

# Iranian Students' Attitudes towards Utilizing Smart Boards in EFL Classrooms

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## Abstract

This study aimed at gaining insights into students' attitudes in the learning English using the Smart Board or Interactive White Board (IWB) technology in EFL classrooms. This paper aimed to evaluate students' attitudes towards the use of Smart Board as an instructional tool on student motivation, participation, interaction and retention for learning English in Iranian schools. To achieve this aim, an observation was carried out during lessons in the classroom by the researcher. Then, a questionnaire consisting of 20 questions was developed by the researcher based on literature and was also adapted for the purpose of this study. The researcher finally conducted an interview to find the effect of Smart Boards on student motivation, participation, interaction and retention of information in English classrooms. Analysis of these three instruments yielded patterns of responses concerning how Smart Board technology can motivate the students and increase their participation in classroom. The results of this study indicated that students interact more in classrooms where technology is used effectively. It was also found that Smart Boards enhance students' retention of information and learning process in EFL classrooms. The findings of the study will carry important implications for students, language instructors, and administrators as well.

**Keywords:** Smart Board, Student Attitude, Learning Environment, EFL Classroom

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## **1. Introduction**

The dramatic change and advancement of technology has affected almost every aspect of our lives. Wishart and Blease (1999) stated that there is a great need to discover if technologies will enhance education and learning. A classroom environment where technology is used in innovative ways could lead to improve learning. Skills regarding information and communication technologies (ICTs) have gained great importance for education and communication in recent years. ICTs have become significant tools to access a lot of information and conduct interactive instructional activities in the classroom setting (Mobbs, 2002).

Bryant & Hunton (2000) believes that Smart Board or Interactive White Board (IWB) is one example of such emerging technologies. This touch-sensitive board lets users interact directly with applications without having access to the computer projecting the image onto the board, providing two-way interaction between the teacher or student and the medium. This level of interaction allows participation by the student leading to engagement in the learning environment. The Smart Board or Interactive White Board (IWB) is a kind of new technology, which is becoming increasingly popular in the educational settings. Judge (2007, p. 42) identifies the IWB as being “a large, touch-sensitive interactive board that when used with a combination of a computer and digital projector facilitates interactive ICT engagement.” According to Campbell (2010), the IWB has just become a must-have tool in classrooms and facilitates teaching process.

Nowadays, Smart Boards have been increasingly used in educational settings, specially in the language teaching and learning. Higgins et al (2011), state that the Interactive White Board has appeared as a technological innovation used widely in teaching, and increasingly in the area of English as a

### *Iranian Students' Attitudes towards Utilizing...*

second language. Buttner (2011) confirms that educators were the first to recognize the IWB's prospective as a tool for teaching and learning in the classrooms. In a similar vein, Shams and Ketabi (2015, p. 84) argue that "Iranian EFL teachers hold positive attitudes towards the effects of IWB use in their classrooms, in general. The more teachers frequently use IWBs, the more they improve their IWB competencies". According to Türel (2012), the use of Smart Boards in today's classrooms encourages students to learn and motivates even teachers to maintain an original and effective structure for teaching. Moreover, it helps them to save time and promote a large display through which students could demonstrate skills (tactile, visual, and auditory abilities). Bacon (2011) claimed that Smart Board motivates students to engage in learning activities because lessons are more visually attractive. Aytac (2013) found that using Smart Board or IWB provides a cooperative learning environment that has positive effects on students. Schroeder (2007) states that students are engaged in learning with an IWB because of the high level of interaction between the student and the board, manipulating text and images. Morgan (2008) believes when Smart Boards are used effectively, they can offer rich learning opportunities for students and stimulate their attention.

## **2. Theoretical Grounding**

### **2.1. Smart Board Effect on Students' Motivation**

Allen (2010) defines motivation as the force to embark effectively in learning, and attain individuals' potential. As stated by different learning theories, motivation is affected by the environment wherein the learning takes place. A thoughtful attention of such affective filter is important in assuring an effective learning (Morgan, 2008). According to Gardner et al. (1993), among different factors which determine the rate of success, motivation promotes a volition to

sustain though obstacles. Solvie (2004) stated that motivation is a competence and belief about the value of education which leads to a better performance. Breakwel (2004) believes some students have an intrinsic motivation because they are ambitious to learn through self-reflection, their inner interests and involvement in learning activities. Others are extrinsically motivated by some operationally separated factors such as incentives and particular motives. In the same line, Reardon (2002, p. 28) argued that Smart Boards or Interactive White Boards fit both natures of students because “with the use of IWBs, teachers can develop many creative ways to capture students’ attention, motivation and imagination.”

