ICT in Education in the UAE: An investigation into the use of ICT poster workshops on 'Road Safety Campaigns' with Male Emirati Students

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Abstract

Information and Communication Technology (ICT) is still considered as a stand-alone subject in many countries – the UAE included. However, ICT has become vital and decisive in establishing a skilled workforce and empowering citizenry.

This research outlines the importance of integrating ICT into the wider curriculum. It describes the use of ICT in an innovative way in order to enhance learning and to help students become active participants in the community.

This study uses the mixed methods approach. Quantitative data is collected through administering a questionnaire to students on driving behaviour. This is then followed by workshops where students use ICT applications to create visuals in order to discuss and debate the issue. Finally, interviews with students were held first, to find out about their perceptions on using ICT for learning and second, to discuss their misconceptions about driving attitudes and behaviour and the role of ICT in promoting citizenship.

Results showed that the participants' use of ICT in order to produce "Road Safety" posters was motivating and engaging. Besides, ICT was able to unveil the participants' perceptions towards driving behaviour and attitudes.

The study encountered a number of limitations mainly the lack of research on the inclusion of ICT in the wider curriculum in the UAE. as well as the unavailability of data from the UAE Ministry of Education on the systematic and strategic plans for the inclusion of ICT in teaching and learning in the UAE.

Key words: ICT, integration, citizenship, innovation, perceptions, behavior, creative visuals

Dedication

To my mother and father for everything they did for me.

To my dear wife, Malika, with lots of love for putting up with me and

taking care of our children all these months while I have been totally

immersed in writing this dissertation.

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Chapter 1 Introduction

1.1 Overview

Countries all over the world are becoming increasingly interested in investment in youth because the young "… are an asset that if properly nurtured can stimulate the economic and social development of the region" (World Bank, 2007: i).Therefore, governments have become more involved in outlining policies in various fields - mainly in health care and education- in order to nurture and support the young to be active citizens in their societies.

In 2007, a World Bank report presented many reasons why countries of the Middle East and North Africa (MENA) should invest in the youth. The report considered the demographic bulge the main reason for this investment. According to the report, young people in MENA countries constitute well over half the population of the region" (World Bank,2007: i). This bulge suggests two challenging opposite facts. On one hand, the MENA countries possess a potential for productivity embodied in the power of the young. On the other hand, the countries should ensure that the young are armed with modern skills and knowledge to productively contribute to the growth of their countries. This last objective cannot be achieved unless more money is poured on sectors- mainly education- that guarantee the young will be equipped with these skills.

The report warns that if "… investments are not made in youth, there is risk that the youth bulge may manifest itself as a drain on growth and society, rather than a dividend" (World Bank,2007:iii). Countries will, then, face challenging issues related to lack of proper education which will result in youth unemployment and consequently will lead to dangerous social attributes such as crime and drug addiction.

In April 2010, the World Bank Youth conducted a workshop that aimed mainly at "… engaging various stakeholders and partners to develop concrete areas of collaboration on how to best address the needs of young people in Arab countries, especially those facing multiple disadvantages" (World Bank, 2010: 3). Accordingly, there seems to be a need for citizenship education whose main aim is "… to impart information and knowledge about key elements of the citizenship education curriculum and to raise awareness through familiarisation with recognisable skills, ideas, and attitudes. It is about critical thinking and enquiry…" (Longman, 2009: 7)

Media and Information and communication Technology can be used both as sources of information to enrich the curriculum and as means of interpreting these information and communicating ideas:

Media and ICT: This includes using different media and ICT to communicate ideas, raise awareness, lobby or campaign on issues; using and interpreting a wide range of sources of

information during the course of enquiries and research; and learning how different media inform and

shape opinion. Pupils need to evaluate the extent to which a balanced or partial view of events and

issues is presented."

(The National Curriculum, 2007:p34)

1.2 Statement of the problem

While scanning literature about the inclusion of Information and Communication

Technology in the education system in the UAE, one would notice that very little has been

written on ICT integration in teaching and learning let alone on the use of ICT to explore social

issues of concern to Emirati young students.

This study starts with the assumption that ICT, if used efficiently and innovatively,

can enhance learning. Students' motivation increases paving the way to more interaction and

engagement in the learning process. This research will stir the imagination of the stakeholders

as well as that of the teachers in order to continuously find ways on how to integrate ICT in the

teaching-learning process, hence adding another brick to the UAE education system.

1.3 Background of the Research

Before the establishment of the UAE in 1971, there were less than 28,000 students in

the country. Besides, students who wished to continue their studies beyond the secondary stage had

to travel abroad (Sheikh Mohammed, 2010). Since then, there has been rapid change in the

education system which was due mainly to "…rapid rise in population [that] necessitated a

considerable investment in education" (Uaeinteract, 2010b).

Today, education in the United Arab Emirates is currently engaged on a wide-ranging

reform. Reforms have been influenced by foreign English language education systems, and the

upgrading of English language skills and use of computer technology are government priorities, as

the traditional school education in the UAE had been based on Arabic and Islamic culture and

teacher-centered learning methods. The Ministry of Education has adopted an educational

development strategy called 'Education 2020', based on successive 5-year plans.

In 2007, after the government had unveiled its strategic plan several initiatives

came to light to contribute to the development of the education system in the country. The

government established a federal council for coordination and integration of education. The council's

responsibility was to draw and implement policies to provide world-class education in the country

(Emirates News Agency, 2008). One example of existing initiatives is the Abu Dhabi Educational

Council (ADEC) which coordinates with the Ministry of Education in planning and implementing a

framework of education development within the Emirate of Abu Dhabi. Another example that emerged

from the UAE government strategy of education reform is the launch of the MADARES AL GHAD

(MAG) project,in the summer of 2007, which includes fifty schools. According to the official site of the

UAE Ministry of Education, the vision of the project is to offer world-class education to UAE citizens who will be armed with knowledge and skills so as to be prepared for direct integration into the global society (UAE Ministry of Education, 2007).

However, for Emiratis to become active members of society and to fully assist in the development of the country, they have to be skillfully trained to be able to compete in the job market. These necessary skills will not be acquired unless a proper education system is established. The UAE government is aware, more than ever, of the need for quality education that increases achievement among UAE students who will contribute positively to the country's continuous progress.

1.4 The Research Questions

This study is investigating the following research questions:

1- What factors affect Emirati young males driving attitudes and behaviour?

2- Can ICT help elicit factors affecting Emirati young males driving attitudes and behaviour that conventional surveys do not capture?

3- How important can ICT be in dealing with issues of concern to the students within an educational framework?

4- How do students perceive the use of ICT in the teaching-learning process?

1.5 The Significance of the Research

This study is expected to:

1- fill the gap in research based literature by exploring the use of Information and Communication Technology in an innovative way in UAE classrooms.

2- give an overview of how ICT can be included in the wider curriculum in order to provide students with opportunities to discuss and talk about issues that are important to them. This is achieved by enabling students to be interactively engaged in the teaching-learning process since they designed campaign posters using ICT applications, presented them to their peers and discussed issues related to dangerous driving behaviours.

3- enable teachers to conduct empirical research on the effectiveness of ICT, in the light of the findings of the research.

4- Provide policymakers in UAE educational bodies with recommendations on ways of integrating ICT in the wider curriculum.

1.6 The Organisation of the Research

The study presents a review of the use of Information and Communication Technology (ICT) in an untraditional way in UAE classrooms. The research is arranged into five chapters. Chapter one introduces the study by presenting an overview on the importance of education in building a generation of citizens who are able to participate in the welfare of their communities. This chapter also discusses education in the UAE and its philosophy as a background for the research.

The literature review starts in chapter two where ICT is viewed within an educational setting. A definition of information and communication technology is presented followed by a

discussion of the value that ICT can add to learning in terms of motivation, learner's autonomy,

thinking skills, cooperative learning and teachers' perceptions on the integration of ICT.

The next chapter continues with the literature review by presenting a clear explanation

of how ICT can be used creatively to discuss citizenship issues that are important to students within a

UAE context. The chapter also provides a review of the theme of driving behaviour that was the focus

of the research. In addition, it presents examples of research conducted on 'Road Safety' campaigns

either in the UAE or overseas.

Chapter four describes the research design framework that was followed in order to

investigate and answer the research questions. It identifies the methods (quantitative and qualitative)

used to gather data and describes the targeted population, the materials used in the study as well as

the procedures that constitute the road map for this study. Finally, in this chapter, results of the

different methods were presented, tabulated and transcribed.

The last chapter concludes the study with a detailed discussion of the findings. The

chapter also describes the limitations of the study and suggests recommendations for an effective

inclusion of ICT in the teaching-learning process.

Chapter 2 ICT in Education

2.1. Defining ICT

The UK Qualifications and Curriculum Authority (QCA, 1999: 184) defined information

and communication technology (ICT) as" …the range of tools and techniques relating to computer-

based hardware and software; to communications including both directed and broadcast; to

information sources such as CDROM and the Internet; and to associated technologies such as

robots, video-conferencing and digital TV". These tools appear to have the power to harness and

enhance learning.

Accordingly, in the year 2000, the World Conference Forum held in Dakar, Nigeria,

stressed that education is a fundamental human right and that it is the key to development, peace

and stability within and among countries. The conference insisted that "…achieving EFA [Education

For All] goals should be postponed no longer. The basic learning needs of all can and must be met as

a matter of urgency" (UNESCO, 2000: 8).

One way –among many others- to help achieve EFA goals is to "… harness new

information and communication technologies…" (UNESCO 2000: 9). The conference affirmed that the

rapid progress in information and communication technologies, their increasing spread and

availability, the nature of their content and their declining prices are having major implications for

learning. These technologies, the report confirmed, "… have great potential for knowledge

dissemination, effective learning and the development of more efficient education services"

(UNESCO, 2000: 21).

Another paper that was initially prepared as a discussion document at the

second phase of the World Summit on the Information Society, November 2005, reported

that in the 21st century ICT is expected to enhance the provision of education and to improve

efficiency and increase access to knowledge and expertise (UNESCO, 2006: 5-6).

The unprecedented advancement in and the unavoidable need of Information and

Communication Technology (ICT) was later ascertained in a report that was released in 2009 by the

Mohammed bin Rashid Al Maktoum Foundation(MBRF) and the United Nations

Development/Regional Bureau for Arab States(UNDP / RBAS). The report stresses that:

" The impact of this advance [Information and Communication Technologies]

may exceed that brought by the Industrial Revolution, since the infrastructures of information and

communication technologies (ICTs), their equipment and their software, have come to play the role of

society's nervous system. ICTs are valuable tools for the circulation and adaptation of knowledge, as

well as being among the forms of human knowledge that are the most dynamic, have the most far-

reaching effects, and are the most embedded in the fabric of modern life."

(Arab Knowledge Report, 2009:143)

The report also hailed information and communication technology as being the

cornerstone for the establishment of a knowledge society and as being "… the key means to deploy

and circulate knowledge, in addition to its role in developing, supporting, facilitating, and speeding up

scientific and cultural research of the widest possible scope.

(Arab Knowledge Report, 2009:143)

2.2. Value of ICT in Education

It is believed that ICT can provide opportunities to improve the quality of education

through the booming of technological inputs that include hardware and software programs. Hence,

the internet is considered as a means of strengthening communication between the teachers and the

students. Besides, the use of smart programs as well as virtual reality technology seems to help

students learn at their own pace and provide them with the opportunity to be part of an asynchronous

educational environment where educational materials can be reached at any time and in any place

(Arab Knowledge, 2009: 159).

Conversely, ICT is thought to be unable to achieve its goals for learning unless

it is "…combined with more traditional technologies such as books and radios… " (UNESCO, 2000:

21). This view is dependent mainly on the assumption that ICT does not replace conventional

schooling (table 1) , and does instead provide materials that enhance learning and disseminate

information and thereby enrich the traditional schooling system (Hadad and Draxler, 2002:8-9).

Conventional model of schooling	New model of schooling.
A school building	A knowledge infrastructure (schools, labs, radio television, Internet, museums…)
Classrooms	Individual learners
A teachers (as provider of knowledge)	A teacher (as tutor and facilitator)
A set of textbooks and some audiovisual aids	Multimedia materials (print, audio, video, digital…)

Table 1: Schooling Systems *(Source: Hadad., W.D., and Draxler., A. 2002)*

The traditional model of education seems to affect our view of how teaching and

learning can be done using ICT. Therefore, it is necessary to look at and reassess traditional teaching

and learning systems and see how ICT can add value to it.

2.2.1. Motivation

One of the factors that has always been the focus of research on the impact of ICT

on both learners and teachers is motivation. Research has found that ICT plays a major part in

increasing students' motivation. Students' use of computers, for example, makes them enthusiastic

about and more focused on the tasks they perform(Cox and Abbott 2004 and Comber et al.,2002

cited in Webb, 2005:42-43). Between the mid eighties and early nineties many action research projects were conducted that sought to assess the use of computers and its relationship to its motivational impact. Findings stressed that ICT could bring a change in the relationship between the teachers and students. The changes were:

"… first the students' attention was to varying extents, depending on the activity, shifted away from… their teacher, to the computer screen; and second interactive computer-based resources could take over some of the teacher's traditional function of maintaining students' levels of motivation for task-completion" (Somekh, 2007:34).

By increasing students' motivation, ICT does not only keep them on their toes, but "… it also has an impact on their behaviour and reduces discipline problems by providing new and varied opportunities for learning" (Webb, 2005:41- 42). Therefore, by using computers "… teachers did not need to worry about keeping students on task"(Somekh, 2007:34).

On the other hand, research found that motivation is definitely linked to the learning tasks provided to the students and to what students do with ICT. Hence, it was argued that motivation in some situations would be " … short term, associated with 'novelty factors' (interest arising from doing something different or new, with reduced impact after a few weeks)" (Passey et al., 2004:5).

The authors also observed that "… motivational impacts are coupled with the software applications used and the way they are presented by the teachers" (Passey et al. 2004:5). Similarly, other studies have found that students' attitudes towards computers "… are significantly less positive when computers become such a routine part of the studying like pens, for example…" (McKinnon et al., 2000).

Therefore, the motivational impacts of ICT on students' learning seem to depend on a range of factors that determine whether the learner engages positively and autonomously in the learning process.

2.2.2. Learner's autonomy

Research findings have confirmed that with ICT students feel they have control over the learning environment and this ability "…to exercise control over one's environment is an essential prerequisite for the development of skills related to decision making and problem-solving"(Banes and Coles, 1994 cited in Lilley, 2004: 87). In traditional teaching, students are mainly receptive of information. Teachers use didactic methodology where every bit of information is prescribed to the learner. With ICT, the learner is liberated from being purely a passive learner to becoming more empowered and has full control over the pace and content of his/her learning (Davis et al., 1997:14).The computer, for some ICT advocates, enables students to maximize their roles as

learners and minimize their dependence on the teacher. On their part, teachers will "… no longer

need to adopt a didactic approach, but gain the freedom to function as enablers of quality learning

experiences (Somekh and Davis, 1991 cited in Davis et al., 1997: 15). This suggests that being

autonomous implies that the student starts thinking about his own learning.

However, other findings have stressed the importance of the teachers' pedagogical

roles in classrooms despite the independence of pupils in some activities, for example in internet

lessons, where "… teachers should forge links between the products of web searching and other

class activities before, during and after the computer-based" (Rogers 2003:6). In other words,

teachers should "… give [the] kids their heads (as we say about horses) to use all their technology

and passion to learn, as… [teachers] steer them in positive directions and truly enjoy the ride"

(Prensky, 2007:3)

Like with the motivational impacts where teachers were found to play a major part in

raising the students' motivation ratio by providing motivating and engaging ICT applications, teachers

seem to bear the same burden when it comes to students' autonomy and independence by preparing

and planning for engaging ICT activities that could develop and foster the learners' thinking skills.

