How can television be used to introduce children to foreign languages? Preschoolers can learn a second language quite casually. An IZI study examines a variety of TV formats and their potential.

According to research findings over the past 30 years, even preschoolers can learn successfully with the help of television (cf. Fisch, 2004). Only a few studies, however, have focussed on language learning at an early age by means of television, for example the recent study “English for beginners”. The 3 fundamental issues for investigation were:

- Does (repeated) television viewing produce an enhanced learning effect in the foreign language?
- Does this enhanced learning effect depend on the type of programme or format?
- Does the enhanced learning effect vary according to the group of children?

Learning English in a natural environment …

… is supported by “the earlier, the better” motto. The earlier children learn another language, the more closely the learning process resembles the acquisition of the mother tongue. Young children can learn a language without any guidance. They learn in a way different to adults, who associate learning a language with hard work. The impression that children find learning a language very easy is accurate. Children have certain advantages to adults in their casual learning of a foreign language: they can differentiate more easily between specific sounds; they benefit from a greater degree of linguistic flexibility in addition to a high motivation level. Children who learn another language at an early age in their natural environment achieve a high level of grammatical proficiency and pronunciation similar to that of a native speaker. The ability to speak several languages has no negative effects, as is feared sometimes even today. On the contrary, evidence has come to light that this ability has positive effects on children’s overall cognitive development (Franceschini, 2003, p. 6).

A guided approach to learning a foreign language …

… in schools for example, does not support in absolute terms the validity of the motto “the earlier, the better”, according to recent findings (Klippel, 2000, p. 16). In this case, adolescents and adults are learning faster. In our view, learning a foreign language via television represents an unconscious learning situation for children aged 3 to 6 rather than a guided and structur ed teaching and learning situation.

The study

The study “English for beginners” was carried out in 10 Munich kindergartens from May to June 2006. 158 boys and girls aged 3 to 4 respectively 5 to 6 participated. It was ascertained beforehand which languages were spoken in the children’s families. Over 1/2 of the children came from families whose only language was German; the other children had a multilingual background. The children were divided into 4 equally sized
groups, each of which watched a programme for subsequent evaluation. 4 programmes were selected for the study. On the one hand, we included programmes that were on TV at the time of the study (or broadcast shortly afterwards). On the other hand, the evaluation targeted various genres and adaptations or methods of learning English. On this basis, we chose Die Sendung mit dem Elefanten ("The programme with the elephant", WDR), Dora the Explorer (NICK Jr.) in addition to the BBC programmes Razzledazzle and Something Special. All 4 formats were tested for the following sub-skills of language learning:

- **Language awareness**: the awareness for languages, their variety, their differences, their structure and their function.
- **Listening/viewing comprehension**: comprehension on the basis of language heard and of sounds with additional visual input.
- **Listening comprehension**: comprehension of language heard and sounds.
- **Receptive vocabulary acquisition**: passive understanding of words.
- **Productive vocabulary acquisition**: understanding of words, and being able to use them actively.
- **Attitude and motivation** with regard to languages and learning languages.

In addition to these language-related criteria, the children’s reception and learning behaviour were assessed for all the programmes.

The “English for beginners”-study included a pre-test and a main exploration with two tests. The children participating watched the same programme on four consecutive days. The first test took place after the 1st viewing of the programmes, the second after the 4th viewing.

The procedure was identical in all of the kindergartens participating: each group of 10 children watched a programme in the morning or in the afternoon. Whenever possible, the composition of the group remained unaltered. We are well aware that this situation is hardly comparable to that of the natural environment, in which children watch television alone or with parents or siblings. But this arrangement permitted to collect data from many preschool children in a relatively short period. Methodically, the results are based on guided interviews and the video analysis of the TV reception.

**Interviews**

In guided interviews conducted with individual children subsequent to the 1st and 4th presentation of the programme, they were asked questions on the contents of the programme that were related to the sub-skills of English language learning. The development of the questionnaires and materials took into account the children’s age and the level of development and language skills. Special attention was paid to the rhythm of the interview situation and the integration of frequent play elements.

**Video analysis**

In order to analyse the learning processes of the participants, the children were recorded on video on the first and last day. Subsequently, the reception behaviour of each individual child was evaluated on the basis of a TV activation scale at 5-second intervals with the computer software “Videograph”. The TV activation scale specially developed for this study is based on the findings of similar research projects on TV reception research (cf. Anderson et al., 2000), on observation instru-

ments applied in primary education research for assessing educational processes (cf. Mayr/Ulich, 2006) and on our own findings prior to this study. The evaluation scale consists of the sub-categories “attentiveness”, “involvement” and “participation”. Each of these categories will be described and defined more precisely in the following paragraph using detailed observation criteria.

