

DEVELOPING MULTILITERACIES, PLURILINGUAL AWARENESS & CRITICAL THINKING IN THE PRIMARY LANGUAGE CLASSROOM WITH MULTILINGUAL VIRTUAL TALKINGBOOKS

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Abstract

This paper describes the theoretical framework and the main objectives of the European Comenius project MuViT – Multiliteracy Virtual. The project engages primary pupils across the world in multilingual and audiovisual reading and writing processes through the use of information technology resources to enhance multi-literacies, plurilingual awareness and transcultural understanding. The paper first sketches the necessity of a pedagogy of multi-literacies in our classrooms. In a second step it details on the objectives and tools developed within the Mu-ViT project. Thirdly it illustrates which research questions and activities are connected with the project.

Zusammenfassung

Der Beitrag erläutert den theoretischen Hintergrund und die angestrebten Ziele des von der EU geförderten multilateralen Comenius Projektes MuViT – Multiliteracy Virtual. Das Projekt unterstützt europäische Sprachenlerner in der Grundschule bei der Ausbildung mehrsprachiger Literalität und mehrsprachigem Bewusstseins durch den Einsatz von mehrsprachigen, digitalisierten Bilderbüchern. Im ersten Teil des Aufsatzes werden die Notwendigkeit und die Grundsätze einer multilateralen Pädagogik im Kontext schulischen Lernens dargelegt. Im zweiten Teil werden die Ziele und Materialien beschrieben, die im Rahmen des Projektes entwickelt und evaluiert werden. Abschließend wird aufgezeigt, welche Forschungsfragen- und aktivitäten mit dem länderübergreifenden Projekt verbunden sind.

1. Theoretical Background: Changes in our society – changes in language education

Throughout the last 15 years our society has undergone two major changes:

Firstly, there has been a steady rise of cultural and linguistic diversity, due to migration, multiculturalism and global economic integration; secondly, there has been the rapid development of technological devices and the world-wide expansion of new communications media. These changes directly affect the lives of our pupils at home and at school and thus have an important impact on curricular development, teaching objectives, contents and methodologies – starting as early as in primary school.

1.1 Plurilingual learners – plurilingual goals

According to the European Commission, the European Union is home to 700 million people from diverse ethnic, cultural, and linguistic backgrounds. At present the European Union lists 40 official languages, and approximately 200 other languages spoken across Europe, including regional and minority languages (Elsner 2011: 12). In order to “break cultural stereotypes”, “enhance creativity”, and “encourage thinking outside the box” European citizens should be fluent in two languages in addition to their mother tongue (European Commission 2008: 2).

A large number of people are growing up bilingually by birth, according to the Eurobarometer survey from 2006, 56% of all EU citizens claim to speak one language in addition to their first language (L1), 28% state that they even know two other languages in addition to their L1 (European Commission 2006: 6). In Germany alone, approximately 20% of all primary pupils switch between the language(s) spoken at home and the dominant language of their (educational) surrounding on a regular daily basis (Elsner 2010).

By the age of 8 at the latest, every child in Europe starts with learning and using a foreign language at school – in most cases this is English, the language which surrounds every one of us, everywhere– be it as lingua franca, in advertisements, or on the radio. English is thus seen by the majority of Europeans as the most important foreign language to learn followed by French and German (eg. European Commission 2006: 7).

For many plurilingual children, speaking one or more (minority) languages at home, and using another language (the dominant language of their surrounding) at kindergarten or school, English is already the third or fourth language to learn. Monolingual children on the other hand live and learn together with children of other languages already in kindergarten and thus get into contact with many different languages and cultures from a very early age on. Phenomena like code-switching, code-mixing, and translanguaging (Garcia 2009) belong to young learners' daily discourse-behaviour.

It becomes obvious: plurilingualism in our schools has changed from an exception to a norm and shall be considered on both counts – as a precondition and as a learning objective. The idea that learners should value and develop their language repertoires and that schools, especially language classrooms, should recognize them as legitimate learning resources is strongly endorsed by the Council of Europe in their Common European Framework of Reference for Languages (2000) as well as in the Guide for the development of language education policies in Europe (Baecco & Byram 2007). The German Integrationsplan 2007 calls on educators to see this kind of plurilingualism in our schools as a chance for the development of mutual understanding, tolerance and respect, and motivates teachers to incorporate different languages into their daily teaching routines.