2.2.3. Thinking skills

Many research studies have stressed the importance of shifting the use of

technologies from "technology-as-teacher to technology-as-partner" (Jonassen et al., 2003:11). It is

believed firmly that ICT can engage and support thinking when students learn *with* technologies

(Jonassen et al., 2003:11).It is also recommended that in order for ICT to be used effectively and

constructively, technologies should be used as engagers and facilitators of thinking and knowledge

construction because

> …students learn from thinking- thinking about what they are doing or what they did,
>
> thinking about what they believe, thinking about what others have done and believe,
>
> thinking about the thinking process they use-just thinking. Thinking mediates learning.
>
> Learning results from thinking.   (Jonassen et al., 2003:12)

Evidence of ICT as a tool to foster and support thinking can be observed in some

experiments. Investigations on the use of computer tools to manage and manipulate Internet-based

hypermedia resources were conducted to find out how the internet could support student inquiry

(Oliver and Hannafin, 2000 in Lim and Tay, 2003: 428-429). Different tools were proposed to support

higher-order thinking about hypermedia resources to help students find, frame and resolve open-

ended problems. Higher order thinking represented efforts to process and understand information

through organization, synthesis, reasoning, and evaluation. Accordingly, students

… may benefit from training in strategic tool use or modeling of tool-

enhanced problem solving, as well as specific activities or tool mechanisms to

help them communicate and hypothesize about open-ended problems. That

combination of scaffolding and tool support may help students to develop more

advanced epistemological beliefs and to ultimately apply tools more strategically

toward understanding and resolving complex, open-ended problems.

(Oliver and Hannafin, 2000 in Lim and Tay, 2003: 428-429)

The use of simulation and games have been argued to provide tools that might improve

several types of cognitive learning strategies "…that included organizational strategies (paying

attention, self evaluating, and self-encouragement), memory strategies (grouping, imaginary, and

structured review), and compensatory strategies (guessing meaning intelligently)"(Hogle, 1996:12).

However, Hogle emphasized that the educational benefits of games depended on "the intended

purpose of the game, and the context in which it is used" (Hogle, 1996:12).

Another experiment conducted by Kearney and Treagust (2001) used interactive digital

video clips to present 16 real world demonstrations to Physics students. The researchers wanted to

find out to what extent students engaged and interacted cognitively with the games. A predict-

observe-explain strategy was followed where students had to articulate their ideas, justify them,

reflect critically on their own ideas and on their friends' and construct and/or negotiate new ideas. The

researchers found out that the authentic video demonstration plus the predict-observe-explain

teaching strategy facilitated higher order thinking such as analyzing, evaluating, and connecting as

students actively reorganized their knowledge (Kearney and Treagust, 2001cited in Lim and Tay,

2003: 429-430).

The experiments seem to demonstrate that ICT can support students' learning and

foster their thinking skills. They also show how ICT could be useful in making the learner feel more

autonomous and dependent upon his own capability of constructing knowledge because the students'

task "… should not be to understand the world as the teacher does. Rather, the students should

construct their own meaning for the world. If they do, then the teachers' roles shift from dispensing

knowledge to helping learners construct more viable conceptions of the world" (Jonassen et al.,

2003:13).

However, in some other reports, ICT was found to have less impact on cognitive

processes. "Internal cognition, which is the processes concerned with knowledge acquisition,

understanding, comprehension, analysis, synthesis, and evaluation, was reported to be given less

attention and support than other processes mainly internalization (engagement) and externalization

(writing, speaking, reporting outcomes of learning)" (Passey et al., 2004:26).

Again, teachers were found to be the ones responsible for helping students develop their thinking skills through careful preparation of tasks(Smith,1997:59).Teachers should also understand the cognitive demands imposed on pupils while using technology and should judge when and how to support the students' learning (Smith, 1997:60).

2.2.4. Cooperative Learning

The support of the students' learning is a pedagogy which is no longer merely a process of teacher–student interaction, but " …a complex process of interaction between teacher, student, peers, family and technology; it is a process of cooperation" (Lewin et al., 2003:28).

Accordingly, Argyle (1991cited in Mc Connell, 2000:5) defines the act of cooperation as "… acting together, in a coordinated way at work, or in social relationships, in the pursuit of shared goals, the enjoyment of the joint activity, or simply furthering the relationship." This definition encapsulates much of the parameters of cooperative learning from which learners benefit individually and collectively. If in most learning situations, cooperative learning is believed to have a highly beneficial impact on learners, what could be said about technologies supporting cooperative learning? Are there technologies that are designed to support the work of groups of learners? If the answer is positive, what are these technologies? And how do they foster and support group work?

When pupils work with ICT in the classroom, they often work collaboratively in groups or teams. The experience of group provides students with new benefits, "… by stimulating pupils to develop the interpersonal skills necessary for life after school. The ethos is one of working together to solve problems and achieve goals"(Jenkins, 1999: 2).

Talking about cooperative learning with ICT extends outside the classroom as learning is believed to happen not only inside the classroom, but in various situations outside schools. With computers cooperative work can happen in "synchronous and asynchronous interactions and users can be remotely placed or located in the same room …" (Mc Connell, 2000:28). The form of interaction and the geographical location are two important characteristics of group work. For example, cooperative learning can occur "… over a network of computers and involves the use of computers to send and receive textual communications that can be used for cooperative group correspondence" (Mc Connell, 2000:33-34). Existing facilities include e-mails, bulletin boards and computer conferencing. By using these facilities cooperatively, ICT becomes "… a medium allowing [learners] to do new things in new ways" (Mc Connell, 2000:35).It also "…provides an electronic interactive teaching and learning environment where students and tutors have equal access to the learning resources and are able to communicate with one another via the same system. Knowledge building by the co-construction of information, ideas and resources is possible"(Mc Connell, 2000:35).

Web Quests are also another benefit of technology where students work cooperatively around various topics. They were first developed by Bernie Dodge and Tom March of San Diego State University in 1995. A Web Quest is an inquiry-oriented activity in which some or all of the information that learners interact with comes from resources on the internet (Dodge, 1995). With the Internet, teachers can guide their students in research projects, thus enhancing motivation and excitement in the classroom as students share and discuss what they are learning. Often, this is done using Internet projects or activities (Dodge, 1995). Web-based searches can build general, background knowledge before, after, and during taught material. According to March, a real Web Quest is:

"…a scaffold learning structure that uses links to essential resources on the World Wide Web and an authentic task to motivate students' investigation of an open-ended question, development of individual expertise, and participation in a group process that transforms newly acquired information into a more sophisticated understanding."

(March, 2004:42)

Nevertheless, the use of ICT in cooperative and collaborative environments is not unproblematic. Research has proved that a number of teachers assert that even in situations where teachers design structured ICT activities for students to do in groups away from the direct supervision of the teacher; it was not possible to know whether they are actually learning(Harrison, 2005:167). In other findings, it was recommended that teachers should "… be aware how the use of ICT (in the classroom) impacts on teacher-pupil, pupil-teacher and pupil-pupil interactions as well as on

(inter)personal relationships (Pachler, 2005:200). Once more, it seems that teachers have the key part to play in the process of integrating ICT into students' learning.

2.2.5. Teachers' perceptions

A report presented to the Department for Education and Skills (DfES) in the UK in 2004 has shown that the majority of head teachers (74%) and teachers in the fieldwork schools (64%) felt that ICT had enabled them to become more efficient. The report findings confirmed that the majority of teachers felt positive about the use of ICT in helping them prepare and plan for the lessons, write reports of students' progress as well as manage administrative tasks (Bailey et al., 2004:3).

Nevertheless, this does not go without saying that some other teachers felt less positive about the use of ICT, especially in secondary schools where teachers felt that ICT was failing to "generate workload benefits" (Bailey et al., 2004:3). In some cases, teachers felt ICT increases their workload, with some tasks taking longer to complete. This can often be traced to one or more of the following reasons: namely, a lack of confidence or lack of ICT skills, an ICT strategy that lacks a focus on addressing workload, ineffective networks or a lack of appropriate training or technical support (Bailey et al., 2004:2).

Also, there is a belief that the new technologies "… have changed the relationship between teacher and pupils in ways that had never before been possible. It is no longer unusual for

students to know more than their teacher about a particular topic because they have used e-mail and

the web to delve deeply into something that engages their interest"(Selinger, 2001:12). Therefore,

teachers should accept the fact that " …they can learn alongside their students, and in so doing,

perhaps rekindle or maintain a passion for their subject" (Selinger, 2001:12).

By adopting and using different ICT tools and applications teachers' teaching practices

can be changed and tailored to the students' needs. Through E-learning, for example, teachers can

interact with both students and other teachers. "Students can post a query and get a response

from the teacher or even from another student that all can share, and it may be the same query that

several students were looking to be answered. Interaction can happen also among teachers via

e-forums where knowledge and pedagogical practices are shared" (Selinger, 2001:14).

Overall, what ICT seeks to achieve is a change in the role of the teacher from being a

"…sage on the stage to a guide on the side…" (Selinger, 2001:20). Teachers should no longer be the

fountain that pours knowledge into students' heads, rather they should be the facilitators of the

teaching-learning process. Hence, the teacher's role is "… to provide an ICT affordance, prompt

students to use it fully and explain and demonstrate it"(Somekh, 2007:45).

However, the need for such a change in the teachers' pedagogical behaviors

"…necessitates a number of key skills and perspectives that teachers should acquire and practise if

ICT is to be used effectively to support the learners" (Hegarty, 2004:142). Previous studies have

emphasized the importance of ICT pedagogy which enables teachers to understand how to use ICT

as a learning tool. To support this view McCarney affirms that there is "… tremendous potential for

innovative and creative learning to take place in the classroom, but the teacher must be fully

competent and confident in the pedagogy of using ICT. Thus, staff development is essential for those

teachers" (McCarney, 2004:3).

Accordingly, ICT can be an interesting tool to help teachers develop professionally and

to share ideas on how to integrate ICT in their classrooms. Studies have affirmed that "… by sharing

ideas and experiences of technology successes and failures, [teachers] can break the barriers of

isolated classrooms and develop a culture of collective knowledge" (Jonassen et al., 2003:94). An

example to support this idea is the use of the internet as an effective tool that can help teachers

acquire new ideas on how to use ICT in their teaching. Jonassen and his colleagues (2003:94)

believe that:

" Just as the Internet offers a vehicle to students for connecting with others and

accessing information, it provides a means for teachers to continue their professional

development….Accessing experts, materials, and ideas to use for teaching and learning,

staying current on events, issues, and trends in education and technology, and supporting

each other as friends and professionals are all facilitated with Internet resources."

However, there is still room for argument on whether ICT can really help teachers

develop professionally as studies have suggested that there are conceptual and practical differences

between novice and expert teachers in using ICT for self development (Meskill et al., 2002).The

authors have argued that ICT-related training is not sufficient for the development needed to use

technology effectively by novice teachers than by more experienced teachers. They also suggested

that for ICT to be used effectively in teachers' development, the teacher training and administrative

communities should reconsider : " a) the processes involved in technologies and teacher training; b)

the inclusion of experienced and expert teachers as models of discourse and practice; and c) the

notion of technologies as sidestepping the human expertise required for powerful learning" (Meskill et

al., 2002).

Overall, it should be stressed that the debate of whether ICT can bring any value to

teaching and learning is still continuous. In fact, ICT, in this study, is being looked at as a tool used

innovatively to assist in teaching and learning.

Chapter 3: ICT in Citizenship Education in the UAE

3.1. ICT in Education: UAE Context

In its 2010 report, the International Telecommunication Union, that aims to measure the

global information society using ICT, said that the UAE tops the list of Arab states (and with a

worldwide rank of 29) in both ICT access and use. The country was reported to be the first to surpass

the 200 percent mobile cellular penetration mark in 2008 and the number of internet users per 100

inhabitants increasing significantly between 2007 and 2008 (Menon, V. , 2010).

Nowadays, most schools in the UAE are equipped with computers and the internet.

Accordingly, the UAE Ministry of education has allocated AED 79 million in 2009 to increase the

number of computer units and to implement its wireless network solution in 350 schools across the

UAE, thereby helping schools to enhance teaching quality and learning effectiveness in a multimedia

classroom setting (Mena Report, 2009).

This initiative was preceded by the launching, in the year 2000, of the IT Education Project

(ITEP). The project was created to establish the UAE as the knowledge "hub" of the region and to

complement the UAE Ministry of Education's aim of improving the quality of teaching in the country.

The program's main objective was to provide IT courses in 40 high schools in the UAE (20 in Dubai,

and 20 in Abu Dhabi) and over 13,000 students pass through the program every year. The program

was also responsible for teacher training and courseware development (United Arab Emirates Year

Book, 2004:216).

The determination of equipping the youth with knowledge and technology was reiterated by

Sheikh Mohammed Bin Rashid Al Maktoum, the UAE Prime Minister, in his first e-session with the

media on the 13th of April, 2009. The Prime Minister urged the UAE youth to "… have the

qualifications and expertise to compete in both government and private sectors". He also advised

them"… to be equipped with knowledge and technology to be able to keep pace with the rapid

changes taking place in the world around them" (uaepm, 2009). This philosophy of providing UAE

citizens with the knowledge and technology they need has laid the ground to the government's

strategy for the years 2011-2013. This strategy forms part of a continuous cycle that aims at

achieving the goals of the UAE vision in 2021.

The UAE Government vision was designed to place the country "…among the best

countries in the world by 2021" (Uaecabinet:7). For this reason, the vision puts Emirati citizens at

first priority in the development process. It aspires to have "confident and socially responsible"

citizens who "… take charge of their path through life with the confidence to map out a productive and

fulfilling future for themselves and their nation" (Uaecabinet:12). Therefore, for Emiratis to be fully

responsible, they should activate and increase their participation in society (Uaecabinet:12).

Along with the 2021 vision, the UAE Ministry of Education has launched a 10-year student-

centric strategy (2010-2020) that "… focuses on current challenges, preparation of students to

acquire knowledge and balanced skills in different subjects to develop in them intellectual criticism

and analysis in order to understand future trends of market values with adherence to work

professionalism…" (Uaeinteract, 2010a).Therefore, it can be understood that an awareness of

including citizenship parameters in the UAE education system has started to pave its way in order to

develop confident and socially responsible citizens. Besides, ICT "… present opportunities for all to

be more informed, engaged, and able to communicate within an interconnected world, but new skills

must be mastered by the individuals to be empowered and included in this knowledge society where

access and use of information are the most valuable assets" (Lima and Brown, 2007 cited in

Yukhymenko and Brown, 2009: 50).

For the purpose of this study, it is important to shed light on the importance of using ICT to

enhance and develop learning about social issues. On one hand, Information and Communication

Technology is being used as a means to impart public awareness messages by governments.

Therefore, the T.V, the radio and the internet are being used to promote messages about children

safety (e.g.: http://www.childseyemedia.com/), about health (e.g.: http://www.quitnow.info.au/),

about driving (e.g.: www.uaesalama.ae); that is to say about issues to do with being a good citizen in society. On the other hand, it is one way of engaging the students to develop their perceptions of citizenship especially that today students have high expectations in the effective use of ICT in their learning. Moreover, the issue of 'social responsibility' will be discussed within a UAE context and more specifically amongst Emirati students.

3.2. Citizenship Education

3.2.1 Definition

Citizenship education, as defined by Voiels (1998:197) "…is an integral part of the personal, social and moral development of children, helping them to develop a sense of their own self-worth and to respect and appreciate others … [it] is a means whereby children can learn about their democratic rights and responsibilities and how to become involved with their own local community…" . Accordingly, this definition highlights a number of ideas that citizenship education revolves around mainly the children development of self- esteem and respect of others in addition to their involvement and participation in societal activities as a result of feeling responsible and active citizens.

Within the framework of participation, children are encouraged to "… explore issues of justice, rights and responsibilities within the taught curriculum, voice their own needs and concerns within a responsive framework, develop the skills of critical reflection through discussion, address the implications of their own behaviour with respect to social and environmental problems, and participate in decision making and action at school, community or global level"(Holden and Clough, 1998:14).

However, in order for students to be fully knowledgeable and aware of such citizenship parameters, teachers have the big challenge of educating them on how to be active citizens because as the metaphor of the Yoruba goes "The child carried on the back does not know the length of the road". This saying explains clearly the burden that is put on the teachers' shoulders in assisting and supporting students to be fully active and responsible citizens in the school and in the community (Holden and Clough,1998: 13). In short, the teacher's role is "… to have the courage to listen to children's concerns, engage them in debate and support their developing understanding of citizenship through assisting participation" (Holden and Clough,1998: 16).