**Results**

Initially, the results for the individual formats will be presented, since they already include specific aspects of learning English. In this phase, examination of the data from the guided interviews shed light on “what” was actually learnt. The results of the video analysis informed about “how” learning takes place.

**Dora the Explorer**

The animated cartoon character Dora experiences a wide range of adventures with her monkey friend, Boots. One salient feature of the series is a clear structure recurring in every episode. The programme was created in the United States and focusses not only on the learning of a foreign language but also on other important spheres of preschool learning. The initial setting always presents a problem Dora attempts to solve. The path to the solution is shown to her in stages by a character called “Map”. Every programme ends with the song “We did it”. The “German” Dora speaks English and German. Some characters, however, communicate only in their mother tongue, English. In these situations Dora translates for the...
viewers. Only a few new English words are introduced in every episode. Key words such as “backpack” or “map” are repeated many times in every programme. One special feature of this format is Dora and Boots addressing the TV audience directly. The children are urged to join in, to repeat the words and to help find the solution.

In the study, the episode Sticky tape was evaluated. Boots and Dora want to help Benny the Bull. It seems his hot air balloon is going to crash, and he desperately needs sticky tape to seal the hole in his balloon.

**What and how do children learn with Dora?**

The repetition of the programme produced higher learning results in all the foreign language learning areas examined. While viewing the programme, the children participating acquired vocabulary they were able to reproduce, even actively after the 4th viewing. Little English vocabulary is presented, however, with only one or two new words being introduced in each episode. The programme frequently repeats the vocabulary relevant for understanding the content to support the learning process. This repetition is extremely effective, since it is meaningfully integrated in constantly new situational contexts. This particularly applies to the programme Dora the Explorer, where the repetition factor has a great influence on the development of productive vocabulary.

The encounter between Dora and native English speaker Tico was a more complex language situation in the episode used to evaluate listening comprehension skills. Dora interprets the English spoken. During the interview we presented the situation as a film without Dora interpreting to the children. Almost 1/2 of the children were able to reproduce the gist of Dora’s dialogue in the 1st test. The repetition produced but negligible improvements in listening/viewing comprehension. When, on the other hand, we presented only the conversation between Tico and Dora for testing listening comprehension, the correct answers amounted to less than 10% during the 1st test. The repetition, however, clearly led to a significant improvement in learning results in this case.

When the children saw the programme the first time, a lack of attentiveness was observed in only 2% of the 5-second time segments. In other words, extremely high levels of attentiveness were registered. The reception behaviour changed during the 3rd repetition, however. Attentiveness levels declined, i.e. there was an increase in the lack of attentiveness, but there was a rise in involvement and participation levels.

The results of the video analysis are closely related to the programme’s “interactive concept”. The appeals to join in, repeat or lend a helping hand resulted in an interactive experience for most children. This method, relatively new for TV programmes, is seldom used for learning English and the transmission of other educationally relevant contents; this approach is usually applied to retain children’s attention. The positive attitude to learning English was but negligibly enhanced by repeating the programme. The overall result revealed that the older children learnt more from the programme than the 3- to 4-year-olds. We did not register a significant gender difference.

**The German programme Die Sendung mit dem Elefanten**

The little blue elephant is the mascot of the German preschool TV magazine Die Sendung mit dem Elefanten (“The programme with the elephant”) (cf. Sistig in this issue). The short elephant clips serve as a partition between the various magazine items. We tested two of these items for English language learning opportunities; only the two clips below were evaluated in this study.

The story of pig family Wutz in Peppa Wutz (English original programme: Peppa Pig) is shown twice. The first, somewhat shorter version (Peppa Pig) is in English, the second (Peppa Wutz) is in German, separated by a brief Elephant clip.

In the second item, the children see and hear the song “Old MacDonald had a farm”. The contents are illustrated with animated film.

Both items are original materials from English-speaking countries. The use of authentic materials is considered to be particularly beneficial in English didactics. Peppa Wutz/Peppa Pig is attuned to the life environment of children. Comprehension is supported by the use of language adjusted to the target group. The individual characters speak after each other, have a clear pronunciation, and the dialogues are not eclipsed by background noises. The children see the English version before the German. Questions, hypotheses and problems arise, which are possibly solved when the children view the German version.

Storytelling is an accepted method of early foreign language teaching. One important principle is the integration of the children in the story. Children
are invited not only to listen, but also to experience the story. The story of Peppa Wutz and her pig family could be described as the television-specific adaptation of storytelling. Unlike storytelling in class, the children see the story. Activities before, during and after the narration, characteristic of storytelling with children, are not (yet) integrated in the example of Peppa Wutz.

Concerning “Old MacDonald had a farm”, it should be noted that children readily accept and enjoy songs as a method for learning. When singing, they have no inhibitions about expressing themselves via language. As the rhythm and the melody are their main priority, they do not even realise they are learning while singing. Singing represents a playful approach to speech production and un-consciously practising pronunciation.

