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OPTION: LINGUISTICS

EXPLORINGTHE INFLUENCE OF SMARTPHONE USE IN THE CLASSROOM ON PUPILS' ATTENTION:

Third year high-school pupils of Salhi Athmane high school Souk Ahras.

A Dissertation Submitted to the Department of Letters and English Language in Partial Fulfillment of the Requirements of Master's Degree in Language and Culture.

Submitted by: **Supervised by:**

Ms. Kerbal Asma **Ms. Samiya Haridi**

Board of Examiners:

Chairperson: Mr. CHETTIBI M. Walid (MA/B) University of 8 Mai 1945-Guelma

Supervisor: Ms. HARIDI Samiya (MA/B) University of 8 Mai 1945-Guelma

Examiner: Mrs. LESSOUED Sabrina (MA/B) University of 8 Mai 1945- Guelma

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DEDICATION

I dedicate this simple, modest work to:

My parents;

My sister;

&

My brother.

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بسم الله الرحمن الرحيم

In the name of Allah, the most Gracious, the most Merciful

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ABSTRACT

The actual research investigates the influence of smart phone use in the classroom on high-school pupils' attention. It explores the impact of smart phone use on attention. To reach this aim, one hypothesis is expected that if teachers do not allow pupils to use smart phones in the classroom, pupils' attention would not be decreased. To examine this hypothesis, both BAC exam pupils and teachers of Salhi Athmane high-school Bir Bou Houche were chosen as case study of this research for whom the questionnaires were distributed. The most appropriate method to be followed is the quantitative descriptive method. According to the obtained results from teachers' questionnaire, smart phones have negative influence on high-school pupils' attention. The results showed that the hypothesis was confirmed. Teachers should prevent smart phones in the classroom.

LIST OF ABBREVIATIONS

CALL: Computer- Assisted Language Learning.

E-Learning: Electronic Learning

ICT: Information Communication Technology

MALL: Mobile Assisted Language Learning

M-Device: Mobile Device

ML: Mobile Learning

M-Technology: Mobile Technology

NLP: Natural Language Processing

SLL : Second Language Learning

LIST OF TABLES

CONTENTS

Chapter Two: Attention

GENERAL INTRODUCTION

Technology knows a great development and advancement recently. The creation and invention of different means of communication leads to the appearance of smart phones. These modern devices are the most useful tools by all categories of society. High- school pupils are among cell phone users. They take these devices with them to schools. Since smart phones include applications related to social media, they may affect pupils' attention, either through increasing or decreasing their focus in the classroom. Probably, learners become unaware about what is being discussed in the classroom when they use cell phones.

On the other hand, pupils are required to focus on their lessons in the classroom. Smart phones may lead to loosing attention. Loosing attention means loosing everything related to learning. That is, pupils can forget the instructions given in the classroom. Also, they do not understand their lessons. By the end of the year, learners may fail and obtain bad results.

Statement of the Problem:

Internet generation prefers using smart phones in the classroom. Through this behavior, they make noise in the classroom. They chat, watch and share You Tube videos with their mates. However, some pupils use smart phones for learning purposes. They look for word synonyms, or to learn foreign languages. Also, they can share lessons together… etc.

The problem being discussed in this research is the influence of Smart phone use in the classroom and pupils' attention.

Aims of the study:

The actual research focuses on studying the influence of smart phone use in the classroom on pupils' attention. The following are the main purposes:

- To investigate both high-school teachers and pupils' attitudes towards smart phone use in the classroom
- To know to what extent the cell phones are helpful tools to improve pupils' attention.
- To make learners aware of the negative and positive impact of such devices on their attention.

Research questions:

This research aims to answer the following questions:

- Does smart phone lead to loose pupils' attention?
- To what extent are the cell phones allowed in the classroom?
- For what purpose do pupils use smart phones in the classroom?

Research hypotheses:

Smart phones are used for different purposes. Such devices affect pupils' attention. The following hypotheses can be confirmed or denied:

H0: If teachers allow pupils to use smart phones in the classroom, pupils' attention would be decreased.

H1: If pupils stop using smart phones in the classroom, their attention would not be decreased.

The Research Method and Design:

To test the hypotheses, the best method to be followed in this research is the quantitative descriptive method. Two questionnaires are used as data gathering tools to collect information about teachers and pupils' attitudes towards the use of smart phones in the classroom and pupils' attention

Population of the Study:

Pupils 'sample:

The selected population of study in this research is BAC exam pupils of Salhi Athmane High- School, Bir Bou Houche . These pupils are composed of four different branches such as, Experimental Science, Foreign Languages, Letters and Philosophy, and Technical Mathematics. The questionnaire was distributed to one hundred BAC exams pupils who were chosen randomly.

Teachers' sample:

The sample was given to thirty teachers of Salhi Athmane high- school. They were selected intentionally to know their responses and opinions towards mobile use in the classroom.

Research tools:

The questionnaire was used as gathering tool. It was distributed to both teachers and BAC exam pupils to collect information about the impact of smart phone use in the classroom on Pupils' attention

Structure of dissertation:

The dissertation is divided into two main parts. The first part is theoretical one. It includes two chapters. However, the second one is the practical part including chapter

three. Chapter one is about Mobile Learning. While Chapter two tackles Attention, and third chapter is about Investigation field; two questionnaires for both teachers and pupils.

Chapter one:

Mobile learning

Introduction:

Smart phones are modern devices created in recent years. They are used by every one for different purposes. Pupils can study, do their research and solve different activities and homework via cell-phones through internet. This chapter will discuss the mobile learning including, definitions (mobile learning, mobile technology, blended learning), its brief history, benefits and challenges, learner centered design

1.1 A Brief history of Educational Technology:

B. F. Skinner wanted to develop learning and make the classroom more advanced in 1954. He invented teaching machines to achieve his goal. His machine was similar to today's expectations on mobile technology's role to develop and improve students' classroom learning. B.F. Skinner's predictions were also concerned with different technological tools such as net books, and computers; however, they were not effective because mobile technology was considered as type technological means. For example, computers were in the classroom, but they did not make a great change.

In the past half century, technology saw more development. Smaller and efficient computers were created with easy use. In the 1960s, computers were in schools for keeping students data and students' application.

In 1980s, another type of computers was created. Its name was apple 2. Apple 2 was a smaller personal computer useful and available by everyone. It was widely adopted by educational markets. Apple2 computers took place in the classroom.

In 1990s, computers became useful inside the classroom in the USA. They played role to increase the classroom instructions. The CD-ROM disks were used with computers through new Microsoft Windows (windows 95, windows 98) in addition to software and hardware. The computers shared a common place in the classroom until the creation of internet in which World Wide Web became useful everywhere and every time.

By 2010, technology saw a great development in which desktop computers, laptops, ipads, were created through Apple with different mobile devices for instance, tablets, and screenshots technology, Wi-Fi as well (S, McQuiggan et al., 2015,pp.19-22).

1.1.1) What is Mobile technology?

It refers to a type of technology which consists of set of devices with daily technological creativity regardless of the devices' capabilities to send and receive signals by communicating with other devices (builtin.com). M-technology includes smart phones, tablets, laptops, … . Each of these devices has specific capabilities.

1..1.2) What is Mobile Learning?

Mobile Learning (hereafter ML) is one of aspects of the latest technologies that allows people to learn everywhere and every time via internet (McQuiggan S. et al., 2015, pp.24-25).

However, A. Mark (2013) states that mobile learning refers to a process in which learners interact with others and create information through different device types; smart phones, tablets, … (p.23).

1.1.3) What is blended learning?

Blended learning is a process of integrating the e-learning with traditional learning (Thorn, 2003, p.15). That is to say, learners can learn via smart phone in the classroom in which they discuss the lessons with teacher.

In other words, blended learning is combination of both traditional face to face learning and high technological e- learning (elmlearning.com).

1.1.4) E-learning vs.Traditional learning :

E -learning (Electronic learning) refers to learning online in which students can not interact with their teachers face to face. Within this type of learning, students send their assignments, homework, activities, and tasks via e mails or using social media (e.g., face book, integral, twitter…) of their teachers.

On the other hand, traditional learning is based on students attendance in the classroom, in which they meet their teachers to follow lessons.

Within traditional learning, teachers use data show, write important terms or new words on the board. Students take notes with pen and paper.

1.2) Capabilities of mobile devices:

Firstly, the practitioner should understand the capabilities of any mobile device rather than know the models on the market. Mobile devices include different types which vary according to capabilities of each one. Among them: feature phones, smart phones, tablets… Feature phones are smaller screen devices than smart phones. Learners can only send messages and take photos for assignments. Unlike smart phones, which are larger screen phones, are available for different learning activities.

On the other hand, tablets are useful only for short learning tasks, assessments. They are harder to type on. However, the desktop computers are easier to type on due to their larger screen and size (A. Mark, 2013, p.23).

1.3) Mobile learning strategies:

To find an appropriate strategy for mobile learning is easy to say, but difficult when it comes to practice. Taking into consideration the purpose behind using the system and understand how pupils use mobile devices (A. Mark, 2013, p.25).

Chui-Lin Lai and Gwo Jen Hwang (2015) stated in the article entitled as:*High School Teachers' Perspectives on Applying Different Mobile Learning Strategies to Science Courses: the National Mobile Learning Program in Taiwan* that mobile learning consists of ten strategies. Among them:

1.3.1) Guided learning:

Students are given different digital materials to increase their learning through websites. They are asked to answer a list of questions on sheet. The answers can be available on the website which learners can access via mobile devices. Within this system, students have the ability to download learning materials in which they express their opinions easily (Lai, L., C. & Hwang, J. G, 2015, p.128).

1.3.2) Peer- Assessment:

According to Chiu-Lin Lai and Gwo Jen Hwang (2015), the purpose of this strategy is to join learners to make reflection during consultation of others' work. With peer assessment, students are able to understand assessment standards and identify their strengths and weaknesses. Learners would use their smart phones to perform self and peer- assessment activities (p.129).