Even though most teachers would agree with the educational recommendations set out in such documents, they are not necessarily empowered to do so since they have not been equipped with the appropriate knowledge and skills (eg. Breidbach *et al.* 2011: 11). Most educators do not speak or understand any of the languages their pupils speak, as a result minority languages are basically never incorporated into the mainstream classroom neither do teachers make or ask for any cross-references between the languages spoken or learned in the classroom (eg. Elsner 2011: 192). So far, we must conclude that European school systems prefer to pursue linguistic homogeneity than language diversity through plurilingual education. In this way, schools and especially language classrooms do not yet react appropriately to the linguistic and cultural changes in our society.

1.2 New technologies – new literacies

Linguistic diversity goes hand in hand with the rapid development of new information technology. People all over the world communicate with each other, exchange information, and read the same texts being at completely different places, speaking different languages. The new generation of pupils – the so called “Google-Generation” is constantly connected with friends at any time from any location in any country in our world via smartphone or computer, and they basically cannot imagine any more how it was to receive

monomodal information through printed texts only. Most students are more motivated to read multimodal texts from a computer screen than pure texts without images from paper in hand, and they feel far more comfortable working on a keyboard than writing in a spiral notebook (eg. Gunter *et al.* 2009; Arzipe & Styles 2008).

Different surveys stress the prevalence of children already at primary level using computers regularly. According to the computer magazine CHIP, 81% of our primary pupils have access to a computer at home (IconKids & Youth 2008: 5); even higher results emerged from the KIM Study, claiming that nine in ten families own a computer, with 62% of the children making actual use of it (Medienpädagogischer Verbund SW 2010: 9). However, only 33% of our pupils use computers at school at least once a week (Medienpädagogischer Verbund Südwest 2010: 29). Many teachers admit that they do not feel sufficiently prepared for the integration and use of technology in their classrooms and thus hardly ever incorporate technology-based activities such as internet research, online-games, web-quests or training software. Teachers feel that they need further training and/ or explicit methodological guidelines for the work with the new media in their specific classrooms (Grossmann 2008: 14; Wiedwald *et al.* 2007: 49). In summary, most primary classrooms in Europe still seem to exhibit ICT-free teaching, and thus do not sufficiently support pupils' development of multimodal or media literacies.

1.3 Implications for language education – a multi-literacies approach of learning

As Goodson *et al.* point out:

Young learners inhabit a world of burgeoning new literacies different in kind, scope, and purpose from conventional literacies and familiar language uses forged in pre-digital times. (Goodson *et al.* 2002: 126)

These changes result in a necessity to develop new approaches to learning in relation to preparing learners to engage meaningfully in a multilingual and technical world. As initially stated by the New London Group (1996), in order to arm our pupils with the necessary skills to communicate through, with and about the new means in a multilingual society, education in the 21st century should emerge from the transcultural, plurilingual, and technical experiences that learners bring into our classrooms and aim at the further development of a broad range and new forms of literacies – multi-literacies.

The concept of a multiliteracies pedagogy as described by the New London group is a cross-curricular one. Language educators now find themselves in the front line when it comes to imagining new practical manifestations of a language learning and teaching approach which aims at the development of a wider range of literacies than used to be the case for many years.

While traditionally being literate solely referred to the ability to read and write in a standardized form of one language, literate practices today incorporate multimodal, critical, cultural, and media competencies next to traditional-functional language skills, like reading, writing, speaking, mediating, and listening in many languages (eg. Rosenberg 2010: 7, Bach & Breidbach 2010: 296; Wildemann 2011: 281).

One major aspect in this context is the changing nature of texts that has developed from advances in technology. Language learners today need to be able to cope with different kind of texts, including multimodal, interactive, linear, and nonlinear texts, texts in different languages, texts with several possible meanings, texts being delivered on paper, screens, or live, and texts that comprise one or more semiotic system (eg. Anstey & Bull 2006: 24 f.).

In order to prepare students to actively engage in a socially diverse, globalized, and technological world, teachers need to find new forms of teaching and learning and provide opportunities for their pupils to explore, learn about, and critically engage with a broad variety of texts and differing literate practices (eg. Anstey & Bull 2006: 56). Still, the question remains open as to how these principles and objectives of a multiliteracies pedagogy translate into examples of good practice in school settings.

