is the recognition that this is more consistent with the notion of ICT products as tools. Tools are designed to be applied for particular purposes when required; they are not usually designed for continuous use for their own sake... Equally inappropriate is the common practice of providing access to ICT as a reward

[1] Siraj-Blatchford, I., Siraj-Blatchford, J. (2006). *A Guide to Developing the ICT Curriculum for Early Childhood Education*. Trebtham Books, UK **in** Kalaš, I. (2010). p.26.

4. The ICT tool should support play	Play is considered a 'leading activity' for young children; and it is widely considered to be a driving force in the child's development of new forms of motivation and action. Play3) and imitation are primary contexts for representational and symbolic behaviour, and role-play is therefore central to the processes of learning in the early years. Artefacts, such as toys and other 'manipulables' (functioning or pretend), are important because they provide symbols for the children to play with. Computer applications also provide a means by which children may engage and interact with a much wider range of 'virtual' artefacts and environments than would otherwise be possible.
5. The ICT tool should leave the child in control	Generally, applications should be controlled by the child; they should not control the child's interaction through programmed learning or any other behaviourist device. While the evidence suggests that applications of this kind4) may be effective in developing a range of skills including children's alphabet and phonic skills, counting and early number concepts, the approach is contrary to popular conceptions of good educational practice.
6. The ICT tool should be transparent and intuitive	As far as possible, we should choose only such applications, which are 'transparent' – their functions should be clearly defined and intuitive5). What this normally means in practice is that the application completes each clearly defined task in a single operation. The intuitive nature of the 'drag-and-drop' facility on a computer screen is a good example.
7. The ICT tool should avoid violence or stereotyping	Where applications fail to meet these criteria, it would be difficult to justify their use in any educational context.
8.The integration of ICT should support the development of awareness of health and safety issues	Where the use of computer is integrated with other activities, e.g., in socio-dramatic play, modeling, painting etc. children benefit from greater movement and exercise away from the computer. DATEC... argues that the time spent using any desktop computer application by a child should be comparatively short, normally not extending beyond 10-20 minutes at a time in the case of 3-year-olds. DATEC suggests that this might be extended to a maximum of 40 minutes by the age of 8.
9.The integration of ICT should support the involvement of parents	Studies have shown that when parents, teachers and children collaborate toward the same goals it leads to improved academic performance. ECE centres report that children show a more positive attitude toward learning, and are better behaved. Home-centre links, or parent involvement, are, therefore, the components of effective early childhood education centres that merit special consideration.

Faced daily and explicitly with the twists and turns of learning, the way it proves to be for the XXIst century child, the preschool and primary education practitioners must participate in the modernization of the environment where the training and educational activities are carried out and contribute to the improvement of the teaching methods and resources. Preparing the 5-6/7 years old children from the intellectual, moral, physical and aesthetical point of view, their adaptation to the school life conditions is an essential requirement of the further success of the child-pupil – otherwise a fundamental target of the training performed at the kindergarten. From this point of view, the handbooks, auxiliary materials and educational software used become of a paramount importance in facilitating the school start. By their scientific content, they must provide diversified learning situations, in accordance with the children's development level, laying stress on the intellectual freedom and autonomy.

Teaching tools meant to support the transition from preschool to the primary cycle – proposals, suggestions

Child's adequate preparation for school requires the existence of optimal conditions for the achievement of the personal, social and cognitive degree of development and adaptation required by the school activity:

- a close correlation between the instructive-educational contents in the preschool and primary education;
- the multiplication of scientific research projects of the instructive-educational process in kindergarten, for the purpose of deepening the knowledge about the transformations occurred in the child consequently to the implementation of certain teaching strategies or to the use of certain training resources;
- the intensification of exchanges of experience and of the cooperation between educators and primary school teachers, so that each category of teachers be familiar with the specific requirements of both education cycles;
- the preparation, by the educators, of children's psycho-pedagogical sheets, subsequently handed over to the primary school teachers who take charge of the 1st form, so that they benefit from the very beginning of the full picture of the skills, abilities, nature and character of each individual pupil;
- the development of teaching tools capable to support the transition from preschool to primary cycle, issue on which we will focus further on.

