A	International Conference on Primary Education 2009 25-27.11.2009 Hong Kong Primary Education Matters
Presentation Title	A Reflection on Teaching Experiences of Using Interactive Electronic White Board in Kaohsiung City Public Primary School in Taiwan
Format	Poster Session [5.10]
Sub-theme	Tomorrow's Classrooms and ICT

A Reflection of Teaching Experiences via Interactive Electronic White Board in Kaohsiung City Public Primary School in Taiwan

Ching-Guei YANG

National Taipei University of Education, Taiwan

Abstract

As a result of modern technology developing rapidly, the teaching style in primary classroom is changing and renewing continuously in Kaohsiung, Taiwan. Interactive white board (IWB) has been applied at the primary school classrooms in recent years, but for the teaching effect, it seems to have various aspects to take into consideration. The research field is a classroom with IWB and the researcher are the substitute teacher, via the Chinese lesson to interact with students. The research would like to introduce IWB, reflect and criticize the teaching effect via using IWB in researchers' experience by observation and interview with students, investigate and connect the teacher, student, administration, parents and community with IWB in Kaohsiung, Taiwan.

The presentations are as follow:

1. The advantages of IWB for teachers are quick, easy, time saving, rich references, and environment friendly.

2. The advantages of IWB for students are direct observing, vivid, and systematicness for learning.

3. The advantages of IWB for school administration are demonstration and the way to recruit new students.

4. The advantages of IWB for parents are the impressions of high technology and teaching profession.

5. IWB is useless for community in Kaohsiung because of facility's safety, rent for the community resists risks.

6. The possible problems of IWB in Kaohsiung are budget insufficient, learning effects, teachers' training, and cultural backgrounds.

The six suggestions are provided finally.

Keywords: Interactive white board, Teaching experiences, Public school.

Background

As a result of modern technology developing rapidly, the teaching style in primary classroom is changing and renewing continuously. Interactive white board (IWB) has been applied at the primary school classrooms recent years in Taiwan. Liu (2006) says that IWB is an innovative technology can be used to improve instructional environment and methodology; Ministry of education had spent lots of money on application of IWB in order to favor the education in Taiwan. However, there had been few researches of how IWB affect teaching and learning in Taiwan (Lin, 2008).

But for all effect, it seems to have various aspects to take into consideration. The research would like to present the actual IWB status at classroom based on the researcher's teaching experience.

The research field is a classroom with IWB and the researcher is the substitute teacher, via the Chinese lesson to interact with students which is belong a fourth grade class at a primary school in Kaohsiung downtown. This primary school emphasizes on information education, and it is certified as a future school by the Microsoft. There are 27 students, a computer which is located on the teacher's table, an overhead projector, and a mixed movable white and black board at this class.

The presentation would like to introduce IWB, reflect and criticize the teaching effect via using IWB in researchers' experience by observation, teaching notes, and interview with students, investigate and connect the teacher, student, administration, parents and community with IWB in Kaohsiung, Taiwan.

The purposes are presented as follow:

- 1. What are the advantages of IWB for teachers?
- 2. What are the advantages of IWB for students?
- 3. What are the advantages of IWB for school?
- 4. What are the advantages of IWB for parents?
- 5. What is the situation of IWB at local community in Kaohsiung?
- 6. What are the IWB possible problems at this Kaohsiung public primary school?

Introduction of IWB

Interactive white board (IWB) is combined the computer, audio, overhead projector and blackboard. The teacher just uses the instructional DVD material at the computer, opens the overhead projector's power, and pulls the whiteboard which is connected with blackboard.

When the computer image is projecting to the whiteboard in front of the classroom, teacher can use the tool pen which has touch and control functions to run the instructional content on the whiteboard.



Graph 1. IWB facilities at this case class.

Take the Chinese lesson for example; the teacher can use the instructional DVD to:

1. Context guide: teacher plays related short film to bring out the students' learning interests.



Graph 2. Frame of main content teaching.

2. Read aloud: teacher clicks the button, and then the audio will play the sound, and the whiteboard will show the reading paragraph.

3. Words: teacher clicks the button, and then the whiteboard will show new words, stroke order of the words, tell the radical and the number of strokes.



Graph 3. Frame of word teaching.

4. Sentence: teacher clicks the button, and then the whiteboard will show the structure of the useful sentence.

5. Analyze: teacher clicks the button, and then the whiteboard will show the structure of the article, and explain at each paragraph.



Graph 4. Frame of analyze.

Besides, teacher can use the tool pen to enlarge, lessen, mark, draw a line and write on the whiteboard directly in the teaching process.

Educational effects of IWB at Chinese lesson

The educational effects of IWB at Chinese lesson are generalized with other references and according to six aspects: IWB for teachers, for students, for school administrations, for parents, for community, and IWB problems.

1. The advantages of IWB for teachers

Most of the local researches claim that the IWB has convenience and it can provide the quality of teaching. The researcher's teaching note as follow:

"It is very easy to apply into teaching Chinese. The best function is that IWB can enlarge the words in that all the students can see very clearly. (Note, 2009/06/18)"

According to the researcher's teaching experiences, teacher uses IWB is much easier than traditional instructional way. Teacher does not spend effort to write, transcribe, and wipe any words on the blackboard, so the chalk can be saved, and the float chalk powder is not occurred.