3.2.2 ICT and Citizenship

There seems to be a general agreement that information and communication technology can be an effective tool in facilitating the delivery of any subject, including citizenship issues, through painlessly acquiring, collating and presenting information (Donaldson 2007, Fourie and Bothma 2005

Florian and Hegarty 2004, Lim and Tay 2003). Accordingly, as Florian and Hegarty (2004:2) put it;

ICT "... has permeated many aspects of everyday life, in education, leisure, work and the home",

therefore it "...can help increase knowledge and understanding of being informed citizens by

providing access through the Internet to a vast body of otherwise inaccessible information, in addition

to opportunities for cross-referencing sources...[it can also]... develop skills of enquiry and

communication"(Becta, 2007).

However, effective integration of technology into the teaching-learning process will not be

fruitful unless teachers are fully aware of how to use ICT in specific areas in order to enhance

learning, therefore they must "...remember that technology is only a tool to enhance or support

instructional strategies...[they] should take steps to integrate technology throughout classroom

experiences – ad find ways to use technology to teach curriculum-specific content while establishing

connections between those subjects and the real world"(Shelly et al,2004:6:5).In other words;

teachers should not consider students manipulating and playing with software as the ideal way of

integrating ICT into the teaching learning-process, they need, however, to understand "... the way

ICT is woven into many significant moral and political questions that are a part of everyday life. ICT is

social practice much more than it is a technical function(Griffith, R. 1996).

Accordingly, the UAE vision 2021aspires to prepare Emirati citizens to be "confident and

socially responsible", however, this philosophy cannot be achieved unless Emirati citizens

(particularly students) are fully aware of and address-with great responsibility- some social issues that

have negative impact on social safety and stability. Amongst these issues comes the high number of

fatalities in the UAE roads.

3.3. Driving behavior
3.3.1 A social issue in the UAE *(Facts and figures)*

The theme of "driving behaviour" was selected by the researcher as a topic of focus

mainly because statistics show that the UAE is placed top in the list of countries that suffer from an

alarming high death rate because of road accidents. According to Health Authority-Abu Dhabi

(HAAD), the biggest issues facing road safety in the Emirate are speeding and dangerous driving.

Figures show that, in 2007 Abu Dhabi had one of the world's highest rates of road deaths compared

to other continents .With 27.4, rates of road deaths in Abu Dhabi surpassed those in the African

continent, the USA and the European Union countries with 28.3, 15.2 and 11.9 respectively(figure1).
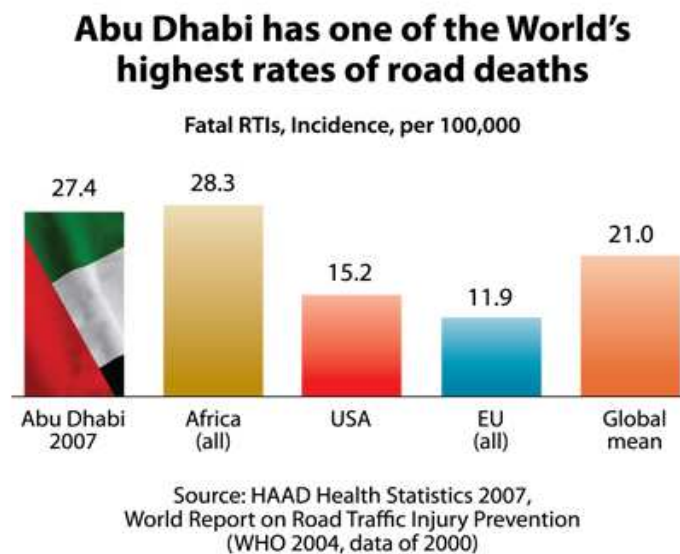
Figure 1: fatal road traffic injuries *(source: Health Authority- Abu Dhabi)*

Similarly, in the year 2008 an alarming 68% of injury deaths were caused by road traffic injuries putting Abu Dhabi in a critical situation with an average of 38 deaths per month due to fatal road traffic injuries(figure 2).
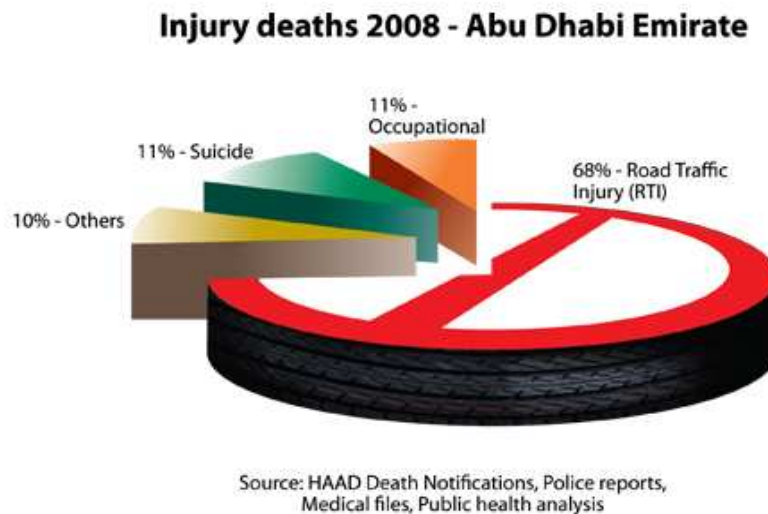
Figure 2: causes of injury deaths *(source: Health Authority- Abu Dhabi)*

In Dubai, Roads and Transport Authority (RTA) sources affirmed that "Over speeding is responsible for about 80% of traffic accidents and claims hundreds of lives every year…[It] is also the major cause of traffic accident fatalities as the probability of involvement in fatal traffic accidents is doubled with the increase of the driving speed by each 5 km/h above the prescribed speed limit".

3.3.2 Research on driving behaviour (UAE)

In fact, these alarming numbers have created an urgent need for more research on factors associated with road accidents as well as for more safety campaigns that can help reduce the

death rates. Unfortunately, not much scientific research has been conducted in the UAE to investigate

those risk factors - except for a very few namely; Berner and Crundall (2005), Berner et al (2007) and

Mehmoud.A(2009).

Accordingly, Berner and Crundall found that careless driving in the UAE accounts for

over 35% of all incidents, while excessive speed was the second most common cause. The authors

hoped that "… the findings of [the] study may assist decision makers and international consultants in

the formulation of policies and the development of alternative plans to improve urban transportation

system in the UAE" (Berner and Crundall, 2005:5)

In another study on driving habits in Al Ain, Mehmoud (2009) explored another

determinant of speeding behaviour that is closely related to the imitation of other drivers' actions. The

author found that "…the main influence on drivers was the behaviour of others. They frequently

mimicked the actions of other motorists, particularly at times or in locations without stringent law

enforcement… Motorists copy others negative behaviour and flout the law" (The National Newspaper,

2009)

3.3.3 Public driving campaigns in the UAE

Besides scientific research, other initiatives have been taken to raise people's

awareness on road fatalities and to reduce the number of deaths in the country. One these initiatives

is the GCC(Gulf Cooperation Council)Traffic Week event which is held annually across the Gulf

countries with "… the aim of boosting the traffic awareness, and raising the level of traffic culture and

safety of all segments of the community, including drivers and road users (ameinfo, 2010)

Another "Stay Alert, Stay Alive" awareness campaign aimed at reducing the number of

youngsters getting killed in road accidents was launched in Abu Dhabi and Dubai on the 3rd and 9th of

April,2010 respectively. The campaign, which was organized jointly by the Health Authority in Abu

Dhabi, Abu Dhabi Municipality, Dubai Municipality and the Roads Transport Authority, encouraged

parents to use seatbelts, child seats and booster cushions and to teach them about safe driving

practices with children (Uaeinteract, 2010d).

"SALAMA", which is the Arabic word for "safety", is another public awareness initiative,

recently established to address the vital issue of road safety throughout the United Arab Emirates.

"SALAMA" was established jointly by the Emirates Foundation, Shell, and the Emirates Driving

Company - with the support of the UAE Ministry of Interior. SALAMA's main mission is " To create

result oriented campaigns and programmes that will raise road safety consciousness and awareness

– targeting members of all UAE communities, across all ages and nationalities, in partnership with the

public and private sectors" (uaesalama, 2010).

In fact, these campaigns seem to have helped reduce the number of traffic mortality in the country. Recent statistics show that road fatalities in the UAE went down by 10.7 per cent nationwide from March 2008 to March 2010 thanks to the revised federal traffic law which enables strict enforcement of the federal traffic law as well as the massive deployment of traffic patrols and radars on roads. According to the Ministry of Interior "…run-over, collision and turn-over accidents dropped by 16.8, 6.4 and 3.6 per cent respectively"(Uaeinteract, 2010c).

Despite the slight decrease in the number of road fatalities, traffic accidents are still claiming more lives especially among the young. Findings of a study on child injuries in the United Arab Emirates which were presented at the Arab Children Health Congress held in Dubai from the 23-25 March 2010 have found that traffic accidents represent 63% of mortality cases. The report has called for the enforcement of traffic law combined with training and education in order to reduce injury deaths in traffic (BI-ME, 2010). Other recent figures have shown that car accidents cost the country 21 billion UAE dirham which is"… equivalent to the value of one in eight barrels of oil the UAE exports, or almost half of Dubai's tourism revenue each year"(Chung, et al., 2010).

In fact, the efforts exerted to raise people's awareness on the issue of driving behaviour targeted mainly the public and out of school community. Academic research, traffic campaigns and press releases are most of the times out of the reach of students who spend a great deal of their time inside schools. Therefore, the need to move social issues into schools, tackle and discuss them as part of curricular and co curricular activities has become a necessity in the teaching –learning process

in the UAE because as Purta and Wilkenfeld (2009:29) affirmed: "… interactive classrooms where teachers and students are encouraged to express, respect, and understand different sides of social issues are beneficial in developing adolescents' 21st Century skills and competencies…fostering behaviors such as collaboration and positive attitudes toward diverse groups, discussion and other interactive practices are especially important."

3.4. ICT and Campaigning in schools

As all children and young people can benefit from meaningful interaction, schools ,through their curriculum, can help them become responsible citizens able to make a positive contribution to society. Accordingly, England's Every *Child Matters* (ECM) Green Paper published in 2003 identified five outcomes that are most important to children and young people:

1) **being healthy:** enjoying good physical and mental health and living a healthy lifestyle

2) **staying safe:** being protected from harm and neglect

3) **enjoying and achieving:** getting the most out of life and developing the skills for adulthood

4) **making a positive contribution:** being involved with the community and society and not engaging in anti-social or offending behaviour

5) **economic well-being:** not being prevented by economic disadvantage from achieving their full potential in life.

(DCSF, 2003: 6-7)

Positive contribution can be enhanced through getting pupils involved in the discussion of social issues that are to their proper concern and to the concern of the community. Therefore, a number of campaigns on different issues are launched in schools in the UK where students participate actively and interactively. Students' initiatives explored a variety of issues such as bullying, knife crime, school food, animal rights, smoking, speeding etc…(British Library,2010). An example comes from a school for girls in West Cumbria, UK, which launched a speeding campaign to raise people's awareness on the danger of driving fast on the roads especially around the schools. The pupils took part in a poster competition and "… the winning poster was displayed on a massive 48-sheet mobile billboard and was spotted at various locations … to really push home the slow down message" (Safer Roads for Cumbria, 2010)

Interestingly enough, in these campaigns students invested in technological tools to make their voices heard. Some students designed posters while others made audio recording. In another school, students made films to raise people's awareness on issues of concern (British Library, 2010).

In doing so, ICT appears to be exploited to its best potential by the students in order to address certain issues that are important to them. In other words, by investing in the use of technologies in any project, students apply key concepts that enhance teaching and learning and add value to the students' learning outcomes. Accordingly, students engaged in the process of:

1- using data and information sources
2- searching and selecting

3- refining and presenting information

4- communicating   (DFES, 2004:p14)

Therefore, by using information and communication technology to create posters in order

to campaign for and discuss a social issue, students uncover aspects of the problem that other

modes such as questionnaires and surveys are unable to touch upon. This idea of unveiling the

hidden thoughts and perceptions was explained long ago by Horst Niesyto who wrote:

In view of media's increasing influence on everyday communication, I

put forward the following thesis: If somebody – in nowadays media

society – wants to learn something about youth's ideas, feelings, and

their ways of experiencing the world, he or she should give them a

chance to express themselves also by means of their own *self-made*

media products!   (Niesyto, H. cited in Gauntlett,D. 2005:p15)

Another reason for giving children the chance to express themselves through the re-

making of media products, such as campaign posters, is that they are likely to misinterpret the

existing ones. This assumption was eminent in the work of Noreen Wetton and Jennifer Mc Whirter

(1998) who, in their discussion of dental healthcare campaigns, have found out that children were

unable to perceive the image of "Suzy Sugar"(a cartoon character in a campaign on sugar

consumption) in the same way as the advertiser intended. In other words; the children understood the

image "…through pre-existing knowledge structures. That is to say, although the children could

associate smiling with kindness, they could not comprehend the wink and were therefore not capable

of constructing a comprehensive interpretation of the image"(Awan,F. 2008:p66).

Based on the aforementioned literature and discussion of the use of information and communication technology in understanding and in raising awareness about issues of concern, this study seeks to investigate the use of ICT in classrooms to design posters on "Road Safety Campaigns" and to discuss the issue within a UAE context.

3.5. Aims of the present research

The present research explores the way ICT can be used in an innovative way when compared to traditional uses of ICT in UAE classrooms. It also reports and reviews the impact ICT has on the teaching and learning process. The research then looks at how ICT can be used with Emirati males in order to examine their perceptions and understanding of Road Safety Campaigns. Findings from this research will be used to formulate suggestions as to how the issue of "Road Safety" (or other social issues) can be meaningfully dealt with in classrooms and by educational institutions. Therefore, the study revolves around the following questions:

1- What factors affect Emirati young males driving attitudes and behaviour?

2- Can ICT help elicit factors affecting Emirati young males driving attitudes and behaviour that conventional surveys do not capture?

3- How important can ICT be in dealing with issues of concern to the students within an educational framework?

4- How do students perceive the use of ICT in the teaching-learning process?

Chapter 4: The Research Study: *using ICT to develop Road Safety Campaign Posters with Emirati Male High School Students*

4.1 Research design and methodology

This study explores the importance of integrating information and communication technology (ICT) into the wider curriculum. It also aims at exploring how ICT can be used in an innovative way when compared to traditional uses of ICT in UAE classrooms. Therefore, it was essential to think of a design that links the methods used for the collection of data and their analysis with the research questions (Hart: 1998).

However, there is no single way of planning, designing and conducting a study mainly because "… research design is governed by the notion of 'fitness for purpose' . The purposes of the research determine the methodology and the design of the research" (Cohen, L et al. 2000:73). So, researchers should be aware of "… the choices [they] make about cases to study, methods of data gathering, forms of data analysis etc. in planning and executing a research study" Silverman (2001:4).

The researcher in this study has opted for a mixture of qualitative and quantitative methods in order to investigate, analyze and discuss the research questions.

Research evidence suggests that the mixed methods approach generates insightful results and is used "…to expand the scope or breadth of research to offset the weaknesses of either (qualitative or quantitative) approach alone" (Driscoll D.L et al, 2007).

4.1.1 The questionnaire as a quantitative tool

What quantitative researchers do is "… collect facts and study the relationship of one set of facts to another. They use techniques that are likely to produce quantified and, if possible, generalizable conclusions(Bell, J. 1999: 7). Quantitative measures depend on measurements and amounts gathered from the people and events (Murray-Thomas, 2003:66). They also allow for a snapshot of individuals' responses and attitudes. Accordingly a questionnaire was administered to students in order to "… obtain information which can be analyzed and patterns extracted and comparisons made (Bell, J. 1999: 13).

In fact, research has revealed that questionnaires have their own weaknesses and strengths. Whereas questionnaires have been a major instrument for " … collecting two principal types of information that respondents are equipped to furnish-facts and opinions … they do not offer a convenient way for respondents to elaborate their answers and explain conditions that affect their opinions (Murray –Thomas,2003:69). Additionally, questionnaires can rarely prove causal relationships and " …the main emphasis is on fact-finding…" (Bell, J. 1999: 14).Nevertheless, the

researcher recurred to the use of a questionnaire because it enabled him "… to collect a large

quantity of data in a relatively short period of time" (Murray-Thomas, 2003:69).

The questionnaire was only one part of a whole project that the participants had to take

part in (including poster making and presentations). In fact, research has found that for a project to be

labelled as participatory, the participants should "…a) understand the intention of the project, b) know

who made the decisions concerning their involvement and why, c) have a meaningful role, rather than

a decorative one and d) volunteer for the project *after* the project was made clear to them" (Hart

1992 cited in Holden, C. and Clough, N. 1998: 20).

