ICT as a Tool for Forming Gender Self-Identity in Preschool Children

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Abstract: The concepts of “gender self-identity” and “Information and communications technology (ICT)” are clarified in the article. The problem of formation of gender self-identity in preschool children in modern conditions is getting bigger. The experience of using ICT as a communication and educational tool in the research of foreign scientists is presented. The importance of using information and communication technologies to formulate in adults understanding of the stages of formation of gender self-identity in older preschool children is substantiated. The factors of influence on the formation of gender self-identity are characterized and a number of tasks that teachers in the process of raising children are formulated. The stages of formation of gender cognition in preschool children are determined. Emphasis is placed on current trends and newest technologies for the formation of boys and girls gender settings. There are also suggested combinations of didactic material using different educational online platforms. Internet site, presented as an effective means of working in family education, is aimed at supporting parents of gender-based self-identification of children. The importance of integration of the educational process with the latest interactive technologies is highlighted. Presented in the article “life hacking” site for parents BabyG is a creative work of authors, tested and effective.

Keywords: gender, self-identity, gender stereotypes, ICT technologies, older preschool children, integration, education and process, innovative educational technologies, didactic tools, website, collaboration with family.

1 Introduction

There is a general social stereotype that has become entrenched over time, that the cognitive abilities of preschool children are quite limited, given their young age, poor physical development, short-lived social experience, and more. At the same time in contrast to public opinion there are thorough scientific studies that prove that the first seven years of life are the most favorable time to master the foundations of the universe and to realize its significant place.

Preschoolers are going through a difficult period of intense self-identification, a multifaceted foundational cog whose awareness of themselves as representative of a particular gender is gender self-identity.
The begin of this process is the emergence of questions that precede the identification of differences between boys and girls in clothing, behavior, physique, interests. First, the child is not can constructively respond, why it happens and how it should be if you are a boy or girl. That’s why social influence on the formation of the child's psychological gender, gender-role identification, gender representations is such big important.

Only in adulthood does one comprehend life-orientations, choose moral and ethical values, the basis of which is gender-role socialization, which begins in the preschool years and continues over time.

Our opinion based on historical stereotypes: boys are wearing blue colored clothes and girls wear pink dress as princesses, boys play cars and ball, and the girls invent outfits for their dolls - imbued with education not one generation. At its own discretion, mentality, family customs, common advice are the driving forces behind family upbringing.

Teachers working with older preschool children and their parents aim to direct the pedagogical process to high efficiency, using the latest technologies and trends, since the future of a new society adapted to the challenges of an unstable and turbulent society depends on it.

On transient society and outdated family education there are contradictions:

1. Girls raised by parents as a standard of womanhood are more difficult to succeed in finding a successful job, since high-paying positions require a strong-willed "male" character.

2. Hard-minded guys find it difficult to show their creative skills in the arts or in some sports, for example. They do not tolerate femininity, do not understand their women, which leads to constant divorce.

Information and communication technologies have the most profound impact on modern children, because they accompany children in their daily routine. There are many theories about the harmful effects of ICT on the psyche and development of children. But at the same time, scientists have shown that the use of new unusual techniques of explanation and consolidation, especially in the form of play, increases the involuntary attention of children and helps to develop arbitrary attention. The latest technologies guarantee a person-centered approach. Media is one of the most useful methods that can be used by educators and recommended for parenting.

So now the question arises as to Integrated gender education and information and communication technologies and. We believe that the result of the symbiosis will be interesting, informative and informational material for parents (and for caregivers) of children of preschool age. Pedagoges, psychologists and community leaders are still engaged in the issue of gender self-identity at preschool age, and at the level with other relevant pedagogical researches the issue of implementing an integrated approach to the use of information and communication technologies is at the center of attention of scholars and practitioners.

Modern children and their parents skillfully uses all current IT resources, so we can confidently say that they are full participants in the information society.

