Using Interactive Board and Communication in Teaching English at Lower-Secondary Stage of Elementary School

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Abstract: *The contribution brings part of the research results on using interactive boards in teaching English at lower-secondary stage of elementary schools in the Czech Republic. The whole research focused on ways of using this modern device, on types of interaction and mainly tried to find out whether there is sufficient space for developing communicative competence through oral interaction. Here mainly the part about forms of interaction is described.*

Keywords: interactive whiteboard, learner, teacher, forms of interaction, communication, oral interaction

In the last decades there has been an enormous increase in using technology in education. New modern devices developed for different spheres have found their usage in schools and very often have been still raising lots of controversial opinions and questions. Probably the most discussed one is if technology helps to improve the quality of educational process. Many Czech schools have spent large sums of money on equipping their classrooms with interactive boards. Can these help in teaching English and developing the learners' communicative competence to fulfil the goals stated in the Framework Educational Programme? Our research has tried to contribute to discussion about the topic.

The tempo of equipping classrooms with educational technology in the last two decades seems to be incredibly fast. The fact that the first interactive whiteboard (IWB) was manufactured in 1991 in Canada and in only 20 years it has become a common equipment of many schools is indisputably a proof of the rapid development in the area. No wonder that the scholars are concerned how the process of introducing technologies in

education influences its quality. "An important question which should stay in the main focus of pedagogical research is what happens with technology in schools, how and for what purposes the teachers and learners use it" (J. Zounek, K. Šeďová, 2008:138).

Current research

First research projects were realized abroad. Probably the most numerous were research studies in Great Britain. *R. Schroeder* (2007:65) explains this by the fact that British primary and secondary schools were gradually provided large sums of money which are planned to reach 15 billion pounds and the classrooms and their equipment will have been fully modernized by 2015. In January 2004 schools were allocated 25 million pounds for purchasing interactive whiteboards. To find out the impact of this modern technology many research studies have been done.

One of the first researches of a large scale was realized in London between 2003 and 2005. The aim of the research was to evaluate the impact of using interactive whiteboards on learning and teaching, on the learners´ concentration and behaviour. Also, the results in profile subjects (English, Mathematics and Science) were tested (Moss et al., 2007). This research study ended in a detailed report which, among others, evaluated positive and negative features of using this didactic aid. One of the most stressed critical comments was that learners are passive while the IWB is being used. The authors of the research admit two main risks: 1. frontal style of teaching can be reinforced; 2. due to the possibility of conveying information in much faster way the role of the learner gradually changes into the role of a spectator. Interactivity thus can be realized on the IWB but not in the classroom (Moss et al, 2007). Already in their early research realized by G. Moss and C. Jewitt (2010) the authors warn that incorrect IWB usage can lead to frontal teaching which in foreign language teaching is not desirable. They even described the cases when the learners appreciated the lessons taught without an IWB more than the lessons taught with this technology.

The above-mentioned research project realized by a ten-member team of London University Educational Institute does not describe only negative sides and risks connected with IWB teaching and learning. Information gained from the interviews with the teachers clearly speaks about the fact that an IWB makes teaching more illustrative; the pupils agreed on a significant facilitation of their learning due to animation, graphics and visualization. They were able to see the details of various problems and issues and understand them and also recall them better later on. The subject matter is also updated regularly thanks to the Internet access. The possibility to show short video clips makes the lessons varied and attractive. Most teachers also claimed that IWB helps with revision, repeated explanations and summarizing the subject matter (Moss et al, 2007:45-51).

Another large-scale British research was realized by Metropolitan University in Manchester in 2004 – 2006 within the Primary Schools Whiteboard Expansion Project. The respondents were teachers, headmasters and local authorities. This research cast new light on the

technology impact on teaching and learning after a certain time lapse. It focused on various aspects of using the IWB in the lessons of Mathematics, Science, English and Literacy. There are many interesting findings but again, the unequivocal conclusions cannot be drawn about the quality of teaching and learning or improving the learners´ results (Somekh B. et al., 2007). As a positive aspect the researchers mention variety of possibilities and easy manipulation. The teachers appreciate the fact that children´s attention is turned to them and that due to technology they can manage the class frontally. However, the authors of the research warn that not all the learners benefit from frontal teaching, especially the ones with SLD need individual approach and also different types of interaction (Somekh B. et al., 2007:10). The research report from Manchester states that IWB contributes to increasing pupils´ concentration and engagement. The higher quality of knowledge at the learners with SLD was not manifested but these children concentrated more and behaved better while an IBW was being used. Due to this fact also these children had better results in national tests after two years of work with an IWB (Somekh B. et al., 2007:5).