Miller et al. (2004, p. 7) claimed that motivation, as an “interest and enjoyment causing action”, is deeply affected by “the intrinsic stimulation offered by the IWB”. Therefore, the use of the IWB supports what researchers coined “intrinsic motivation” as it streamlines students’ inner interest to learn in an exciting environment. Besides, Morgan (2008) found that extrinsically motivated students are induced by the authentic features of this technological tool (IWB) which can internally entice their motivation. Thus, they enjoy the experience of exploring the new technological device which makes their learning more interesting (Blanton & Breazeale, 2000). Such an environment, where educational technology is inventively implemented, perks up the nature of learning and teaching as well (Wishart & Blease, 1999).

Xu and Moloney (2011) investigated how teachers could improve student motivation, mainly for those who were dissatisfied with traditional ways of teaching. Partridge, (2011) argues that IWB has the ability to display web sites, audio clips, and movies by the touch of a button and it appeals to teachers, using visual and audio images of Smart boards. In the same line, a study conducted by Shams and Dabaghi (2014), showed the annotation types,

### *Iranian Students' Attitudes towards Utilizing...*

auditory, pictorial, and video through Interactive White Boards (IWBs) can improve students' learning. The researchers found that the appearance of sound and dynamic picture seemed to have a cognitive impact on the learners' reading skill. Türel and Johnson (2012) stated that Smart Board or IWB technology can be utilized to create a motivating classroom environment in which students are involved in learning.

## **2.2. Smart Board Effect on Students' Participation**

The concept of students' participation means "student's physical movement in the classroom, cooperation, collaboration and competition" (Xu & Moloney, 2011, p. 20). Participation in classroom activities is considered an important factor in a learning process (Higgins et al., 2007). Ocker et al. (1999), studied the effect of participation in the learning process. Their findings indicated that students' participation fosters their involvement and exchange of knowledge. The study conducted by Wishart and Blease (1999) revealed that participation in class activities, sharing ideas and exchanging information in a motivating multimedia environment gained more benefits by having access to audio-visual materials in a given instruction. Swan et al. (2008) found that the use of Smart Boards or IWBs supported students' participation and improved lesson planning. Teachers experiencing the use of Smart Boards, discovered that technology could exploit an effective participation and provide a comprehensible communication within a particular education group.

Jones (2003) believes the production of language in social interaction, and student opportunity to participate and collaborate with peers lead to an effective language learning. Glover et al. (2005) found that when teachers stick on the use of the classical blackboards even whiteboards without using any audios and videos, students' participation decrease in the classrooms. Santo

(2015) stated that the use of mnemonic devices such as colors, voices, images, and a combination of these contributed much to the student involvement and led to more comprehension. Aytac (2013) believed that using Smart Board or IWB provides a cooperative learning environment and increases student's participation and involvement in the classroom.

### **2.3. Smart Board Effect on Students' Interaction**

Gerard, (1999, p. 11) described interaction as "the function of ICT which enables rapid and dynamic feedback and response." According to Latham (2002), teachers and learners should consider interaction as a major factor to achieve effective learning. He found that interaction among the students, between the students and the teacher, and between the student and the learning material is promoted with the use multimedia resources. Morgan (2008) believes the authentic features of the Smart Boards or IWBs may support students' interaction through its various learning activities including saving notes for later review, viewing websites as a group, sending e-mails and so on. Research conducted by Hall et al. (2005) and Somekh et al. (2005) shows that teachers gradually shift from traditional way of instruction and adapt an interactive teaching by utilizing technological tools. Reed (2001), Smart Boards can enrich ICT by providing different multimedia resources which promote interactions among the students, the teacher and the teaching materials. He found that a Smart Boards can act as means for the interaction between a teacher and a student at the front of the class.

In this line of thoughts, Xu and Moloney (2011) consider that integrating multimedia by using Smart Boards provides an interactive teaching as it allows teachers and students to interact with the boards and themselves. They believe that Smart Boards are regarded as helpful tools assisting interactive whole class

### *Iranian Students' Attitudes towards Utilizing...*

teaching. Schmid (2007) concluded that the use of IWB affords students the ability to interact and collaborate in an effective learning environment. Turel and Johnson (2012) argued that the learning environment including a range of multimedia and various digital resources can improve interactive teaching and learning. Shams and Dabaghi (2014, p. 49) state “Utilizing IWB and Information Technology (IT) has proven to be influential in language teaching in general.” A pedagogical change is needed to support the integration of Interactive White Boards as digital tools of instruction in order to make teaching process more interactive.

