

The use of interactive whiteboard for active acquiring curriculum by students in vocational subjects within selected curriculum content

Key words: interaction, interactive whiteboard, teacher of vocational subjects, competencies, student, teacher

Słowa kluczowe: interakcja, tablica multimedialna, nauczyciel przedmiotów zawodowych, kompetencje, uczeń, nauczyciel

Interaction of two or more factors in the school environment is an essential element of effective education. The notion of pedagogical – didactic interaction can be understood as a mutual contact between teachers, students, other employees of the school, as well as people who attend school for various reasons (Fig. 1), thus any influence and involvement in the school environment to the other. It is also a response to this environment, response to people’s behaviour in the school and in classroom within the teaching process, thus interaction with the social group at school.

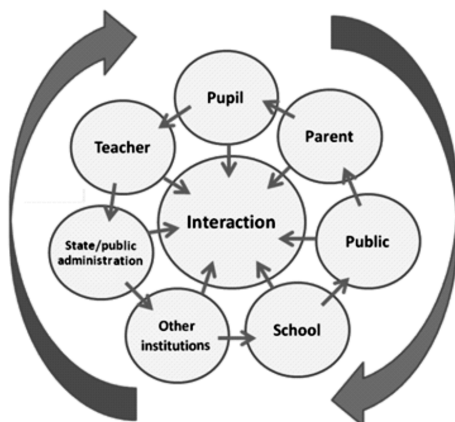


Figure 1. Scheme of interactions in the school environment in terms of different variants

Interaction process has many dimensions driven by environment factors, situation, class composition, teacher personality and it is possible to perceive and understand it:

- a) as a natural process, spontaneous, momentary control by such interests: e.g. It is the interaction between two students or a group of classmates
- b) as a process that respects the status of those who are involved in the interaction: e.g. Interaction between teachers and students, students and school management

Interactive whiteboard

It is a modern teaching aid to improve the teaching effectiveness of general and vocational subjects applicable at all levels, i.e. at the pre-primary and primary education level, lower and upper secondary education level, post-secondary non-tertiary education level, first and second stage of tertiary education level, but also in other spheres of the educational process outside the school.

The technological scheme of interactive whiteboard (Fig. 2) shows that individual components can be varied into several type combinations, using multimedia components.

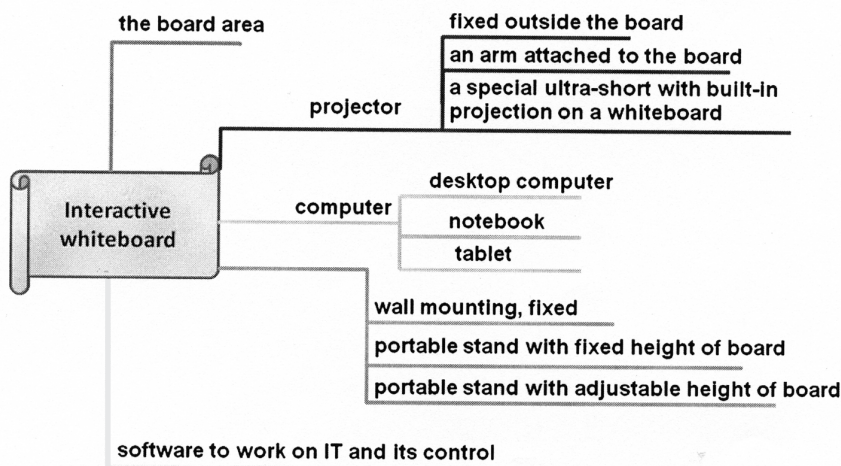


Figure 2. Technological scheme of interactive whiteboard¹

Possibilities of using interactive whiteboard

Interactive whiteboard is a new phenomenon in Slovakian schools in recent years. It meets a number of attributes of modern teaching and it is a sort of several

¹ R. Adamek et al., 2010, s. 94.

senses start, resulting in the efficient lesson running. It is an electronic device that allows live – interactively work with PC and other hardware components and facilitates and contribute to the principle of clearness, accuracy, connectivity between theory and practice, consistency, scientism etc. Interactive whiteboard allows you to:

- Stream the teaching using interactive whiteboard
- It is an electronic device that allows work lively – interactively
- Computer monitor image is projected through the projector directly on the whiteboard, students and teachers can work on a projected image on the whiteboard directly by using an electronic pen, that means to write, draw, highlight, add, insert pictures
- Teacher can get a written record from pupil's response to his questions – everything the pupil writes on the whiteboard can be printed.
- Everything that is presented during the class on the whiteboard – everything pupils wrote during the lesson on the whiteboard – notes, examples, pictures that were created during the lesson – can be printed or sent by mail. Students eliminate the need to take down notes from the classic blackboard and this time can be used for an active work with the whiteboard.