1.3.3) Video Sharing:

This strategy is used when learners record learning tasks videos. To illustrate, the students are a set of words to record their pronunciation via cell phones. Then, the video is shared among learners' peers (Lai, L., C & Hwang, J., G., 2015, p. 129).

1.3.4) Synchronous sharing:

This strategy allows learners to check their peers' learners performance simultaneously with learning activities. For example, learners download some grammatical reviewed sentences and check those of their peers via smart phones. The teacher can also correct and change learners' sentences through mobiles. The modifications are checked later by students via cell phones. The synchronous sharing encourages students' active learning and improves reflection processes (Lai, L., C. and Hwang, J., G., 2015, p.129).

1.3.5) Issue- based learning:

This strategy is about discussion of problem online between learners and teachers. The discussions are applied by researchers via asynchronous forums. Learners can do many tasks and activities through internet. They can also share and look for further information. This strategy simplifies social knowledge between different groups (Lai,L., C.& Hwang, J., G., 2015, p.130).

1.3.6) Computers as mind tools:

Mind tools are used to support learners to organize the learning content from textbook. This strategy encourages learners' deeper thinking. The mind tools are like framework in coordinating prior knowledge with new learning knowledge. The mind tools based-learning allows learners to compare and observe information and build knowledge (Lai, L., C. & Hwang, J., G., 2015, p.130).

1.3.7) Project-based learning

This strategy is based on collective learning model. That is to say, learners are asked to present their work, either online, or in class. This learning activity is known as learner- centered approach (i.e., learner 's autonomy). In this situation,

teachers ask learners to do a research about particular topic. After the learners do their research, they present the proposal for their colleagues. According to Chang and Lee (2010), and Tseng et al.(2013), the project-based learning motivates learners to study autonomously (Lai, L., C. & Hwang, J., G., 2015, p.130).

1.3.8) Inquiry- based learning:

In this strategy, learners identify particular problem and do research about it. Then, they ask questions and try to answer them via observation (hypothesis). They can provide themselves with online extra information. Students join in this learning strategy via collecting information in groups (Lai, L., C., and Hwang, J., G., 2015, p.131).

1.3.9) Storytelling strategy:

The learners are asked to transform their knowledge into stories. They collect information collectively to write story. Students should link learning knowledge with their peers which enables them to communicate with their group members (Lai, L., C. & Hwang, J., G., 2015, p.130).

1.3.10) Contextual mobile learning:

It is about the extent to which learners' answers of tests are right or wrong. If the answer is correct, the system moves automatically to the next question. If the answer is wrong, the system provides learners with more examples to clarify the question. In this strategy, learners can check extra information from the web to answer the test (Lai, L., C., and Hwang, J., G., 2015, p.131).

1.4) Mobile usage in schools:

In Britain, smart phones are useful in both primary and Secondary schools. Primary school pupils use such devices for the purposes of safety and security especially when

they go to and come from schools. Also, they use smart phones for education and to do their homework.

However, in secondary schools, smart phones are allowed to be used among pupils in classroom sessions after taking teacher's permission to improve learning and have more opportunities (A. Mark, 2013, p.28).

1.4.1) I CT and the teacher's role:

As it is expected, teaching deals with computer technology. Teaching skills should see transformations, and teachers should know how to include such modern means in their way of teaching. Teacher's role must be parallel with basic changes according to Collis's expectation. This includes different types of online attendance of teaching stuff (teachers, members of teaching profession, administrators…). The investigation of different roles of teachers and taking into consideration the relationship between communication features and the provision support is helpful (Kenning, n.d., p.122).

1.4.2) ICT and the purpose of education:

Kenning stated that according to Tiffin and Rajasingham(1945), the advancement of education in different countries of the world leads to the ubiquity of tendency to make balance between education and schooling. Although some universities and colleges include set of educators, education is a widespread process allowed everywhere, at anytime for everyone who looks for problem solution (Kenning, n.d., p.116).

On the other hand, education is classified into two types; the formal and informal education. The formal education is official, occurs at schools and includes prescriptive and recognitive systems of education. However, informal education is not as harsh as

the formal one. According to Pattanayak (1981), both formal and informal education are different from each other in the following points:

Firstly, the formal education is purposeful regardless of the social and educational backgrounds of learners. However, the informal education gives learners permission to move without any regulation.

Secondly, the formal education has particular syllabus to work on with text books. However, the informal education does not deal with such materials.

Finally, formal education deals with qualified achievements whereas informal education deals with incidental qualifications. Both formal and informal education are contrasting terms. The former is based on the learner-centeredness and independence, but the latter focuses on the educative purpose (Kenning, n.d., p.116).

1.5) Benefits and Challenges of ML:

1.5.1) Benefits:

Mobile learning is time- place -limitless: learners can use it at anytime and anywhere unlike traditional learning which is based on students attendance in the classroom with a scheduled planning (from 8:00 to 17:00). Through ML, students can access, and communicate with others everywhere and at anytime using internet. Mobile learning becomes widespread in human culture (Mc. Quiggan, S. et al., 2015, p.26). Mobile learning is lower cost than other technology initiatives (computers). It allows learners to work on without requiring expensive costs. Tablets are examples of tools with easier and lower costs than durable computers. Learners have the opportunity to use mobile devices outside the classroom. Since smart phones are smaller and portable, they are useful everywhere. ML allows students to master the four skills; critical

thinking and problem solving, communication, collaboration, and creativity and innovation. Students can also share information and find the sources they need easily. ML improves and facilitates traditional classroom learning. It offers chances to enhance pedagogy. ML enhances personalized learning in which teachers are aware of students whom use cell phones in classroom to do their home works and assignments (Mc.Quiggan, S. et al., 2015, pp. 26-28**).**

1.5.2) Challenges of Mobile learning:

The first challenge to begin with is, technological devices are not the same. They don't work and function similarly. For instance, tablets and smart phones don't have keyboards to type on unlike the computers which learners can type with. Learners use cell phones inside classroom for academic purposes. This leads them to plagiarism which is forbidden and unethical to be used in academia. Sharing mobile devices between classrooms and schools leads to impossibility to instant access. Mobiles should be used as modern tools to modify the structure of lessons instead of being used as additional tools (Mc, Quiggan, S.et al., 2015, pp.29-32). **).**

1.6) How to teach languages with Mobile devices:

1.6.1) Where language teaching meets technology?

1.6.1.1) Behaviorism: It does not take place in language teaching only, but also in its CALL(**C**omputer Assisted Language Learning) and MALL(Mobile Assisted Language Learning). Both of them developed different types of repeated drills such as vocabulary, spelling, pronunciation… whose goal is to simplify knowledge via flashcards which include various activities and games. Many teachers welcomed this project to be used in the classroom because the main idea of the flashcards is the meaning. These activities do not include real communication and comprehension that's why they are pedagogically limited (P. Mark, 2014, p.107).

1.6.1.2)The communicative approach: is sub branch of Cognitive approach. Chomsky's Languag Performance and Language Competence. Dell Hymes' Communicative Competence focus more on communicative proficiency. Both cognitivism and psycholinguistics are like the umbrella which includes all sub branches related to language teaching, either singly or together referring to CALL and MALL (P. Mark, 2014, p.107).

1.6.1.3) Cognitive approach:

This theory has the role of supporting the development of ICALL(Intelligence Computer Assisted Language Learning) in which the NLP (Natural Language Processing) is used by computer systems to analyze student's language input. Cognitive approach omits the old technique of flash cards and quiz tasks to integrate the language with communicative contexts. ICALL was related to desktop and laptop computers. It starts to be the main part of mobile devices since they become more important than laptop and desktop computers (P. Mark, 2014, p.108).

In the language content, ICALL was concerned only with written texts, but the recently methods were applied for both written and oral language. Indeed, with AR development, the feedback is provided for the real world contexts. On the other hand, the development is not only from CALL to MALL, but also it will be from ICALL to IMALL in the future (P. Mark, 2014, p.108).

1.6.1.4) Socio-cultural approach:

This approach is based on shifting from linguistic inputs to meaningful contexts. Many approaches are related to MALL and CALL**,** among them: socio-constructivism, situated approach, embodied approach, informal learning approach, learner-centered approach, identity approach, intercultural competence approach, and ecological approach.

1.6.1.4.1) Socio-constructivism: is based on learner's participation with others through building knowledge **(Vygotsky, 1978).**

1.6.1.4.2) Situated approach:

It focuses on knowledge co-development in relation to specific situation.

1.6.1.4.3) Embodied approach:

This approach is concerned with mental, physical, and social interrelationships that should be taken into consideration.

1.6.1.4.4) Informal learning approach: It refers to learning outside school, i.e. learning process happens through experience from learner's daily life.

1.6.1.4.5) Learner-centered approach:

It is about learners ability to learn without requiring teacher's support or help (learner's autonomy).

1.6.1.4.6) Identity approach: refers to development of learner's identity.

1.6.1.4.7) Intercultural competence approach:

According to Byram (1997) and Duddeney et al(2013), this approach is based on students' contact with other people from various cultures.

1.6.1.4.8) Ecological approach:

It is about integration of interconnected processes with language learning and learner's identity (P. Mark, 2014, p.110).

1. 7) Design for Mobile learning:

The recent studies show that m-learning has positive effect on learning performance although learning programs vary in terms of course design, learning methods, target groups. The mobile device characteristics should be taken into account for designing the best mobile learning programs. Students' awareness about the materials and knowledge application is helpful to communicate with teachers.

Education is provided with more possibilities through mobile technology. M-technology allows different activities such as communication and co-work online, interactive management activities to be in class at anytime and everywhere. A good teacher and good instruction design play an important role for mobile learning success. M- technology requires awareness of hardware and software types and modern advanced technologies (Cristol, D., Zhang(Aimee), Y., 2019, p.56).

