

# Using educational websites and platforms in Russia: Cognitive needs of children and problems of teachers

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

---

## Abstract

© 2018, Springer Nature Switzerland AG. The educational environment at the present stage is characterized by implementation and integration of intensively developing digital technologies. Popularization of educational websites and platforms for children on various electronic devices is under way. The purpose of the study is to reveal the peculiarities of using educational websites in Russia in the process of teaching children of 6–8 years. The study was conducted during 2017 in conjunction with preschool and elementary educational institutions in Kazan. Questionnaires for teachers and parents were created to determine specifics of using educational websites and platforms. They consist of demographic, technological, innovative, motivational units, parental attitude to technologies, and depend on the sample of subjects. To identify the problem areas in the organization of teaching with digital resources the focus group method was applied. This article can be interesting for teachers, parents, administrations of educational institutions.

[http://dx.doi.org/10.1007/978-3-319-99737-7\\_9](http://dx.doi.org/10.1007/978-3-319-99737-7_9)

---

## Keywords

Cognitive needs of children, Digital technologies, Education, Educational websites, Interactive educational platforms, Teaching children, Using interactive technologies in teaching

## References

- [1] Lisina, M.I.: Problems of communication in the ontogeny, Moscow (1986)
- [2] Park, Y.: A pedagogical framework for mobile learning: categorizing educational applications of mobile technologies into four types. *Int. Rev. Res. Open Distance Learn.* 12, 78–102 (2011)
- [3] Berline, D.E.: Curiosity and information search. *Questions Psychol.* 54–60 (1966)
- [4] Kholodnaya, M.A.: Psychology of the intellect: the paradoxes of research, Moscow (1997)
- [5] Menshikova, E.A.: On the issue of the psychological and pedagogical nature of cognitive needs. *Sib. Pedagogical J.* 1, 311–322 (2009)
- [6] Berson, I.R., Berson, M.J. (eds.): *High Tech Tots: Childhood in a Digital World*, pp. 5–22
- [7] Goodwin, K.: *Use of tablet technology in the classroom*. Curriculum and Learning Innovation Centre, NSW Department of Education and Communities, Strathfield, NSW (2012)
- [8] Istenic Starcic, A., Cotic, M., Solomonides, M., Volk, M.: Engaging preservice primary and preprimary school teachers in digital storytelling for the teaching and learning of mathematics. *Br. J. Edu. Technol.* 47(1), 29–50 (2016)
- [9] Yelland, N.J.: *Shift to the Future: Rethinking Learning with New Technologies in Education*. Routledge, New York (2007)

- [10] Chiong, C., Shuler, C.: Learning: is there an app for that? Investigations of young children's usage and learning with mobile devices and apps. *Int. J. Mob. Learn. Organ.* 9(3), 271-283 (2010). The Joan Ganz Cooney Distance Learners, New York
- [11] Sukstrienwong, A.: Animo math: the role-playing game in mathematical learning for children. *TEM J.* 7(1), 147-154 (2018)
- [12] Yin Yin, K., Fitzgerald, R.: Pocket learning: a new mobile learning approach for distance learners. *Int. J. Mob. Learn. Organ.* 9(3), 271-283 (2015)
- [13] Fallon, G.: What's going on behind the screens? *J. Comput. Assist. Learn.* 30, 318-336 (2014)
- [14] Kucirkova, N.: Children's interactions with iPad books: research chapters still to be written. *Front. Psychol.* 4, 995 (2013)
- [15] Pitchford, N.J.: Development of early mathematical skills with a tablet intervention: a randomized control trial in Malawi. *Front. Psychol.* 6, 485 (2015)
- [16] Istenic Starcic, A.: Educational technology for the inclusive classroom. *TOJET Turk. Online J. Educ. Technol.* 9(3), 26-37 (2010)
- [17] Dua, S., Meacham, K.: Navigating the Digital Wild West of educational apps with millions of apps to choose from, how do parents and educators find apps that pass the test? (2016)
- [18] Kardash, A.I., Levitskaya, S.M., Dudykevich, A.T.: Development of online testing in mathematics. *Vestnik Vinnitckogo politechnicheskogo instituta* 2(119), 157-161 (2015)
- [19] Lenintseva, V.A., Burukina, T.N.: Websites in teaching the Chinese language. In: *Modern Technologies and Tactics in Teaching Professionally-Oriented Foreign Language*, pp. 106- 108 (2013)
- [20] Kozhalieva, Ch.B., Shulekina, Yu.A., Kireeva, I.P.: Educational opportunities as a platform for educational inclusion. *Problemy sovremennogo pedagogicheskogo obrazovaniya* 52(3), 335-345 (2016)
- [21] Stepanova, L.V.: Formation of ICT-the competences of the future teacher-psychologist. *E-learning in the University and School*, pp. 261-263 (2014)
- [22] Traxler, J.: Defining, discussing and evaluating mobile learning: the moving finger writes and having writing. *Int. Rev. Res. Open Distrib. Learn.* 8(2), 1-12 (2007)
- [23] Sabirova, E.G., Zakirova, V.G., Masalimova, A.R.: Development of junior pupils research skills in interrelation with universal learning activities. *Int. J. Environ. Sci. Educ.* 11(4), 505- 514 (2016)
- [24] Shakirova, G.F.: Psychological features of children in the digital age. *Int. J. Sci. Stud.* 5(6), 176-179 (2017)
- [25] Baranova, E.A.: *Diagnosis of cognitive interest in younger schoolchildren and preschoolers*, Saint Petersburg (2005)
- [26] Matyushkin, A.M.: *To the problem of situational cognitive needs of generation. Psychological research of intellectual activity*. Moscow (2009)
- [27] Judge, S., Floyd, K., Jeffs, T.: Using mobile media devices and apps to promote young children's learning. In: Heider, K.L., Renck Jalongo, M. (eds.) *Young Children and Families in the Information Age*. EYC, vol. 10, pp. 117-131. Springer, Dordrecht (2015). [https://doi.org/10.1007/978-94-017-9184-7\\_7](https://doi.org/10.1007/978-94-017-9184-7_7)
- [28] Yurkevich, B.C.: Technique "Cognitive Need". In: Ilin EP. *Motivation*, pp. 370-371 (2002)