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Research Communiqué on the Use of Animated Cartoons in Teaching English to Children with Disorders and Disabilities

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Abstract

The following paper focuses upon the issue of using animated cartoons in teaching English to young learners with Special Educational Needs. The research conducted in one of the Polish integrated primary schools aimed at examining the influence of video on children’s vocabulary attainment. The present communiqué is concerned with general data evaluation and with a more in-depth analysis of particular cases of pupils with disorders and disabilities. As a final point, some pedagogical implications are drawn from the study.

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1. YOUNG LEARNERS OF ENGLISH IN THE VIDEO ENVIRONMENT

Broadly speaking, young learners feel at ease with video, but they may not recognize it as a teaching aid. Watching video in a domestic environment brings certain positive connotations of pleasure and entertainment. Thus, when presented with a video material in the classroom, children often expect to be entertained. Of course, learning and fun do not exclude each other, but learners have to be guided in advance in order to understand the instructional value of a film or a programme (Lonergan, 1992). Since children associate video with relaxation, the way they watch it may tend to be passive and uncritical, whereas the use of this medium for a pedagogic

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situation requires that they watch in a slightly different manner – actively, directing attention in a constructive way (Walker, 1999).

Understandably, the best medium appealing to children is a cartoon. Apart from those aimed at entertainment, some are used also in educational programmes. Perhaps the most prominent example of an educational television, although designed for native English speakers, is the American series Sesame Street. For more than 40 years, it has used puppets, animation, stories, etc. to amuse and instruct children around the world. In the article Children’s learning from television, Fisch (2005) cites more than 35 international studies which all affirm the learning benefits from Sesame Street. For instance, one study “showed that high school students who had watched educational television – and Sesame Street in particular – as pre-schoolers had significantly higher grades in English, Mathematics, and Science in junior high or high school” (Anderson et al., 2001 in Fisch, 2005).

Although there is a great number of educational videos available, this does not necessarily mean that all are equally effective. What is then that causes some to be more powerful than others? According to Fisch (2005), we can identify some features that contribute to the effectiveness of video on children. First of all, a given video should engage young students through the use of appealing elements, such as mysteries or humorous situations and dialogues. Moreover, it should constitute an action-filled visual rather than a static, “talking” one. Obviously, the topic has to be age-appropriate, inherently interesting to children and relevant to their lives. As for the characters, they should be viewed by pupils as competent and intelligent, with whom they can identify. Clearly, the content of the storyline ought to be presented via clear and direct language, at a level of difficulty tailored to children’s knowledge of the world and cognitive development. Taking these factors into consideration, individual episodes should convey a small number of ideas, draw explicit connections among them and reinforce the concepts through repetitions. Also, children are to be encouraged through participation, e.g. by attempting to solve a problem before the on-screen characters do it. Naturally, the list of factors is not exhaustive, but may be useful for teachers while selecting appropriate material to integrate into the classroom practice.

According to brain research, younger school-aged children can focus in direct instruction for approximately 5-12 minutes (Jensen, 1998 in Schulz, 2006). No matter what type of video is chosen, after 10 minutes of passive viewing, a child’s focus on the subject matter begins to wane (Adams and Hamm, 2001 in Schulz, 2006). Because children are unable to stay concentrated on one thing for longer than a few minutes, a teacher needs to select media which can be divided into smaller but complete segments, accommodating the student’s attention spans.
2. SENSORY STIMULATION OF CHILDREN WITH SPECIAL EDUCATIONAL NEEDS

Multisensory presentation of lexis through the use of video may be both appealing to young learners and effective, unless it is introduced prematurely. Considering the cognitive development of children, elementary students are well apt for watching videos in order to learn from them. As presented in research, even students with various disabilities can benefit from video-assisted language learning and this fact should not be undervalued.