1. 8) Performance Support in curriculum and Instructional Design:

In many classrooms over the world, the content and method of learning are related to the processes of curriculum and instructional design. Today, researchers are doubtful about if m-learning discontinues traditional principles for curriculum and instructional (Haag &Berking, n.d., p.77) The m-learning influences overall curriculum and instructional design is an example of changing from planned instruction to performance support, which refers to the study or system that covers the informal learning and makes it intentional because mobile platform is not limited by time or particular place (Haag &Berking, n.d., pp.77-78). Learners don't depend on their desktop or portable laptop computer to encourage learning, but they are more influenced by mobile device for performance support and self-directed learning. Education, training, and workplace settings use performance support when learning is improved by on- demand electronic aids (Haag & Berking, n.d., pp. 77-78).

The use of m-device augments the engagement of learners in self-directed learning and motivates their cognitive curiosity in the classroom. Self-directed learning is considered as the main purpose in higher education. Among the most critical, challenging tasks is determining the circumstances to enhance learners' performance in both higher education and training environments.

The performance support or its blended version may change the curriculum design; catalogs can be sequences of formal courses. Self- directed activities can be sequences of classroom activities. The classroom or e- portion of blended learning module saw degradation concerning the availability, the method and time of using resources related to performance support (Haag &Berking, n.d., p. 78).

1.9) Learner-Centered Design:

The ability to make users satisfied about mobile learning is considered as the main factor to select its use and success. Instructional designers are obliged to take into consideration the aims and purposes of user experience for their solutions to make their use easy for learners. The designers of interfaces for learning are obliged to work in groups. The instructional designers are concerned with application of learning theories which should be sent to the interaction designers. As a result, the instructional designers should receive the principles of user experience and interaction simultaneously. The effective learner –centered design develops learner's experience although the user-centered design is concerned with task completion re-enforcement. Both user-centered and learner-centered designs are demanded for designing and developing an appropriate m-learning solution (Haag&Berking, n.d., pp.77-78).

Learner-centered strategies consider the critical thinking and problem solving as necessities for autonomous learners. Performance support is not only the main design

strategy for mobile learning, but also it re-enforces the learner – centered strategies. In higher education setting, it aims to complement the classroom experience, or it sometimes guides self-directed learning.

M-technology inside classrooms in which the m-learning solution should be blended with various classroom activities such as curriculum guide, class objectives… . The same thing occurs with work place performance support materials. They should be used with existing training or work place tasks. The m-technology users are provided with the reason for joining support materials (Haag & Berking, n.d., p.116).

Conclusion:

To sum up, mobile learning is a modern technique appeared recently. Pupils use this technique everywhere and at anytime. Mobile learning allows pupils to communicate with teachers via internet (through e mail or social media). Also, to learn foreign languages, to look for word synonyms using different devices like smart phones, tablets, laptops… etc. Mobile learning is useful for pedagogical purposes.

Chapter two:

Attention

Introduction:

Attention is a branch of psychology. It plays an important role in teaching and learning. This cognitive process concerns both teachers and learners in the classroom. Teachers cannot teach without focus. Learners do not grasp the lesson without concentration. This chapter includes the following: What is attention? Then, it tackles the historical background of attention. Moreover, this chapter talks about the types, stages, and theories of attention. Also, it includes the influence of the body and action on spatial attention in which the definition of spatial attention is mentioned with visual spatial attention and spatial attention and eye-movements. In addition, attention, output and pedagogic tasks were mentioned. The second chapter talks about attention and other domains such as: attention and motivation, attention and working memory, object-based attention which includes object-based attention and auditory streams. Finally, this chapter ends with the following titles: self-control and attention control, dimensions of auditory selective attention, feature-based attention, and the internal and external determinants of attention.

2.1) What is Attention?

Psychologists stated that attention is not easy to define. It includes a set of phenomena and concepts. Attention is a process of focusing on particular things while ignoring others. That is, it is about giving more importance and being more interested in things than other objects (James, 1890, para.2). Attention allows people to focus

more on things around them to improve memory. It enables them to perform different tasks appropriately.

2.2) Historical Background of attention:

In the Aristotelian Age, investigators suggested that attention is an essential pre-requisite for consciousness. It is important to examine carefully the attentive powers for the aim of researching its inner recesses to comprehend how attentive process can support awareness. The researches about attention can be considered as an aiding progress to uncover the important attentive parts for consciousness (Taylor, G.J., 2007, p.24).

According to Michael Posner (2014), in the mid of the twentieth century (1949), Moruzzi and Magoun used animal models to explore aspects of attention. They studied the midbrain reticular system as the mechanism of arousal. In their research on attention, Moruzzi and Magoun demonstrated both spontaneous integrated activity and processing of sensory stimuli.

In 1968, Hubel and Wiesel used microelectrodes to examine attention. It was necessary to adapt the microelectrode technique to alert animals. This technique was applied by Mountcastle in 1978. In 1980, Wurtz, Goldberg and Robinson examined mechanisms of orienting to visual objects in superior colliculus and parietal lobe. The outcomes suggested the importance of both of these areas to shift to visual attention **(**Posner I., M, 2014, p.15**).**

2.3) Types of Attention:

Attention is divided into four main types: sustained, alternating, selective and divided attention.

2.3.1) Sustained attention:

This type is known as concentration. It is the ability to focus on one object progressively. Within sustained attention, people stay focused on particular things while ignoring others. For instance, M2 students use this type of attention during their dissertation writing process. In other words, they concentrate on their research and ignore other activities around them) (Cardillo, 2009, p.21).

2.3.2) Alternating Attention:

It is a process in which people switch to a new task after finishing the previous one. It is about performing one thing after another. Alternating attention is the opposite of multi tasking attention/ divided attention (Cardillo, 2009, p.21).

2.3.3) Selective attention:

It is the ability to choose from variety of things a single object to focus on. Usually the chosen object is important or preferred by the person. For instance, the researcher selects articles which he needs and does not focus on everything (Cardillo, 2009, p.21).

2. 3.3.1) Experimental studies of selective attention:

Malim (2010) stated that in Cherry's experimental study on selective attention in1953, participants received two messages, one for each ear. They were asked to listen particularly to and repeat loud out one of them. Then, audience was asked to find out how much of each message was stored. Concerning content of the message, participants did not pay attention to the spoken language, whether is a foreign language, or not (Malim, 2010,p.11).

2. 3.3.1.1) Broadbent's model of selective attention:

Broadbent model was developed in 1958. He used three pairs of digits to present to participants dichotically **(**listening to messages presented separately to each ear). His model was easy for participants to recall numbers from each ear. When audience was asked to do so, they gave only 20% out of answer was correct. Broadbent clarified his model stating that there was sensory buffer or filter. According to this filter, one message is processed before the other during their reaching the filter with each other.

Broadbent imagined information from senses being stored in short term memory before it moves to selective filter, which selects information on physical basis. The selected information moves to one channel processor. Then, it passes to the output. However, the unselected information is stored for the next processing (Malim, 2010, pp.13-14).

2.3.4) Divided attention (Multi- tasking):

It is a process in which learners focus on more than one activity simultaneously. This type is known as Multi-tasking attention. For example, some pupils talk with each other in the classroom. When they are asked to repeat what the teacher is saying, they repeat it in a good way. This means that they are talking, but they are focusing on the lesson (Tuckman, 2009, p.60).

2.3.5) Bottom-up Attention:

Bottom-up processes are related to saliency map, which is map of the visual scene that encodes the visual conspicuity of diversity of locations. The stimulus conspicuity changes according to the context in which the stimulus is included. The saliency map summarizes a set of contributions of various feature maps for different activities and processes such as, movement, say, color,… .etc. Attention is forwarded to the most

important locations in the map with the coming back process of the mechanism with not allowing the actually attended locations to be re-attended (Jasso &Triesch, 2007, p.107).

2.3.6) Top-down control of attention:

On the other hand, top-down processes are various. To distinguish them from the bottom-up ones is considered as ambiguous process. Top down attention is required to be built on the visual scene which higher visual cortical areas perform with drawing long term and working memory processes (Jasso & Triesch, 2007, p.107).

2.4) Stages of attention:

2.4.1) Directed attention:

The first of the nine stages leading to the achievement of shamatha is called directed attention. The directed attention refers to the sign of having reached this step is being able to place your mind on your chosen object. In other words, directed attention is requires the ability to put person's mind towards the selected object. The achievement of this stage is based on the power of hearing. The Buddhists stated that knowledgeable and expert teacher uses the mosteffective way to acquire fresh learning. First, learner should hear the teaching. Then, s/he follows up with reading, study, and practice. The power of hearing refers to both listening to instructions and reading about them (Wallace A, 2015, pp.30-31).

2.4 .2) Continuous attention:

The continuous attention is about experiencing occasional periods of continuity. The mind is still caught up in wandering thoughts and sensory distractions. Continuous attention is the person's ability to remain focused for a sustained period without losing

attention. The power of thinking is the achievement of continuous attention. The challenge of this step of practice is being interested in the object. The ability to do this is by thinking about instructions between sessions(Wallace A, 2015, p.47).

2.4.3) Resurgent attention:

Allan Wallace (2015, p.61) stated that within this stage, attention is fixed upon meditative object. This stage will have been improved for the first twenty four minutes of the session. As attention gradually stabilizes, the duration of each session can be increased.

From the beginning shamatha training, however, individuals are more prone to laxity, which manifests in coarse, medium and subtle degrees. For the moment, individuals concern themselves only with coarse laxity which happens when attention mostly disengages from the object and sinks into a spaced –out vacancy. Abiding in a state of a coarse laxity can be very peaceful with mind relatively undisturbed by thoughts or emotional upheavals. If individuals spend many hours in such state of dullness, Tibetan contemplatives report that this not only has no benefits, but also it can impair intelligence. The acuity of mind begins to atrophy and over long term, this can do damage (Wallace. A, 2015, p.61).