The purpose of the study was to diversify the pedagogical process of cooperation with the family, aiming to nurture a well-developed, harmonious personality, free from gender stereotypes and prejudices, using ICT.
To achieve the result, we identified the relevance of the problem and analyzed the research of educators on the formation of gender self-identity of preschool children. Pedagogues, psychologists and community leaders are still engaged in the issue of gender identity at preschool age, including: T. Alekseenko, T. Baruchieva, Bern, S. Vihor, T. Govorun, A. Goncharenko, I. Ivanova, F. Ilyasov, O. Kikinedzhi, V. Kravets, A. Lutsenko, T. Markov, I. Muntean, N. Pavluschenko, L. Smolar, A. Semin, I. Pestle, A. Tsokur, A. Shevchenko, M. Sean, R. Shuligin and others. At the level of other relevant pedagogical researches in the center of attention of scientists and practitioners (U. Horvitsa, T. Denisova, A. Ivanov, O. Koreganov, G. Lavrentyev, L. Margolis) the question of realization of the integrated approach on the use of information and communication technologies arises.

As for us, an effective tool for parental influence on children in today's society is a website developed by educators on a particular subject.

After monitoring of the level of formation of gender identity of preschool age and interviewing parents at experimental basis was developed and launched an interactive website.

The scientific novelty of CLI is based on the recognition of the basic problems of gender identity in terms of personality of preschool children and interactive collaboration of teachers with the family as a possibility to improve contact between them.

The research materials provide the basis for further study of the theory and practice of using information technologies in the educational process of the institution of preschool education and family as a component of comprehensive development and gender self-identity. The main provisions and results of the study can be used: in the activities of preschool education institutions, development centers, centers of social and psychological support, home use, in the study of disciplines related to preschool psychology and the use of ICT tools.

2. Related Work

The terms “gender” and “gender behavior” are quite ambiguous. These concepts are interpreted quite differently in many scientific fields - pedagogy, psychology, medicine, valeology, philosophy, sociology, religion and others. And each science interprets the category data depending on the tasks.

Psychology views gender as a complex of somatic, reproductive, sociocultural and behavioral characteristics that provide an individual with the personal, sociocultural legal status of a man or woman [4].

Sociology defines it as created by society and supported by social institutions a system of values, norms and characteristics of male and female behavior, lifestyles and ways of thinking, the roles and relationships of women and men acquired by them as individuals in the process of socialization, which is primarily determined by social, political, economic and cultural contexts of being and captures perceptions of women and men based on their gender [1].

Pedagogy concludes that gender (gender role) is a cultural and social concept. It identifies traits and behaviors that are considered characteristic of men and women in a particular society.
Philosophy determines the concept of "gender" as it is used to determine the socio-cultural forms of existence sexes: male and female act not as natural definition, as well as social and cultural phenomena. In preschool pedagogy gender education in turn reflects the continuous meaningful impact on child development, feelings, behavior, consciousness, which is aimed at developing children's sexual identity, respect for self and others, tolerant behavior, which further lead to a new empathic capable society.

We have analyzed the literature based at the opinions of teachers of the past (F. Buisson, I. Kon, A. Makarenko, O. Ryabo, I. Tovkach, D. Feldstein, and others).

So understanding the emerging gender identity the child in tandem with the development of cognitive interests, at a moment when small personality get interested in structure of his body, interests, the environment, when it confuses the issue, how it differs from the others. In the structure of the images of "boy" - "girl" inspired by others, it already includes its own acquired associative series.

In our opinion, the process of gender-role perception of preschoolers is multilevel and complex. Analyzing the research of modern pupils, we became to conclusion that, when raising children, gender characteristics are often not be accepted that will be highlight some of them.

Person-centered approach. Unfortunately in seams of gender adults do not take into account many factors that are completely individual and are specific to boys or girls only. For example: in preschool education and in families, diet ignores different standards mobility boys and girls the same standardized food and meal times, and for its range.