2. Developing multi-literacies in the language classroom – products of the MuViT project

New information and communication technologies (ICT) can serve not only to encourage linguistic diversity and multilingual education but also to raise awareness of linguistic and cultural traditions throughout the world and to inspire solidarity based on mutual understanding, tolerance and dialogue. (UNESCO 2011)

Analysing the market situation, it soon became clear, that the products available for multilingual learning

- are basically paper-books in two languages, sometimes accompanied by a CD, calling for teachers to be multilingual themselves,
- are often restricted to two languages (Spanish/ English, Turkish/German etc.),
- do not come with an appropriate methodological guideline for the integration into the language classroom,
- do not encourage pupils to actively work with, reflect upon or produce different languages they know or want to learn,
- solely aim at the development of traditional functional literacy, namely reading.

Against this background, the MuViT team-members developed a concept for digitalised, multilingual talking books, integrating different activities for the development of language and cross-linguistic awareness, alongside a concept for an authoring tool enabling children to produce and share their own multilingual storybooks within the MuViT web-community. Before start of the MuViT project researchers in the field of first, second and foreign language acquisition, teacher educators, teachers, and IT-specialists from Germany, Spain, Turkey, Latvia, and Russia were searching for different ways to put the multiliterate notion into practice.

Practically, a group of 8 researchers searched for a simple-to-use tool which could enhance multilingual learning and likewise language awareness through the use of new media. How could different languages enter classrooms all over the world and motivate children to learn with and about their own and different other languages, including minority languages, school languages and foreign languages, without requesting teachers to be able to speak all these different languages? How could at the same time children's technological understanding and media literacy further be developed?

2.1 Multilingual Virtual Storybooks

In the first place, MuViT aims at the development and evaluation of digitalised picture-books in five different languages, allowing the learner to autonomously read and simultaneously listen to a variety of stories on the computer screen.

The books offer a word-highlighting (karaoke) function which can be chosen during the reading process if desired.

So far, 6 different storybooks have been developed by the members of the MuViT group. All of the stories were professionally translated into English, Spanish, Turkish, German, and Russian (Cyrillic and Latin) by the members of the language departments of the participating partner institutions. Parallel to this, pictures for the books were drafted by one of the partners and culturally adapted after team-evaluation; a requirement analysis was undertaken with a group of children in order to specify the technical details for the software implementation. In a third step the researchers from the language departments developed and translated different tasks for the work with the stories, focusing on text comprehension, language awareness and cross-linguistic comparisons. Finally, text and audio-files were prepared for the application of the software, and a first proto-type of the MuViT Software, including a combination of images, sound, text, was developed (see Fig. 1).



Fig. 1 Example page of MuViT book, prototype designed by Wahju A. Widjajanto (member of MuViT group)

The structure of the digitalised storybooks resembles the three phases underlying storytelling-methodology (eg. Brewster & Ellis 2008).

In the pre-reading phase, necessary key vocabulary is introduced in order to ensure children's text comprehension. Pupils are also introduced to the main characters and places of the story to clarify story settings. Children themselves may choose the language(s) they want to read or listen to the story from the first page on, however, switching languages is possible on any page.

While reading and optionally also listening to the story, children are offered a synchronous word-highlighting function which supports them in their reading process as well as in their pronunciation practices.

For the post-reading phase, the MuViT software provides different tasks for interactive work with the stories. The tasks embrace text comprehension questions, cross-linguistic comparisons, and vocabulary and grammar training in all 5 languages. In addition, the software includes a portfolio, allowing the children to reflect on their work with the different books and their own plurilingual development.