#### **2.4. Smart Board Effect on Students' Retention**

Tate (2002) defines students' retention as the ability to recall the information learned in the classroom. He concluded that the use of the Smart Board or IWB may be the most significant change in the classroom learning environment. It improves students' retention as a consequence to their motivation, engagement and interaction in the classroom. The students can also concentrate more in the learning process as teacher's notes can be printed for distribution after class, and lessons are more likely to be remembered. Hall et al. (2005) report that students may retain information when they are actively engaged in their learning process and when they receive information presented through audios, videos and animations.

Morgan (2008, p. 28) argued that IWBs can offer “rich learning opportunities” for students stimulating their attention and interaction. Therefore, “increased interest and enthusiasm of students resulted in greater retention of students in the experimental course sections.” Smart Boards take learning to a new direction, and they can enable students to be more active, retentive and critical thinkers. Consequently, they can change teacher-centered

classes into learner-centered ones (Teich, 2009). Students recognize the effect of utilizing IWBs on their learning, mainly on greater retention of material, and greater engagement in the learning process (Aytac, 2013; Gregory, 2010; Morgan, 2008). Keengwe et al. (2014) believes that the use of computer technology facilitates learning and fosters retention of information.

Technology-based instruction is becoming a critical factor of learning in different classrooms. The employment of new approaches of learning such as multimedia learning, electronic-learning and on-line learning influences the techniques used to learn language. Actually, technology can facilitate the procedures wherein information can be brought and shared among teachers and learners (Campbell, 2010). Hsu (2010) stated that educational institutions have tried to equip the classrooms with the latest technology. It has encouraged teachers to use various technological devices in their classrooms especially over the last decade. Al-Saleem (2012) argued that the Smart Board as the latest technology can facilitate student's learning by its different helpful options for instruction in the classroom. He found that the use of Smart Board affords students the ability to interact, participate and engage in an effective learning environment. Some studies investigated students' viewpoints focusing on specific variables such as interaction, engagement, instruction and so on (Beeland, 2002; Benmansour & Meziane, 2013; Glover et al., 2007; Gray et al., 2005; Hall & Higgins, 2005; Levy, 2002).

To sum up, within the context of using technology in the learning of English, research has been done on teachers' or students' views about the effect of utilizing technological devices on students' achievement in EFL classrooms. We believe that students are growing up with evolving technologies and often adapt to them more quickly than teachers who are trying to develop new, innovative ways to teach. Bearing in mind the increase of Smart Board



### *Iranian Students' Attitudes towards Utilizing...*

technology investments in Iranian schools, there is a strong need for examining the usefulness of this smart device in classroom settings. Considering the importance of students' views about using instructional tools and their effects on the learning process, this study focuses on investigation of students' attitudes towards utilizing Smart Boards as teaching aids on their motivation, participation, interaction and retention of information in Iranian classrooms. Since English language learning is one of the necessary courses embedded in educational system in Iran, the main focus of the current study is on EFL learning.

### **3. Research Question**

Based on the stated problem and the purpose of this study the following question has been addressed:

“What are the Iranian students' attitudes towards the effect of Smart Board use on their motivation, participation, interaction and retention of information in EFL classrooms?”

### **4. Method**

A concurrent mixed methods design (Creswell, 2008) was used to explore participants' attitudes towards the use of IWB technology in natural classroom settings. In so doing, both qualitative and quantitative data were collected at the same period of time. The participants were asked to fill in a questionnaire, took part in semi-structured interviews, and were observed using an observation scale. The information regarding the participants and the instruments used in the study are presented in the following subsections.

#### **4.1. Participants**

This study was conducted with two intact classes (N=60) in Isfahan, Iran. As the researcher needed to compare the attitudes and perceptions of students in classes with and without IWB, two intact classes were selected. The intact classes with Smart Board or IWB technology, including 30 students, was selected from a high school which used IWB for all courses and with all grades. On the other hand, the class without Smart Board or IWB technology consisted of 30 students and used simple whiteboards for teaching English. All of the students were female Persian native speakers from high school grade ten. They studied the books published by Ministry of Education as their course material.

#### **4.2. Instrumentation**

##### **4.2.1. Observation**

Conducted in a natural classroom setting, observation enabled the teacher researcher to collect testable amount of data concerning the different effects of using or not using Smart Board in the two intact classes. In the present study, the teacher acted as a participant observer of the two classes who received the same instructions according to the same teacher's preparations and lessons plan. The sole difference between the two groups was related to using or not using Smart Board technology. Arguably, classroom observation was more likely to afford valid information about participants' authentic behaviors as it provided a depth to context-based account of situations in real-life contexts. It is noteworthy that the design of classroom observation grid was based on four variables: student motivation, participation, interaction, and retention.