4.1.2 The workshop as a qualitative tool

Most researchers today agree that quantitative and qualitative methods can complement

each other. Whereas quantitative data provides structure to the study through facts and numerical

evidence, qualitative data gives richness and color to the study through in-depth analysis and

interpretation of behaviors, values and opinions (Wellington, 2000: 17-18-19). Qualitative

researchers, according to Denzin and Lincoln(1994 cited in Thomas-Murray,2003: 1-2),

"… study things in their natural settings, attempting to make sense of, or interpret phenomena in

terms of the meanings people bring to them. Qualitative research involves the studied use and

collection of a variety of empirical materials – case study, personal experience, introspective, life

story, interview, observational, historical, interactional, and visual texts- that describe routine and

problematic moments and meanings in people's lives.

Accordingly, the researcher recurred to three qualitative methods, each one led to

another, in order to collect meaningful data. These were the creation of visuals, presentations and

group interviewing

4.1.2.1 Visuals

Visuals are among an array of qualitative tools that can assist the researcher in collecting

valuable data. According to David Gauntlett (2007:92), "… humans had an interest in producing

visual and artistic expressions of the self and their existence, stretching back over thousands of

years, to show that these research methods…connect with a deep pool of long-existing human

expressive practice". In fact, Gauntlett conducted several studies "where people have made things

and worked with visual material" David Gauntlett (2007:93). In addition, he used group interview

discussions to generate ideas on what the participants had to say about the researched topic

Another example of the use of creative visual method in obtaining qualitative data was in

the work of Fatimah Awan (2008) which sought to identify "…young people's perceptions of their

identities and how the media is used to shape their conceptions of the self, with specific focus on the

understanding held by young people themselves" (Awan, F 2008:ii). In the study, young people aged

13 to 14 made use of collages that express the "self". Children had to provide interpretations to their

artifacts which the researcher based her findings on.

Even international organizations recur to the visual method in obtaining valuable

research data. One example is the European Commission which funded a project about 'Children in

Communication About Migration (CHICAM) in 2004.The project was coordinated by the Centre for

the Study of Children, Youth and Media at the Institute of Education, University of London, This

project aimed at exploring the experiences and lives of refugee and migrant children in some

European countries. A CHICAM research officer confirmed that the project

… found that media production provided an important opportunity to integrate verbal and

non-verbal forms of communication and expression, to promote social and intercultural

communication between children and to address emotional and symbolic aspects of experience and

identity…

(De Block, L 2005)

. One advantage of using visuals, not only as a means of collecting data but also as a

teaching approach, is that it is a valuable tool for those students who are less confident and

"… whose experiences of learning may have led to them being labeled, or feeling themselves to be,

failures" (Dowmunt, T. in Gauntlett, D. 2007:95). Besides augmenting confidence, the visual approach

is participant-centered; in other words it develops and fosters "…a high degree of child-led

participation in order to produce research 'with children' rather than research 'about children' " (Awan,

F.2008: 68)

4.1.2.2 Presentations

Researchers affirm undoubtedly that presentations provide real and excellent learning opportunities for students in all stages. Wales and Clarke (2004) touched upon some of the most important features students learn from while presenting. These features include:

… responding to questions so students have to develop skills of argument and debate in order to support their points of view. This means that the rationale behind the argument needs to be understood and clearly constructed. Critical thinking therefore plays a key role in the development of presentation skills.

(Wales,J. and Clarke, P: 97).

Additionally, the authors believe strongly that presentation skills build confidence for students because "… knowing that the preparation has been done and the arguments practised provides anyone with a sense of security when dealing with others. This will not only benefit their citizenship development but also add value to all their educational experience (Wales,J. and Clarke, P: 97). The authors then concluded that "…when students make presentations, others form the audience. This is a learning opportunity in its own right" (Wales,J. and Clarke, P: 97).

In relation to the creative visual methods, presentations give the participants "… the opportunity to communicate their own *visual* voice, as well as being able to add thoughts (meaning and commentary) verbally about the images (Gauntllet, 2007:107). In other words, presentations open the way to the uncovering of hidden thoughts and meanings, and enable the presenters to '

speak a thousand words' about their images or pictures.

4.1.3 Group Interviews

Generally, interviews"… can probe an interviewee's thoughts, values, prejudices, perceptions, views, feelings and perspectives" (Wellington, 2000: 71). Amongst types of interviewing we find group interviewing which has been found, by researchers, to be a useful way of collecting qualitative data in educational research. Bill Gillham (2005: 60) believes that "… the open, trawling nature of group interviews indicates their main use as an exploratory study". The author also thinks that "…group interviews can provide different kinds of data from individual interviews…"(Gillham, 2005 :61).

From their part, Watts and Ebbutt (1987 in Cohen et al. 2000: 287) explain that group interviewing has advantages and disadvantages. According to the authors, some of the good sides of this method are "… the possibility that discussions develop…"; therefore an array of responses are obtained. The authors also consider that "such interviews are useful…where a group of people have been working together for some time or common purpose, or where it is seen as important that everyone concerned is aware of what others in the group are saying "(Watts and Ebbutt , 1987 in Cohen et al. 2000:287). Additionally, group interviews "… are often quicker than individual interviews and hence are time saving and involve minimal disruption. The group interview can also bring together people with varied opinions, or as representatives of different collectivities" (Bogdan and Biklen 1992 in Cohen et al. 2000:287).

Nevertheless, group interviewing has disadvantages that, if not dealt with skillfully by the researcher, can affect the overall process of interviewing. Wellington (2000: 81) summarizes this:

… the maverick voice or the long monologue; dominant individuals who may monopolize the interview or invisibly 'threaten' the others by their presence; the reduction in time devoted to each individual; the person who is afraid to speak in a group… Seating also needs to be carefully arranged to allow proper eye contact and, of course the strategic location of a microphone, if the session is to be taped. (Incidentally, a group interview requires a higher quality recording system than one-to one interview.

4.2 Subjects & Sample

A sample is defined as "… a small part of anything which is intended to stand for, or represent, the whole" (Wellington, 2000: 58). Obviously, then, the whole is the entire population from which the sample was taken.

Choosing the right and suitable sample for a study has always been problematic in educational research. For some researchers, sampling can never be fully representative of the whole population (Wellington, 2000: 58). For others, "… the correct sample size depends on the purpose of the study and the nature of the population under scrutiny … [as well as on] … the style of the research" (Cohen, et al. 2000: 93).The debate on sampling focuses mainly on the number – small or large- of cases to be studied. However, all researchers agree that sampling is very important

in both qualitative and quantitative research (Cohen, et al. 2000; Wellington 2000, Murray-Thomas 2003 and Bell 1999).

Research has identified two ways of drawing sampling; probability or random sampling and non-probability or convenience sampling. Probability or random sampling is "… a plan in which it is possible to specify the probability that any person, school, college or other unit on which the research is based will be included in the sample…" whereas non-probability or convenience sampling is "… a plan where it is not possible to state the probability of a unit being included in the sample" (Wellington, 2000: 60).This study is conducted on "convenience or available" samples which are defined as "…those members of a population (people, events, objects, locations) that are readily available to the researcher" (Murray-Thomas,2003: 92). Here, the researcher "… has deliberately – purposely – selected a particular section of the wider population to include in or exclude from the sample" (Cohen, et al. 2000).

This study was conducted in one public high school for boys in Al Ain, UAE, which has a total number of 535 students in three different grades: 10, 11 and 12. The majority of the students are Emiratis and the curriculum taught in the school is that of the UAE Ministry of Education. The researcher met the school principal and briefed him on the aim, purpose and structure of the

research. The principal gave his full support to the researcher (appendix 1) and referred him to

the grade 12 counselor for further assistance. The investigation targeted those students who have a

driving license. A sample of 21 students took part in the whole project. The participants were all grade

12 students. Their age range from18 to 20 years.

4.3 Materials

This study utilized the tools that justify the mixed methods approach that the researcher

opted for in order to investigate students' driving behaviors as well as their perceptions on the use of

ICT in their learning. Therefore, students had to fill in a questionnaire that comprised four parts:

Part 1:   General driver characteristics,
Part 2:   Attitudes towards driving,
Part 3:   Driving behaviors,
Part 4:   Perceptions of other drivers.   (appendix 2)

During the workshop stage, it was necessary to provide students with available

ICT resources – computer, internet connection and software applications – to put their ideas into

images and texts (scheme of work: appendix 3). But, before, engaging the students into designing

the posters on their computers, they were asked first to plan for and discuss the poster. So, they were

provided with A3 cardboards and pencils. After that, they had to choose the ICT application to be

used in the production stage (Workshop Plan: appendix 4)

There were eight groups who produced eight posters. Five groups used the PowerPoint

application and three groups used the Microsoft word. All groups had access to the internet where

they got the pictures from. The students made the collages and added texts either to explain the

pictures or to provide a title to the poster.

In the last stage, the researcher used a video camera to record the presentations and

interviewing processes. The recording was so helpful that the researcher kept on referring to it during

the analysis of the data.

4.4 Procedure

This study went through four data-collection stages. First, the participants completed a

questionnaire on "driving" that explores many sides of their general driving characteristics and

behaviour as well as their perceptions of other drivers. This was followed by the participants'

designing "driving campaign" posters and visuals using ICT applications. In the third stage,

presentations of the students' work in a plenary session were delivered to synthesise arguments for

discussion. Finally, a group interview was conducted by the researcher to enable the participants to

reflect on the different themes that were raised during the whole project and to generate more ideas

on related issues.

4.4.1 Questionnaire

The participants were grouped in a conference room where the researcher gave them a clear overview on the nature of the project and the purpose of their participation. He also sought their consent for volunteering and reminded them that they would be free to withdraw from the project at any time in any stage.

The process of the students' filling in the questionnaires was conducted in the presence of the researcher and the school counselor, first to provide the students with help and clarification of any difficult word (as the questionnaire was in English), and second to ensure that the questionnaires will all be returned. This last reason is regarded, by some researchers, as being "…a significant disadvantage of questionnaire surveys…[because] if the researcher is not present to supervise the participants as they complete the questionnaire, participants can easily avoid filling out the form and returning it to the researcher (Murray-Thomas,2003 :69). After receiving the questionnaires, the researcher reminded and briefed the participants on the next stage. A time was fixed and agreed upon with the consent of the counselor.

4.4.2 Workshop
4.4.2.1 Visuals

In order to enrich the findings with more valuable qualitative data, this study

engaged the participants in the production of "driving campaign posters" because as Gauntlett puts it,

pictures "… offer us the opportunity to reveal 'everything in one go', without the material being forced

into an order or hierarchy"(Gauntlett, 2005:176).The researcher, with the help of the school

counselor, took the same participants to the school lab where the researcher conducted a workshop

which lasted one hour and a half. The researcher led in the workshop by showing the participants a

video clip about the dangers of texting while driving. He also displayed some examples of "driving

campaign posters" to generate ideas and probe some thinking. After that, the participants were given

clear and concise instructions on the task required from them. The students worked in pairs and in

groups of threes and fours. During the process of planning and producing the posters, the

researcher was monitoring and answering any questions raised by the participants. He was also

assisting those students who have problems with applying ICT into the project. At the end of the

session, five groups of three students and three pairs produced eight posters which were saved by

the researcher in an external hard disk. The participants were then thanked and briefed on the last

stage that would be conducted at the same time the following week with consent from both the

participants and the school counselor.

4.4.2.2 Presentations

At the start of the session, the researcher clarified to the participants that they

were to present to the whole class; to explain their posters and to discuss the main idea(s) that

outline(s) their products. The students were to choose one presenter amongst their group/pair to

present and lead the discussion. Unfortunately, there were only six presentations because two pairs

of students could not join the session as they had to sit for a test (Figure 26: Poster 7 and

Figure 27: Poster 8, appendix 6). The students took turn in presenting and answering questions that

were raised by other students. The researcher kept the timing (as each group had 5 minutes only to

present), controlled and monitored the whole process.

4.4.3 Group interviews

This was conducted immediately after the students had finished presenting and

discussing their posters. The interviews aimed at obtaining valuable qualitative data about first the

participants' misconceptions about driving attitudes and behaviour, second their perceptions on using

ICT for learning, and finally their views on the role of education in promoting citizenship. The whole

process of presenting and group interviewing was videotaped (CD: appendix 8) with the consent of

the participants

4.5. Findings

The results in this study are presented by each research method used. Findings from

the questionnaire will be discussed before moving onto discussing the findings generated by the

creation of visuals and presentations. Finally the responses gathered during the group interviews will

be presented and discussed.

4.5.1 Questionnaire

4.5.1.1　Part 1:　General driver characteristics

Results revealed that 85% of participants drive every day (Figure 3: appendix 5).

They are not novice drivers because more that 13% of them have been driving between one and five

years and 7% have been driving for more than five years (Figure 4: appendix 5). Results also

found that 95% of these students drove without a license in the past (Figure 5: appendix 5).

Besides, participants were asked to rate themselves as drivers on a scale of ten, ranging from 1 as

being poor to 10 as being excellent, responses noted that the significant majority of students rated

their driving ability between 7 – 10 on the rating scale (the upper quartile of the scale)

(Figure 6: appendix 5).

All participants (21 out of 21: Figure 7: appendix 5) agreed on the importance of

traffic safety campaigns because they believed that such campaigns:

1- inform people and society about how to drive safely.

2- show the danger of driving carelessly.

3- help people to abide by the traffic rules.

4- help in the safety of the country, the citizens and the expatriates.

5- warn the young about speed.

6- help reduce the death rate.

7- help reduce accidents and violations.

8- help establish order.

Table 2: Reasons for the importance of traffic safety campaigns

These results were generated from the response to the open ended question about reasons they

thought campaigns are important. However, participants were unable to provide three slogans about

safety campaigns and only four students gave two slogans each whereas each of the seven other

participants provided one slogan only.
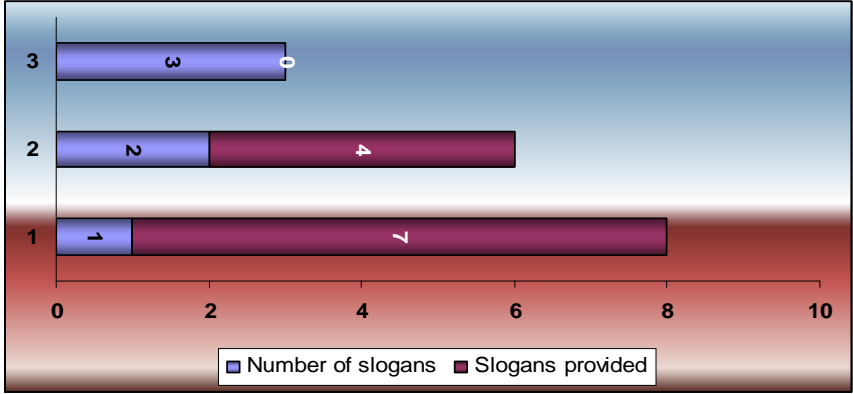
Figure 8: Number of safety campaign slogans provided by participants

4.5.1.2   Part 2: Attitudes towards driving:

A substantial proportion of the participants showed an affinity for speed. More than 80% have a tendency towards passing other drivers (figure 9: appendix 5) and nearly the same proportion (above 70%) agreed that they often get impatient with slow drivers (figure 10 appendix 5). Although less than 50% of the participants try to get to their destinations as fast as they can, the majority (more than 90%) admit that the faster they drive , the more alert they are(figure 10 appendix 5). The participants' affinity for speed was also evident in figure 10 below where they all acknowledged that they (sometimes, often or always) drive at more speed than the posted speed limit both in highways and in the city. Other dangerous patterns of driving were also apparent as the students report that they (sometimes, often or always) switch lanes while driving through traffic, race another car and drive through stop signs without slowing down. Only one out of the twenty one participants reported that he never tailgated another vehicle as for the majority, tailgating seems to be part of their daily driving pattern.
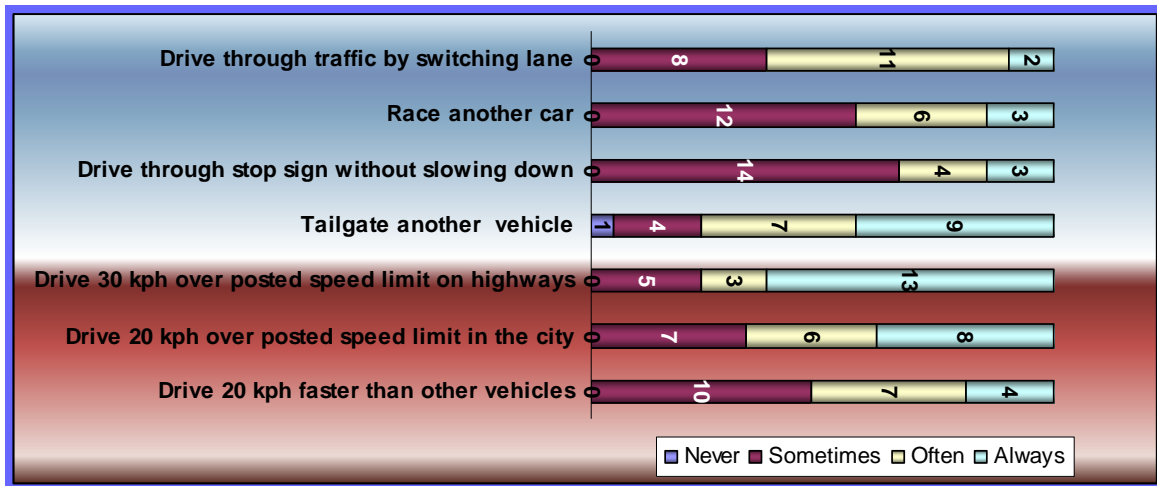
Figure 11: How frequently do you do each of the following when you drive?