2.4.4) Close attention:

In recent years, many psychologists have been conducting research on mindfulness and its relevance to stress reduction, depression, and alleviation of other physical and mental problems. According to psychological paper, the term mindfulness refers to kind of non elaborative, non-judgmental, present-centered awareness in which each thought, feeling, or sensation that arises in the attention field is acknowledged and accepted as it

is. The mindfulness is composed of two models: the first one involves self-regulation of attention so that it is maintained on immediate experience. The second model involves the orientation that is curious, opened and accepted (Wallace. A, 2015, p.77).

The psychological account of mindfulness is based on its description in which it is presented in the modern contemplative insight tradition of Theravada Buddhism differs from Indo-Tibetan Buddhist version. The modern Visapana approach views mindfulness as non discriminating, moment to moment, bare awareness. The Indo-Tibetan tradition, however, is characterized as bearing in mind the object of attention, the state of remembering, not being distracted, and not floating (Wallace. A, 2015, p.77).

2.4.5: Tamed attention:

This stage is based on rising to the challenge of overcoming the coarse laxity without destabilizing attention. In addition to the persistent problem of medium excitation- which arises when involuntary thoughts occupy the center of attention. The meditative object is displaced to the periphery. Now, persons have the task of recognizing and counteracting a medium degree of laxity. When it sets in, the object of meditation appears, but with less vividness. This is different from coarse laxity.

The primary challenge is to overcome laxity without undermining stability. The way to counteract laxity is to arouse attention, to take a greater interest in the object of meditation. If the strings are too taut they may break under the strain, but if they are too slack, the instrument is unplayable. Likewise, the task at this point is to determine the proper pitch of attention. If individuals arise the mind too much in their efforts to remedy laxity, it will fall into excitation, but they relax too much, they will like

succumb to laxity (Wallace. A, 2015, p.95).

2.4.6: Pacified attention:

In the sixth stage, involuntary thoughts pass through consciousness. As the mind becomes more at ease, thoughts flicker like butterflies through the space of awareness and the person is able to witness the whole chain of thoughts arising, playing themselves out then, vanishing. They seem to be less weighty in that they are less able to pull attention after them. Like in Einstein theory, physical space is warped by bodies of matter within it, it sometimes feels as if the space is warped by the contents of the mind. When we focus on something, our minds seem to become very small. The experienced magnitude of the contents of the mind is relative to the spaciousness of the mind. So to keep the activities of the mind in perspective, the space of awareness remains expansive. In the meantime, the less we grasp onto the mental events, the less the space of the mind contracts around them and is warped by them.

Throughout the development of shamatha even at this relatively advanced stage, the emotions and other mental and physical conditions may arise. Many of them are unexpected. The practice of settling the mind in its natural state is especially known for unveiling the suppressed and repressed contents of the mind. These vary from one individual to another. There is no way to predict what kinds of experiences each one has (Wallace, 2015, pp.116-117).

2.4 .7) Fully-pacified attention:

The power by which the fully pacified attention is achieved is enthusiasm: the practice itself fills the individual with joy. This motivates the individual to continue in the practice, meeting the increasingly subtle challenges ahead. Having overcome the

medium degree of laxity, subtle laxity remains in which the object of mindfulness appears vividly, but attention is slightly slack. A highly advanced meditator is capable of recognizing such subtle degree of laxity. It is detected only in relation to the exceptionally high degree of vividness of which the trained mind is capable. Subtle excitation also occurs from time to time. When laxity sets in, individuals arouse their attention and when excitation occurs, individuals loosen up slightly. At the seventh stage, these subtle attentive imbalances are swiftly recognized due to the finely honed faculty of introspection and they are easily remedied.

Upon reaching the stage of fully pacified attention, the mind has been so refined that meditation sessions may last for at least four hours with only the slightest interruptions by laxity and excitation. In each of the two shamatha methods introduced thus- far of mindfulness of breathing and settling the mind in its natural state- the practices gradually involve less actions. When mindfully attending to the breath, there is a great deal the individuals are not doing, but they are still releasing involuntary thoughts when they arise. The preference to have a conceptually silent mind, as opposed to having discursive thoughts and images arise one after the other. When settling the mind in its natural state, individuals are doing less actions. Instead of deliberately letting thoughts go-banishing them from the mind-individuals let them be without deliberately influencing them in any way(Wallace, 2006, pp.134-135).

2.4.8: Single-pointed attention:

In the practice of shamatha without sign, the attention is not directed to anything. It rests in its own nature, simply being aware of its own presence. Nominally, you could say that awareness takes itself as its object. But experientially, this practice is more a matter of taking no object. You simply let your awareness rests, without any referent, in

its own innate luminosity and cognizance. While Padmasambhava presents this as a method for achieving shamatha, it is also an effective method for illuminating the nature of awareness itself (Wallace, 2006, p. 149).

2.4.9: Attentive balance:

With only the slightest exertion of effort, it is about proceeding from the eighth attentive stage to the ninth one known as attentive balance. You are now able to maintain flawless Samadhi, effortlessly, and continuously for at least four hours. Due to the power of deep familiarization with this training, you can slip into meditative equipoise, free of subtlest traces of laxity and excitation with no effort. This is not to say that attention is irreversibly balanced. If for some reason you discontinue the practice, you will find that laxity and excitation erode the attentive equipoise. They have not been irreversibly eliminated. If you maintain a contemplative lifestyle and keep the attention honed through regular practice, this wonderful degree of sanity can be for your life (Wallace, 2006, p. 160).

2.4.10: Shamatha:

According to accounts from the Indo-Tibetan tradition of Buddhism, the first sign of achievement of shamatha is the experience of a sense of heaviness and numbness on the top of the head. This allegedly happens to anyone who experiences this transition regardless of the specific followed method. It is not unpleasant, or harmful, just unusual. Something remarkable must be taking place in the cortical region of the brain at this point, but so far, none has monitored the brain correlates of this shift using magnetic resonance or anelectroencephalograph. This physical sensation on the top of the head is symptomatic of shift in the nervous system. Consequently, the achievement of a state of mental pliancy in which the mind is fit and supple (Wallace, 2006, p.172).

2.5) Theories of attention:

2.5.1) The automatic theory:

This theory deals with unintentional processes that occur outside of consciousness, and happen involuntarily. They require little amount of cognitive resources. In other words, a process can be described as automatic if it is efficient, uncontrollable, unaware and unintentional **(**Gawronski, B. & Creighton. A. L., n.d., p.283).

2.5.2) Controlled theory:

It is related to the processes that occur with human consciousness, intentionality. They are voluntary and controlled by human mind (Gawronski, B. & Creighton. A. L., n.d., p.283).

Schneider and Shiffrin (1977) made difference between controlled and automatic processing. According to them, controlled processing is sequential. That is, things happen one after the other. This processing is required with ambiguous and complex activities. In contrast, the automatic processing is simultaneous one. It means that many things occur at the same time. It is required in simple and familiar activities (Malim, 2010, p.22).

Shiffrin and Schneider's purpose is to widen the complexity of the tasks in different manners; through the number of targets, the exposure time received by participants, and through consistent and varied mapping conditions. According to outcomes, the consistent mapping conditions made difference between the number of targets and the way of their location. They clarified that in the consistent mapping condition, no difficulty concerning the activity in the automatic processing. However, the

participants were obliged to follow the controlled processing in which they conduct sequential search (Malim, 2010, p.23).

2.6) The influence of the body and action on spatial attention:

2. 6.1) What does spatial attention mean?

Spatial attention refers to the cognitive process in which particular stimuli are chosen with neglecting others based on the spatial position (Catherine, L. et al., 2007, p.42).

Spatial attention is related to the measurement of pupils' concentration with teachers in which distance between pupils and teachers is important. I.e., the space between pupils and teachers should be taken into consideration.

Spatial attention function is to choose objects and locations. The functional view of spatial attention has necessary implications for how body actions affect human perception. Perceptual information needs to be acquired to determine the results of previous actions, to control progressive ones and to schedule the responses for next events. Simultaneously, spatial attention affects the dynamic interaction between top-down of what is intended to be done and bottom-up environmental and body effects. A competition is biased by both bottom -up and top-down inputs. The bottom-up ones aid to differentiate between the backgrounds of things. However, top-down mechanisms choose spatial regions with the appropriate things for continuous behavior. Top-down selection is derived from neural circuits with working memory (Catherine, L., et al., 2007, p.43).

2.6.2) Visual spatial attention:

Human perception is dominated by the vision, which occupies an irrelevant amount of real estate in the brain. Many researches on attention happen within vision in which a lot of discoveries on attention are practiced in different modalities with existence of the necessary differences without ignoring the importance to examine attention in other modalities and across other ones (Nobre, 2018, p. 259).

2.6.3) Spatial attention and eye-movements:

Some human studies ask questions related to the nature of attention –control network. The covert spatial attention relationship with oculomotor tasks was insisted by subsequent researches. The imaging outcomes suggest the strong relationship between moving external eyes and internal ones. The oculomotor circuits 'role in reinforcing spatial attention is considered as sub-conceptualization of attention control based on functions of spatially organized systems (it is known pre-motor theory of attention) (Nobre, 2018, p. 264).

2.7) Attention, output and pedagogic tasks:

Cognition –based approaches to the study of SLL share the process of sending the attention role to the form and the way how attention makes the processing of the form easy and important stage towards acquisition (Sicola, 2010, p.336). Attention is improved through interaction in which learners have many opportunities to make difference between form and meaning. Learners have the chances to get corrective feedback on their utterances, to shift their own production. The latter chance is considered as the most important, which means to utter modified output. The output works as motivating tool for learners to move from semantic processing to the syntactic one. It means to change learners from focus on meaning to concentration on form. The

modified output has the ability to give both addresser and addressee the link to connect output, attention, and input (Long, 1996; Sicola, 2010, p.337).