Influence. In very different ways, but society dictates to us how girls and boys should look, talk, dress and behave. As the modern world is overflowing with information resources, the baby may be lost in all the facts surrounding the gender issue.

Hemisphere development. The left hemisphere of the brain, which is responsible for verbal-logical thinking, in girls is formed earlier, and in boys - the right hemisphere, so in the preschool age the image-emotional sphere prevails.

Perception. Boys have more developed visual perception, girls - auditory. It is most clearly seen in the works of L. Kuzemko on the implementation of individual approach in preschool institutions. Take the example of gender differences. It is enough for to say to girl: "Please bring the book to the right of the exercise book." To the boy to perform the same action requires a completely different saying: "Please bring the purple book that is on the table at the door to the right of the notebook with seals".

Adaptation. Natural leaves it’s mark and also factors such as biological role. It lies very nature, to reproduce offspring, males pits must be able to adapt to the environment. Boys are more likely to deviate from the norm, both in the negative and the positive side. This is also due to different biological tasks. The woman is intended to save and pass on to the descendants the accumulated experience. In men, nature adapts to changing conditions, trying new functions, not always successfully.

Cognitive interest. Boys have a more developed need to explore the world around them. Therefore, the boys run, climb trees and fences, go down to the wells and
cellars. The girls are quite a small corner, where they can quietly engage with dolls, to arrange a house.

Rating. Boys need specificity: what exactly he did well or badly. For girls it is more important who evaluates them and how. That is why praise is very important for girls, and boys a common analysis. Reprimand the boys clearly and briefly.

When shaping gender self-identity in children, every aspect of the process must be taken into account, as appropriate as possible.

The process of gender self-identity formation must start from early childhood, at which time the child begins to become aware of his or her gender identity, and towards the age of seven, gender stability arises. Resilience is characterized by the fact that the child after awareness does not change their sexual settings depending on the situation or desire.

It should be noted that until recently such concepts as "gender" and "story-role education" existed in an indissoluble tandem and have been refined by scholars. It is only the current upbringing trend that has proven that one cannot look at any new growth for a child. It is pedagogically incorrect to focus only on biological gender, so the concept of “gender” was introduced, which means gender as an object of culture or an indicator of belonging to a social group.

Everything in your child's life should be consistent. Based on the elaborated educational programs and psychological and pedagogical literature, we have developed the stages of becoming gender self-identity:

Table 1. Stages of gender cognition of preschool children.

<table>
<thead>
<tr>
<th>No</th>
<th>Age</th>
<th>Psychological neoplasms in a child</th>
<th>The behavior of the teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>The first four years of life</td>
<td>A three years old child has a crisis of self-discovery. He argues for his gender on a number of grounds: clothing, gaming preferences, hairstyles, cartoon characters.</td>
<td>The teacher or adult should support and direct. Promote interest, arouse attention and concern for children of other sex.</td>
</tr>
<tr>
<td>3.</td>
<td>The fifth year of life</td>
<td>Understand gender, can already argue on several grounds (I'm a girl, I wear a dress, not pants, I have long braids). Girls prefer plot-role games &quot;Daughters materi&quot;. They show a conscious interest in the process of adulthood</td>
<td>To uncover the diversity of gender roles. Help you master specific actions. To tell children about professions, types of recreation, specificity of communication with other people</td>
</tr>
<tr>
<td>4.</td>
<td>Sixth year of life</td>
<td>There is a smooth transition from conventional gender to an awareness of more detailed traits</td>
<td>Use literary works and problematic tasks to arouse interest in the emotional</td>
</tr>
<tr>
<td></td>
<td>(emotions, feelings, behavior, personal qualities)</td>
<td>component of gender-role behavior</td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>---------------------------------------------------</td>
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<tr>
<td>5. The seventh year of life</td>
<td>Understanding not only that I am a man, so I am not a woman, but also that men are also different in behavior, emotions, hair, clothes. Children are beginning to enjoy their gender identity</td>
<td>Encourage children to argue for the benefits of a particular gender. Repeat rules of conduct in public and when interacting with peers and adults</td>
<td></td>
</tr>
</tbody>
</table>

Studies of scientists give grounds to claim that in order to succeed in later life, girls should show not only traditional feminine qualities (gentleness, femininity, concern for the world), but also determination, initiative, ability to defend their thoughts and interests, to be as opposed to others, to achieve the set goal. And in boys, to educate not only purely masculine qualities, but to be in mind that the future will require them to be tolerant, responsive, able to come to the rescue and show empathy.