Although the participants' attitudes towards driving appears to be somehow aggressive,

The majority have expressed their concern about other drivers' speeding. Accordingly, 90% of the

students consider that other drivers' speeding constitutes a major threat to their personal as well as
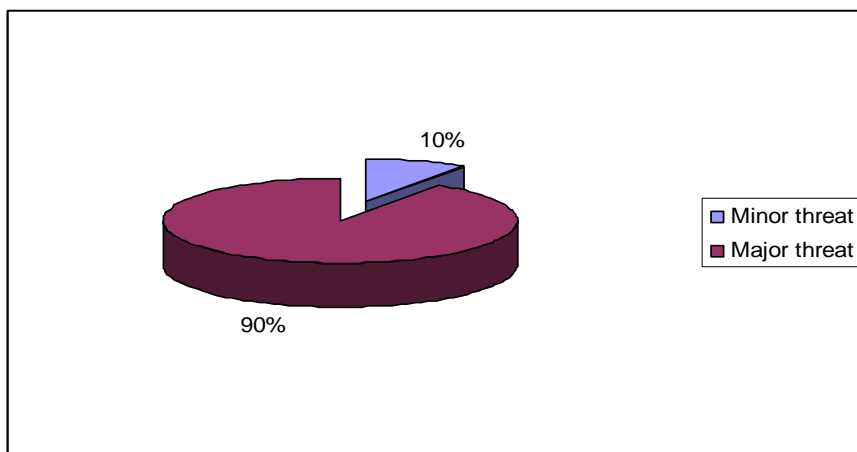
their family safety.

Figure 12: In your opinion, how much of a threat is it to the personal safety of you and your family if other drivers are speeding?

4.5.1.3   Part 3:   Driving behaviors:

Beyond speeding, most of the participants appeared to engage in some other

unsafe driving behavior. According to the data obtained about the frequency of some driving

behaviour patterns, participants reported that, at least sometimes, they punish a tailgater by

braking suddenly, they speed up after passing radar, and they annoy other drivers by shining high

beams. Other driving behaviors such as driving so close to the car in front, gap-closing to prevent

other drivers from entering a lane and cutting in front of other drivers, were also reported to occur

frequently. The only exception came with more than half of the students denying that they use the

shoulders to pass in heavy traffic:
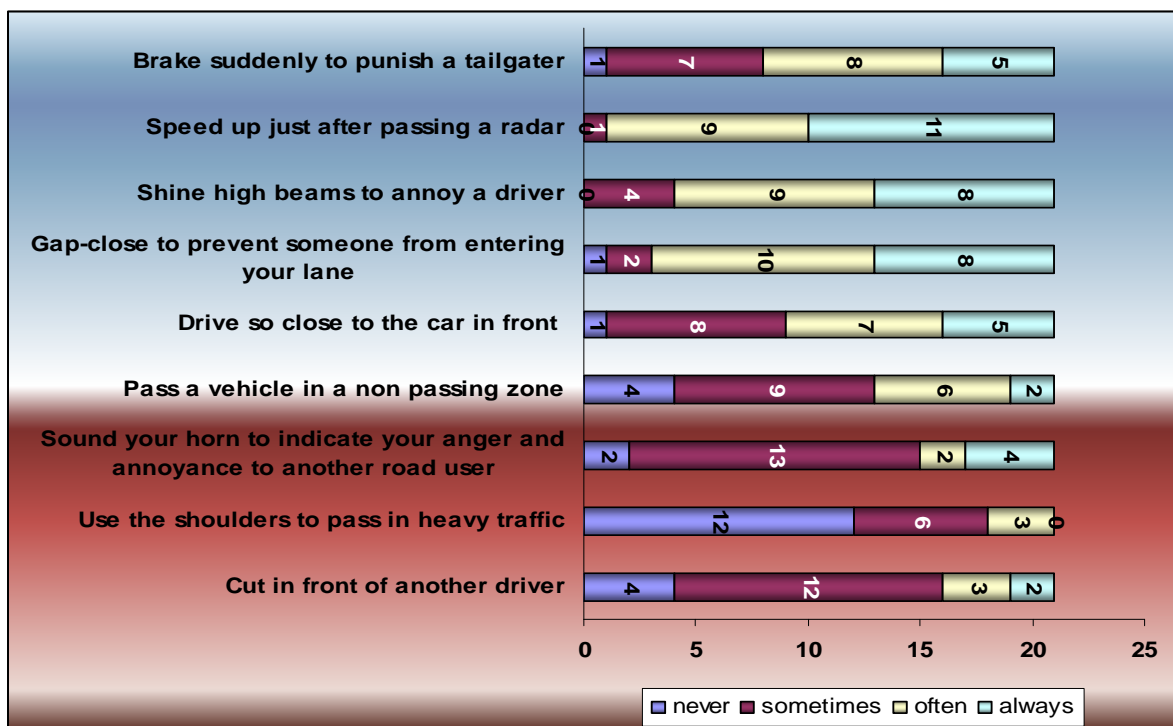
Figure13: Frequency of behaviour patterns.

As a result of the unsafe driving behaviours, a sizable proportion (76%) admitted to

receiving tickets or warnings from the police in the last twelve months (figure 14: appendix 5)

for at least one traffic violation. Figure 15 below shows with no ambiguity that the most

frequent violations committed by the participants were the ones that were repeated in the

questionnaire; with speed, reckless driving and the unused seat belt as topping out the list. After that

came the problem of passing vehicles in non-passing zones, followed by the violation of parking the

cars in non parking zones or in the areas reserved especially to the special needs people.
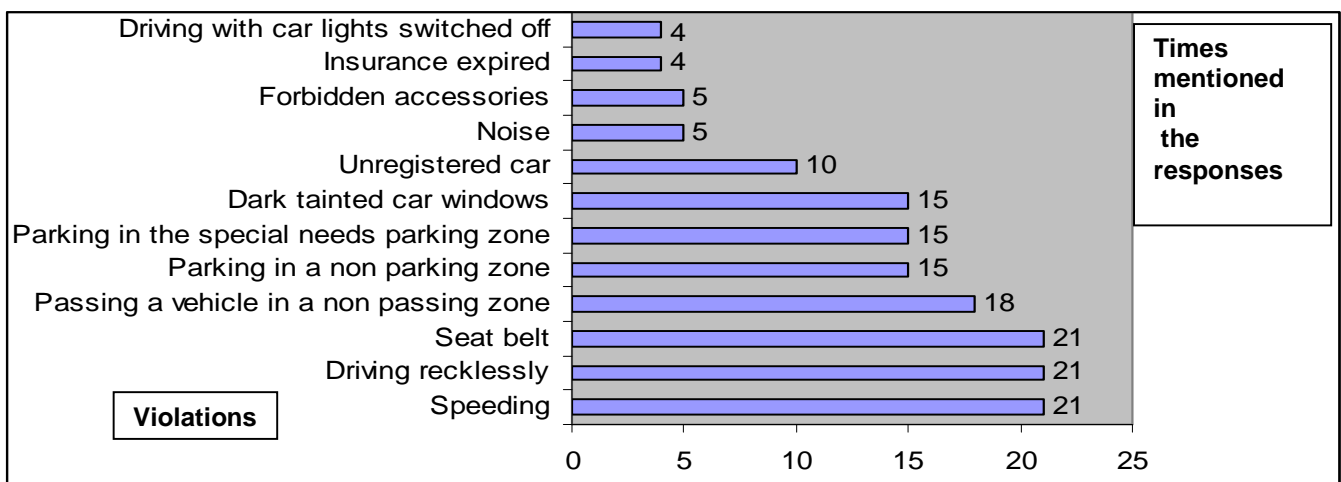
Figure 15: Traffic violations committed by the participants and times mentioned in

in the responses.

The number and the type of violations show that the participants are engaging in a kind

of unsafe driving patterns which can lead to the risk of having an undesirable crash. However, this

risk was denied by most of the students (14 out of 21) who consider that the risk of them having and

accident is low. In contrast, only two students feel that there is a high risk of making an accident as

for the rest of the students; the prevalence of having a crash is rated medium on the scale (between 5

and 7)(figure 16). Conversely, the vast majority of the participants (12 out of 21) felt that other

drivers are likely to have accidents (Figure 16) and only two participants rated the

prevalence of others having a crash as low.
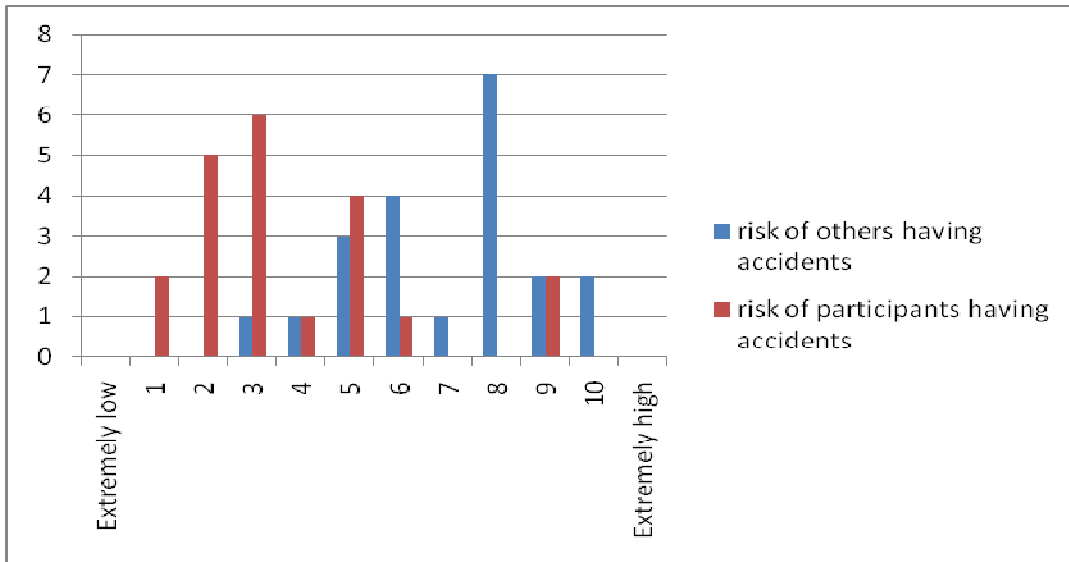
Figure 16: What is the risk of you having an accident?
What is the risk of other drivers having an accident?

4.5.1.4   Part 4:   Perceptions of other drivers

In this part of the questionnaire, the participants appear to have different perceptions of

the types of behaviors and the degree of danger these behaviors represent to their personal safety.

This was eminent from the twenty two different types of violations the participants came up with and

which they considered as unsafe behaviors (table 3 : appendix 5). Besides, the students'

perceptions of the degree of danger each violation has on their safety were erratic and varied from

one participant to another. However, most of them considered some behaviors (speeding, driving

through the traffic red light, driving recklessly, passing vehicles from the right side, not using the

signal lights and sleeping while driving) as being the most dangerous. Other violations were rated as

being dangerous or less dangerous (table 3 : appendix 5).

Consequently, most of the participants, while rating the driving ability of other young

people of the same age on a scale of ten, considered them as being either below average (4/10), to

the average (5/10) or slightly above the average (6,7/10):
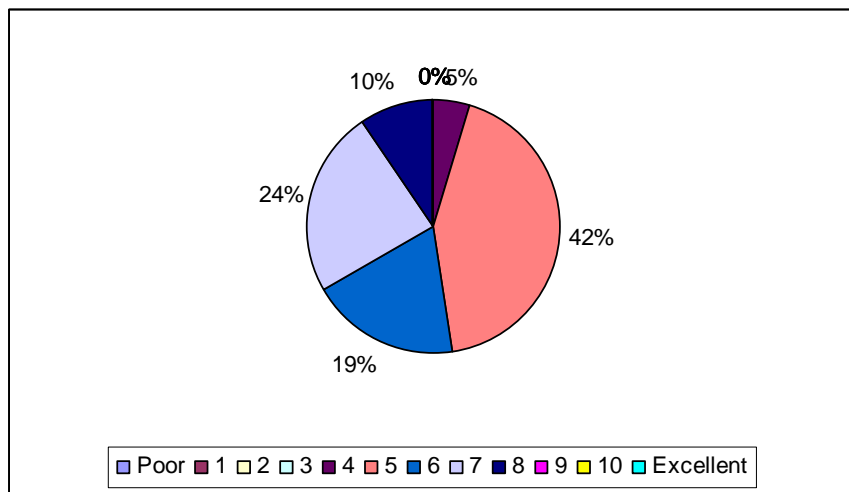
Figure 17: How would you rate drivers of the same age as you?