**What and how do children learn from Die Sendung mit dem Elefanten?**

Both in Die Sendung mit dem Elefanten and in Dora the Explorer, 5- to 6-year-olds benefited more from the English presented than 3- to 4-year-olds. Evaluating the results on gender-specific lines proved to be more difficult. As in the analysis of the data from Dora the Explorer, Die Sendung mit dem Elefanten yielded no evidence that girls produce better results than boys in all areas of English learning. The responses by boys and girls to the questions on listening and listening/viewing comprehension were similar. However, the girls achieved better results on the questions regarding motivation and attitude, and the boys on vocabulary acquisition.

Showing the Peppa Wutz story in English and subsequently in German proved to be beneficial. The interview results substantiated the positive influence of the programme on the language awareness of the children participating. The comparison of Peppa Wutz with the song “Old MacDonald” revealed surprising differences. Simple allocation exercises testing passively available vocabulary produced but negligible differences in both tests. In the case of more challenging tasks on this sub-category of English learning, the vocabulary in the song was better remembered than that of the story. This observation was corroborated by the results on productive vocabulary acquisition. Especially the 1st test revealed clear differences between the story and the song, but these differences evened themselves out in the 2nd test. The comparison of reception behaviour showed in both tests that the participants followed the story less attentively than the song.

The repetitions helped all the children – irrespective of age and gender – to improve their results on the questions about the Peppa Wutz story. Over twice as many children managed to answer the listening comprehension questions correctly after the 3rd repetition.

After being asked to listen to the story several times, the children participating judged their English learning progress far more positively than in the 1st test. This tendency concurs with the results from the interviews. Their attitude towards learning English and their motivation to learn English was enhanced by Die Sendung mit dem Elefanten.

Showing an animated cartoon story in English, followed up by the German-language version, seems to be an interesting and child-oriented approach to learning English via television. Its potential has so far hardly been exploited.

The video analysis reveals that the repetitions of the episode create significant opportunities for learning. After viewing the English version, the children put forward their own hypotheses on the events shown; they asked questions and made the first attempts at translation. These learning processes could be tuned into and intensified by inserting some guidance before the English version, between the two versions and at the end of the German story, which would serve to optimise the learning experience.

**Razzledazzle**

Razzledazzle is a BBC programme, sections of which were used for this study.

“Razzledazzle is about listening to specific sounds, rhythms and words, giving a fun pre-literacy experience before the formal process of literacy teaching begins.” (BBC-Homepage)

Razzledazzle is designed to promote the speaking, listening and understanding of English and endeavours to train the phonetic awareness of British children in their preparation for the reading and writing process. The programme consists of 4 learning portals moderated by the animated cartoon character Razzledazzle.

For our study, 2 learning portals were selected: “Rhyme Time”, a rhythmically structured sound and rhyme world, and “Once upon a Tale”, the learning portal of storytelling, where children are told stories in the studio and then invited to join in. For this study Razzledazzle was selected not only because of its significant learning aspects with poems and stories in the context of English learning but also for evaluating immersive learning with the TV medium.

“...Immersion is a method of conveying a foreign language so that the language is used completely and naturally for all activities in the daily environment.”

Throughout the programme Razzledazzle creates such language immersion, fulfilling many of the criteria necessary for this concept. One limitation should be pointed out, i.e. it does not warrant the duration of language input required of immersive learning (at least half a day in kindergarten).
What and how do children learn from Razzledazzle?
In the study, Razzledazzle revealed particularly striking differences between the two age groups. Only the 5- to 6-year-olds acquired active vocabulary, producing better results than the younger children in all the sub-skills. The repetition failed to produce increases in learning in all the points tested, particularly in the case of the 3- to 4-year-olds.

The attitude of the latter group to learning a language was worsened by the repeated viewing of the programme Razzledazzle. Particularly the children who did not fare so well in the other interview questions adopted a critical view towards learning English. Further evidence for the difficulty of Razzledazzle: repetition in this case led above all to higher performances in the acquisition of receptive vocabulary whereas ceiling effects were soon observed in the other programmes deployed in the study, the results already being very good in the 1st test. In addition, only slight improvements in productive vocabulary were ascertained with Razzledazzle, a further example of where this tendency does not match the observations made in the other programmes.

The evaluation of receptive behaviour during Razzledazzle reveals a decline in attentiveness subsequent to repeated viewing whereas the values for lack of attention, involvement and participation rose. This tendency was found in all the subgroups examined. The comparison of the receptive behaviour during the story and the reception of the poem revealed a higher level of attentiveness during the story, but more activity during the poem. Closer analysis of these time segments illustrated clearly that a large part of this activity consisted of emotional reactions.