#### **4.2.2. Questionnaire**

The researcher examined previous studies looking at instructional theories, current perceptions of Smart Board or IWB users, teachers or students (Aytac, 2013; Beeland, 2002; Digregorio & Sobel-Lojeski, Shams & Ketabi, 2015; 2010; Yanez & Coyle, 2011), in order to develop a questionnaire consistent with the present study's purpose. The reliability and validity of the questionnaire were established before administering it to the participants in the main study. Three specialists in language teaching and testing were asked to review the initial draft of the questionnaire, and there was a general consensus among them concerning the content validity of the questionnaire. This step was vital to achieve a comprehensible and relevant questionnaire in terms of face and content validity (Black & Champion, 1976). The questionnaire was also piloted with four students to make sure that they would understand the questions in the same way planned by the researcher and to verify the clearness of the formulation of questions to the subjects and its suitability to their levels. The four students made a set of remarks about the wording of some questions that needed some modifications. In fact, it urged the researcher to reformulate those questions. It is worth mentioning that the four students who contributed in the pilot study were not subjects of the present research. The reliability of the questionnaire estimated by Cronbach's alpha coefficient was 0.83.

The final questionnaire consisted of 20 five-point Likert-type items from strongly disagree (1) to strongly agree (5). The Likert scale items were classified along with the existing literature into four themes to provide a better understanding of main dimensions of Smart Board use. Those themes were labeled as: student motivation, participation, interaction, and retention. The first theme included items related to the effects of Smart Boards on the motivation of students in EFL classrooms while the second theme included

items concerning the impacts of IWBs on the engagement and participation of students. The third theme had items addressing the interactional issues of Smart Boards. The last theme included items related to the effects of Smart Board use on students' retention of information in EFL classrooms.

#### **4.2.3. Semi-Structured Interviews**

Semi-structured interviews were conducted with students from both groups to see their ideas about using Smart Board technology in the classroom. In the interviews, the interviewer asked about the students' attitudes and experiences about Smart Board or IWB technology. The interviewer tried to know the effect of this new type of technology on students' motivation, interaction, participation and retention. The interviews were conducted one-on-one and face to face. They were conducted in the students' school and took up to 20 minutes. The interviews were audio-recorded. Upon the students' request and in order to make them feel relaxed in expressing their ideas, the interviews were conducted in Persian and later were translated into English for analysis. The printed version of interviews was used for reading and finding the key themes and categories.

#### **4.3. Procedure**

This inquiry employed a concurrent mixed methods design to examine the interaction between students and Smart Boards in the natural classroom setting. As it was mentioned in the participant section, there were two groups of intermediate female students enrolled in a public high school. The Smart Board group experienced the use of the Smart Board or IWB technology, but the other group received non-IWB instruction in the classroom.

### *Iranian Students' Attitudes towards Utilizing...*

Classroom observation is a suitable way to construct a clear idea about the use of the Smart Board in EFL classroom, and therefore, to determine its effect on students' motivation, participation, interaction and retention for learning English. The students, who were subject to observation, were two groups of tenth grade EFL students. The two groups of students were observed during the first semester. The first group learned English language with a Smart Board being used in the classroom, and the second group learned English language with no Smart Board being used in the classroom. The teacher researcher observed 8 sessions, focusing on students' motivation, participation, interaction and retention for learning which was measured according to the rubrics drawn in classroom observation grid.

Considering the goals for the study, a descriptive analysis was performed to understand students' general attitudes towards the effects of using Smart Boards. The main endeavor behind this questionnaire was to gather data to answer the research question. The choice of the questionnaire as the second research instrument relied on the fact that it was a reflective instrument of data collection, highlighting the sample's inner standpoints. This was why it was considered to be a good counterpart to classroom observation and the interviews which supplied data from an outsider view. Then, a questionnaire in the form of paper including 20 questions about attitudes related to Smart Boards and IWBs administered to Iranian EFL students. The rationale for using questionnaire was that questionnaires allow researchers to gather information that participants are able to report about themselves, such as their beliefs and motivations (Mackey & Gass, 2005). To provide a clear picture, percentages of students' agreement levels in the questionnaire were presented in two groups: agreeing (agree and strongly agree options), disagreeing (disagree and strongly disagree options), and neutral (no idea). As stated

earlier, the sample concerned with this research instrument includes 60 students. The reliability and validity of the questionnaire were also established before they were used with the participants in the main study, and it was administered by the researcher. Filling the questionnaire took between 15 and 20 minutes. Students were assured that their responses would be anonymous and confidential and would in no way affect their grades in the exam. The percentage of questionnaires completed and returned was 90% overall response rate.

In the qualitative data analysis of the study, the printed versions of the transcribed interviews were read three times. First, the data were read to get a general idea about the nature of participants' ideas. Next, the data were read and important quotations were highlighted. Also, the researcher used some annotations on the margins of papers to code the data. Later, the first researcher read the transcriptions, connected highlighted parts, and use general categories to group the identified themes. In order to increase the credibility of data analysis, the second and third researchers examined the data analysis procedure and conducted the above mentioned stages. This resulted in affirmation of the coding process and the categories found.