Gender psychology, which took its inspiration from the ideas of T. Bendas, has become a new branch of the psychological sciences, it compares boys and girls, men and women, highlights the significant advantages and differences.

Here are some of them:

- Usually boys are older, but girls are more mature.
- Girls' fine motor skills are better developed than boys, so boys should not be offered a girl's job as a standard or model.
- The color scheme for boys is preferable to yellow and green, and for girls red and purple.
- Something around nine years girls are ahead of boys in visual-spatial abilities.
- Girls are more likely to form arbitrary attention and speech apparatus.
- Girls and boys are equally afraid of unfamiliar and dangerous situations.
- At preschool age children are equally emotional, but boys under social influence try to conceal their sensitivity by expressing it in open physical aggression.
- Boys have a stable self-esteem.
- The desire to separate from the opposite sex (gender segregation) occurs in girls in the third year of life, and in boys in the fourth.

The education system is puzzled by the task of educating people with adequate perception of the meaning of their own and the opposite sex.

Modern trends and newest technologies of formation of gender units of boys and girls.

It is known that the first 5-6 years of life is the period when the deepest and most important elements that are important for the further development of the personality psyche are laid and formed.

The formation of gender self-identity of older preschool children, as a substructure of the sociological development of life competencies, has its specific stages of
As we noted earlier, the age limits of mastering gender-role traits may not be specific. The indicator of formation is not a match for the age stage, but a complex of acquired knowledge, skills and understanding.

Each and component life competencies LTER implemented using well-chosen teacher tools, ie methodological content (features, methods, tools, techniques). The most effective force gender education is formed over the years stereotypes of masculinity-femininity and imitate children who hold to the parents in the education of a new personality that restoring order in society and give the course of history. We believe that media and children's books are now the most influential means of gender identity formation. We describe them.

Mass media
Studying children's portrait in advertising, psychologists have found the following gender-role stereotypes:

- boy characters are active, energetic, inventive, full of ideas, bold, cunning, occupying an instrumental position that contributes to the formation of projected and compositional ways of thinking.
- characterizing girl appear pretty and passive. Therefore, the girl cares for herself, tries to be neat, beautiful, do everything in order - and she naturally formed topological and orderly ways of thinking.

Kids quickly grab ad images and try to emulate them.

Books
In the kidsbooks the male characters predominate and women are portrayed solely as role models. They are depicted with household items. Men are more likely to portray themselves as objects of work.

- males in fairy tales always in action: one camping exempt, going to war, cuts, plowing, building.
- Female characters are given a waiting role: they are waiting for their loved ones. Such examples help girls to develop a more orderly way of thinking because they are offered to act within a confined space and to create order and comfort.

In any case, in all the stereotypes formed, a lot of attention is paid to male traits, in our country there is still no female stereotype of "real woman" in the culture, so parents and caregivers can increasingly hear from girls 5-6 years that they want to be boys, because they feel helpless and vain.

So it socializes everything: people, (parents, educators, peers), things, phenomena, literature, art, media, random observations.

Any modern technology is a thought-out algorithm of pedagogical actions, which has the ideological basis of the author, and carries an innovative idea. The control center is the target settings, which are reflected in communication, methods and means. The positive result is the result of specific diagnostic procedures, reformatory educational impacts and measured and weighed results.