Finally, in response to suggestions on how to reduce unsafe driving behaviors on the

roads, the students had to come up with three ways. The suggestions were ranked according to the

number of times they were repeated. Interestingly, the increase in the number of traffic signs topped

the list of suggestions (with 19 times repeated), followed by the raise in the amount of fines (with 15

times repeated). Surprisingly, in the third place came the suggestion (with 13 times repeated) that

women should be prevented from obtaining driving licenses. Besides, eight (8) students

recommended that a special committee should be formed to issue driving licenses to women

(Figure18). Other suggestions were varied and reflect the difference in the participants' perceptions

on how to reduce unsafe driving.
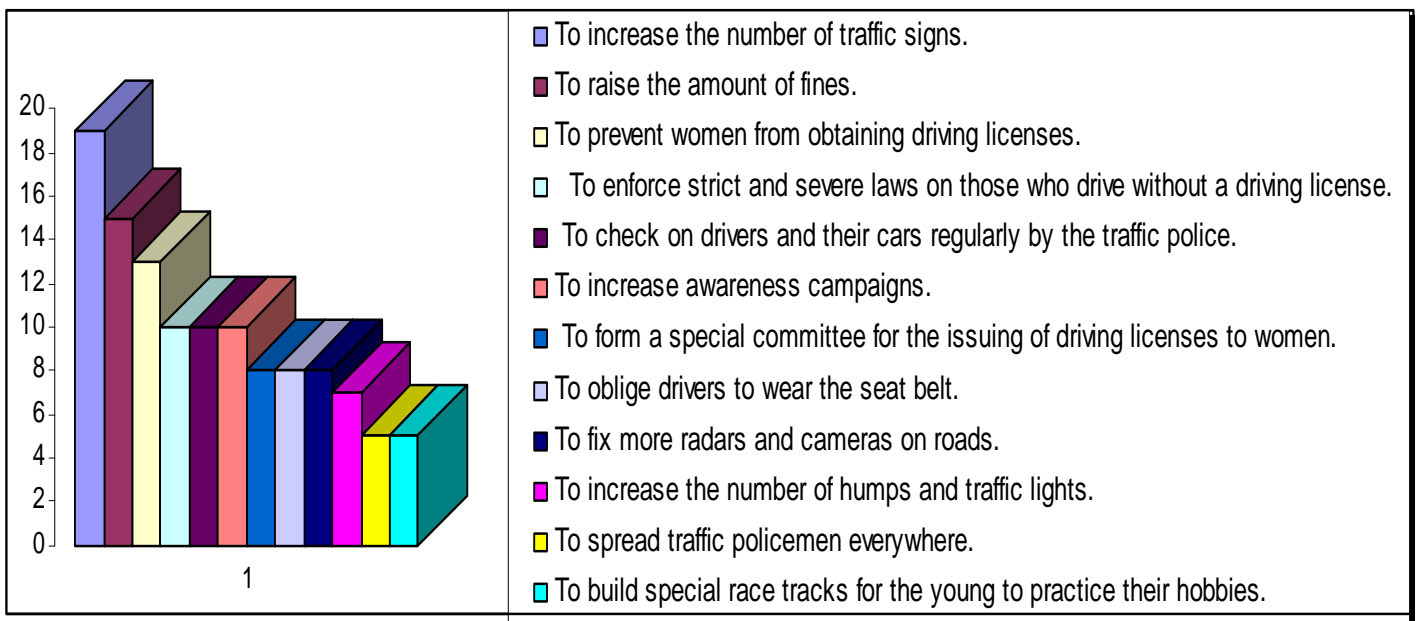
Figure 18: Suggestions on how to reduce unsafe driving behaviors

4.5.2 Visuals and Presentations

The study generated eight posters but only six presentations were delivered (two

groups were unable to present their posters (Figures 26 and 27, Posters 7 and 8 respectively,

appendix 6) because they had to sit for a test). Overall data from the posters showed that main

causes of the accidents are due to speeding, racing, reckless driving and the use of the mobile

phone. This was illustrated clearly by pictures of speedometers, of damaged cars and of drivers using

the phone while driving. Other pictures were included in the posters such as the one that depicts a

woman whose mouth is strapped with a seat belt (figure 20: Poster 1) and the other that shows a

policeman standing (figure 21, Poster 2: appendix 6). The students produced very simple posters

making use of only two applications: either Word or PowerPoint because these were the only

applications the participants had knowledge of and could use confidently.
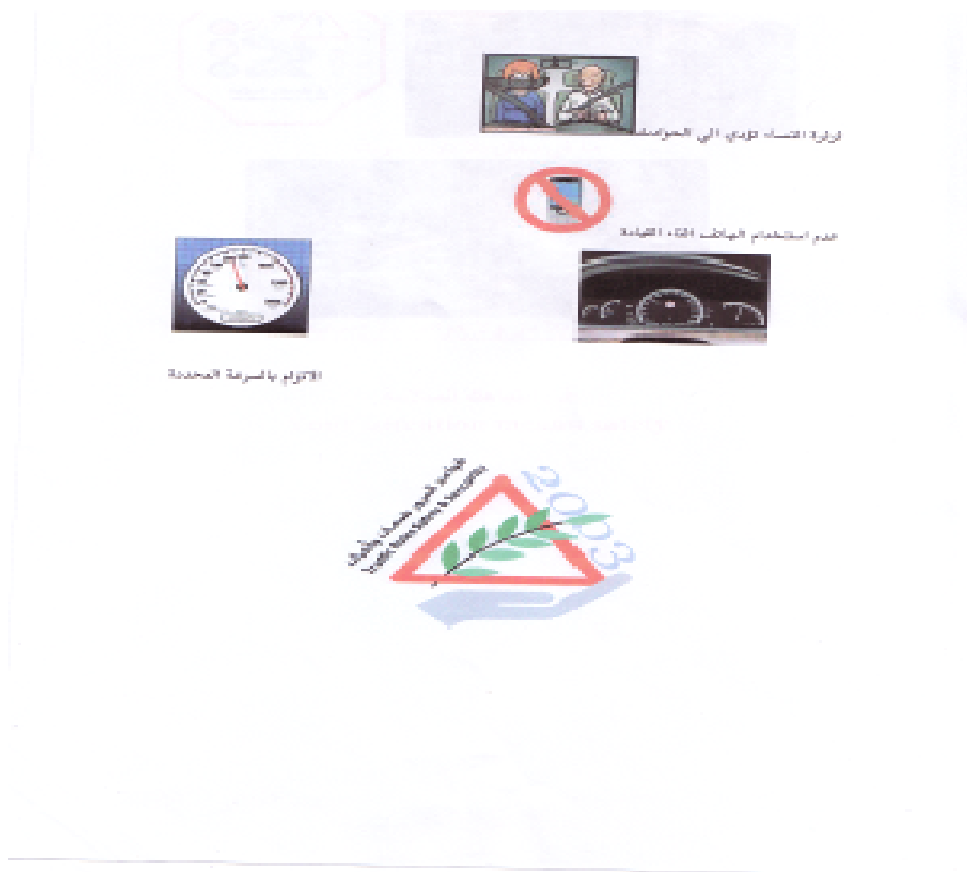
Figure 20: Poster 1

During presentations, the participants were able to elaborate more on their posters

and provide more data. When Mohamed was asked to justify why his group had included the picture

of the woman with the strapped mouth, he literally said **"*… women do not stop talking … once*

they finish a topic they start a new one … therefore, the driver cannot concentrate…".** One of

the students objected and explained that on the contrary, talking to/with the driver is good because

"*… some people, if you don't talk to them, they sleep…*". The researcher wanted to get more out

of the participants and directed the following question to everybody: **"Does the presence of a**

woman in the car cause accidents?". Some of the participants were in favor, others were against.

The presenter said that:*" … **30% of the accidents are caused by women's talking in the car…"***

whereas another participant believed that *"… we have to give credit to women… we cannot say*

that women cause accidents … sometimes, children in the car make problems and the driver

loses concentration…" (presentation 1, CD: appendix 8).

Another group insisted that the police should be present everywhere to punish

the offenders (figure 21, Poster 2: appendix 6). This has caused a sort of disagreement from the part

of the other participants. One explained that the presence of police men does not help reduce

dangerous driving behaviour. When asked to give reasons for this, the participant said *"… honestly*

because of "wasta", some reckless drivers are stopped by policemen who turn out to be their

friends, so nothing happens….". Another student commented that the amount of fines is low and

this leads to drivers continuing to perform dangerous acts. He suggested that offenders should be

imprisoned rather than fined. Another suggestion came from another participant when he suddenly

burst out saying *"… we need race tracks …. If anyone wants to play with his car, he has a place

to do so…"*(presentation 2, CD: appendix 8).

Besides, some participants touched on the issue of smoking as one of the causes of

accidents; they explained that *"… some young people lose concentration and control over their

cars when they want to lit up a cigarette while driving…"* (figure 22, poster 3: appendix 6. Also

presentation 3,CD: appendix 8).Others confirmed that so many accidents happen in crowded areas

mainly because the drivers; especially the young, do not respect the speed limit and drive recklessly

to *"show off"* (figure 23, poster 4: appendix 6. Also presentation 4, CD: appendix 8)This issue

pushed the other participants to suggest two main ways on how to reduce this behavior: the building

of more humps and the fixing of radars with a speed limit of 30 km/h. This last suggestion was

considered by some students as inappropriate because as one student said *"…the kids will damage

or break the radars… we need more humps instead…"*(presentation 4, CD: appendix 8).

Khaled's group produced three slides focusing on three main themes in their project:

speed, reckless driving and the use of mobile phones (figure 24, Poster 6.Also presentation 6, CD:

appendix 8). Khaled also advised his peers to slow down at zebra crossings to allow pedestrians to

cross the streets. This piece of advice has resulted in a discussion on where to trace the zebra

crossing lines. Some students agreed that they should be put straight after the traffic lights to ensure

that cars will stop. Others believed that this suggestion would lead to an increase in the number of

traffic lights on one single street which consequently would result in delay in traffic. Another

participant suggested that humps should be built just before the zebra crossing lines to enforce cars

to slow down.

Figure 24: Poster 6

4.5.3 Group Interviews

 In fact the interview session touched upon two main areas:

1- driving behaviors;
2- ICT and learning.

4.5.3.1 Driving behaviors

The researcher started the interview process by asking the participants about the

common features in all their presentations. They all agreed that speed, reckless driving, the use of

mobile phones and the inappropriate passing of other cars were dealt with in all the posters. And

they considered all these issues as dangerous behaviors that cause disasters on the roads. In addition, some of the participants put the blame on what they called "new drivers" – those who have recently got driving licenses – who cause a lot of trouble on the roads. One student stressed that *"… every day a young man dies…"*. This statement was rejected by a couple of other students who think that most of the Emirati young people are used to driving before even getting a driving license (CD: appendix 8).

The discussion on speed and car control developed into talking about safety measures that a driver should take mainly the wearing of a seatbelt. Surprisingly, most of students acknowledged that they don't wear a seatbelt because "*it hurts*" and *"strains the heart and chest"*. One student argued that wearing a seatbelt has advantages and disadvantages *"…when you hit a car, the seatbelt stops you from jumping forward but at the same time it can break your ribs…when the car slides and rolls down, the seatbelt can protect you but it can roll around your neck and kill you…"*. The researcher then interfered and asked *"what happens if the car rolls down and you are not wearing a seatbelt? Wouldn't that be worse?"*. A confident answer came from Hamad, one of the participants: *"… sir, worse or not…. They won't use it…"*. The researcher found the answer interesting and engaged in a short conversation with the student asking the others to take part:

Researcher: Why?

Hamad: It's like that

Researcher: What do you mean by "it's like that!"

Hamad: Honestly, Sir, when they [the young] see you wearing a seatbelt, they laugh at you

Researcher: but why would they laugh at you?

Hamad: It's like this, this is the truth…

Researcher: Does this have to do with society, how society looks at you?

Saeed (another participant): … of course we take society into consideration… and also

because of friends…. laughing at you…

This conversation ended with a few comments on how society; particularly friends, impacts the

young's perceptions on critical issues. Another example, the wearing of eye glasses, was

mentioned during the discussion and was considered as unacceptable or stirring laughter

amongst the young.

4.5.3.2. ICT and learning

In this part of the group interviewing, the researcher aimed at engaging student in the

discussion of the use of ICT in the teaching learning process. He first reminded the students of the

different parts of the project they went through mainly; the workshop and the presentation phases.

He then asked if they had enjoyed working in that project. The students consented unanimously

giving various reasons. First, they thought the project enabled them to be actively engaged in the

learning process. One participant explained*: "… we worked…we used computers… and we*

discussed driving problems with the group… it was fine…". Another student complained that

"… most grade 12 students do not know how to use computers… and with … like this

project …we can practice…". The researcher asked the participants if they had found the use of

ICT helpful and were required to give reasons for their answers. They all agreed that they had

found ICT useful because as one student said: *" … you can do anything… when you do*

something by yourself you remember it…".Another participant compared the workshop to the

everyday monotonous classroom environment: *"… in the classroom… it is like lectures…*

sometimes you lose concentration… and do not follow with the teacher… like this way

[using computers] it' fine… you write…you bring pictures…it is really good…". One other

comment confirmed that the use of ICT has become very compulsory nowadays: *"… it is*

necessary… it is compulsory… in the school or outside… at home…". The issue of the use

of ICT in teaching and learning did not stir up much debate as all the students seemed to agree

upon its importance. They wished that all the lessons they take in the school could integrate ICT

the same way it had been included in the workshop.

Footnote: due to the length of the interview, only important parts were transcribed. A CD is available for reference.

Chapter 5: Discussion, Recommendations and Conclusion

5.1. Discussion

The aim of this study was to investigate the use of Information and communication Technology within an educational context where social issues such as "Road Safety" can be dealt with meaningfully. The research was meant to look at how ICT can be used to examine such a citizenship issue (Road Safety) and what students thought of it. Besides, the study sought to explore students' perceptions of the use of ICT in the teaching-learning process.

For the purpose of this study a mixed methods was used to collect valuable data. The research was conducted in four stages. First, a questionnaire about driving behaviors and attitudes was carried out among 21 students. Next, a workshop was conducted and students designed "Road Safety" posters using ICT applications. After that, the posters were presented and discussed amongst the students. Finally, a group interview session was conducted to generate more valuable data.

The results of the questionnaire provided the researcher with a valuable insight on the participants' general driving characteristics, their behaviors and attitudes towards driving and their perceptions of other drivers. The findings indicated that the participants are, in fact, engaged in some unsafe driving behaviors such as speeding, reckless driving, tailgating…ect. This concurs with other

studies conducted in the UAE (Berner et al 2007 and Mehmoud 2009) which revealed that the young

in the UAE are in fact involved in risky driving behaviors.

Besides, research found that risky driving behaviour was partially linked to emotional

factors and to personality. For instance, when drivers become "… frustrated and angry in traffic

situations, [they] can easily trigger responses such as speeding and rule violations. (Ulleberg and

Rundmo,2003: 438). Besides, "… careless , irritable, impulsive impatient and aggressive dispositions

are detrimental to safe driving" (Berner, et al., 1994). These assumptions are consistent with

the findings of this study. The participants expressed their frustration and anger towards other drivers

and confessed that they punish other drivers by shining high beams, driving so close to the car in

front or gap-closing to prevent other drivers from entering a lane. These violations result in the

participants being given tickets.

Another important finding was that the participants feel more confident about their driving

ability than other drivers of the same age. Therefore, for them, the risk of other drivers having

accidents is high and should be faced with a number of measures they consider as important in order

to reduce unsafe driving. This phenomenon that people "…can believe erroneously that their risk of

having a health problem is lower than that of their peers… [is referred to] …by the more general term

unrealistic optimism (or optimistic bias)"(Klein and Weinstein,1997:28). Hence, people tend to believe

that "… they consume less salt, butter, sweets, and alcohol; sunbathe and smoke less often; use …

seat belts more often; (e.g., Harris & Middleton, 1994; Klein & Kunda, 1993, Perloff & Fetzer, 1986; Suls, Wan, & Sanders, 1988; Weinstein, 1984)" (Klein and Weinstein,1997: 30). In fact, research found that people "…are more unrealistically optimistic both about events they believe they can control (DeJoy, 1989; Harris, 1996; Klein & Kunda, 1994)" (Klein and Weinstein,1997: 30). In this study, the participants doubted the other drivers' ability to drive well and considered them to be a real threat to their lives. This suggests that messages from campaigns that are run by the government are not being successfully transferred to this group young people.

A different aspect of this study was the participants' design of posters and their presentations to their peers. These were able to show to what extent ICT can help identify factors affecting Emirati young males driving attitudes and behavior. Besides the numerical data obtained from the questionnaire, there were other themes that emerged from the pictures. Some groups added the use of the mobile phone to the list of the dangerous causes of accidents. Whereas another group considered women as being one of the causes of accidents when they included the following picture with the following comment:

ثرثرة النساء تؤدي الي الحوادث

Figure 28: (Women's talking causes accidents)

In their interaction with computers to generate posters/media campaigns, the

students engaged in fruitful discussions and produced posters that reflected their opinions on how

they perceived unsafe driving behaviors. This interaction has enabled the students not only to

experience an active learning experience but also to provide the researcher with more data on driving

behaviors to ground his research on, because as Gauntlet (2004: 6) believes:

… if we are looking at visual material in the hope of ascertaining how the artist/producer feels about

something, this *is* more difficult than if we are faced with a verbal statement where a person *says* how

they feel about something. Interpreting the latter is not necessarily straightforward either, but the

researcher has something clear, intentional, and *verifiable*, to go on.

Besides, the presentations of the posters have enabled the participants to gain more

confidence; especially that students "…often claim to be too nervous to make such public

appearances but practice and careful consideration of the purpose and process of presentations can

lead to confident, thoughtful outcomes" (Wales and Clarke, 2004:97). In the process of presenting

their posters, the students engaged in responding to different questions so they developed "… skills

of argument and debate in order to support their points of view. This means that the rationale behind

the argument needs to be understood and clearly constructed. Critical thinking therefore plays a key

role in the development of presentation skills" (Wales and Clarke, 2004:97).