D. Glover, D. Miller a D. Averis (http://www.virtualclassrooms.info) (2004) from Keele University in Staffordshire summarize the early researches and confirm that an IWB is a significant motivational element not only for its novelty. They conclude that the positive influence of the new medium on teaching and learning depends on four main factors which are connected with teachers´ work. First it is their technical ability to operate the IWB connected to other technologies such as a computer or Internet, and then it is a range of teaching materials (created by the teachers themselves or commercial ones) which fit into the context and needs of teaching with an IWB. The third factor are class management skills with the help of which the teacher is able to prolong the learners´ concentration span, and finally good knowledge of "*the complex interaction of teaching and learning styles, especially the use of visual, verbal and kinaesthetic stimulants to learning*" (Glover, Miller & Averis:1-2). A very interesting finding during this research was that "*teachers who do not have access to an IAW are using the greatest variety of teaching approaches. Responses show that pupils are more likely to experience a range of learning processes and that there is more flexibility where the IAW has not become the classroom focus*" (Glover, Miller & Averis:4).

Research studies in the Czech Republic have come with very similar findings. There have been quite a lot of them, similarly as the foreign studies are aimed at teachers, the ways they use the IWB, learners, their activity, behaviour, concentration, cooperation, also at materials used etc. We have been looking for some research devoted to teaching English as a foreign language with an IWB, but the only research of larger scale, that we have come across, was done by E. C. Schmid at Lancaster University in England. However, her research was focused on university students and their perception of IWB technology, so the target group was different. Despite this difference in age, some of our findings corresponded to E. C. Schmid´s conclusions.

Methodology and research findings

One of the commonly mentioned finding in many research studies was the frontal style of teaching. This might be beneficial when teaching young learners (as mentioned above) or, when the teacher gives some presentation in the lesson of e. g. science or history. On the other hand, in lessons of foreign languages, learners need to be more active and practice the presented subject matter in interaction and communication. So here the frontal teaching is not that much desired. That was the reason why we decided to focus on the area of communication and interaction in our research. We have formulated the following research questions:

1) What are the most common forms of interaction between teachers and learners, or among learners themselves when IWB is being used?
2) For what purpose is IWB mostly used in English lessons?
3) What opportunities for communication and oral interaction are created by teachers while teaching with an IWB?

To answer the research questions we have cooperated with seven basic schools and observed the lessons of 14 teachers. The learners were in the age between 10 and 15. Altogether we attended more than 40 lessons from which 32 records were used for analysis. The method used was structured unfocused observation during which we recorded all parts of the lessons, even those in which the IWB was not used. This enabled us to compare the way of teaching with and without an IWB. We focused on several areas which are defined by the research questions but later, when we analysed the records we were able to get a lot more information which complemented the field of our interest.

Due to the limited space of this contribution we are presenting only the findings which are connected with forms of interaction.

Forms of interaction

In our opinion and based on our experience, by their choice of a form of interaction teachers can influence which language skill or what type of knowledge or ability will be preferably practiced and developed in their lessons. Though more frequent change of patterns of interaction does not guarantee a high quality of teaching, under certain circumstances it can influence variability and diversity of instruction as well as a number of opportunities for practicing oral communication.

The aim of the research in this area was to find out which forms of interaction the teachers apply, if they use all the existing patterns and if in the parts of the lessons taught without an IWB different forms are used.

From our observation records we induced the types of interaction which were applied by the observed teachers and we marked them in the following way: T – CL (frontal way of teaching when the teacher addresses the whole class, the class silently follows the teacher´s talk or explanation), T – SS (teacher again works with the whole class but this time he/she calls out individual students who give short – very often one-word – answers,

or calls them to the IWB where the students do various tasks). These two categories represent frontal style of teaching and are typical of teacher-centred approach.