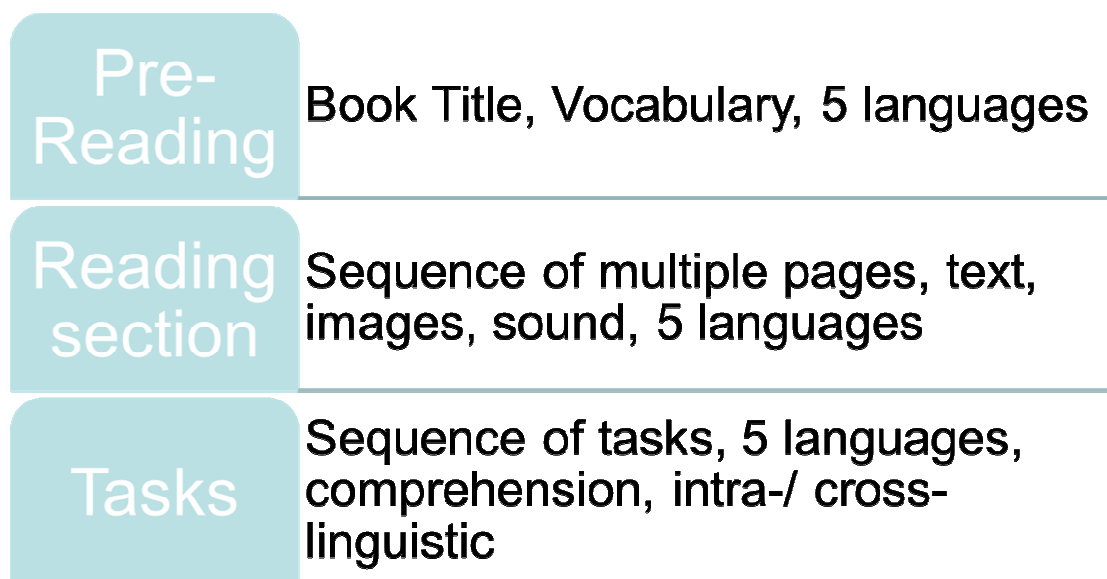


Fig. 2 Structure of MuViT Books

The MuViT software is aimed at primary aged pupils (age 8-10) and has the following objectives:

- promotion of integrated language learning (first, second and foreign languages)
- raise the status of minority languages in the mainstream classroom
- enhance language awareness through intra-linguistic tasks, cross-linguistic comparisons and self-reflection
- support pupils' plurilingual development
- develop functional literacy in different languages (eg. foster pupils' reading and pronunciation skills)
- enhance multimodal, critical, and visual literacy
- develop media competencies
- encourage teachers to overcome their "monolingual habitus" of language teaching

The digitalised storybooks should empower language learners to interactively develop multiple literacies and language awareness. The software contributes to media education, inter- and transcultural learning processes, and fosters plurilingual development.

2.2 Multilingual Virtual Authoring Tool and Web-Community

Right from the start, all project participants shared the belief that multilingual digital books can be a powerful teaching and learning tool for the language classroom. In this context we also agreed that besides "consuming" the stories children should get the opportunity to produce their own stories in different languages and share them with a selected group of other pupil-authors from all over the world – the MuViT web community.

Readers, viewers and listeners today are “drawn in” by the new technologies as they become active partners, users, and producers of communication, due to the possibility to publish anything they like on the internet (Rosenberg 2010: 8). Pupils nowadays have the opportunity to actively participate in a digitalised world, produce and comment on texts, and thus need to learn how to appropriately cope with this new option to go public at any time. For teachers this translates into the necessity to arm pupils with the appropriate skills to do so, and to give pupils the opportunity to learn how to negotiate, interpret, and critically analyse register, discourse, codes, visuals, audio, and iconic meanings (ibid). For this reason the MuViT-group envisaged the additional development of an easy-to-apply authoring tool which will allow children from all over the world to write and design their own stories for publication. Pupils can share and translate stories into different languages and communicate about them with other users on the MuViT website (Fig. 3).