Regarding the students' views on the use of ICT in learning, data obtained from the group interviewing session have shown clearly that their engagement was considered highly positive. The students affirmed that working with ICT was enjoyable and recommended that it should be integrated in their lessons on a daily basis. These students' perceptions are consistent with the general aims of the use of ICT in different subject areas because they aim " … to develop students' capacities for self-learning, problem solving, information seeking and analysis, and critical thinking, as well as the ability to communicate, collaborate and learn, abilities that figured much less importantly in previous school curricula" (Yuen et al., 2003:158). Moreover, research shows that ICT can provide a unique opportunity for learning; especially "… when integrated into subject content and placed in the classroom – at the point of instruction. Point of instruction is having the technology in the classroom at the teachers' and students' fingertips" (Shelly et al., 2004).

Besides, the project the students engaged in has probed their thinking about unsafe driving behaviors because unlike the traditional authority-based safety campaigns, this method lets "…young drivers themselves find out the need for attitudinal and behavioral change. That is, [it lets] them draw their own conclusions about how they can change. This strategy has been successfully used in health education of students (Arborelius and Bremberg, 1988), as well as in safety programs

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for professional drivers (Gregersen et al., 1996)"(Ulleberg and Rundmo, 2003:438). In fact, research

found that a group following this strategy "… reduced their accidents by 50% … the strategy of self-

produced, individual decisions … represents an interesting alternative, especially for the adolescents

with the most authority defeating characteristics" (Ulleberg and Rundmo, 2003:438).

5.2. Limitations of the Present Study

This study encountered a number of limitations which make difficult to generalize its

findings. The limitations that apply to this study can be summarized as follows:

1- The study could not benefit much from research conducted in the same field in the UAE as

little has been found regarding driving behaviors of the Emiratis, let alone the use of ICT to

tackle social issues amongst UAE students. Therefore, the researcher referred to international

resources. Although valuable information can be obtained from overseas studies, " …care and

caution must be taken in making generalizations or applying recommendations as it must be

made sure that those are appropriate and relevant within the context and culture of the

country" (Riley, 2004).

2- The researcher was unable to find data from the Ministry of Education that shed light on

systematic and strategic plans for the inclusion of ICT in teaching and learning in the UAE.

3- The study was restricted to one specific geographic area (Al Ain).

4- The study was limited by the short period of time it was conducted in. So it was not able to

assess the long term learning benefits (if any) of this exercise

5- It covered a small number of population (21 participants) in only one boys high school.

6- Due to time restraints, teachers were not included in this study. The researcher believes that

teachers could have enriched the study with their views on the use of ICT in the teaching

learning process.

5.3. Recommendations

This study is an attempt to investigate the inclusion of Information and Communication

Technology in an innovative way within an educational framework in the UAE. It deals with the role of

ICT as a means to engage students with social issues of their concern such as the issues of

dangerous driving. This study reveals that students are enthusiastic about discussing and talking

about issues that are part of their lives. Therefore, it is highly recommended that:

- the Ministry of Education provides opportunities to students to involve in social issues of their

  concern by promoting citizenship education in the wider curriculum. This will enable students

  "…to draw on their previous experiences in order to understand and evaluate new ideas…"

  which will result in "… providing [them with] carefully constructed steps or scaffolding to

support learning"(Wales and Clarke 2004:6).

- a policy be drawn up at the level of both the Ministry of Education and schools for effective and efficient integration of ICT in teaching and learning.

- The Ministry of Education and schools train teachers to be knowledgeable about what ICT can do with information/knowledge or how information and knowledge can benefit from ICT as shown in the figure below:
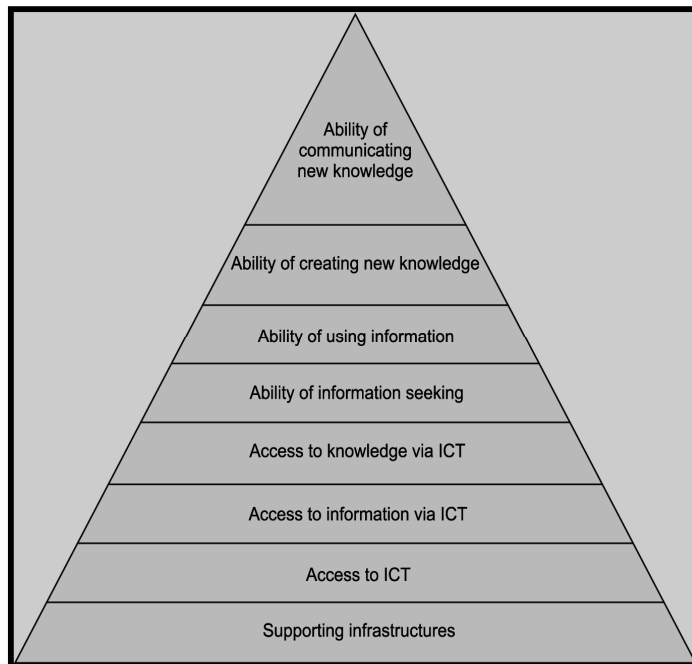
Figure 29: Addressing the digital divide: basic skills and opportunities for individuals
(Source: Fourie and Bothma 2005: 478)

- teachers use the media to allow students to explore and challenge students' beliefs and attitudes towards safety issues that form part of their daily lives. In doing so, students will not only have the chance to reveal their own perceptions about those issues, but they will also be

able to raise awareness on the matters outside the school walls, and hence be active member

of their communities.

- teachers use ICT in teaching because the benefit of using ICT in formal educational settings is

  that students develop their ICT skills. In this study they were developing posters using

  Windows and PowerPoint but with more practice, students can learn how to use Moviemaker

  in order to produce a short public awareness advertisement (they would represent the

  situation, the debate, the issue the way that they see it). They can also learn how to develop

  web pages and promote their awareness campaigns better.

- more research be conducted in the field of ICT inclusion in the wider curriculum; especially in

  dealing with issues of concern to the young in the UAE.

5.4 Conclusion

This study explored the importance of integrating information and communication

technology (ICT) into the wider curriculum. It also aimed at exploring how ICT can be used in an

innovative way in UAE classrooms. To answer the research questions, a mixed methods approach

which uses two or more methods of data collection was adopted. Hence, this study went

through four data-collection stages. First, the participants completed a questionnaire on "driving" that

explores many sides of their general driving characteristics and behavior as well as their perceptions

of other drivers. This was followed by the participants' designing "driving campaign" posters and

visuals using ICT applications. In the third stage, presentations of the students' work in a plenary

session were delivered to synthesise arguments for discussion. Finally, a group interview was

conducted by the researcher to enable the participants to reflect on the different themes that were

raised during the whole project and to generate more ideas on related issues.

Results led to interesting facts and figures that are related to the students' behavior and

perceptions towards driving. In general, the figures indicated that the participants are, in fact,

engaged in some unsafe driving behaviors such as speeding, reckless driving, tailgating…ect. This

led them to commit a number of violations and to being given tickets. Moreover, numbers proved that

the participants feel more confident about their driving ability than other drivers of the same age.

Therefore, for them, the risk of other drivers having accidents was considered high and should be

faced with a number of measures they considered as important in order to reduce unsafe driving.

As far as the use of ICT in the teaching-learning process, the data obtained revealed

that the participants' engagement in the use of computers in order to produce posters was

considered very positive. The students affirmed that working with ICT was enjoyable and

recommended that it should be integrated in their lessons on a daily basis. Besides, the project the

students engaged in probed their thinking about being good citizens. Students expressed their

readiness to participate in holding campaigns in the school about unsafe driving behaviors, in

presenting their posters to other students or in being engaged in other similar projects.

Finally, the research found that that the participants were very willing to discuss issues

that are important to them. They were not just passive recipients of information, they were also

creative and eloquent enough to come up with ways in which safety campaigns and slogans can be

altered so that their peers' perceptions and attitudes towards dangerous driving behaviour are

challenged.

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List of Illustrations (2)

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Table 2	Reasons for the importance of traffic safety campaigns	55
Table 3	What types of unsafe driving behaviors do you normally encounter on the roads you drive on?	96

Appendices

الجامعة
البريطانية في
دبي
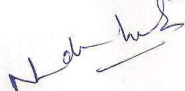
The
British University
in Dubai

11 October 2009

To: Mr. Ibrahim Al Jarah,
Principal of K - B● Z   secondary school

This is to certify that Mr Kamal Ben Selama Mohammed (student ID: 70121) is a registered student on the Master of Education programme in The British University in Dubai. He has proceeded to the last phase of his studies and currently writing her dissertation on the subject of "the attitudes and beliefs of Emirati Young Males towards Driving Behaviour".

We kindly request you to assist him in this matter. This will entail your allowing him to administer a questionnaire to students and will require students to participate in a short workshop. This research is conducted in order to know the reasons behind the ever-increasing number of accidents amongst young people in the UAE. Mr Ben Selama will ensure the confidentiality and anonymity of information and details of participating students. The results of his findings will be made available to you.

This letter is issued on Mr Ben Selama's request.

Yours sincerely,

Nandini Uchil
Head of Student Administration

No objection

29 - 10 - 09

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www.buid.ac.ae

Appendix 2
Questionnaire

This questionnaire aims at investigating Young Emirati Males attitudes and beliefs towards driving. You are kindly requested to complete the questionnaire. The results will remain confidential. Also, you are free to stop at any point and if you need anything explained on the questionnaire, please, call the person in charge over. Your feedback will be of value to the purpose of the research.

Part 1: General driver characteristics:

Age: -----------   Gender: M ☐   F ☐

1- How often do you usually drive a car? Please, tick √ the appropriate answer:

   ☐ Once a week or less   ☐ several days a week   ☐ every day

2- Do you have a valid driver's license? Please, tick √ the appropriate answer:

   ☐ Yes   ☐ No

3- How many years have you been driving? Please, tick √ the appropriate answer:

   ☐ Less than 1 year   ☐ 1 to 5 years   ☐ 5 years or more

4- Have you ever driven without a driver's license? Please, tick √ the appropriate answer:

   ☐ Yes   ☐ No

5- How do you rate yourself as a driver? Please, circle the appropriate answer:

Poor 1   2   3   4   5   6   7   8   9   10 excellent

6- Do you think that traffic safety campaigns are important?

   ☐ Yes   ☐ No

Why?---

7- Write three safety campaigns you know and rate how effective you feel they are as a safety advert:

a)---

   Extremely low 1   2   3   4   5   6   7   8   9   10 extremely high

b)---

   Extremely low 1   2   3   4   5   6   7   8   9   10 extremely high

c)---

   Extremely low 1   2   3   4   5   6   7   8   9   10 extremely high

Part 2: Attitudes towards driving:

8- Which of the following statements best describes your driving? Please, tick √ the appropriate answer:

☐   I tend to pass most drivers   ☐   I tend to let other drivers pass me

9- People have different feelings about driving. Do you agree or disagree with the following statements about driving. Please, circle the appropriate answer:

a) I enjoy the feeling of driving fast: agree   disagree

b) The faster I drive, the more alert I am   agree   disagree

c) I often get impatient with slow drivers   agree   disagree

d) I try to get where I am going as fast as I can   agree   disagree

e) I worry a lot about having a crash   agree   disagree

10- How frequently do you do each of the following when you drive?

statements	never	sometimes	often	always
Drive 20 kph faster than other vehicles				
Drive 20 kph over posted speed limit in the city				
Drive 30 kph over posted speed limit on highways				
Tailgate another vehicle				
Drive through stop sign without slowing down				
Race another car				
Drive through traffic by switching lane				

11- In your opinion, how much of a threat is it to the personal safety of you and your family if other drivers are speeding?

☐   Minor threat   ☐   Major threat

Part 3:   Driving behaviors:

12- How often do you…………?

statements	*never*	*sometimes*	*often*	*always*
Cut in front of another driver				
Use the shoulders to pass in heavy traffic				
Sound your horn to indicate your anger and annoyance to another road user				
Pass a vehicle in a non passing zone				
Drive so close to the car in front				
Gap-close to prevent someone from entering your lane				
Shine high beams to annoy a driver				
Speed up just after passing a radar				
Brake suddenly to punish a tailgater				

13- In the past twelve months have you been stopped by the police or given a ticket for any traffic related reason?

☐   Yes   ☐   No

   If yes, what type of traffic related violation have you been stopped for?

14- What is the risk of you having an accident? Please, circle the appropriate answer on a scale of ten (10).

 Extremely low 1   2   3   4   5   6   7   8   9   10 extremely high

Part 4:   Perceptions of other drivers:

15- What types of unsafe driving behaviors do you normally encounter on the roads you drive on? Please give five (5) types and rate them according to their danger: 1 being the most dangerous and 5 being the least dangerous:

   1--.

   2--.

   3--.

   4--.

   5--.

16- On a scale of ten (10), how would you rate drivers of the same age as you? Please, circle the appropriate answer:

Poor 1   2   3   4   5   6   7   8   9   10 excellent

17- Based on what you see on the roads, what is the risk of other drivers having an accident? Please, circle the appropriate answer on a scale of ten (10).

Extremely low 1   2   3   4   5   6   7   8   9   10   extremely high

18- Please, suggest three ways on how to reduce unsafe driving behaviors on the roads:

1---.

2---.

3---.

Thank you! I appreciate the time you took to fill out this questionnaire.

Appendix 3

My scheme of work

Task description:

The students were asked to design a "driving campaign" poster. They made use of available ICT resources – computer, internet connection and software applications – to put their ideas into images and texts. They were then asked to present to the whole class; explaining their posters and discussing the main idea(s) that outline(s) the products.

Expectations:

a) knowledge and understanding about becoming informed UAE citizens:
the project aimed at:

- enabling students to become more informed about the issue of unsafe driving behaviour and its repercussions on the individual and the society in the UAE.
- enabling students to become more aware of the role and the importance of campaigns in changing people's attitudes towards social issues such as driving behaviour.

b) developing skills of enquiry and communication:
students were expected to:

- use ICT-based resources (computers, internet connection, software applications) to produce driving campaign posters.
- express, justify and defend their personal opinions about the issue of unsafe driving.
- take part in group and whole class discussions.

c) developing skills of participation and responsible action:
 Students will be taught to:

- consider other people's opinions, respect, discuss and critically evaluate them.
- take part responsibly in school and community-based activities.
- reflect on the process of participation.

 Teaching Approach:

The teacher led in the workshop by showing the students a video clip on the dangers of texting whilst driving. He then displayed samples of driving campaigns. The students discussed them and moved to do their assigned tasks. In pairs or in groups of threes, students had to agree on the application to be used and to negotiate the final shape of their poster. The teacher had to establish group rules and monitor the students while on task.

Framework adapted from: www.standards.dfes.gov.uk

Appendix 4

Workshop PLAN (session 1)

Date: 08/12/2009   **Time: session 1: 1:30 min**

Focus for lesson: ICT+ citizenship Sources: computers with internet connection + software applications		
Learning intentions: using different applications (PowerPoint, Photoshop, Word etc…) to design posters, present them to the whole class and discuss them.		
Time	Teacher's Action	Pupils' Action / Pupils' Learning
10 min	• Discusses with students their previous knowledge and their preferences of available software applications on the existing computers: PowerPoint, Word, Paint and Adobe Photoshop version 8.0. • Presents the students with clear and concise instructions on what they are going to produce: "a campaign poster on driving behaviour" • Asks students to work in pairs or in groups of threes.	• Students choose the partners they are going to work with. • Students discuss and chose the application to be used.
Main part of the lesson		
30 min	Shows students a video cliphttp://news.bbc.co.uk/2/hi/uk_news/wales/8203091.stm and examples of posters on driving campaigns. • Reminds students of issues tackled on the survey they filled in previously. • Provides students with useful sites. • Answer any question by students. • Circulates around the class, helping and monitoring students' work.	• Students open applications to be used. • Students search the sites given by the teacher. • Students import/ draw images, discuss and write slogans and rearrange the final shape of their posters. • Students save their work in a flash drive for future presentation and discussion
Plenary		
5 min	• Checks if all students have completed their tasks. • Discusses problems faced by the students during their task performance. • Explains what the next session will be about: (presenting and discussing their posters)	• Students show their posters to the teacher. • They report and discuss any problem they faced.