The result from the logical map of interactive whiteboard use is that the variability of possibilities of this tool has significant potential in a modern classroom (Fig. 3).

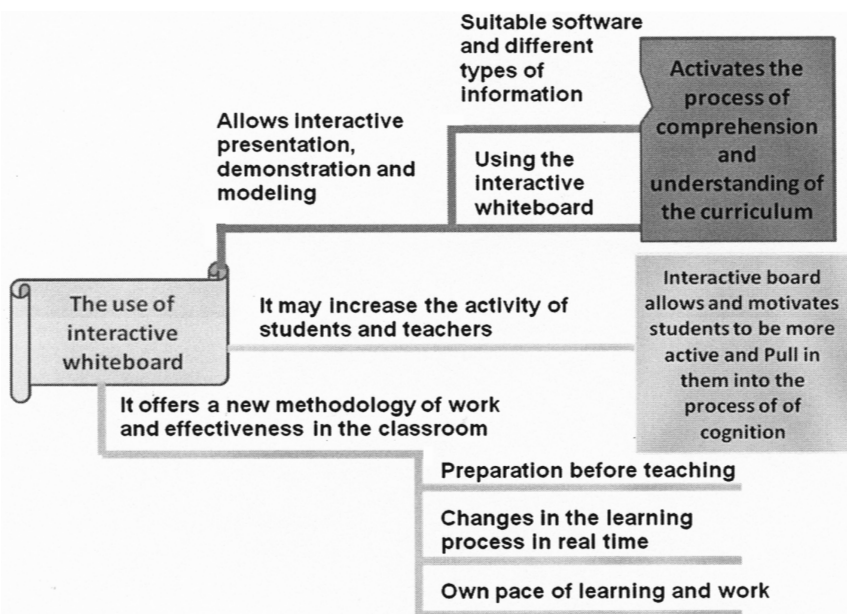


Figure 3. Logical map of interactive whiteboard use²

² Ibidem.

Theoretical basis for the application of modern teaching aids (interactive whiteboard) into the teaching process of vocational subjects in secondary vocational schools

In terms of improving the quality of vocational education there are many factors that affect the education process in the SVS. In present, the most important are:

- Decreasing interest in unions of SVS.
- The knowledge level of students to acquire competences in a given study.
- The importance of vocational subjects for acquiring not only theoretical knowledge but also practical skills and habits for SVS.
- Mutual relationship of teacher of vocational subjects – the pupil – master of professional education.

Vocational subjects for SVS are largely taught in a traditional way. Reasons why most teachers just preferred that method of teaching are various. On one hand, the reason is that there is lack of high quality material – technical equipment for schools. It is necessary to take into account that a lesson usually lasts 45 min., thus it is very important to use this time-limited period in the classroom, whether the general – educational subjects or vocational subjects, as effective as it is possible and give students information that established competencies in the state training program would be respectively transferred into the school curriculum as much as possible coincide with reality – graduate profile.

Increasing the teaching effectiveness in vocational subjects through interaction – interactive whiteboard

Every resource, every new stimulating and interesting factor that makes the process of education and helps teachers and pupils in the transfer and adoption of new knowledge in their transformation into simpler forms is one of the goals of qualitative limits of the school, teacher and pupil. Each specialized subject is important for the student, but especially for his next complex growth in approaching the specific department competencies that student has acquired. Within the work quality of teacher of vocational subject at secondary vocational school is extremely important to automate the cooperative action with teacher of general educational subjects, and also Master of vocational training in teaching, and also in the use of interactive whiteboard. Interactive whiteboard is therefore a teaching aid by which it is possible to develop cooperation not just in pedagogical staff but also among students as well. The use of this modern tool helps in the development of verbal and technical skills, reduces barriers for pupils in appearance towards the audience and helps to gain sovereignty and self-confidence (Fig. 4).

It should be noted, however, that teacher enters into the process of interaction as the first article that transforms his ideas about the quality of educational and training activities, modernizing and updating the curriculum, taking into account the diversity of aspects, into the school curriculum. Modern school, modern school management and modern teacher within the wide range of interactive actions and interactive factors develop their competencies and progresses in the positive development of consistency, leading to more effective social and vocational development of the student. Premeditated process of interaction between teachers and pupils is thus primary cell to achieve efficient goals in relation to the subject matter, in particular the development of interpersonal relationships.