Besides, the references are collected in the DVD, teacher just clicks the button to show for students, so the teacher can save the time to prepare the instructional materials, and then the teacher just to choose which to teach within these references.

2. The advantages of IWB for students

Hsiao (2007) thinks that IWB can make the students to learn how to share and appreciate, and it can expand the students' learning field of vision. A student of this case class said:

"I understand the operate way (IWB) better than you. It is easy to follow this lesson for me. (Interview, 2009/06/18)"

This student has become accustomed to the IWB operate model, and she thinks that learning Chinese via IWB is easier than traditional way. According to the researcher's teaching experiences, students just look attentively at the whiteboard to see the dynamic and auto play, they seems relaxed simultaneously. Not as Hsiao (2007) said that IWB has effect of share and appreciation.

3. The advantages of IWB for school administration

Because this primary school is certified as a future school by the Microsoft, it has a eye-catching and specialized accreditation signboard on the school gate and it also has high rate of IWB facilities. The advantages of IWB for school administration may be a demonstration for the parents or other educational organization, and the way to recruit new students via featured publicity of information education.

4. The advantages of IWB for parents

It is a popular condition that computer or modern technology which is applied into education is welcome to the common people, so the parents may prefer advanced instructional method or materials like IWB teaching at the class, and the parents may respect the teacher's profession.

5. IWB at the community

IWB is probably useless for community in Kaohsiung because IWB facilities are valuable, so all the classes take care of them very much. Teachers lock all windows and doors carefully so that people in the community can not use IWB conveniently.

6. The possible problems of IWB

Chou (2007) said that IWB teaching for the students at present have been used to the teacher-centered teaching model. The researcher's teaching notes are as follow:

"I teach during the whole time (via IWB). Students do not have enough chance to discussion and presentation. The traditional way may be better. (Notes, 2009/06/18)"

Researcher's IWB teaching experiences are corresponding to Chou's research; teacher-centered model exists at this case class. IWB just convey knowledge to student one way, students have little chance to feedback to the IWB or teacher.

As for the learning effects, Liu (2006) said that because of the restriction of related information and traditional instruction, IWB can not bring advantage into full play. Besides, IWB spends large money so that the school or local educational authority do not have sufficient budget to add new IWB at other classes.

Teachers' training and cultural backgrounds are other possible problems of IWB teaching. The teacher who does not have IWB basic cognitive knowledge and skills may reduce the learning effect. Cultural backgrounds may have cognitive conflicts when students learning with IWB.

Discussion

IWB is not entirely applied to all the class at the primary school in Taiwan. It is just set

up partly, and not all students have the chance to learning with it. Educational equality is questionable; each student should have the equal right to experience IWB as far as possible.

Based on the educational effect of IWB in one of the public primary school in Kaohsiung city, researcher's teaching experiences show that IWB still does not present the best learning effect. It should not be the situation that teacher just plays the lesson materials and then students just see them on the whiteboard, the other Chinese learning items like oral practice and write are compared much fewer than the traditional teaching.

Passive learning is obviously occurred at present in Taiwan, IWB seems to make a situation that the students learning passively. IWB should encourage students' learning motive, and it should not be another harmful teaching way to increase the students' passive learning thinking.

Conclusion and suggestion

The presentations are as follow:

1. The advantages of IWB for teachers are quick, easy, time saving, rich references, and environment friendly.

2. The advantages of IWB for students are direct observing, vivid, and systematicness for learning.

3. The advantages of IWB for school administration are demonstration and the way to recruit new students.

4. The advantages of IWB for parents are the impressions of high technology and teaching profession.

5. IWB is useless for community in Kaohsiung because of facility's safety, rent for the community resists risks.

6. The possible problems of IWB in Kaohsiung are budget insufficient, learning effects, teachers' training, and cultural backgrounds.

Finally, it is presented three suggestions for teachers, school administrations and continual researchers according to the findings.

1. For teachers: motion interact, respect and cooperative concepts into IWB teaching positively, and consider how can increase Chinese learning effects via IWB.

2. For school administrations: arrange all the class to take turns to use IWB under the insufficient situation of IWB facilities, and make IWB using rules for community.

3. For continual researchers: find the best IWB teaching method and measure the students' achievements which are compared to other teaching methods.

References

- Chou, Hsiao-Chun 周孝俊 (2007). *Interactive whiteboard teaching activities and experiments*. Unpublished master dissertation, Graduate School of Learning Technology, National Hualien University of Education, Hualien.
- Hsiao, Yin-Li 蕭英勵 (2007). New trend of information education: an example of Interactive whiteboard integrates into teaching. *Secondary Education*, *54*(4), 118-130.
- Lin, Yi-Hui 林儀惠 (2008). *Mathematics Teaching with Interactive Whiteboard: using "area" unit in 5th grade as an example*. Unpublished master dissertation, Department of Information Engineering, Asia University, Taichung.
- Liu, Kuei-Chun 劉桂君 (2006). Development and Application of the Future Classroom An English Instruction with Interactive Whiteboard. Unpublished master dissertation, Graduate School of Information Engineering, National Chung Cheng University, Chiayi.

Author

Ching-Guei YANG National Taipei University of Education, Taiwan Email: chinguei@gmail.com