Next two categories, Pair work and S – S, indicate that the students work in pairs. For pair work it is typical that the students cooperate on a given task and can accomplish it without having to communicate in English. On the other hand, for completing an S – S type task, it is necessary for the learners to communicate in the target language (e.g. to find out a piece of information about the partner). Communication in English is the aim of the activity. Category T – S describes the interaction between the teacher and a learner in the target language, the communicative exchange contains more than one question and one answer and has a communicative aim. Individual work means that learners are given a task and work independently on the teacher. Next two categories (group competition and GR – GR) describe work in groups, one of them is competition in groups and the other is interaction among groups when the groups communicate in the target language. Category SS indicated situations in which the learners did an activity as a class without the teacher´s control (listening to an audio recording, watching a video) and without communicating with each other. The last category S – CL included situations in which one learner talked to the whole class, e. g. summarized the content of an article or told a story. The category of group work in which the learners cooperate within the groups without interaction with other groups is not included in the graph because during our observations there was only one such situation.

Figure 1 shows the overall number of interaction types while Figure 2 demonstrates comparison of using the types in parts of the lessons taught with an IWB and parts of the lessons taught without the technology.[1]

Figure 1. Number of interaction types in both parts of observed lessons

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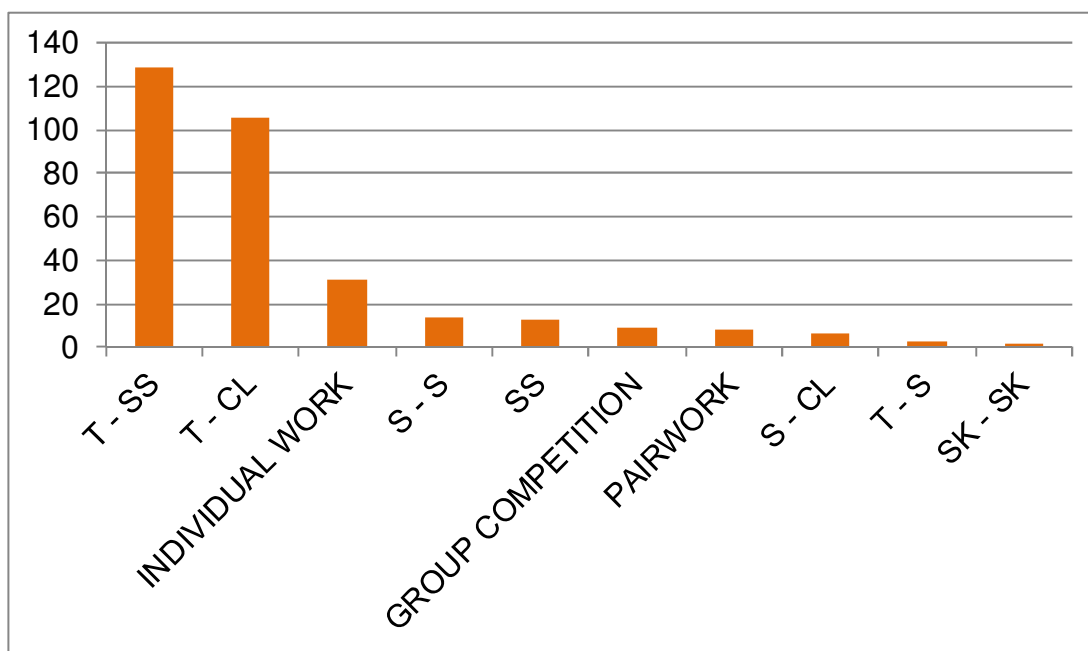
[1] The graph does not anyhow indicate the time in which the forms were used, just the number of activities during which the concrete type was used.

