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**Paper Title** Online Bilingual Maintenance for Young Russian Learners Through Digital Fairy Tales

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## **Online Bilingual Maintenance for Young Russian Learners through Digital Fairytales**

### **Abstract**

This project examines the design, implementation and evaluation processes involved in the development of online multimedia for very young bilingual and biliterate Russian children. A framework grounded in child and language development as human, tool-mediated activity serves to situate the three major phases of the project as well as shape our research focus on interactions between teacher, child and machine using *triadic scaffolds* (Meskill, 2005). Results indicate that kindergarten teachers and teachers' aids are adept at using multimedia material aimed to engage target language, literacy and cultural development to achieve those purposes. The most salient and pervasive of these scaffolds is that of play, including language play with and around multimedia.

### **Purpose and Perspective**

Interest in language and culture maintenance is a national priority in Russia where more than 150 languages are spoken in 83 regions (Federalnaja, 2010). For both newcomers and Russians living abroad (heritage Russian learners), access to materials that are both suitable for young children and that systematically build on their multiple linguistic and cultural foundations is important for long-term interest, maintenance and development of mother tongue and additional languages. The *Live Fairytales* project addresses these needs through a multi-disciplinary design approach that involved eight content developers comprised of experts in Russian and English language and literature, child development and educational technology along with 5 kindergarten and preschool teachers.

Engaging multimodalities as a means to promote bilingual development has seen wide empirical success around the world (Cummins, 2008; Lohe & Elsner, 2014; Meskill & Mossop,

2000; Sankey, Birch & Gardiner, 2010). Manipulation of sound, visuals and text coincide with the new literacies of young children as well as amplify target content thereby further enhancing and amplifying opportunities for literacy and language acquisition (Meskill, Mossop & Bates, 1999). The project sees child development generally, and language development more particularly as processes based in interpersonal interactions, instructional conversations in educational settings (Tharp & Gallimore, 1991). Such interactions are supported by cultural tools in a given socio-historical context. Every tool-mediated human activity is a unity of 1) *the level of involvement of the actors*, 2) *the type of rules*, and 3) *the degrees of freedom* that are allowed the participants for making choices. The rules of all sociocultural activities on the one hand are respected by participants, while on the other hand they enjoy some degrees of freedom for the interpretation and use of rules, tools and goals, and are deeply engaged in the activity (van Oers, 2013). Our data indicate that resulting opportunities for play are enormous and enormously rich.

### **Mode of Inquiry and Data Sources**

We employ an empirical research protocol specifically designed to assess language acquisition-oriented instructional conversations with and around multimodal material (the triadic scaffold protocol by Meskill, 2005). Five classroom interactions were recorded and analyzed and focal teachers interviewed using the video recordings to identify those triadic scaffolds whereby the teacher, student and the multimedia material on the computer screen interact to afford observable learning events. The overarching question “*What multimodal design features afford and amplify language and culture acquisition through interactions of teacher-child-multimedia?*” was systematically addressed.

For each identified learning moment, the teacher labeled the multimodal feature that contributed to the three-way conversation (child-teacher-machine). Groups and categories of

similar moves with shared and unshared elements were developed. Throughout, the team used formative evaluation techniques that included questionnaires for in situ educators to provide design and content feedback that was subsequently incorporated into the *Live Fairytales*. This iterative process brought practitioner expertise and hands-on feedback to the project.

### **Results and Conclusions**

In examining interactions between children, teachers and the focal multimedia material (*Live Fairytales*), the researchers and participating teachers used the viewing and analysis to identify learning moments from video recorded sessions and discussed these as three-way, tool-centered events. Learning moments that reflected triadic scaffolding were then categorized by frequencies and contexts of co-occurrence. Discussion and further analysis revealed 1) insight for designers to make improvements to the materials; 2) labels and deep meaning for the instructional conversations engaged in and subsequently analyzed; and, consequently 3) model triadic learning conversations that can and will serve the basis for design of subsequent multilingual materials of this kind.

This nationally-sponsored initiative set out to provide carefully designed content for pre-school and kindergarten contexts whereby young learners can work experientially with their mother or second language in fun and engaging activities. Results contribute to the ongoing reconstruction of language teaching and bilingual development in diverse contexts (Kleyn & Vayshenker, 2012) and technology's role going forward (Meskill & Anthony, 2008).

Examination of how multimedia language and culture materials are used by expert teachers was undertaken to particularly focus on the dynamics of children and their teachers interacting with multimodal features and how these interactions both reflect and shape language and cultural learning. Initial data indicate strongly that multimodal materials with depth of

content (vibrant fairytales) are viable for mother tongue development when teachers use them wisely and conversationally as part of playful learning. Teacher identification and conceptual development around triadic scaffolds also proves a viable and potentially powerful method for inquiring into the efficacy of the multimedia, teacher, child triad for language, literacy and cultural development both for instructional design and teacher development purposes.

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