## **5. Results**

Results for this study are presented in three sections: 1) Teacher researcher observation statistics, 2) descriptive statistical results of students' responses to the questionnaire items, and 3) the results of interviews.

## 5.1. Classroom Observation

Classroom observation allowed the researcher to conclude that factors related to students' engagement behaviors are clearly determined in the grids of classroom observation which showed that the participants have appreciated the use of the Smart Board in classroom instruction, in general. Such findings revealed in students' engagement behaviors which included their motivation, participation, interaction, and retention of information in the classroom. The adopted classroom observation grid contained a number of items. In this way, the results attained were organized in the same order.

### 5.1.1. The Effect of Smart Board on Student Motivation

Table 1 represents the researcher observation related to the motivational effect of the Smart Board use on attending in Iranian EFL classrooms.

**Table 1. *The Effect of Smart Board on Motivation***

Groups	Number of students who are motivated to attend the class	Number of students who missed the class
With-Smart Board group N=30	25/30 83.337%	05/30 16.666%
without- Smart Board group N=30	15/30 50.00%	15/30 50.00%

Data collection from classroom observation showed clearly that motivation rate was higher in the with-Smart Board group than in the without-Smart Board group. As Table 1 shows, the use of Smart Board will increase students' motivation in participating in an Iranian EFL classroom. In the with-Smart Board group, students showed enthusiasm with the use of Smart Board

technology. They realized that they felt relaxed and motivated to attend the class because of the Smart Board, itself. The classroom observation divulged a positive connection between students' motivation and the nature of lessons students had with the Smart Board, showing the special attention to the important role the teacher has in employing technology to enhance students' motivation in class attendance.

### **5.1.2. The Effect of Smart Board on Student Participation**

The following table shows that which group feels more participated in the class and involved in the learning process.

**Table 2. *The Effect of Smart Board on Participation***

Groups	Number of students who participated in the class activities	Number of students who did not participated in the class activities
with-Smart Board group N=30	26/30 86.667%	04/30 03.333%
without-Smart Board group N=30	18/30 60.00%	12/30 40.00%

What could be obviously noticed in classroom observation, is students' participation. Table 2 revealed that in the with-Smart Board group the number of students who participated and involved in class activities were more than those in the without-Smart Board group. So, utilizing Smart Boards makes students more active in a classroom, and there is a positive connection between students' participation and the use of Smart Board in an Iranian EFL classroom.



### **5.1.3. The Effect of Smart Board on Student Interaction**

In order to examine the interactional effect of Smart Boards between teacher and students in Iranian EFL classrooms, the teacher researcher observed the class focusing on the effect of Smart Board on interaction between teacher and students (Table 3).

**Table 3. *The Effect of Smart Board on Interaction***

Groups	Number of students who interacted with the teacher in the class	Number of students who did not interacted with the teacher in the class
with-Smart Board group N=30	24/30 80.00%	06/30 20.00%
without-Smart Board group N=30	16/30 53.333%	16/30 46.667%

What was clearly revealed during the observation sessions in an Iranian EFL classroom is that the number of the students who interact with the teacher will be increased by using Smart Boards. Classroom observation showed that there was a rather high level of interaction between students and teacher in the with-Smart Board group. This was indicated through their communication with each other which appeared to be interactive. It is clear that Smart Board gives the teacher more time to communicate and interact with students easily, and it can act as a means for the interaction between the teacher and the students at the front of the class.

### **5.1.4. The Effect of Smart Board on Student Retention**

Table 4 shows that in which group lessons are more likely to be remembered, and in which group students are able to recall and retain more information.

**Table 4. *The Effect of Smart Board on Retention***

Groups	Number of students who show a good level of information retention	Number of students who show a weak level of information retention
with-Smart Board group N=30	23/30 76.667%	7/30 23.333%
without-Smart Board group N=30	14/30 53.337%	16/30 46.663%

As Table 4 represents, the use of Smart Board enhances learning, and supports retention of information. Students' retention refers to the capacities to retain and recall information learned in the classroom. Classroom observation revealed that students were more likely to exhibit their attention to the course, showing a good level of retention of lessons content, specially vocabulary. For instance, Smart Board instruction showed that students in the with-Smart Board group retrieved vocabulary more easily than did students in the without-Smart Board group. Classroom observation divulged that students in the with-Smart Board group got better scores in some activities of grammar or vocabulary.