Just to mention one study, Xin and Rieth (2001) investigated the effects of using video technology as a tool for facilitating vocabulary acquisition of students with learning disabilities. Seventy-six, 4th, 5th and 6th - grade students were randomly assigned to either a video or a nonvideo instructional group. The video instruction group learned word meanings and concepts in videodisc based contexts, while in the nonvideo group teachers taught students word definitions. All students were administered pre, post, and follow-up tests two weeks after the completion of the intervention phase on word acquisition, generalization, and passage comprehension over the 30 target words taught. Findings indicate that students in the video instruction group had statistically higher word acquisition scores than those in the nonvideo instruction group. As can be deduced from this study, video provides sensory stimulation, depicts movement that can lead to the formation of mental images and exposes students to both auditory and visual cues. Unlike an abstract definition, video depicts a real situation and makes otherwise difficult information seem relevant. Research indicates that students that are taught using video-assisted instruction outperform students that engage in traditional instruction in knowledge of word meanings.

Since today SEN (Special Educational Needs) students move to more inclusive environments, they are increasingly challenged with learning and retaining material from the general education curriculum. As far as EFL teachers are concerned, one challenge for them is to find appropriate methods that would help their exceptional pupils to learn and remember foreign vocabulary. This issue may be problematic because of the children’s learning difficulties, but partially solved through the use of video.

3. STUDY ON THE USE OF ANIMATED CARTOONS IN TEACHING ENGLISH TO CHILDREN WITH DISORDERS AND DISABILITIES

The overall aim of the study conducted was to investigate how much vocabulary can children who attend inclusive classrooms learn from video-assisted lessons as well as to find out whether video-assisted teaching proves to be an effective and likeable vocabulary teaching support for both children without learning disabilities and those with SEN.
3.1. Research structure

The study was conducted in the Ludwika Wawrzyńska Integrated Primary School No.105 in Cracow in two inclusive second grade classrooms. It involved a total of 28 students: grade II “a” – 13 (5 with SEN), grade II “b” – 15 (5 with SEN), though none with hearing or visual impairments.

The construction of the research was mainly inspired by Szpotowicz’s (2009) study on factors influencing young learners’ vocabulary acquisition and by Sun and Dong’s (2004) experiment on supporting children’s English vocabulary learning in multimedia context. Three main research instruments were used: vocabulary recognition tests, vocabulary production tests and a small questionnaire investigating pupils’ attitude towards video-aided EFL lessons. Understandably, before each and every test a vocabulary pre-test was done, which would look similar to the recognition vocabulary test. Additionally, one learning support method was used with both classes, namely a 5-min Target Warming-up (TW) session, which would take place before children viewed the videos.

3.2. Teaching material

A special learning material to facilitate vocabulary learning among children in inclusive classrooms was selected for the purpose of the study. Appropriate 10 minutes long segments from Magic English, a popular educational DVD programme designed for EFL teaching, were played to both classrooms, but during the projection sessions grade II “a” was not provided with any kind of support, whereas grade II “b” was supported by the teacher (in the case of nouns and adjectives those were flashcards in A4 format with pictures + repetitions, in the case of verbs – children imitated the actions and repeated the words).

3.3. Research procedure

The method used in the study was a quasi-experimental action research (Wallace, 2006) with a didactic perspective. It lasted six weeks and consisted of two parts. The first concentrated on the vocabulary attainment of students and the second on their attitude towards the video-aided instruction. A preliminary pilot study was conducted before the main one, in order to check the feasibility of the chosen tools and to improve the research design, but its results will not be discussed in the present communiqué.

In the recognition vocabulary test subjects were tested collectively. Each child was given a worksheet consisting of several pictures from the previously watched video. The worksheet included target vocabulary items (nouns, verbs, or adjectives) plus a distractor. During the test me as the researcher would read aloud the words and say
what numbers they are. Pupils would mark the pictures with the appropriate numbers I called out and put on
the blackboard in order to exclude the possibility of mistakes in students’ marking.

In the production vocabulary test students were interviewed individually. They were asked to name the objects
presented on flashcards. I would note down and score the quality of pupils’ production in the following way:
3 points if the child recalled the word correctly, 2 points if the child recalled the word but mispronounced it,
1 point if the child remembered only a part of the word, 0 points if the child was not able to recall the word at all.
Articles were not taken into account.