Figure 2. Comparison of used patterns of interactions in parts of lesson taught with and without an IWB
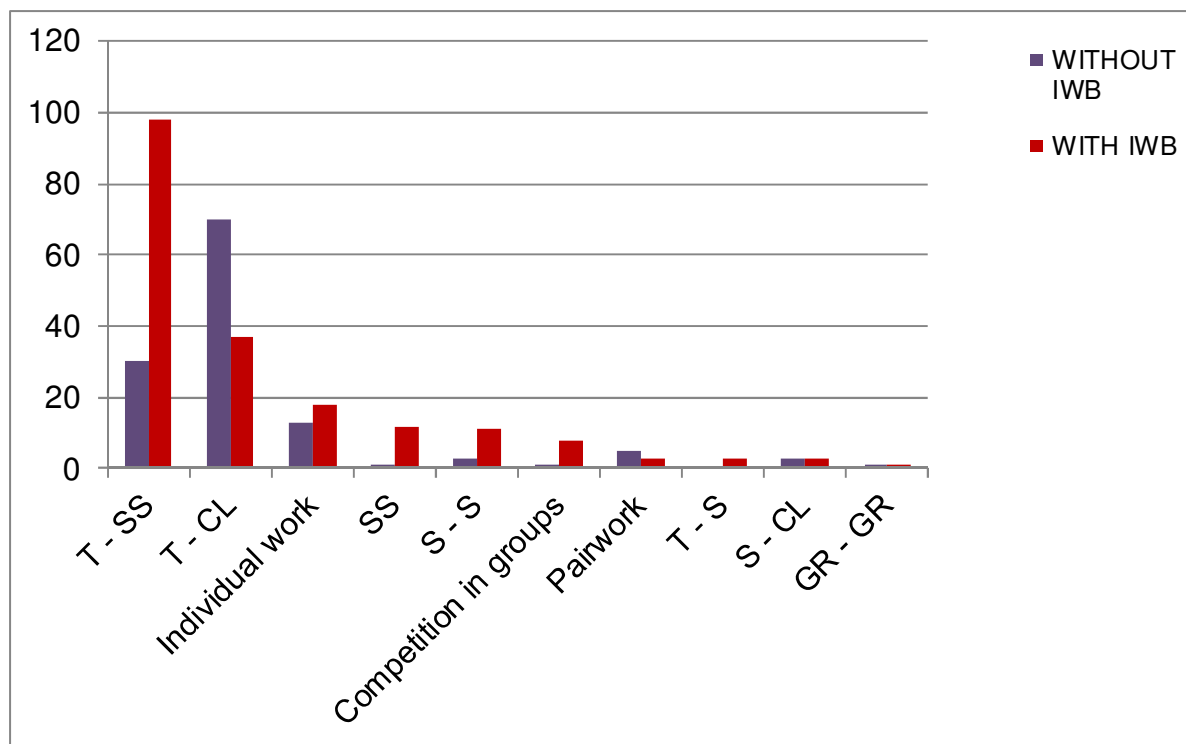
It is seen from Graph 2 that the difference between forms of interaction used in parts of lessons taught with and without an IWB is not very significant. The only differences are in the first two categories. This can be easily explained: category T – SS has higher number of frequency in the parts with an IWB because these are mostly the above-mentioned situations when the learners are called to the IWB to do some short task. On the other hand the higher frequency of T – CL interaction in the parts taught without an IWB concerns the common situations when the teachers explain something to the students, when they greet them at the beginning of the lessons and introduce the plan or when they summarize the lesson in its end.

The part of our research described above indicates that the observed teachers allocated most of the lessons to frontal teaching. Authors of the material „*Interactive Whiteboards and Learning*" (2006:5) defend frontal teaching and stress that it "*brings the entire class together, focuses their attention and provides structured, teacher-focused group interaction*" but as stated above, it is necessary to take into account that in teaching languages the whole-class teaching should not dominate over other forms of work such as pair work or group work, learning should have an active nature and the learners should be given enough space for independent work. The supporters of IWBs point at active learners' involvement during the activities when the learners go to the IWB and do certain tasks on it, at attractiveness of interactive exercises and way of working with them. Nevertheless authors of various studies about IWB technology, e.g. H. J. Smith et al. (2005:8) are opposed to this view saying that verbal and physical involvement of the learners in lessons, where IWBs are used, is

observable but nobody has questioned its quality. For that reason we complemented our analysis by observing what exactly the learners are doing during these frequent exchanges at the IWB. Most of the activities involved filling the gaps, dragging and dropping objects, matching, highlighting but not practicing communication by interacting orally. Also, the question is, how much the learners learn and remember from these short and quick actions. This would have to be further researched.

Conclusion

As our findings indicate, there is not much space for oral interaction and communication in the observed lessons. The teachers who participated in our research were all experienced users of the described technology but many lessons we have seen were taught in a very traditional way although the modern technology was used. We are still persuaded that an IWB is a tool which can bring teaching and learning languages on a higher level. The research has revealed necessity of further teacher training courses where teachers will be trained not only in technical skills but mainly in the area of IWB pedagogy.

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