2.8) Attention and other domains:

2.8.1) Attention and Motivation:

Attention and motivation have similar elements. The motivational processes and accessing rewards guide adaptive behavior. According to social psychologists, the physiological processes may represent the main needs with complex sequential system including higher sophisticated aspects. On the other hand, the longer term goals can affect the human perception and interpretation of the world (Nobre, 2018, p. 286).

2. 8.2) Attention and working memory:

Attention and working memory are related to each other. They have some common elements. Both of them involve multisensory prefrontal and posterior parietal control areas acting in conjunction with sensory areas (Nobre, 2018, p. 286). Furthermore, Desimone and Duncan (1995) stated that attention and working memory influence each other. The goal- related representations in working memory are the main source of attention control. Moreover, the prioritization and selection of items during the perceptual act play major role in determining what is encoded into working memory. Postle (2006) proposed that working memory representations emerge from attention selection. According to Awh, and Jonides, (2001); Cowan, (1998), selective attention is required for the maintenance of working memory representations (Nobre, 2018, p.286).

2.9) Object-Based Attention:

The spatial properties of neuronal reception make space a potent and natural medium for attention. Moreover, the role of an object based of reference came into

consideration. People with hemi spatial neglect the left side of the object and not what falls in the left visual field. Deneve&Pouget (2003); Driver &Pouget (2003) state that theoretical and computational models of neglect have been advanced to incorporate both spatial and object-based deficits (Nobre, 2018, pp.276-277).

2.9.1) Object-based attention and auditory streams:

The recent work on auditory attention is the outcome from the vision science. Visual attention operates as biased competition between the neural representations of perceptual objects. According to the biased competition view, the focus of attention is determined by interplay between salience of stimuli (exogenously guided attention) and observer objectives (endogenously guided attention). Biased competition arises between objects. In other words, the object is the focus of attention. If selective auditory attention is object based, it isimportant to define what constitutes an auditory object. Researchers explored rules to reveal sound features which lead to object formation. For example, sounds tend to be collected with each other if they turn on and off together, are harmonically related and sequential in time and frequency. Such sound features operate at the timescale of speech syllable (Fawcett, M Jonathan et al., 2015, pp.100-101).

The relationship between object formation and auditory selective attention is debatable. Some researchers say that objects are formed within an attentive stream. On the other hand, some studies stated that auditory streams are automatic and pre attentive. Stream formation is affected by both automatic and attention driven processes (Fawcett, M Jonathan, 2015, p.102).

2.9.2) Self-control and attention control:

Attention control is one form of self-control. It refers to efforts to override or alter one's predominant attention (Bruya, 2010, pp.30-31).

2. 10) Dimensions of auditory selective attention:

Although the unit of auditory attention is considered as an auditory object, top-down selective attention can be directed via concentrating on many acoustic dimensions which affect object and stream formation (frequency, pitch, location). Some dimensions are more basic, the most fundamental feature, the arrangement of the auditory system is frequency. The perceived location is the main cue for directing selective auditory attention, enhancing the ability to extract information about target stream. Examples related to pitch include:

Level: (attention towards the soft form of two voices. Time is also the main focus of auditory attention. Such sounds happen at expected times are better detected than those happening at unpredicted times (Fawcett et al., 2015, pp. 102-103).

2.11) Feature- Based Attention:

Although objects are more natural psychological units to guide behavior, and space is readily appropriate for orienting, there are cases in which it is advantageous to concentrate on constituent features of objects within relevant location. Experimental outcomes and results encourage human's ability to concentrate features within objects. Only items sharing relevant object features are automatically prioritized and selected, resulting interference (Nobre, 2018, pp.291-292).

2.12) Internal and external determinants of Attention:

Attention is divided into two main categories: the external and internal attention. The external one refers not only to the environmental sensitive stimulation to shape the

bricks of consciousness, but also to the physical and emotional states of human. Some external stimuli can attract attention rapidly with no extra effort, for instance, pungent odors, loud noise… etc (Schmeichel. J. B. &Baumeister. F. R., 2010, p. 29).

On the other hand, the internal attention is based on the person who does the attending process. Many theorists distinguished between bottom-up and top-down attention, the influences related to conscious awareness and person's intentions and goal. Other researchers made difference between endogenous and exogenous control of attention (Bruya, 2010, p.29).

Conclusion:

To sum up, attention plays an important role in learning. When pupils have low level of attention, they obtain average results. To improve attention, pupils should reduce using modern technological devices like smart phones, tablets in the classroom because attention is affected by such devices. Also, they should follow teachers' instructions in the classroom.

Chapter three:

Field investigation

Introduction:

3.1. Teachers' questionnaire:

3.1.1 The population of the study

3.1.2. The description of Teachers' questionnaire.

3.1.3. Administration of Teachers' questionnaire

3.1.4. Data analysis and interpretation.

3.1.4.1. Analysis of results and findings from Teachers' questionnaire

3.1.5. Summary of results and findings from Teachers' questionnaire.

3.2. Pupils questionnaire.

3.2.1 Population of the study

3.2.2 Description of pupils' questionnaire.

3.2.3. Administration of pupils' questionnaire.

3.2.4. Data analysis and interpretation.

3.2.5 Summary of results and findings from pupils' questionnaire

3.2.6 Summary analysis of results and findings from Teachers' questionnaire

3.3. Pedagogical implications

3.3.1 Teachers' role.

Introduction:

The third chapter is the practical part of the research. It is about one tool of data collection, which is the questionnaire for both teachers and third year high school pupils. It includes the description of both questionnaires, their administration, the data analysis and interpretation, and the summary of the findings of both questionnaires,

3.1) Teachers' questionnaire:

3.1.1) Population of study:

The first questionnaire was distributed for 30 teachers out of 35 teachers of high-school. This population was chosen randomly on the one hand. On the other, to know whether smart phone use in the classroom disturbs their explanation and discussion of their courses. Or it helps them during their lesson presentation through learners' interactions and answers from their cell phone use.

3.1.2) The description of Teachers' questionnaire:

The teachers' questionnaire is composed of fifteen questions. The questions are grouped into three main sections. The first section is composed of four multiple choice questions starting from Q1to Q4. Its aim is to collect general information about teachers (e.g., their gender, the branches they teach…...).The second section is about mobile learning. It is also composed of four questions (from Q5to Q8). The third section is about attention. It is composed of 7 questions (from Q9 to Q15). The questions of the data are closed questions mixed between "wh" and "yes, no'' questions, except the last question is open-ended one.

3.1.3) The Administration of Teachers' questionnaire:

The questionnaire was administered on Sunday, May 23 rd, 2021 (during BAC experimental exams) till Thursday, May 27th, 2021. It was submitted to the administration of Salhi Athmane high-school, Bir Bou Houche. It was distributed by the administrative stuff for teachers with different specialties (Math, Islamic sciences,…). The teachers gave back the questionnaire on Tuesday, 10th June, 2021.

3.1.4) Data analysis and interpretation of Teachers 'questionnaire:

Section one: general information:

Question 1: what is your gender?

Table3.1. Teachers' gender

Responses	**Participants**	**Percentage**
Male	7	53.85 %
Female	6	46,15%
Total	13	100%

The table above shows that most of the informants are males. They represent 53.85% of the participants. Other participants are Females. They represent 46.15% of the informants. This shows that the number of males is higher than females.

2) **Which levels do you teach?**

Table3.2. levels being taught by teachers

Responses	**Participants**	**Percentage**
a) 1st year Scientific and Literary streams	7	53,84%
b) 2nd year foreign languages and philosophy	4	30,76%
c) 2nd year experimental sciences and technical math	13	100%
d) 3rd year foreign languages and philosophy.	13	100%
e) 3rd year experimental science and technical math	6	46,15%

The table above shows that 53.85% of the respondents teach first year scientific and literary streams. I.e. the majority of teachers teach first year Scientific and Literary streams classes. However, 46.15%teach second year Foreign Languages and Philosophy, which means teachers of these streams and branches are less than those who teach first year classes. All respondents are concerned with second year experimental Sciences, Technical Math with third year Foreign Languages and Letters and Philosophy streams. On the other hand, third year Experimental Sciences and Technical Mathematics classes are taught by 46.15% out of the participants.

3**) How many pupils do you teach per class?**

Table3.3: number of pupils per class:

Responses	**Participants**	**Percentage**
a) Less than 25 pupils	9	69,23%
b) 25 pupils	1	7.69%
c) More than 25 pupils	3	23.08%
Total	13	**100%**

The table above shows that the majority of the respondents teach less than 25 pupils per class. Only one informant selects the answer (b). 3 other participants choose the answer (c).They represent 23.07% of the participants. Teachers who did not turn the questionnaire back to me, are (8 teachers) and 9 teachers did not answer it.

Most of informants teach groups composed of less than 25 pupils per class. Others are concerned with teaching groups composed of 25 learners and more.

4**) How long have you been teaching (including this year)?**

Table3.4.Years of teaching:

Responses		**Participants**	**Percentage**
a)	Less than 10 years	5	38.46%
b)	10 years	2	15.39%
c)	More than 10 years	5	38.46%
None of the above		1	7.69%
Total		13	100%

According to the table above, 15.39% of respondentshave 10 year teaching experience. The percentage 38.46% concerns both categories of teachers who have more than10 year teaching experience and those who have less than 10 year teaching experience.

Section two: Mobile learning:

5**) Do you allow your pupils to use smart phones in the classroom?**

Table3.5.Permission of smart phone use in the classroom

Responses	**Participants**	**Percentage**
a) yes	4	30,77%
b) no	9	69.23%
Total	13	100%

According to the table above, the majority of the teachers are against mobile use in the classroom. They represent 69.23% of the participants. Few teachers allow the use of smart phones in the classroom. They represent 30.76% of the informants.

The majority of teachers do not allow cell phone use in the classroom. According to them, such devices include some applications related to social media, which reduce pupils' attention. They lead to obtaining bad results by the end of the year.