As already mentioned (3.1.), one learning support method was used with both classrooms, namely a 5-min Target
Warming-up (TW) session, which would take place before the projection of the videos. In this session I would
display each target word (printed on a flashcard – A4 format, font similar to the one used for captions), read
the word aloud and ask the class to repeat it several times. This session was used to familiarise young learners of
English with each word’s pronunciation. Children would then be asked to watch the video and guess
the meanings of the target words. The following instruction was given: “You’re going to watch an interesting
cartoon in English. All the words we’ve just practised will appear in the video. Please watch it carefully and try
to guess the meanings of these words.”

Each video was projected twice with the use of a computer and an overhead projector. From the researcher’s
observations results that for the first time children concentrated more on the plot and simply enjoyed
the characters’ capers. Only during the second viewing, they started to grasp the meaning of the target words.

The reason for conducting the TW session was the assumption that young learners would behave more actively
and intentionally and pay more attention to the English input when having clear goals set before watching
the cartoon. Furthermore, it was expected that this method would improve children’s pronunciation of the target
words and their ability to infer the meanings of these words from the context.

What is most important, class II “a” had no support while watching the videos, whereas class II “b” was
supported by the teacher during the projection sessions (in the case of nouns and adjectives those were flashcards
with pictures + repetitions, in the case of verbs – children imitated the actions and repeated the words).
No translation was given, so even children from class II “b” had to discern the meaning of the target words
themselves.
The interview concerning students’ attitude towards the video-assisted instruction was done after the whole project. To avoid young learners’ untrue responses (e.g. given to please the researcher), it was not me who interviewed the subjects. Pupils were interviewed in Polish, their native language, and the person talking to them was the English teacher that normally conducted lessons in both classroom. In this part of the study, the Thurstone scale ( DeVellis, 2003 ) was used, which required individual pupils to either agree or disagree with a few statements about the video-aided lessons they had experienced.

3.4. General results

Without going into detailed statistical calculations, percentile results will be presented in three categories: nouns, verbs and adjectives, respectively.

The non-supported class remembered and recognised passively 61 % of newly introduced nouns, of which they were able to actively recall 51 %. The supported class performed better in both tests: they recognised 89 % of the new vocabulary items, of which they recalled 66 %.

When it comes to verbs, the non-supported class remembered and recognised passively 42 % of the new vocabulary items, of which they were able to actively recall barely 29 %. On the contrary, the supported class performed much better in both tests: they recognised 98 % of the new vocabulary items, of which they recalled 71 %.

Last but not least, the non-supported class remembered and recognised passively 57 % of new adjectives, of which they were able to actively recall 88 %. The supported class performed better in both tests: they recognised 88 % of the new vocabulary items, of which they recalled 71 %.

3.5. Performance of children with Special Educational Needs

By and large, SEN students from the WS group performed better in comparison to SEN students from the NS group, no matter of the type of learning difficulty. In this respect, they did not differ from the rest of the class. Obviously, SEN children cannot be treated as a homogenous unit. Each and every child could actually be treated as a case study. However, when I compared individual children with SEN’s scores to the class means it turned out that they did not deviate from the norm. Of course, there happened to be single incidences of performance below the mean, but more often than not SEN students achieved percentages even over the class average. This
unavoidably leads to the conclusion that SEN children who attend mainstream schools can achieve comparable success to the rest of learners, provided their special educational needs are met by teachers.

Two most interesting cases form the pedagogical point of view – one from the NS and the other from the WS group - will be scrutinised in this section in order to demonstrate that children with SEN must not be taken for granted as worse learners.