As the results of observation showed, visual clues such as videos and images captivated students' attention which might be particularly helpful for students to get interested in teaching material, to involve in class activities, to interact more with their teachers, and to retain more information. Thus, Smart Board technology and multimedia resources can improve students' motivation, participation, interaction, and retention of information in Iranian English classrooms.

## 5.2. Students' Responses to the Questionnaire Items

The main endeavor behind this questionnaire is to gather data to answer the research question. The choice of the questionnaire as the second research instrument relied on the fact that it is a reflective instrument of data collection; highlighting the participant's inner standpoints. This is why, it is considered to be a good counterpart to classroom observation which supplied data from an outsider view.

As the questionnaire entailed different parts and various details, the investigator considered it would be preferable to deal with each theme alone, to make the results of the questionnaire clearer and the discussion simpler. The results of students' responses to the 20 Likert scale items in the questionnaire were examined according to four main themes: The effect of Smart Board on 1) student motivation, 2) participation, 3) interaction, and 4) retention.

### 5.2.1. The Effect of Smart Board Use on Student Motivation

Iranian students responded to the questions related to the motivational effect of Smart Board use in EFL classrooms (Table 5).

**Table 5. *The Effect of Smart Board Use on Student Motivation***

Statements	N	agree	neutral	disagree
Q1. Smart Board or IWB makes learning English more Enjoyable.	30	87.40%	09.60%	03.00%
Q2. IWB encourages me to pay more attention to. learning material	30	80.00%	20.00%	00.00%
Q3. I feel confident with an IWB in the class.	30	75.51%	7.66%	7.34%
Q4. IWB makes me feel comfortable in the class.	30	90.25%	06.00%	03.75 %
Q5. IWB increases my motivation in learning.	30	87.00%	10.00 %	03.00%

### 5.2.2. The Effect of Smart Board Use on Student Participation

In order to examine the effects of Smart Board use on student participation, students were asked to respond to 5 statements below (Table 6).

**Table 6. *The Effect of Smart Board on Student Participation***

Statements	N	agree	neutral	disagree
Q6. Smart Board or IWB leads to better participation in learning process.	30	80.50%	10.00%	9.50%
Q7. IWB promotes cooperative activities during English learning.	30	78.00%	10.00%	12.00%
Q8. IWB increases communication among students.	30	67.50%	20.50%	12.00%
Q9. Using interactive whiteboard makes me active.	30	82.25%	07.00%	10.75%
Q10. IWB facilitates participations in outside of class activities.	30	79.12%	10.00%	10.88%

### 5.2.3. The Effect of Smart Board Use on Student Interaction

Students responded to the questions related to the interactional effect of Smart Board use in EFL classrooms (Table 7).

**Table 7. *The Effect of Smart Board on Student Interaction***

Statements	N	agree	neutral	disagree
Q11. Smart Board or IWB gives me more time to interact with my teacher easily.	30	71.88%	28.12%	00.00%
Q12. IWB helps me to share content with my teacher.	30	78.70%	10.80%	10.50%
Q13. IWB helps me communicate in English language more fluently.	30	80.00%	10.00%	10.00%
Q14. IWB provides a stimulus for teacher-student interaction.	30	67.00%	13.00%	20.00%
Q15. IWB facilitates discussions on the content.	30	75.00%	15.00%	10.00%

#### **5.2.4. The Effect of Smart Board Use on Student Retention**

In order to examine the effects of Smart Board use on student retention of information, students were asked to respond to 5 statements below (Table 8).

**Table 8. *The Effect of Smart Board on Student Retention***

<b>Statements</b>	<b>N</b>	<b>agree</b>	<b>neutral</b>	<b>disagree</b>
Q16. Smart Board or IWB makes learning English texts easier.	30	80.00%	13.00%	07.00%
Q17. The way I learn English has been changed with IWB.	30	87.00%	7.00%	06.00%
Q18. Using IWB increases my engagement in the learning process.	30	68.70%	12.30%	19.00%
Q19. Using Smart Board helps me retain information easily.	30	89.0%	11.00%	00.00%
Q20. IWB provides me variety of information.	30	70.00%	20.00%	10.00%

The data from questionnaire were analyzed to obtain relevant descriptive statistics. The 30 of EFL learners who received instruction viewed it as a useful and beneficial tool in the classroom. The results of the questionnaire indicated that almost two third of Iranian EFL students held mostly positive attitudes towards the effects of Smart Board use on student motivation, participation, interaction, and individual retention of information in their classrooms. In fact, students appreciated the use of Smart Board in an EFL classroom.