6) **How do your pupils use smart phone in the classroom**?

Table3.6: the way of smart phone use in the classroom

Responses	**Participants**	**Percentage**
In groups	2	15,40%
Individually	3	23.07%
Both	1	7,69%
None of the above	7	53.84%
Total	13	100%

Since the other teachers are against mobile use in the classroom, they don't choose any of the answers mentioned above. They represent 53.84% of the participants.

According to table above, two teachers allow smart phone use in the classroom in groups. Three teachers allow mobile use in the classroom individually. They represent 23.07% of respondents. Only one teacher chooses the answer «C». Itrepresents7.69%.

Since most of teachers prevent cell phones in the classroom, they chose none of the options above. Probably, they think that such technological devices worsen learners' attention in the classroom. However, some respondents allow their pupils to use their own mobiles in groups, individually or both according to teacher's own method of allowing the use of such devices.

7**) What is your reaction if pupils use smart phones in the classroom?**

Table 3.7 Teachers' reactions towards cell phone use in the classroom:

Responses	**Participants**	**Percentage**
a) Keep silent and consider yourself you didn't see them.	00	00%
b) Take the mobile from learners and prevent them from using it in the classroom	6	46.15
c) Turn it back to the pupils at the end of session.	4	30.78%
d) Both (b) and (c).	1	7.69%
e) All options	1	7.69%
f) None of the above	1	7.69%
Total	13	100%

Some teachers choose all responses mentioned above (1teacher), who represents 7.69% of the informants. Others choose both answers (b) &(c). They represent (7.69%) of the respondents. Some of them did not answer this question on who represent (7.69%) of the participants.

The table above shows that the majority of teachers (53.84%) take the mobile devices from learners and prevent its usage inside the classroom. Whereas some teachers turn it back to pupils. They represent 30.76% of the participants.

Each teacher uses different reaction from the other concerning the mobile use in the classroom. However, most of them have common point which is they are against mobile use inside the classroom because such mobiles cause noise in the classroom, and decrease pupils' focus. In addition, smart phone use does not let teacher present the lesson as it should be.

8**) In what cases are mobiles allowed in the classroom?**

Table3.8: the cases of mobile use in the classroom

Responses	**Participants**	**Percentage**
a) For learning purposes	5	38,46%
b) Urgent calls	4	30,77%
c) Are not allowed at all.	4	30.77%
Total	13	100%

According to table above, 38,46% of the informants give permission to pupils to use smart phone in the classroom for learning purposes, while some respondents allow this for urgent calls. They represent 30,76% of the respondents. On the other hand, 30,76 % of the participants are totally against smart phone have in the classroom.

Teachers allow mobile use for learning purposes for example, looking for word synonyms via dictionary application, or counting mathematic operations via calculator application. Also, pupils can use mobiles for urgent calls for instance, their family urgent calls.

9**) How does mobile use influence learners' attention in the classroom?**

Table3.9: The effect of mobile use in the classroom:

Responses	**Participants**	**Percentage**
a) Improves and increases their focus.	1	07, 69%
b) Decreases their attention	9	69.24%
c) Causes noise in the classroom.	1	7,69%
d) Both (b) and (c)	1	7.69%
e) All options	1	7.69%
Total	13	100%

According to the table above, only one teacher (07.69%) of the respondents chooses the answer (a). Others select the option (c). They represent (07.69%) of the participants. On the other hand, as mentioned in the table, the majority of the informants choose the answer (b). They represent (69.23%) of the respondents.

Some participants agree that smart phone worsens pupils' focus on teachers' explanation. However, others think that cell phones are helpful devices for learners to improve their concentration. Such devices are considered as one of reasons of noise in the classroom.

10) **To what extent is mobile use important to improve students' attention in theclassroom?**

Table 3.10. The importance of cell phone use in the classroom:

Responses		**Participants**	**Percentage**
a)	Very important	2	15.39%
b)	Important	3	23.08%
c)	Not important	8	61.53%
Total		13	100%

The table above shows that (15.39%) of the participants choose the response (a). Others select the choice (b). They represent (23.08%) of the participants. The majority of respondents choose the option (c). They represent (61.53%).

Since almost of teachers are against the cell phone use in the classroom, they agree that such devices are not important because they reduce learner's attention (as it is mentioned previously). Except, few teachers said that the degree of importance of smart phones differs according to the situations and conditions in which they are used (e.g., urgent calls, learning purposes,…).

11**) How do you measure pupils' attention?**

Table3.11. Measurement of pupils' attention:

Responses	**Participants**	**Percentage**
a) Asking them questions related to lesson being discussed	5	38.48%
b) Giving homework about that lesson	00	00%
c) Including it in exam or quiz.	2	15.38
d) All options	2	15.38%
Both (a) and (b)	3	23.07%
None of the above	1	7.69%
Total	13	100%

As noticed in the table above, only seven teachers choose one answer. The other six respondents answer this question in different ways. Some respondents select both answers (a) and (b). They represent (23.07%) of the informants. Two Participants choose all responses. They represent (15.38%) of the respondents. One participant does not answer this question. They represent (07.69%) of the participants.

According to the table above, some participants select the option (a). They represent (38.46%) of the informants. Others choose the response (c). They represent (15.38%) of the informants.

The participants use different methods and techniques to measure learners' attention. But most of them ask their pupils questions related to lesson being discussed in the classroom. Some teachers test their students' focus via including lesson in exam or quiz. Other informants stated that they follow more than one method to measure learners' attention; they do so via giving homework related to the course being discussed, and sometimes they include in exam.

12) As a teacher, how can you guess learners' focus in the classroom?

Table 3.12. Teachers' prediction of learners' attention:

Responses	**Participants**	**Percentage**
a) Through their eye contact	0	0%
b) Through their participation and interaction with teacher	6	46.15%
c) Via exam marks	0	0%
d) Both (a) and (b)	3	23.07%
e) All options	3	23.07%
f) None of the above	1	7.71%
Total	13	100%

The table above shows that (46.15%) of the participants select the response (b). Others have answered in different ways. Some of them choose both options (a) &(b).

They represent (23.07%) of the respondents. Other respondents choose all options. They represent (23.07%) of the informants.

Learners 'participation and interaction in the classroom is the main factor that proves their attention. Some teachers guess pupils' focus through their exam marks even if pupils do not participate (i.e., introvert learners). Some teachers expect learners' concentration via different ways (learners' eye-contact and their silence, participation, or exam marks). Some pupils make noise in the classroom; they are so talkative, but they obtain good results by the end of year.

13) **What is the most effective way of using mobiles to avoid its negative effects on pupils' concentration**?

Table3.13. The most effective way of mobile use in the classroom:

Responses	**Participants**	**Percentage**
a) Limiting time of mobile use in the classroom.	3	23.08%
b) Avoiding mobiles during lesson explanation.	4	30,76%

	c) Allowing smart phones for written tasks.	3	23.08%
	d) Both (a) and (b)	2	15.38%
	e) None of the above	1	7.70%
Total		13	100%

Three participants are left. Two of them choose both options (a) and (b). Other one does not answer this question.

The table above shows that three participates chooses the answer (a). They represent (23.07%) of the respondents. Other four (4) respondents choose the option (b). They represent 30.76% of the participants. Three other informants select thee response(c). They represent 23.07% of participants.

Some respondents give pupils chance to use smart phone in limited time, either at the beginning, or by the end of session, but not during explanation of lesson. However, some of them allow smart phone use during their explanation only for learning tasks, for example, writing paragraphs in groups, solving some mathematic tasks… . Other teachers do not like mobile use during their role for discussion. They refuse smart phones usage during the whole session arguing that they reduce pupils' focus.

14) What is the rate of pupils 'attention during mobile use in the classroom?

Table3.14. The percentage of learners' attention:

Responses	Participants	Percentage
a) Between 1% and 10%	9	75%
b) Between 10% and 50%	1	7,69%
c) Between 50% and 70%	1	7,69%
d) Between 70% and 100%	1	7,69%
e) 100%	0	0%
None of the above	1	7.69%
Total	13	100%

One participant chooses no answer among the options mentioned above.

The table above shows that (75%) of the respondents select the answer (a). 23.07% of the informants 'answers are distributed between (b), (c) and (d). That is, one respondent for each option. The answer (e) was not chosen.

Most of participants agree that some pupils' percentage of attention is low when they use smart phones in the classroom. (it is between 1% and 10%). That's why they are against mobile use in the classroom. On the other hand, some learners' attention rate is between 10% and 50% during their smart phone use. However, some learners can use smart phones in the classroom without facing any problem that reduces their focus (i.e., their concentration percentage is between 50% and 70%). Smart phones do not have

any negative influence on some learners' attention. They have high degree of focus(between 70% and 100%).

Learners' ability to concentrate varies from one to another. It is not stable and has different degrees.

15) If you have any suggestion, recommendation, or comment, you are welcome to add them here:

Some teachers said that smart phones have more disadvantages than advantages on pupils' attention in the classroom. They prefer the use of smart phone at home rather than in the classroom. However, others stated that smart phones are important especially for learners who study far from their families. On the other hand, other participants enjoy smart phone use arguing that such devices are among modern technological aspects of world development.

Some teachers did not answer this question.

3.1.5) Summary of the results and findings from teachers' questionnaire:

The obtained results show that teachers are varied between males and females. The majority of them are males. They teach different branches of high-school with less than 25 pupils per class. According to the findings, teachers have different teaching experiences. Most of them are more than 10 year experienced. Others have 10 year teaching experience. Some teachers have less than ten years in teaching. Moreover, smart phones have negative impact on learners' attention in the classroom; that's why they are forbidden. Also, the results show that teachers use different ways to react towards cell phone use in the classroom. According to teachers' responses, the devices

are allowed only for the most necessary conditions and situations due to their negative effects on learners' focus.