**Subject A** from the NS group has been diagnosed as a child suffering from Attention Deficit Hyperactivity Disorder, which is neurobehavioral. ADHD is characterised by “an ongoing inability to concentrate or be ‘attentive’ in given situations, alongside a frequent higher than usual level of acting-out behaviour, presented as impulsivity, forgetfulness and a susceptibility to distraction” (Garner, 2009). Generally, a child suffering from ADHD is more prone to experience difficulties in organising its school work. ADHD is also associated with other serious SEN, such as oppositional defiance disorder (ODD), an indicator of angry outbursts, temper tantrums and antisocial behaviour. Sometimes ADHD can contribute to anxiety disorders or other mental-health issues. The prognosis for children with ADHD is mixed, although a diagnosis of this disorder means the likelihood of impairments in life functioning, with a small percentage of the ADHD population continuing to study beyond compulsory schooling (Garner, 2009).

However, when we look at the subject’s tests results we can ask ourselves a question: How is it possible that a child with ADHD performed so well in comparison to the whole NS group average? Indeed, the boy remembered 100 % of the new nouns, while the class mean equalled 61 %. He also remembered almost the double percentage of verbs – 83 % as opposed to the average 42 %. When it comes to adjectives, subject A’s score was the same as the mean = 57 %.

Table 1. Subject A’s test results.

<table>
<thead>
<tr>
<th>TEST</th>
<th>Nouns</th>
<th>Class mean</th>
<th>Verbs</th>
<th>Class mean</th>
<th>Adjectives</th>
<th>Class mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>recognition</td>
<td>100 %</td>
<td>61 %</td>
<td>83 %</td>
<td>42 %</td>
<td>57 %</td>
<td>57 %</td>
</tr>
<tr>
<td>production</td>
<td>40 %</td>
<td>51 %</td>
<td>13 %</td>
<td>29 %</td>
<td>42 %</td>
<td>32 %</td>
</tr>
</tbody>
</table>

From my personal observation of the subject’s behaviour during the video projection sessions, I may conclude that an ADHD child can gain a lot from an English lesson if s/he manages to stay concentrated. Without doubt, the biggest challenge for teachers is to make an ADHD student calm and attentive. In the course of six weeks I had the chance to observe subject A in different problematic situations, e.g. at the beginning of the lessons or
during brakes, when he was fidgeting with whatever was at close hand, moving around and trying to disturb others. However, when a video started and he became interested in it, all the problems just faded away.

**Subject B** from the WS group has been diagnosed as a child suffering from Asperger syndrome (AS), which is a developmental disorder that falls within the autism spectrum. AS is characterised by difficulty in four main areas: social interaction, communication, imagination (e.g. imagining what others are thinking), sensory sensitivity (Winter, 2004). Lorna Wing (1983 in Winter, 2004) described the main clinical features of AS as: lack of empathy; naïve, inappropriate and one-sided interaction; little or no ability to form friendships; pedantic, repetitive speech; poor nonverbal communication; intense absorption in certain subjects; clumsy and ill-co-ordinated movements and odd postures. Children with AS can also be diagnosed with other SEN, e.g. ADHD or dysgraphia. On the other hand, AS children tend to be honest, creative and dedicated. Tony Attwood (in Winter, 2004), an English psychologist and an author of several books on Asperger Syndrome, described it as a different way of approaching life, one that is dominated by the pursuit of knowledge and truth.

As can be observed in the table below, the subject’s scores are very high. He remembered and recalled 100 % of new nouns and verbs, while the WS group’s means were 89 % and 88 %, respectively. Although during the projection sessions the child seemed not interested in the cartoons at all and showed no enthusiasm, in fact he caught the meaning of all new vocabulary and, what is even more striking, he was able to pronounce it correctly. When it comes to verbs, the boy scored below the class average in the recognition test – 86 % as compared to 98 %. Still, his result was quite high.