#### **5.3. The Results of Interview Data Analysis**

The results of the qualitative data analysis showed that the Smart Board technology positively influenced students' motivation. The participants' noted that they had positive feelings toward learning English and expressed that they

were more motivated to learn English. This can be seen in the following examples:

*I think this technology was very helpful and enjoyable. It made me more motivated to learn English.*

*I really liked this strategy for teaching. I think they help students to develop positive attitudes toward learning English and become motivated.*

On the other hand, the participants in the without-Smart Board class noted that they did not had any specific innovative strategy and teaching practice that could enhance their motivation for learning English. As one of them noted “It was similar to other classes and my motivation did not change.”

Also, the findings indicated that Smart Board technology enhanced students’ willingness to interact in the classroom, while the students in the without-Smart Board class noted that they did not found any particular change in the patterns of classroom interaction, the with-Smart Board class pointed that they became willing to interact and their classroom interaction increased for they perceived the Smart Board technology to be enjoyable and interesting. As one of them commented:

*This technology was very enjoyable for me. I liked to talk more in the class because class became more interesting. I think when the class is interesting the amount of interaction in the classroom increases. In our class everyone tried to talk in the class and participate in classroom communication.*

Another student referred to the role of visual aids and technology on willingness to talk and participate in classroom interactions. This student mentioned that the technology was very helpful and she clearly felt very interested and willing to do classroom activities and use English for communication.

### *Iranian Students' Attitudes towards Utilizing...*

Finally, the data showed that use of technology created strong links between the items taught and their retention. The participants in the with-Smart Board class widely confirmed that the technology created stronger associations and helped them learn the materials better. One of these students mentioned that:

*I really liked this technology. This strategy showed the new words and structures using visual aids, photos, videos etc. when the teacher taught something she used many files and photos to teach us the items. When different ways of teaching are used, I think learning is deeper and better.*

Another participant mentioned that the Smart Board technology helped them learn the same item several times and with different modes. This increased the possibility of practicing the same item which made the retention of the item easier. Moreover, the positive role of Smart Board on retention of linguistic items can be traced in the following comments.

*I think this helped me to learn more. I learn better this way. I learn when I see the new materials in the form of photos and videos.*

*It improved my memory. I am not good at remembering and learning the meaning of new words. But this strategy helped me much in learning new vocabulary.*

Contrary to the participants in the Smart Board group, those in the without-Smart Board group pointed out that they did not feel any change in their retention ability and it was the same as before. Generally, the analysis of interview data confirmed the findings of the questionnaire and observation stages attesting to the positive effects of using in the language classroom by enhancing learners' motivation, interaction, participation, and retention of new language items.

## **6. Discussion and Conclusion**

The results of this study in relation to students' attitudes towards the Smart Board use in English language classes revealed in students' motivation, participation, interaction, and retention.

Concerning the effect of the Smart Board use on student 'motivation' in learning English, observation showed clearly that motivation rate was higher in the experimental group than in the control group. Classroom observation revealed that the use of Smart Board in English language classroom positively affects their interest in learning process. According to the results of the questionnaire related to the first theme including statements from 1 to 5, almost 85% (the relative mean of agreement level in these five statements) of the students believe that utilizing Smart Boards made content and learning more interesting, and improved student motivation in an EFL setting. This can be interpreted by the fact that students were interested by the nature of the Smart Board and its authentic features. Based on the results of questionnaire, most students agreed that using a Smart Board is motivating and engaging. This result is in parallel with other studies (Aydınlı & Elaziz, 2010; BECTA, 2006; Smart, 2010; Yanez & Coyle, 2011). The findings of these studies indicated that the use of Smart Boards can facilitate the learning process and increase students' motivation.

The results of interview also indicated that using Smart Board stimulated students' motivation, and made learning more exciting and enjoyable for them. In addition, innovative strategies were of great benefit to the students and could enhance their motivation for learning English in Iranian classrooms.



### *Iranian Students' Attitudes towards Utilizing...*

These findings support the results of the other study (Benmansour & Meziane, 2013) in that Smart Board leads to greater motivation in learning in the classroom. As the results of the current study show, the most widely claimed advantage of Smart Boards is that they motivate pupils because lessons are more enjoyable and interesting, resulting in improved attention. The findings are in line with the findings of the other studies reporting that the lessons are more funny and exciting through Smart Boards (Beeland, 2001; Lan and Hsiao, 2011, Levy, 2002; Marzano and Haystead, 2010; Smith et al., 2006; Smith, et al., 2005; Türel, 2012).