3.2) Pupils' questionnaire:

Pupils' questionnaire this questionnaire was distributed to more than 100 (pupils) pupils, but only 23 of them turned it back. The others did not take their questionnaire with them because they were busy with preparation for experimental BAC exams.

3.2.1) Population of the study:

The questionnaire was distributed for all third year high-school pupils. The group was selected as a case study to investigate to what extent cell phone use inside the classroom affects learners' attention since they are teenagers.

3.2.2) The description of pupils' questionnaire

Pupils' questionnaire is divided into three main sections. The first section is about learners' general background. It includes five questions, starting from Q1 to Q5. The questions are about pupils' gender, branches of their studies, age… It aims at gathering general information about them.

The second section is about Mobile Learning. It includes four questions, starting from Q6 to Q9. The aim of this section is to know whether pupils use cell phones in the classroom, or no. Concerning the third and last section, it includes five questions, starting from Q10 to Q14. Its purpose is to know whether learners' attention is affected by smart phones positively or negatively.

3.2.3) The Administration of pupils' questionnaire:

The questionnaire was submitted to the administration on Sunday, May23 rd, 2021 till Thursday, May 27th, 2021.

3.2.4) Data analysis and interpretation:

Section one: general information:

Question 1: what is your gender?

Table 15: pupils' gender:

Responses	**Participants**	**Percentage**
Male	6	27.28%
Female	16	72,72%
Total	22	100 %

According to the results displayed in the table15, among 22 respondents, 6 learners who correspond to 27.28% are males. And 16 participants correspond to 72.72% of the respondents are females. It means that females in the high-school are higher than males.

Question 2: How old are you?

Table 16: pupils' age:

Responses	**Participants**	**Percentage**

a)	Less than 18 years	8	35,09%
b)	18 years	6	28.57%
c)	More than 18 years	7	33.33%
None of the above		1	3.01%
Total		22	100 %

The table above shows that among 22 participants, 8 respondents 'age is less than 18 years old. They correspond to 35.09% of the participants. On the other hand, six learners whose age is 18 years old, they represent 28.57% among the participants. However, pupils who are older than 18 years old, are 7 pupils corresponding to 33.33% among the respondents. Other participants belong to none of the options mentioned in the table. They correspond to 3.01% among the participants.

Question 3: What is your stream?

Table 17: Pupils' stream:

Responses		**Participants**	**Percentage**
a)	Letters and philosophy	05	22,46%
b)	foreign languages	03	13,79%
c)	Experimental sciences	14	63,75%

d)	technical mathematics	0	0%
Total		22	100%

According to the results shown in the table 17, the Experimental Sciences stream pupils have the highest percentage among the participants. They correspond to 63.75% of the respondents. Concerning Letters and Philosophy branch, pupils represent 22.46% among the participants. They have lower percentage than the Experimental Sciences learners. On the other hand, Foreign Languages pupils represent 13.79% among respondents. Therefore, Technical Mathematics pupils did not give the researcher the questionnaire. They represent the lowest percentage among the respondents.

Question 04: How can you describe your level in English?

Table 18: Pupils' level in English:

Options	**Participants**	**Percentage**
Excellent	02	09.18%
Very good	00	00%
Good	13	59.14%
Average	05	22.50%

Bad	00	00%
Very bad	02	09.18%
Total	22	100%

According to the table above, among 22 respondents, who represent 100% of the participants, 13 pupils, who correspond to 59.14% of the respondents, are good in English language. They represent the highest rate among the respondents. On the other hand, the obtained results of the table above show that among 22 participants, 05 learners are average in English language. They correspond to 22.50% among the respondents. They are less than good learners. However, according to the table above, 2 participants are excellent in English language. They correspond to 9.18% of the participants. And two other participants' level is very bad in English language. They also represent 9.18% among the respondents. None of the respondents is very good in English.

Question 05: What difficulties do you face when learning English?

Table 19: Difficulties of learning English:

Options	**Participants**	**Percentage**
a) Lack of vocabulary knowledge	07	36.33%

b) Feeling anxious and stressed when speaking with others	12	54.54%
c) Lack of interest	02	09.13%
None of the above	01	4.54%
Total	22	100%

According to the displayed results in the table above, among 22 pupils who correspond to 100% of the respondents, 12 pupils, who correspond to 54.54% of the respondents face the problem of anxiety and stress when they speak English with others. This category has the highest percentage among the participants. However, 7 other participants do not master vocabulary knowledge. They represent 36.33% of the participants. Therefore, .the percentage 9.13% corresponds to learners who are not interested in English language. On the other hand, the rate 4.54% represents the learners who did not answer this question. They represent the lowest percentage among the respondents.

Section two: Mobile learning:

6) Do you have smart phones?

Table 20: *Pupils' attitude towards smart phones:*

Responses	**Participants**	**percentage**

Yes	15	68,19%
No	6	27.27%
None of the above	1	04.54%
Total	22	100%

According to the displayed results in table above, 15 learners have smart phones. They represent 68.19% of the respondents. They are higher than pupils who do not possess cell phones; they are 6 participants correspond to 27.27% among the respondents. The percentage 04.54% goes towards the pupils who did not answer this question presenting the lowest rate among the participants.

7) Do you use it in the classroom?

Table 21: *The use of mobiles by pupils:*

Responses	**Participants**	**Percentage**
Yes	8	36,36%
No	12	54.54%
Both (a) and (b)	2	9.10%
Total	22	100%

The table above shows that the highest percentage (54.54%) of the participants do not use mobiles in the classroom. However, only 36.36% of the respondents use cell phones in the classroom. They are lower than the respondents who use smart phones in the classroom. Concerning the percentage 9.10% goes towards pupils who selected both options (a) and (b). It is the lowest rate other rates.

8) How often do you use smart phone in the classroom?

Table22: the frequency of mobile use in the classroom

Option	**Participants**	**Percentage**
Always	2	09.18%
Sometimes	7	31,93%
Rarely	5	22.49%
Never	8	36,40%
Total	22	100%

The table above shows that 8 pupils, who correspond to 36.40% of the participants never use cell phones in the classroom. They represent the highest percentage among the participants. However, 7 respondents sometimes use cell phones in the classroom. They correspond to 31.93% among the participants. On the other hand, 5 learners rarely use smart phones in the classroom. They correspond to 22.49% among the respondents. Two pupils who always use smart phones in the classroom, they correspond to 9.18% among the participants. They represent the least percentage among the respondents.

09) Why do you use smart phones in the classroom?

Table 23: The purpose of cell phone use in the classroom:

Responses	Participants	Percentage
a) To chat with others via social media	4	18,18%
b) To look for solutions of book activities	3	13,65%
c) To check the previous exam topics	2	9.09%
d) To learn foreign languages	1	4,54%
e) To look for word synonyms	6	27.27%
None of the above	6	27.27%
Total	22	100%

The obtained results show that 6 learners, who correspond to 27.27% among the participants, use mobile phones in the classroom to look for word synonyms. They represent the highest percentage among the participants. The same percentage represents pupils who chose no response mentioned in the table. Other informants represent 18.18% among the respondents, use smart phones to chat with others via social media. On the other hand, 3 pupils correspond to 13.65% among the participants use smart phones to look for solutions of book activities. However, 2 learners use smart phone to check the previous exam topics. They correspond to 9.09% among the

informants. Therefore, the lowest percentage,4.54% of the participants concerns only 1 pupil who uses cell phones to learn foreign languages.

Section three: Attention:

10) Does smart phones affect your attention?

Table 24: the influence of mobile use in the classroom:

Responses	**Participants**	**percentage**
Yes	7	31,81%
No	14	63.63%
None of the above	01	4.56%
Total	22	100%

The table above shows that cell phone use in the classroom does not affect attention of 14 pupils corresponding to 63.63% of the participants. However, 7 pupils corresponding to 31.81% of the respondents' attention is influenced by use of such devices. The internet generation does not have problem with their focus when they use such technological devices. Therefore, the table above shows that 1 participant, who represents the lowest rate, 4.56%, among the respondents, did not answer this question.

11) Does smart phones use help you to concentrate on the lessons?

Table25: the extent to which mobile use inside the classroom is helpful:

Responses	Participants	Percentage
Yes	12	54,55%
No	10	45.45%
Total	22	100%

The table above shows that smart phone use in the classroom helps 12 pupils who represent 54.55% of the respondents to focus on lessons in the classroom. This percentage is higher than that of pupils who consider such devices are source of disturbance and does not allow them to focus. These pupils represent 45.45% among the participants.

12) Can you follow with teacher explanation when you use smart phone in the classroom?

Table 26: Pupils' ability to follow during mobile use:

Responses	Participants	percentage
Yes	15	68,18%
No	06	27.27%
None of the above	1	4.55%
Total	22	100%

The table above shows that 15 pupils can follow with teacher's explanation when they use smart phones. They correspond to 68.18% of the participants. However, 6 learners cannot follow with teacher discussion of the course when they use cell phones in the classroom. They correspond to 27.27% among the respondents. Therefore, 1 pupil did not answer this question. S/he corresponds to 4.55% of the participants which is the lowest rate.

Question 13) How can you improve your classroom attention?

Table 27: The ways of improving learners' attention:

Responses	**Participants**	**Percentage**
a) Having psychological sessions	4	18,18%
b) Joining face book related groups and stating the problem	11	50%
c) Asking your parents for help	6	27.27%
d) Both (a) and (b)	1	4.55%
Total	22	100%

The obtained results show that 11 pupils among 22 learners, who correspond to (50%) of respondents, join face book related groups and state their problem as a way to increase their attention. They represent the highest percentage among the participants.

However, 6 learners among 22 respondents, who represent27.27% of the participants, ask their parents for help. On the other hand, 4 pupils improve their classroom focus via attending psychological sessions. Therefore, only one participant chose both (a) and (b) options. They represent the lowest rate, which is 4.55%.