The use of innovative technologies in education can influence the teacher's self-development and full development of all participants.
In the modern educational system of the teacher the role of more consultative character, than the educational one is assigned. The teacher knows how to search for and acquire new knowledge and shares these skills with the child. For this purpose it is necessary to consider carefully the question of choice of means, methods and methods of influence of pedagogical connection.

For the formation of gender attitudes, as in any effective pedagogical interaction, it is necessary to choose the best means, methods, forms of influence of the educational process.

Methods should be adequate to the object and object of the study, its tasks, they must be up-to-date, be predictive and interesting for children, age and needs. The educator should be fully convinced that the methods they choose will produce reliable results.

We consider it necessary to single out such a tool as "Information and Communication Technologies". Information and communication technologies (ICTs) are one and the priorities of education. Informatization of the preschool education system places new demands on the teacher and his professional competence. The use of innovative technologies precedes the improvement of the quality of education, realization of directions of development, change of the developing environment.

The use of ICT as semantic first part and the educational process aims to integrate a gender task of formation and use of media tools of daily use (phone, tablet, computer, laptop etc.). This leads to informatization of consciousness, useful use of innovative technological resources, adaptation and response to the challenges of today.

At the same time, not only is the assimilation of initial information about the information space of modern society and the use of software based on the use of information technologies, but also a deep dive into the chosen topics. The experience of using ICT as a communication and educational tool has shown that:

1) the emotional-motivational component of the educational process on the part of the modern generation is increasing, unclear things such as "who am I?", "Why am I a boy / girl?" become more attractive to understand if they are explained through a cartoon with your favorite characters, or an interactive game, or an online book;

2) with increasing share of creative works, the possibilities of online resources are endless, children use them in a variety of ways. The opportunity to receive information on other interesting topics simultaneously;

3) informatization is also attractive for the teacher himself, in that he can improve his productivity, increase the overall information culture and creativity.

With the active use of ICT in working with children and parents, each component of the process is aimed at acquiring knowledge about the social world, nurturing self-interest and those around them. Pedagogically well-equipped didactic material guarantees the comprehensive development of the younger generation.

ICT as a means of assimilating the gender-role model in family education
The promotion of ICT in education has been going on for the last 10-15 years (depending on the country). The big winning modern society is the realization that the
use of ICT, ranging from pre-school age, enables significantly enrich and accurately update the educating-developing process, to reduce inexhaustible handwork teacher and most importantly open the way to reveal the "X-ability" of the child simple and effective way.

Modern society almost unanimously supports the view of UNESCO F. Major and, that innovative technologies for the future, because they surely build a perfect world where everyone will be able to benefit from advances in education, science, culture and communication.

Earlier we stated that in the issue of gender education an important and one of the most important factors of influence on the child is his close environment, parents, as they help the personal development of the child, its socialization in society and family. But in this matter, the potential of parents is not fully disclosed.

Collaboration with the family is an organizationally complex process, due to the constant employment of parents, through which they may not always spend time participating in psycho-pedagogical activities of pre-school education institutions. The same surveys, trainings, workshops, talks and other organized pedagogical work are left unattended by parents. The situation of parental time-pushing is finding new forms, methods and means of presenting information.

Sexual formation of a child is impossible without some special education of parents. Therefore, the work of educational institutions should be aimed at preventing parents from being passive caretakers, but from being active participants in the development of their children.

When we talk about the self-identification of a child, we have in mind individual neoplasms in her mind, so a differentiated approach is needed in dealing with families.

Raising a child in the context of a representative of the future sex requires the presence of specific knowledge, adjustment, if necessary, interpersonal relationships, abandon outdated stereotypes. Therefore, the work of parents and educators is important.

It is appropriate to have an informational impact on the community of parents. Storey benefits s use of ICT in working with parents is:

- Use for email communication. The advantage of this resource is the uninterested interest. In any case, such konektni program communication as Viber, Telegram WhatsApp or chat have a more intimate nature and can be perceived by parents as stress and immersion in their personal life. E-mail has a greater scope but is usually business-like, and is not constantly online.
- Individually completed information, usually information sent to the teacher specifically selected or developed for a specific family or pedagogical problem.