Related to the effect of the Smart Board use on student 'participation' in an EFL classroom, what could be obviously noticed in classroom observation is that the participants exhibited a better participation and involvement in the learning process. The results of observation revealed that use of Smart Board encourages students to engage in learning activities, and the students' participation in class activities will increase by utilizing technology in an Iranian EFL classroom. As the results of the second theme of the questionnaire shows more than two third of the students (about 73%) agreed to this theme which indicates Smart Boards encourage students to engage in learning activities, and increase communication among them in classroom setting. Furthermore, informants' answers showed that the authentic features of the Smart Board (such as videos and audios) improved their communication in the English language classroom. This is in agreement with the findings of other studies that found positive effect of IWB on student participation (Aytac, 2013; Gregory, 2010; Morgan, 2008; Smith et al., 2005). Beeland (2002) found that the use of the IWB increased learner engagement with the lesson, primarily as a result of

the quality of the visual presentation is also shown in their active participation in the lessons.

The finding of interview in relation to second theme is consistent with the study of Mechling et al. (2007). Their reports demonstrate a growing trend in reliance on technological devices for communication among students. Thus, if these technologies are utilized effectively in classroom context, the students will be motivated to participate in the lesson. The results of interview also support the study conducted by Bacon (2011) in that the functionality of Smart Board and its accompanying software allows for the development of classroom activities that are engaging for students, so they encourage greater focus and participation in class.

Concerning the third theme of the study, the effect of Smart Board use on student 'interaction', EFL classroom observation revealed that the employ of Smart Board technology affects the classroom interaction. A rather high level of interaction between students and teachers were found, and the teacher can interact with students easily by utilizing Smart Board or IWB in an EFL classroom. The mean agreement level for the third theme shows that more than two third of students agreed or strongly agreed to statements 10-15, and this reveals that Smart Board increases student-teacher interaction in class. The results of the questionnaire are in contrast with the study conducted by Aytac, (2013) in that the use of Smart Board or IWB in a constructivist frame does not provide a positive contribution to student-teacher communication. Results indicate that teachers were not able to design a collaborative learning process using IWBs.

According to the result of the interview, the students become motivated to talk more in the classroom because Smart Board technology is very

### *Iranian Students' Attitudes towards Utilizing...*

enjoyable for them and it increases the amount of interaction and communication in the classroom. The results of this study related to the third theme are in line with Lan and Hsiao (2011) study in that there is a faster pace (number of interactions between teachers and students) in the Smart Board or IWB instruction compared to the non IWB instruction. The findings are consistent with the study of Morgan (2008) in that IWB plays a vital role in stimulating student interactivity in classroom instruction.

As to the fourth theme related to student 'retention' of information, what was clearly revealed during the observation sessions is that the use of Smart Board or IWB supports students' learning success, and increases their retention. EFL Classroom observation concluded that students' attention to the class and retention of information improved by using Smart Board for instruction. Regarding the last five items of questionnaire, about 80% of the students agree that the multimedia and the multi model feature of the Smart Boards help them retain more information. Students felt that these smart devices make the process of learning effective and easier. Research findings concerning students' retention, confirm the previous findings (Betcher, 2009; Gray et al., 2005; Swan et al., 2008). The results of their studies suggest that Interactive White Boards are effective on student achievement. Ishtaiwa (2010) believe that today's generations of students wait for presentation of information to be authentically and concretely enhanced.

The results of interview revealed that students enjoyed the lesson and the colors, pictures and videos helped them to remain focused and remember better the emphasized points especially vocabulary in the lesson. In the same line, Levy (2002) found that the presentations with Smart Board

use help teachers to draw student attention to course content and also facilitate student retention of what they learned and facilitate student understanding of concepts. Technology Agency (BECTA) report indicates that Smart Boards or IWBs enhance the overall classroom experience of learning (BECTA, 2003, 2006). The results of this study support the BECTA reports findings. When Smart Boards are used as instructional tools, they increase the level of students' attention and learning. Likewise, researchers suggest that using Smart Boards enhances students' retention of information and instructional materials (Digregorio & Sobel-lojeski, 2010; Gregory, 2010).

To conclude, the present study was developed as a reflection on the use of Smart Boards technology in the EFL classroom. Findings from this study indicated that by utilizing Smart Boards in English language classrooms, students were motivated and interested in the learning. Students recognize the value and the effect of the use of the Smart Boards on their participation in the classroom. They also revealed that technology integration brings an increase in student interaction and facilitates the learning process.

In Iran, Smart Boards are relatively new. Hence, more research, both in quantitative and qualitative by nature, is much needed to shed light on all aspects of their use. It would be beneficial to do research in schools that have embedded the Smart Boards in the classroom practice. Much research is needed to assess the advantages and disadvantages of Smart Boards or Interactive White Boards to justify the cost incurred in integrating this technology into the teaching and learning environment, in EFL classrooms specially. Such research would be useful to make sure that Iranian schools

### *Iranian Students' Attitudes towards Utilizing...*

make the right choices and get value for money. Such research would also assist in deciding if alternative emerging technologies can be used as lower-cost solutions.

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