**Table 2. Subject B’s tests results.**

<table>
<thead>
<tr>
<th>TEST</th>
<th>Nouns</th>
<th>Class mean</th>
<th>Verbs</th>
<th>Class mean</th>
<th>Adjectives</th>
<th>Class mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>recognition</td>
<td>100 %</td>
<td>89 %</td>
<td>86 %</td>
<td>98 %</td>
<td>100 %</td>
<td>88 %</td>
</tr>
<tr>
<td>production</td>
<td>100 %</td>
<td>66 %</td>
<td>78 %</td>
<td>71 %</td>
<td>100 %</td>
<td>71 %</td>
</tr>
</tbody>
</table>

One can think that the subject should have performed flawlessly, considering the TPR support provided. I speculate that, contrary to common belief, TPR created chaos in the classroom and in this respect did not help the child with Asperger. Children were moving around, imitating the actions, while subject B remained seated, with his head lowered, and was about to cry. I was not able to persuade him to participate in the activity and simply resigned not to aggravate the situation. The class teacher later explained me that subject B was a very intelligent, but reserved child preferring individual work to group activities.
3.6. Young learners’ attitude towards video-aided EFL lessons

The results of the oral questionnaire demonstrated subjects’ positive attitude to the video-aided lessons they had experienced. Children had to take a stand (agree/disagree) on the following statements in their native language:

1) It is fun to use video during EFL classes.
2) Video helps me to remember new words.
3) At times I feel bored while watching video during EFL classes.
4) I prefer to learn new words from the coursebook rather than from a cartoon.
5) I would like to have video-aided classes in the future.

The overwhelming majority of young learners declared that it was fun to use video during EFL classes (100% of the WS group and 92% of the NS one). Interestingly, 100% of NS students affirmed that video helped them to remember new words, although they performed significantly worse both in the recognition and production tests in comparison to the WS students, of whom 87% believed that video aided them.

Nevertheless, one third (31%) of NS subjects admitted that at times felt bored while watching video during EFL classes and would prefer to learn new words from the coursebook rather than from a cartoon. A similar percentage (27%) of WS subjects had sometimes the sensation of boredom, but only one fifth of them (20%) would choose to learn vocabulary from a traditional coursebook. Tout ensemble, all NS and 93% of WS students would like to have video-assisted classes in the future.

4. Data evaluation and pedagogical implications

The findings from this study indicate that learning L2 vocabulary in a video-based context proves to be quite an effective technique for inclusive classrooms. However, since the difference between the two groups in terms of lexical gains was statistically significant, it can be argued that a learning support has to be provided by the teacher. Although the NS group managed to infer the meaning of and remember some new lexical items, their results were not as impressive as those of the WS class. Vocabulary learning under the NS conditions was incidental in nature, that is, even though children were given the instruction to pay attention to the words they were introduced to in the Target Warming-up session, they seemed not to be aware of the real purpose of the activity and, consequently, not engaged actively in inferring the new words’ meanings. This may account for their worse performance on the recognition and production tests. Phonic acquisition might have also been impaired if learners had paid inadequate attention to the cartoon.
Moreover, the study might have provided yet another evidence to the generally shared assumption that both indirect and guided learning of vocabulary can be achieved by resorting to contextual clues. This calls for an important pedagogical implication for EFL teachers to use contextual materials such as video to assist students’ vocabulary learning instead of explaining the words in an isolated manner.

Also, information gathered in the attitudinal interview is of crucial importance, since one of the researcher’s attempts was to devise a vocabulary teaching technique that, apart from being effective, young learners would simply like. As could be predicted, one third of students admitted that at times felt bored during the projection sessions, but still they generally enjoyed the video cartoons. No technique is perfect and none can please all students in 100%. Nonetheless, my aim was to respond to the majority of learners’ needs in a heterogeneous inclusive classroom.

Based on many research articles studied and the present research conducted, video watching appears to have positive effects on children’s vocabulary comprehension, to a lesser extent also on production. What is even more important, when it is accompanied by teacher support, it proves to be very effective in inclusive classrooms. All things considered, foreign language teachers should not become discouraged by students with SEN’s educational ups and downs. All children can have better or worse days in their performance, but this definitely does not mean that they are unable to learn. Contrariwise, young learners should be constantly motivated and encouraged by teachers to release their potential, which is so often overlooked. However, due to the somewhat limited number of studies investigating specifically the effect of mode of instruction on vocabulary acquisition by children with Special Educational Needs, more research in this area is advisable.

References