With feedback, parents can ask any questions 24/7, which the teacher is not forced to answer immediately, but has the time to answer and think about. Online communication at a convenient time.

3. Successful methodical about is CTU
A website or website is an information portal that contains a set of documents or links to other resources on the Internet, united by topic, subject line or author, or any other common feature. The most important thing that binds these elements is the domain name.

The main goal of the pedagogical site is the connection between society and the teacher. The site, as a platform for publications of pedagogical information materials that reveal forms of learning and teaching methods, brings pedagogical thought, experience, and demonstrates the best creative findings in the educational sphere.

Pedagogical tools for presenting material on sites can be completely different: online games, forums, blogs, chats, video material, mental maps, articles and publications, advisers, shops, online books, courses, guides, questionnaires, tables, photo material and much more.

All of these methods and tools can be used to expose gender education to parenting content.

Note that since the creation of the site occurs according to a certain timeline:
- Defining the storyline and purpose.
- Select content for publications.
- Separation of funds by category.
- Creation of starting material—information support.
- Filling the site.
- Official launch (preferably with advertising).

Constantly updating and updating the resource as requested by the viewers.

In terms of our work site consider, as a means of interaction between teacher parents in the issue of the formation of gender identity of the child of preschool age. For targeting parents of interest this topic we conducted the online survey using Component product Google (Google Form).

Fig. 1. Questionnaire for parents "We are growing ..."
Based on the parents' responses, we can conclude that family education representatives are interested in creating a resource, assessing their gender education knowledge as requiring information richness.

Site Life Hack for parents BabyG exists seven line blocks:

1. General homepage, which is the starting point of getting acquainted with the site, its business card with a brief advertisement and announcement of filling all the blocks.
2. "Bawanki" is a block of didactic online exercises, games and tasks for children developed by the teacher himself, using the resources: Learningapps.org, Wordart.com, Padlet.com, Ted.ed.com, Thinglink.com, Quizlet.com, Coggle.it and others.

3. «C and M» - a block collection of videos, audio books and cartoons interesting to children. They will definitely be useful for parents to usefully spend time with little things.
4. "Keys to Understanding" is a block of theoretical part of the site in which parents can view interesting psychological and pedagogical information about gender features.

5. Pedagogical Navigator is a block that shows interesting places (exhibitions, performances, recreation parks, recreational activities) for visiting with the whole family.
6. [IzyConnect] is a block of mini-interviews with people who are in one way or another interested in this issue, who share their life position with the corrections participants.

7. "We release couples" - a dynamic part of the site, which is a chat, in which users can either ask any question or speak, share the experience, get acquainted and many other, with no comment left without attention and correct pedagogical thought.
The development and activity of the website helped to increase the interest of parents in the formation of gender self-identity of their children, as evidenced by the number of occurrences on the site (in the six months), feedback: questions and answers 250 visitors.

4. Conclusions

Gender is absolutely not an unambiguous concept that has its origins in social, cultural, psychological, pedagogical and many other fields. The process of gender-role perception of preschoolers is multilevel and complex and requires obligatory adult support.

At present, the idea of a differentiated approach in the education of girls and boys, due to completely different worldviews of representatives of a particular gender, is being popularized.
Separating the psychological and pedagogical features of the development of girls and boys, it becomes clear that boys are physically growing up faster, and girls are ahead in visual-spatial abilities and fine motor skills.

Collaboration with the family is a significant and driving component of influencing the development of a child's life competencies.

Information and communication technologies are a modern tool of influence on the child and can be successfully used for the formation of gender-role self-identification of the child of the preschool age.

To keep up with the times we provide children a new world, full of interesting, useful experience, proper vision, full of clear relationships and phenomena, exhaustive information.

References