Workshop PLAN (session 2): Presentations

Date: 15/12/2009   **Time: session 2: 45 min**

Focus for lesson: ICT+ citizenship		Sources: posters on "driving campaigns
Learning intentions: developing the skills of presentation and discussion		
Time	Teacher's Action	Pupils' Action / Pupils' Learning
3-5 min	- Gives clear instructions on what the students will be doing. - Answer any questions (if any)	- Listen to instructions - Ask questions (if any)
	Main part of the lesson	
30 min	- Controls and monitors presentations and discussions - Encourages students to ask questions/debate. - Keeps time	- Students present their posters to the whole class. - Students discuss and defend their ideas.
	Plenary	
10 min	- Wraps up the session by reminding the student of the main objectives of the two sessions. - Asks student for their feedback on the sessions.	Students give their feed back

Appendix 5

Questionnaire data

Part 1: General driver characteristics
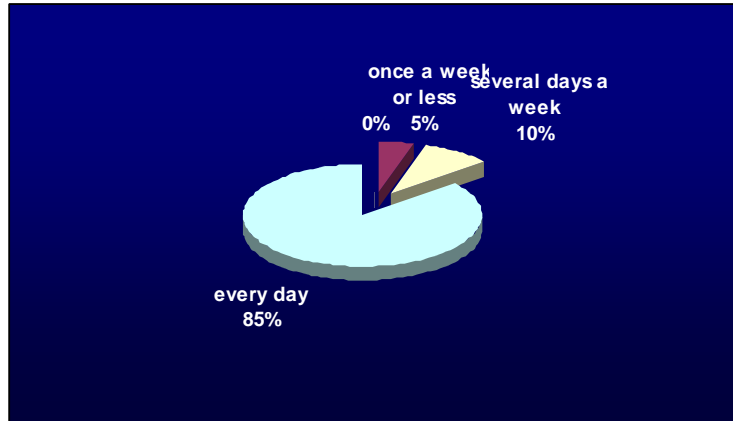
Figure 3: How often do you usually drive a car?
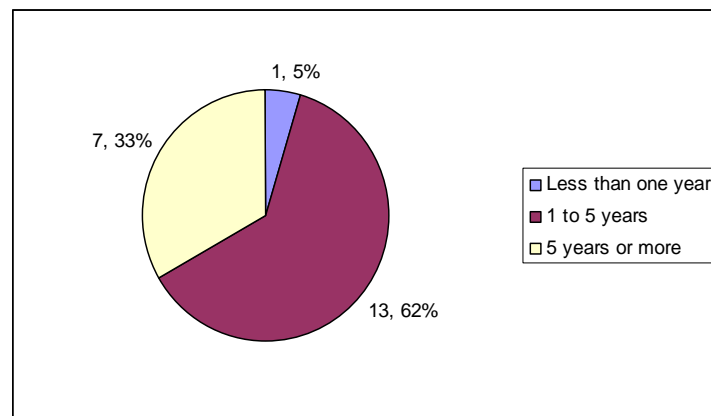
Figure 4: How many years have you been driving?
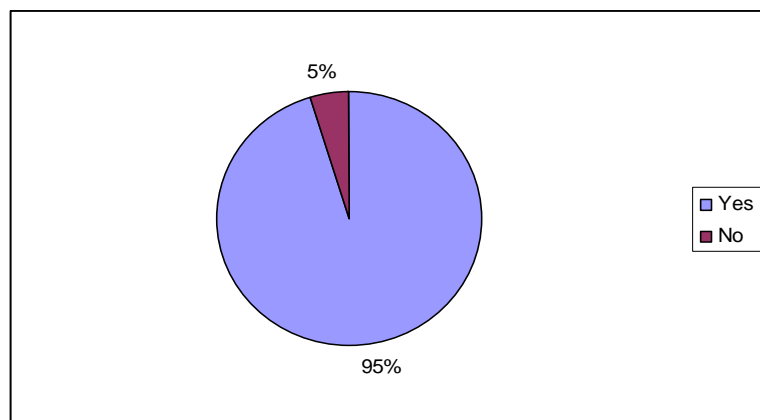
Figure 5: Have you ever driven without a driver's license?
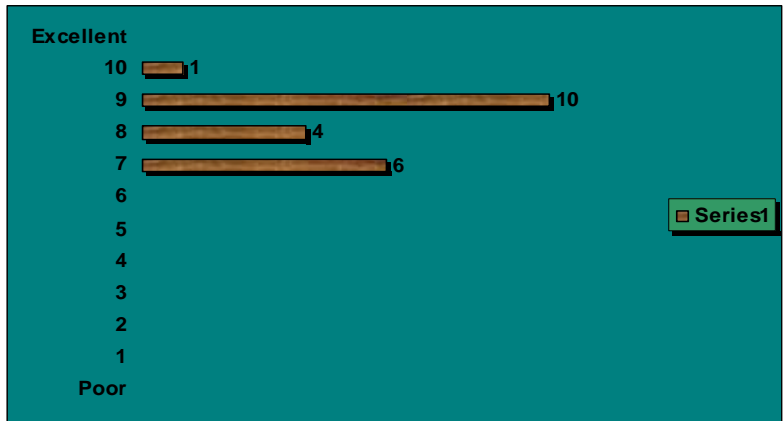
Figure 6: How do you rate yourself as a driver?
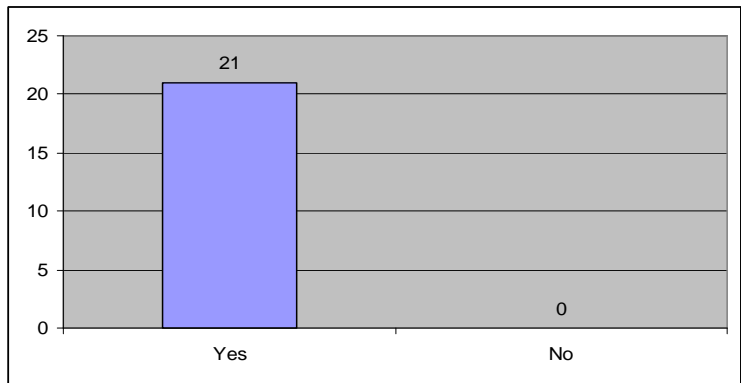
Figure 7: Do you think that traffic safety campaigns are important?

Part 2: Attitudes towards driving

Figure 9: Which of the following statements best describe your driving?
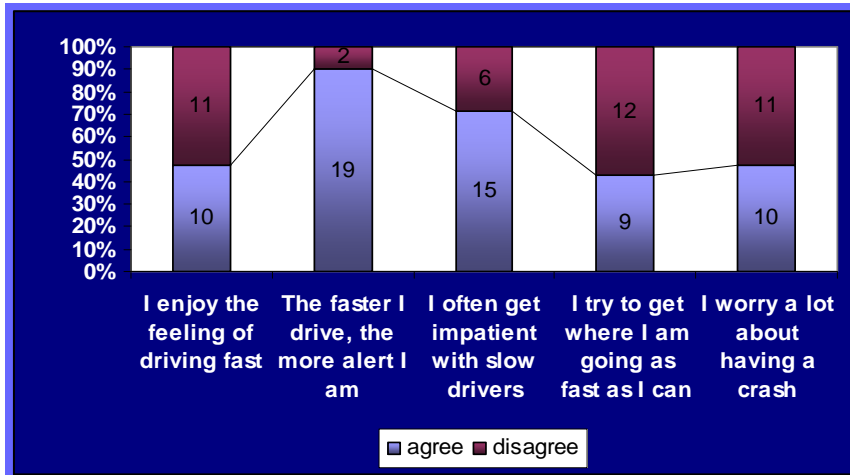
Figure 10: Do you agree or disagree about the following statements?

Part 3: Driving behaviors
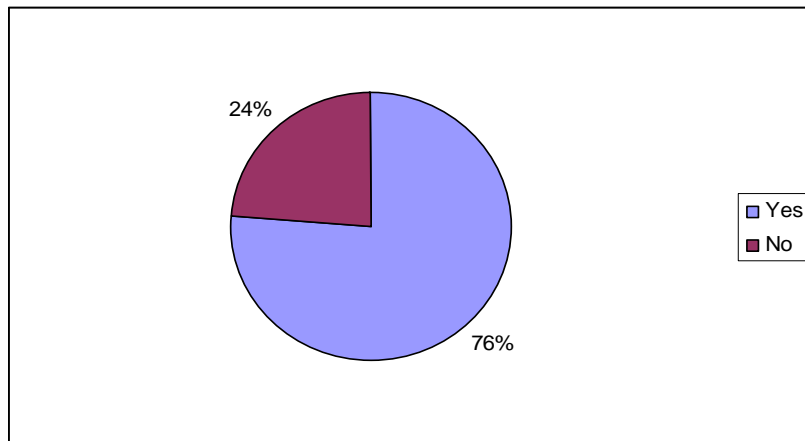
Figure 14 : In the past twelve months have you been stopped by the police or given a ticket for any traffic related reason?

94
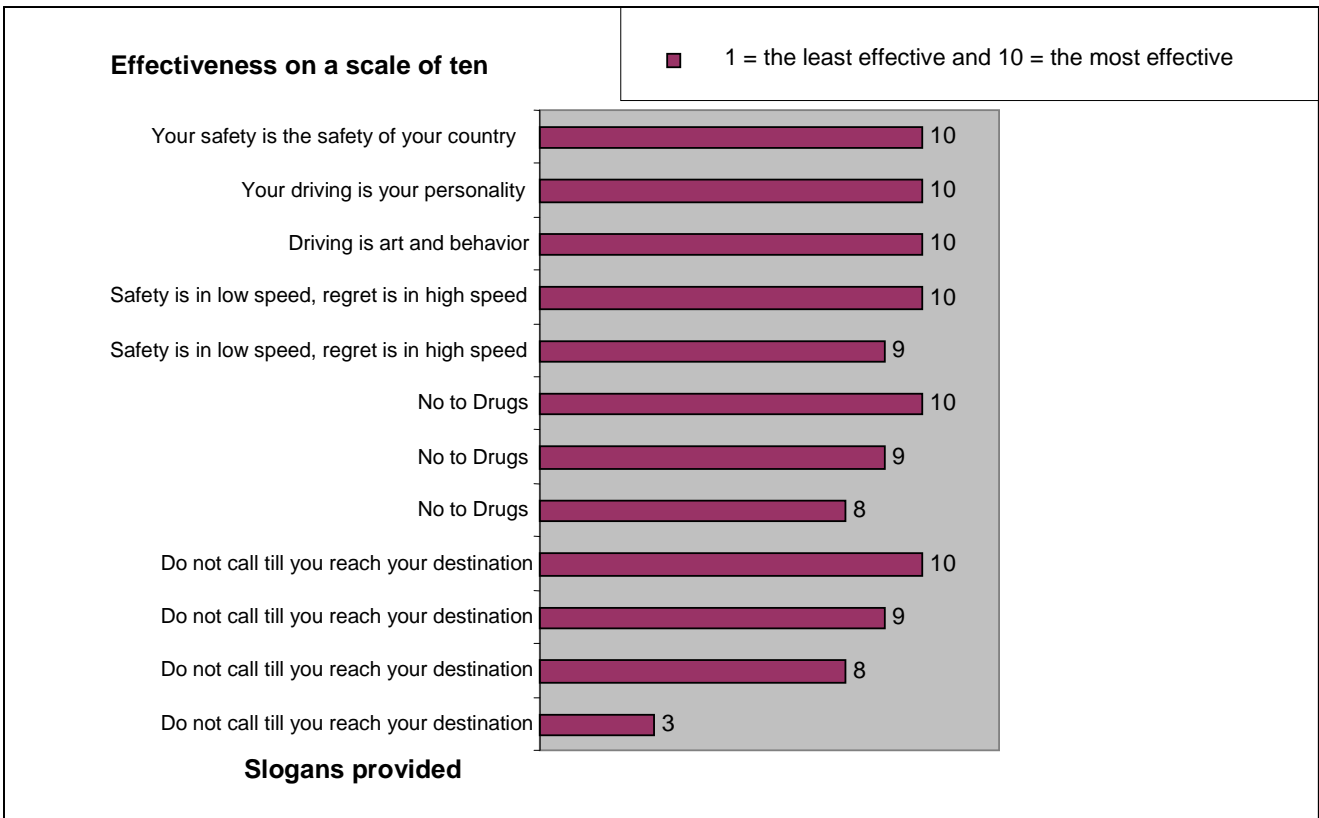
Figure 19: Effectiveness rate of slogans provided by participants

Part 4: Perceptions of other drivers

Unsafe driving behavior encountered on the roads	Number of rates according to danger: 1 being the most dangerous and 5 being the least dangerous				
	1	2	3	4	5
Speeding	10	5	4	1	2
Driving through the traffic red light	5		3	1	
Passing vehicles from the right side with unreasonable speed	1	7	6		1
Not using the car signal lights	1				
Driving recklessly	3		1	2	3
Sleeping and not concentrating while driving fast	1				2
Driving backwards in a main street		1			
Not abiding by the traffic laws			4	1	
Driving with car lights switched off				1	
Damaged car brakes					1
Tailgating		1	4	3	
Cutting in front of another car				2	5
Driving through stop sign without slowing down				1	
Passing vehicles in a non passing zone		1	2	4	
Not fastening the seatbelts					3
Driving without a license					1
Stopping suddenly					2
Using the phone while driving				1	
Racing another car		2			
Driving with very used tires				1	
Not using signal lights		1			
Not respecting others					1

Table 3: What types of unsafe driving behaviors do you normally encounter On the roads you drive on?

Appendix 6

Posters

Figure 21: Poster 2

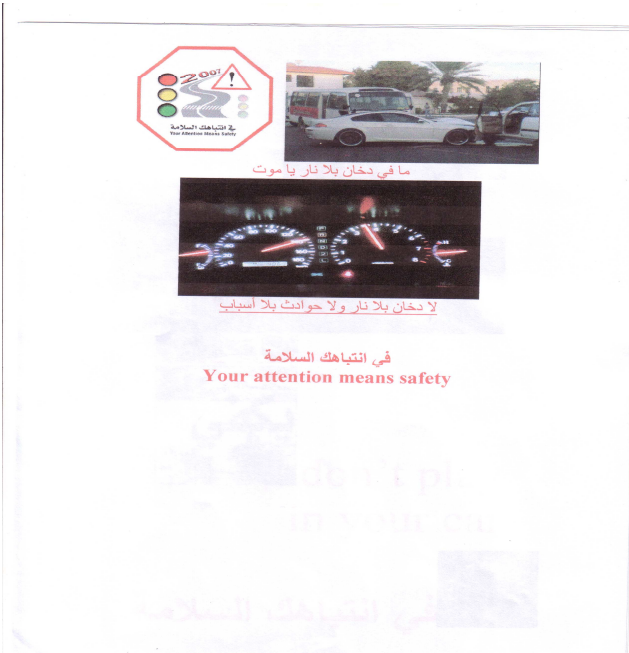لا تسرع في الدوار

Figure 22: Poster3

Figure 23 Poster 4

Figure 25: Poster 5

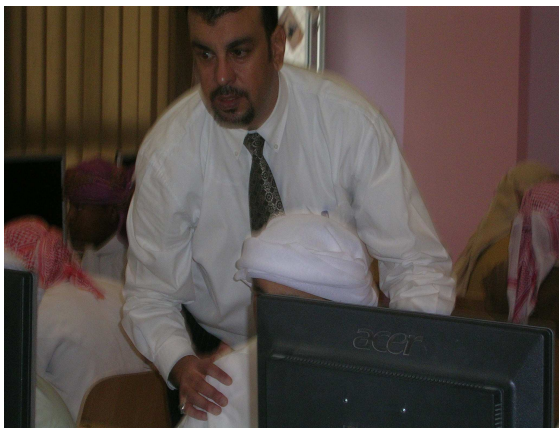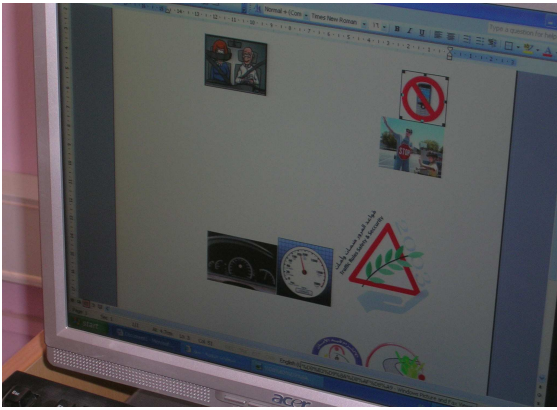**Figure 26: Poster 7**

Figure 27: Poster 8

Appendix 7

Pictures of questionnaire filling in process

&

Workshop

Appendix 8

CD: presentations and group interviewing

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