Something Special
“All children are special”, regardless of whether they have special needs or not – this is the message of Something Special (BBC). Effortlessly, the programme focusses on integrating children with learning difficulties and physical disabilities, deploying a variety of methods that can also be used in foreign language learning. In the episode evaluated, movements such as “walk”, “run”, “jump”, and “swim” are demonstrated and repeated several times via clips, images, pictograms and Makaton sign language.

One special feature of this format is the way the actor Justin Fletcher uses his body to support the learning processes of the children viewing. Apart from the children featured in the clips, he is the only actor in the whole format is buoyed by his presence.

In English didactics, the method of “Total Physical Response” (TPR) incorporates the integration of body experience in language learning, an approach that endeavours to activate both halves of the brain and thus enhances memory capacity. Similar to Razzledazzle, in many aspects Something Special follows the principles of immersive learning.

What and how do children learn with Something Special?
Although only English is spoken in Something Special, 2/3 of the children gained an overall understanding of the contents after watching the programme just once. This result is directly related to the “simplicity” of the programme. Something Special concentrates on the essentials, contains no complex narrative thread and is shouldered almost solely by the presenter in an empty studio. The attention of the children focusses only on the contents transmitted, without any distraction by competing impressions (cf. Fisch, 2004).

The children achieved very good results in all the listening/viewing comprehension questions. And it was quite striking that the children rendered far more answers with the gist of the content in English than in German.

It is true that the older children learnt more from Something Special. Yet, the 3- to 4-year-olds also achieved respectable results, compared to the other programmes. As in all the other programmes, listening comprehension and productive vocabulary experienced the highest levels of improvement after the repetition.

As in the results of the other programmes evaluated, no great differences between girls and boys were ascertained in their learning from Something Special. It should be stressed, however, that the boys, as compared to the girls, achieved greater increases in learning in all the sub-skills investigated. The 5- to 6-year-olds benefited more from the 3 repetitions than the younger children. The use of TPR permitted interesting observations on reception behaviour and the children’s activity. In this connection, TPR with musical accompaniment was compared to TPR with solely verbal accompaniment.

After the 1st viewing the activity values were better in TPR mode with musical accompaniment than that of TPR with verbal accompaniment. In the 2nd test the reverse was noted: more activity was observed in the verbal situations than in the sing-alongs. We could prove a link between the level of activity and the results from the interview only in the 2nd test: high activity levels corre-
in Germany. This question can principally be answered in the affirmative, according to our evaluation. Here we are taking into consideration the significance of receptive learning during the so-called “silent period” of language learning, a phase when children assimilate language, comprehend a considerable amount, but cannot yet speak. Excluding a number of other factors, learning success depends on the quality and quantity of the input. Programmes must be designed in such a way that listening and viewing comprehension are supported effectively. Once the major maxims of foreign language learning have been taken into account, this will most probably be a solvable task for children’s television.

Conclusion

The study provided evidence of an increase in learning for preschoolers in all the programmes. The results, however, differed according to the individual programmes and sub-categories. Repetitions improved the learning performance in all the formats. The 5- to 6-year-olds achieved better results than the 3- to 4-year-olds in all the language learning categories evaluated. When the children had to reproduce vocabulary, highly positive values were recorded, the same was the case in listening/viewing comprehension. The comparison of boys and girls failed to reveal gender-specific superiority on the part of the girls right across the board.

In the final analysis, the question arises whether learning English at an early stage could develop into a significant domain for children’s television.

NOTES
1 The two authors were commissioned by IZI to carry out this study.
2 In the US-American original, it is English and Spanish.
4 “New action rhymes, based around familiar onomatopoetic sounds, and employing rhythm, rhyme and movement to aid memorisation.” (Source: BBC Website)
5 Source: http://www.gifil.de/immersivelearning/whatismeimmersion_en.php

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IMPRINT
Published by: Internationales Zentralinstitut für das Jugend- und Bildungsfernsehen (IZI) at Bayerischer Rundfunk.

Editor: Dr. Maya Götz, Elke Schlote
Editorial assistance: Rosemarie Hagemeister

Set by: Text+Design Jutta Cram, Spicherer Straße 26, D-86157 Augsburg.
Printed by: Druckhaus Köppel u. Schönfelder olIG, Ulmer Landstraße 287, D-86391 Stadlbergen.
ISSN 1862-7366
Translation of the German contributions by Anja Löbert & Dr. Timothy Wise (Textwork Translations), John Malcolm King, Valentina Griffin, Jessica Schullock

Address of the publisher: Internationales Zentralinstitut für das Jugend- und Bildungsfernsehen (IZI) Rundfunkplatz 1, D-80335 München Germany Telephone: +49 (0)89/5900-2991 Fax: +49 (0)89/5900-2379 Internet: http://www.izi.de E-mail: IZI@brnet.de

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