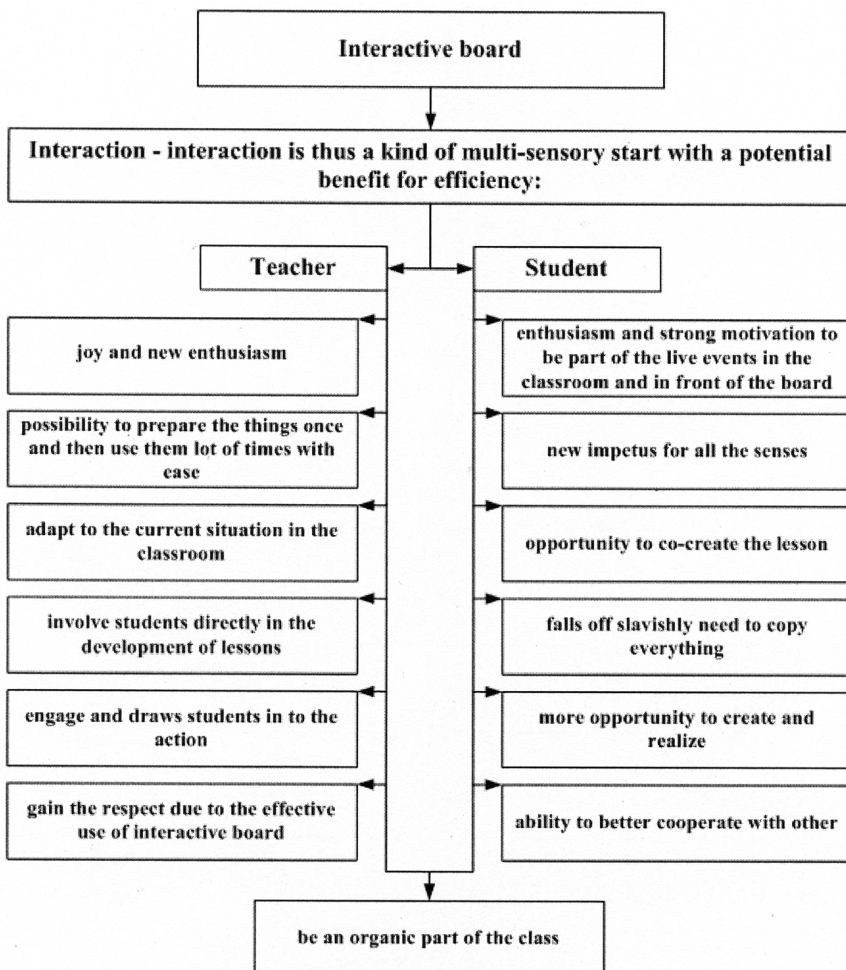


Figure 4. Overview of effective interaction between teacher and student

Conclusion

Studies in Western Europe and especially in England, where there is a long tradition of using interactive whiteboard, suggest that interactive whiteboard in teaching has an energizing effect on both parties – students and teachers. This effect is caused by the potential to use more colourful and dynamic resources in pre-training, the preparation and directly in the learning process. Interactive whiteboard thus offers a number of exciting new features, which influence the creative teacher in active, interesting action on students, thus student becomes his partner and colleague in the creative activity during the lessons. Cooperation in teaching vocational subjects is the basis for the further creative growth as for a teacher as well as for student.

Summary

The interactive whiteboard is getting its popularity up to leading positions of active use not just by teachers but students too. The paper highlights the interaction basis of an interactive effect using interactive board as an effective tool for teaching and learning students. The modern teacher with a creative sense of new dimensions in education is an example for a student in developing the creative spirit and cooperation. Interactive whiteboard is – thanks to its compatibility and wide variety of options – a factor forming instructive, efficient, friendly and stimulating climate in the classroom.

Wykorzystanie tablic multimedialnych w interaktywnym programie nauczania wybranych przedmiotów zawodowych

Streszczenie

Tablica multimedialna zyskuje na popularności nie tylko wśród nauczycieli, ale również wśród uczniów. Niniejsza praca podkreśla znaczenie efektu interaktywności na przykładzie wykorzystania tablicy multimedialnej, jako skutecznego narzędzia do nauki. Współczesny nauczyciel, świadomy istnienia wielowymiarowości w edukacji, stanowi dla ucznia przykład tego, w jaki sposób rozwijać ducha kreatywności i współpracy. Tablica multimedialna, dzięki swojej uniwersalności i mnogości zastosowań, jest edukacyjnym narzędziem prowadzącym do stworzenia efektywnej, przyjaznej i stymulującej atmosfery w klasie.