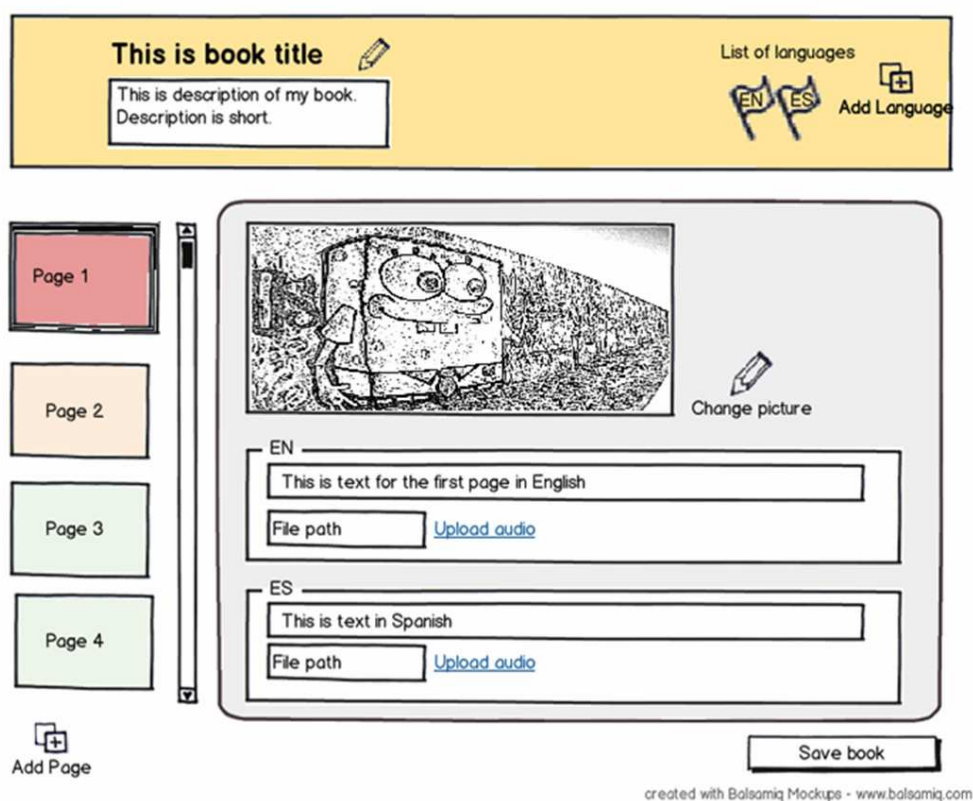


Fig. 3 Authoring-Tool prototype by TILDE, Latvia (partner of MuViT group)

The MuViT- web-community (www.mu-vit.eu) will serve as a safe forum for discussion, language mediation and learning in which transcultural synergies may occur as well as expertise can be disseminated.

The Mu-ViT authoring tool and the web-community

- offer pupils transcultural encounters between pupils all over the world
- help children actively produce multimodal texts in any language
- help improve language mediation and creative writing skills
- support pupils on their way to become active participants in public communication

3. Multiple literacies, plurilingual awareness and critical thinking – aims of the MuViT project

Together with the software, the authoring tool and the MuViT web-community serve as instruments for the development of multi-literacies in the sense of how the MuViT researchers define the term multiliteracy:

“Multiliteracy implies the development of functional, visual, and multi-modal literacy, plurilingual awareness, critical thinking, and digital competencies.” (Elsner et al. 2011).

3.1 Developing functional, multimodal and visual literacy

Reading and listening to the stories in L1, L2, Lx can support **functional-traditional literacy** development (reading, listening, and pronunciation). Working with the authoring tool may help pupils to further develop their writing and language mediation skills. The combination of words, images, sound and word-highlighting offers different modes of communication and multiple ways of meaning-making and can foster the development of **multimodal literacy**. **Visual literacy** will be educated through the images in the books, but also in the tasks, which visualise grammatical phenomena and lexis. Children need to interpret, negotiate and make meaning from the images in the books, especially when reading in an unknown language. Moreover children need to draw, photograph or find their own images for their own story production, and decide which images may facilitate text-comprehension.

3.2 Developing digital competencies

Digital or technological literacy is defined in ITEA's *Standards for Technological Literacy* (ITEA 2007: 9) as a person's ability to use, manage, assess, and understand technology. Digital literacy is thus more a capacity to understand the broader digital or technological world than an ability to work with specific processes of it (NAE & NRC 2002: 22). On the other hand, technical competency is one's ability to have a high degree of knowledge and skill related to one or more specific technologies or technical areas. In the same sense, the MuViT software and the MuViT authoring tool will enable children and their teachers to gain specific knowledge of and about the work with multilingual books: how can I use the help function? Which button do I press, to switch on the highlighting-function? How can I turn off sound? How can I print out my portfolio and equip them with the necessary skills to use the authoring tool appropriately? How do I upload pictures? How do I combine pictures and text? How can I record a story and connect it to a page? The development of digital competency will contribute to the development of digital literacy in the long run.

3.3 Evoking critical thinking

Children and teachers will interact in the MuViT web-community, where they can publish their stories, interpret or mediate stories of others and communicate with other users. Children will soon realize that they are not able to control their work, eg find out if their stories are being translated into different languages correctly. They will be confronted with different questions: whom can I trust on the internet? How can I make sure that my message in a story is being interpreted appropriately? In addition, they will find out about the power of images – how can images change the meaning of a text? How can they support or contradict text-messages? This kind of critical thinking can be a first step to develop critical literacy.

3.4 Developing plurilingual awareness

One of the major aims of the MuViT project is to motivate learners to read, learn and talk about different languages and recognise that all languages are of equal value. Pupils will get the opportunity to read in and listen to a broad variety of languages and may actively realise and think about the challenges and chances that multilingualism brings into our society. The integration of a language portfolio allows pupils to reflect

on their own plurilingual development, sharing and negotiating stories with others may help pupils to strengthen or amend attitudes about their own and other languages and cultures. Essentially, MuViT strives for plurilingual awareness in the sense of language and cultural sensitivity or language awareness in a social-affective and cultural-political dimension (eg. Breidbach *et al.* 2011).