14) If you have any comment, suggestion or you want to express your opinion, you are welcome:

Some pupils express their opinions in which they enjoy cell phone use as a technological tool, not as a pedagogical one. On the other hand, others did not answer this question. Probably, they did not know how to express their opinion, add comments, or give suggestions because they are beginners.

3.2.5) Summary of the results and findings from pupils' questionnaire:

The results show that some pupils possess cell phones, but they have no effect on their attention. Although most of teachers are totally against mobile use inside the classroom, some pupils do have and use such devices during classes. According to the results, some pupils don't use smart phones in the classroom. Others don't have such mobiles.

Conclusion:

To sum up, most teachers are against mobile use in the classroom. They argue that such technological devices decrease pupils' attention, but they allow such mobiles to be used in particular conditions and specific situations. However, some pupils can focus on their courses when they use their smart phones. They face no problem concerning their attention.

3.3) Pedagogical Implications:

The research focuses on investigating the Influence of Smart phone Use in the Classroom on High-School Pupils' Attention. The analysis of results shows that smart phones do not have negative impact on learners' attention. Therefore, the research's hypothesis is partially confirmed. In other words, the research contains confusion between both responses of teachers and learners concerning the research topic. (Teachers are totally against mobile use in the classroom, but learners face no problem within this phenomenon).

3.3.1) Teacher's Role:

- ❖ Teachers should be more aware about the negative effects of cell phones on pupils' attention.
- ❖ They should teach pupils about the disadvantages and negative impacts of smart phone use in the classroom on learners' attention.
- ❖ Teachers do the different administrative procedures against mobile users.
- ❖ Also, they should give instructions against mobile use in the classroom.

3.3.2) Pupils' Role:

- Learners should switch off their phones during classes.
- They should focus on what is being discussed and follow teacher's instructions.
- Pupils should do their best to avoid anything that reduces their attention.
- Also, they should do what improves their focus.

3.4) Limitations of the study:

Any research begins and ends with problems and obstacles. This research faces many issues. Firstly, the administrative stuff of the concerned high-school, neither

explained for learners what to do with this questionnaire, nor allowed me to go to classrooms to clarify the subject for pupils. Secondly, Most of pupils did not give me back the questionnaire. Only 22 of them gave me their answers. Others did not answer it; the questionnaire is kept blank as it is. In addition, few teachers answered the questionnaire. Some of them took it, but they did not turn it back to me. Some papers are kept as they are. All the mentioned issues occur because, I think, both teachers and pupils were busy with preparation and revision for Experimental BAC exams. By the end, many thanks for the pupils and teachers who provided me with answers and did their efforts as possible as they can.

GENERAL CONCLUSION:

This research was designed to investigate the influence of smart phone use in the classroom on 3rd year high school pupils' attention. It aims at investigating the extent to which the use of mobile devices inside the classroom affects both teachers teaching and pupils' attention processes. The dissertation includes two main parts. The first one is theoretical part and the second part is practical part of the research. The first part contains two chapters; the first chapter is about Mobile Learning with its related concepts. The second chapter is about Attention. The third and the last chapter is considered as practical part of this research in which two questionnaires were distributed to both teachers and BAC pupils of Salhi Athmane high-school Bir Bou Houche. According to these questionnaires, the results show that most teachers are against cell phone use in the classroom arguing that such devices are not important and they decrease pupils' focus on lessons in the classroom. It means that the hypotheses were confirmed.

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Appendix 01:

Teachers' questionnaire:

Dear teachers,

This questionnaire is the practical part of the research work. It aims at investigating the influence of smart phone use in the classroom on high school pupils' attention. Teachers' answers will provide the study with more information about the topic.

Miss. KerbalAsma

Master2: LMD

Department of English

University 8 Mai 1945 Guelma

Section One: General information:

1)What is your gender?

a) Male ☐

b) Female ☐

2) Which levels do you teach ?

a) 1st year literary and scientific streams ☐

b) 2nd year philosophy and foreign languages ☐

c) 2nd year Experimental Sciences with Technical Mathematics ☐

d) 3rd year Experimental Sciences with Technical Mathematics ☐

e) 3rd year philosophy and foreign languages ☐

3) How many pupils do you teach per class ?

a) Less than 25 pupils ☐

b) 25 pupils ☐

c) More than 25 pupils ☐

4) How long have you been teaching (including this year)?

……..

Section two: Mobile learning

5) Do you allow your pupils to use smart phone in the classroom

a) yes ☐

b) No ☐

6)How do your pupils use smart phone in the classroom ?

a) Individually ☐

b) Both ☐

7) What is your reaction if pupils use the smart phone in the classroom ?

a) Keep silent and consider yourself did not see them ☐

b) Take the mobile from learners and prevent them using it in the classroom ☐

c) Turn it back to the pupil at the end of session ☐

8) In what cases are the mobiles allowed in the classroom ?

a) In learning purpose ☐

b) Urgent calls ☐

c) Are not allowed at all ☐

Section three; Attention:

9)How does mobile use influence pupils 'attention in the classroom ?

a) Improves and increases their focus ☐

b) Decreases their attention ☐

c) Causes noise in the classroom ☐

10) To what extent is mobile learning important to improve student's attention in learning ?

a) Very important ☐

b) Important ☐

c) Not important ☐

11) How do you measure pupils' attention ?

a) Asking questions related to the lesson being discussed ☐

b) Giving homework about that lesson. ☐

c) Including it in exam or quiz . ☐

12) As a teacher, how can you guess pupil's attention in the classroom ?

a) Through their eye contact ☐

b) Through their participation and interaction with teacher ☐

c) Via exam marks ☐

13) What is the most effective way of using mobile phone to avoid its negative effects on student' s attention?

a) Limiting time of mobile use in the classroom ☐

b) Avoiding mobile during lesson explanation ☐

c) Allowing smart phones for written tasks ☐

14) What is the rate of students 'attention during mobile use in the classroom?

a) Between 1% and 10% ☐

b) Between 10% and 50% ☐

c) Between 50% and 70% ☐

d) Between 70% and 100% ☐

e) 100% ☐

15) If you have any suggestion, recommendation, or comment, I will appreciate it if you add them below:

……

……

……

……

Appendix 02:

Pupils' questionnaire

This questionnaire is the practical part of the research work. It aims at investigating the influence of smart phone use in the classroom on high school pupils' attention. Learners' answers will provide the study with more information about the topic.

Kerbal Asma

Master2: LMD

Department of English

University 8 Mai 1945-Guelma

Section one: General information:

1) What isyour gender?

A) Male ☐

B) Female ☐

2) How old are you?

……

3) What is your stream?

a) Lettres and Philosophy ☐
b) Foreign Ianguages ☐
c) Experimental Sciences ☐
d) Technical Mathematics ☐

4) How can you describe your level in English?

a) Excellent ☐
b) Very good ☐
c) Good ☐
d) Average ☐
e) Bad ☐
f) Very bad ☐

5) What difficulties do you face when learningEnglish ?

a) Lack of vocabulary knowledge ☐

b) Feeling anxious and stressed when speaking with others ☐

c) Lack of interest ☐

Section Two: Mobile Learning:

6) Do you have smart phone?

a) Yes ☐

b) No ☐

7) Do you use it in the classroom?

Yes ☐

No ☐

8) How often do you use smart phone in the classroom?

a) Always ☐

b) Sometimes ☐

c) Rarely ☐

d) Never ☐

9)Why do you use smart phone in the classroom (the purpose)?

a) To chat with others via social media ☐

b) To look for solutions of book activities ☐

c) To check the previous exam topics ☐

d) To learn foreign languages ☐

e) To look for word synonyms ☐

Section Three:Attention

10) Does the smart phone use in the classroom affect your focus?

a) Yes ☐

b) No ☐

11) Does the smart phone use help you to concentrate on the lessons?

a) Yes ☐

b) No ☐

12) Can you follow with the teacher explanation when you smart phone in the classroom?

a) Yes ☐

b) No ☐

13)How can you improve your classroom attention?

a) Having psychological session ☐

b) Joining face book related groups and stating the problem ☐

c) Asking your parents for help ☐

14) If you have any comment, suggestion, or you want to expressyour opinion you are welcome:

……

……

……

Thank you for your cooperation.

Résumé

Cette recherche parle de l'effet de l'utilisation de smart phones en classe sur l'attention des élèves. Dans cette étude, on explore comment les smart phones influencent l'attention des élèves. Pour atteindre ce but, on attendue une hypothèse que si les enseignants ne permettent pas les élèves d'utiliser les smart phones en classe, la concentration des élèves peut être s'améliorer. Pour confirmer ou infirmer cette hypothèse, les élèves et les enseignants de lycée SALHI ATHMANE- Souk Ahras- ont été choisis comme un cas d'étude pour cette recherche. Selon les résultats obtenus dans le questionnaire des enseignants, les smart phones ont un effet négatif sur l'attention des élèves du BAC. Cela, l'hypothèse a été confirmée.

الملخص

يتناول هذا البحث موضوع تأثير استعمال الهاتف الذكي في القسم على انتباه تلاميذ التعليم الثانوي . الهدف من هذه الدراسة استكشاف مدى تأثير استعمال الهاتف الذكي في الهدف من هذه الدراسة استكشاف مدى تأثير استعمال مثل هذه الأجهزة الذكية في القسم على انتباه التلاميذ .للوصول إلى هذا الهدف هناك فرضية تبين أن منع الأساتذة استعمال الهواتف الذكية في القسم سيؤدي إلى تحسين التركيز . لتأكيد أو نفي هذه الفرضية تم اختيار تلاميذ البكالوريا و أساتذة ثانوية صالحي عثمان سوق أهراس كدراسة حالة لهذا البحث حسب النتائج المحصل عليها من خلال استبيان الأساتذة تبين أن الهواتف الذكية لها تأثير سلبي على انتباه التلاميذ . وهذا ما يبين تأكيد الفرضية .