In this respect, ICT evolution in the last decades brings to discussion the variety of the educational offer in this area and of its capacity to build the school attending ability among the children preparing to start the 1st form. The same British authors quoted earlier identify **four key areas of learning** in the period of early education and emphasize the ways ICT can support this process[2]:

- **communication and cooperation:** are involved in the problem solving activities, drawing, constructions, games with digital toys or applications running in the screen of PCs;
- **creativity:** well conceived digital tools provide the children with the opportunity of using the *patterns of thought* acquired previously in *new learning contexts.* Questions like „what if...?" encourage the decision making and finding alternative solutions;
- **dramatizations, role playing (socio-dramatic play):** there is an enormous scope for the integration of ICT into young children's playground / play environments ; thus, there have already been successfully tested some software which simulates a travel agency, a shop, a medical practice etc.
- **learning to learn:** computer resources can support the development of metacognitive skills with children, particularly those which aim at the training of communication skills and the ability to verbalize emotions, thoughts, of sharing them with the people around.

Without claiming completeness, we propose below a few examples of activities carried out with the help of ICT resources and which, in our opinion, would encourage a successful school start, preventing also the risk of early dropout or the sluggishness in learning:

1. The use of „electronic books", computerized documents which exploits the link between the written word and its pronunciation (its loud mark). Such a „live book" allow children to listen to the story, to guess the meaning of a word, to read according to the images, to create („write") an assertion by making correspondences between words and images etc. Narrating activity may include the following stages (presented here briefly):
   o reading of the text by the educator;
   o text comprehension based on questions-answers, possible dramatizations;
   o listening to the story, simultaneously with looking to the pictures and the text on the screen;

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[2] *Idem*, pp.28-29.

o the individual listening to the text, with the possibility of interrupting the recording, of going back to a certain paragraph, of repeating a word by a mere mouse click;

o „writing" some short sentences using words and images from the story.

2. Promotion of applications that visualize elements of the mathematic universe and efficiently exploits colours and shapes, sizes, basic geometrical figures, the logical sequence of sequences. Analytical thinking develops with the help of tasks which provide the organization, distinction, recognition, composition or transformation of structures/ concrete materials in the virtual environment (logical exercises, creation of a jigsaw puzzle, of a human or animal figure using various moulds or forms etc.).

3. Production of digital stories in a team (*collaborative storytelling*) with the help of the interactive blackboard: children's drawings are scanned or created directly on the computer, each child records the cues allocated to him/her, then plays them while the others watch and listen carefully, being allowed to intervene if a colleague forgot the script.

4. The creation of cartoons with the help of educational software. A video or digital camera may be used, a computer on which there should be installed a software specialized in the processing of video images, a DVD-player, a videoprojector.

5. Exploitation of the environment, for instance getting to know their own town/city. Such activities, often with the participation of the parents, refer to the experiences in childrens' real life, stimulating them to investigate, to do research, to watch and, at the end, to present the outcome of their research. The children are asked that, in the following weekend, they should collect data about three representative places for the town/city where they live. Accompanied by their parents, they take photos of these places; the photos taken, along with other images/ information discovered on the Internet, will be subsequently used in the preparation of a presentation which will be evaluated by the other colleagues.

6. Recording the visits done by the preschool children in schools (and vice versa), their watching and further commenting, with a stress on the verbalization of the feelings experience by the children and on the emphasis of elements noticed (similarities/ differences).

7. Creation of virtual logs between the kindergarten children and those in the 1st form, between educator and preschool pupils, between teacher and parents a.s.o.

Such learning contexts, modified and enriched with new tasks, depending on the teacher's imagination and creativity, ensure the positive predisposition to school of the preschool child, expressed by the wish to start the 1st form, curiosity and thirst for knowledge, creativity, selfexpression, basic skills of critical thinking, independence, problem solving skills, experimenting skills, interest for books, command of basic mathematic representations, confidence in their own forces, assets that guarantee a successful school start.

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