In addition, pupils can use the MuViT software to actively work with, explore and compare different languages on the computer screen. Different tasks integrated into each book focus on intra-linguistic phenomena (syntax, conjugations, interpunctuation, lexis etc.) as well as on cross-linguistic comparisons (which language uses capital letters in a sentence? How is a question built in German/ Turkish/ English? What is the word for “magic” in other languages etc.). In this way, the work with these tasks shall also foster pupils’ language awareness on a linguistic-systematic level (Breidbach *et al.* 2011).

However, we are aware that the work with the MuViT software will take place occasionally in classrooms. We therefore do not expect pupils to develop deepened language awareness in one dimension. We rather hope for a broadened plurilingual awareness, meaning that children and teachers (!) realise phenomena underlying all languages or just one, and develop understanding for other languages as well as their own by getting involved in plurilingual collaborative and dialogic constructions of meaning (eg. Bakhtine 1979).

3.5 MuViT teacher training and material

The MuViT software and the authoring tool will be supplied with a teacher’s guide, including general information about a multi-literacies pedagogy, an operating manual for the software, technical and methodological instructions on how to use the authoring tool as well as practical tips on how to integrate the software, the authoring tool, and the web-community into classroom practice. In addition different workshops will be arranged in each of the five partner countries to introduce the software and the authoring tool to a wide base of teachers and thereby establish the MuViT web community of expert users.

5. MuViT Research

Within the MuViT project researchers from all participating institutions will conduct research on different aspects of multiple-literacies development.

In the following the major research questions and instruments will be summarized:

5.1 Focus on plurilingual awareness and critical thinking

The MuViT software and the authoring tool will support plurilingual awareness on behalf of the teachers and on behalf of the pupils. Especially the work with the authoring tool and the web-community shall activate critical thinking and in the long run lead to critical literacy development. Against this background, MuViT researchers want to consider the following questions by conducting interviews with pupils and teachers, and observing the children in their activities on the screen.

- Can MuViT raise children’s interest in different languages?
- Can MuViT contribute to plurilingual acceptance of teachers and pupils?
- Can MuViT develop pupils’ language awareness on a linguistic-systematic and social-cultural level?

- Do teachers evaluate MuViT as a useful instrument for the development of language awareness and plurilingual sensitivity?
- Will pupils critically reflect upon the power of language and images?

5.2 Focus on multi-literacies development

Observations of the pupils during their activities on one hand and different tests, concerning reading comprehension, pronunciation practice and writing in the pupils L1/L2/L3 before and after the work with the software and the authoring tool as well as interviews with pupils and teachers will answer the following questions:

- Can pupils improve functional literacies in the languages they already know and learn?
- Can pupils gain knowledge in other languages on a lexical level?
- Do the pupils evaluate the combination of images, sound and text as being helpful for language learning?
- Are the visual and multimodal interpretation skills of the pupils further developed through the work with MuViT?

5.3. Focus on code-switching behaviour

Code-switching is the skill to switch between two or more languages during a conversation. Different studies could prove that plurilingual adults and children actively make use of both/ all of their languages in different situations, showing systematic code-switching behaviour in their language production (eg. Cantone & Müller 2008; Guerra & Müller 2010). One aspect which has not been researched so far is the receptive code-switching behaviour of mono-, bi-, and plurilingual children. In this context the following questions arise:

- How do mono- and plurilingual pupils make use of the different languages offered to them in a book and in tasks?
- Which language do they voluntarily choose?
- When and how often do the children switch into other languages and why?

These data will be researched through observations of the children and think-aloud protocols. Moreover, the software features a production log which records pupils' code-switching behaviour during the reading process and while working on the tasks. It will also be possible to track the time that pupils spend with reading and working in each language.

6. MuViT prospects

It becomes obvious that MuViT may become an innovative tool for plurilingual and media education at primary level. MuViT contributes to modern language learning approaches as it supports autonomous, inductive and process- and product-oriented learning. MuViT will offer a large field for different investigations – be it in the research area of language awareness, language development or linguistic behaviour of mono- and plurilingual learners. Also the teacher education programmes in connection with the MuViT tools will offer possibilities for new research activities in the field of teacher language-awareness. Finally, it is a strong desire of the MuViT team to search for further education areas and develop more multilingual books with different topics, tasks and aims for differing target groups at pre- and post-primary level.

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