



# Design Education a Strategy to Change the Perceptions of Students Case Study of Ciudad Juárez

Erika Rogel<sup>1</sup>(✉) and Alberto Rossa-Sierra<sup>2</sup>

<sup>1</sup> Instituto de Arquitectura Diseño y Arte, Universidad Autónoma de Ciudad Juárez, Av. del Charro # 450 Nte, Col. Partido Romero, 32310 Ciudad Juárez, Chihuahua, Mexico  
erogel@uacj.mx

<sup>2</sup> Facultad de Ingeniería, Universidad Panamericana, Álvaro del Portillo 49, 45010 Zapopan, Jalisco, Mexico  
lurosa@up.edu.mx

**Abstract.** Effective design can be use as a tool for reduction of crime. This suggests that graphic design interventions that seek to change perceptions could have the potential to reduce violent crime. The inquiry expects the students to work with real problems, obtaining reasons and enriching their ideas to face their social role and responsibility as professional citizens. The objective of this research is to measure the change with respect to the attitudes and discover about effective design in contemporary society.

**Keywords:** Design education · Social responsibility · Change perception

## 1 Introduction

Currently, crime is a problem that affects all societies and seems to be on the increase everywhere in the world. In Latin America the growth of deaths and injuries caused by violence is alarming. Violence persists across cultures, social class, education, incomes, ethnicity and age in every country. In Central America the increase in deaths and injuries caused by violence is alarming. Police figures indicate that while actual crimes are not dissimilar across México, some states have particular characteristics. During the 1990s, Ciudad Juárez became relevant, even at the international level, for an infamous event: since 1993 there were continually cases of murdered women, hundreds of cases, so many that there was talk of the dead of Juarez. A tragic phenomenon, which showed a significant deterioration in the social fabric around the maquiladora model, was especially due to the massive hiring of female and young labor. The State, for its part, showed its weaknesses and a very high level of impunity against these femicides [1].

In fifteen years, things have not been different for Ciudad Juárez, even today the record of homicides as October 2019, is 1,167 registering more than one hundred homicides per month according to “Fideicomiso para la Competitividad y Seguridad Ciudadana” (FICOSEC) it is a trust, run by a group of businessmen from the State of Chihuahua, nonprofit [2].

## 2 Literature

According to Ekblom, crime prevention seeks to reduce the risk of criminal events and related misbehavior by intervening in their causes [3]. Violent crime and the fear of violent crime are costly to both individuals and communities. When crime escalates, the quality of life declines and neighborhoods become war zones in which residents are prisoners and, all too often, casualties. The damage from violent crime, once done, can never be repaired. The importance of efforts to prevent crime and violence may be less clear. Yet crime prevention efforts that seek to expand opportunities and incentives for personal responsibility. Prevention has been accepted as a key component of the human response to crime. However like many fast-growing efforts at this level, the crime prevention strategy is experiencing a number of growing pains that limit its effectiveness and could even threaten its survival. ‘Bolted-on’ crime prevention solutions don’t work. Razor wire, for example it might reduce the fear of crime on one side of crime on side of wall, but increase it on the other side [4].

A different approach to crime reduction and prevention could be through Design. The design of everyday products, services, vehicles and architecture has an impact on crime and the fear of crime. Design can work as a proactive; for example the using well-published research can become a major commercial issue, such an example is that of car security. New methods of preventing crime are constantly under developments, for example, alarms, locks, detectors, glass breakers and perimeter. As a result less car crimes have been committed. Communities and businesses can benefit from proposals to reduce crime. Design Against Crime (DAC) is a new concept to consider in design and where design can play a very important role preventing and reduce crime. Design against crime, posses many challenges for designers particularly when design looks to persuade the audience of some change. Nowadays we live in a changing world this implies that some change will be required in design itself. According to Clark, design against crime is about making all these products resistant to misappropriation, mistreatment, misuse, mishandling or misbehaviour. In Clarke’s words “It involves a mix of replication and innovation - creatively resolving conflicting and competing requirements and constraints to produce something that is fit for the purpose without neglecting the human dimension” [5].

While there is passing reference to the role of graphic design, there is no detailed consideration of the graphic designers role as a mediator in crime reduction. This suggests an opportunity to consider in detail, a currently unexplored area of research. While there are particular changes in addressing violent crime (as opposed to say, mobile phone theft) it shares with all other crimes an inherently rational nature. A study of violent crime in Australia noted that those coerced by violence are those most vulnerable to criminal violence and the exploitation of physical advantage [6].

This suggests that graphic design interventions that seek to change perceptions of reward and punishment could have the potential to reduce violent crime. There is, however, potential for anticipating criminal behaviour by paying better attention to prevention of criminal acts in the first place. Recently, there has been a broad change of focus among criminologists, from interest in the offender to interest in the circumstances of the offence. Prevention can cover a huge group of activities such as from

environmental design through pre-school programmes, social control, and criminal justice system institutions.

In social campaigns the power of design can act as a social tool and their role will be informative but also educative. According to Frascara, the aim of persuasive message is to change the conduct of the target group through motivation and encouragement to make the audience think, judge and develop by them [7]. Design is a rapidly changing discipline, evolving to meet the changing needs of users and embracing developing technologies. While the necessary knowledge base for design against crime has yet to be established, indications are that if it is approached in the right manner with the necessary incentives, designers will engage with design against crime. Networks between key stakeholders are required to allow an effective flow of knowledge and information, for design against crime to be effectively incorporated into everyday design thinking.

### 3 Methodology

The qualitative approach, founded on inductive processes, is based on the gathering of data obtained from the perspective and point of view of the participants (their emotions, experiences, meanings). The experiences of the participants are fundamental in the collection of information from the researcher. This approach can be defined as a set of interpretive experiences. Also, it is important to mention the use of observation as a support technique, since it is a visual record of what happens around us, it is important gathering of empirical evidence. It should be considered: a good planning, in order to meet the requirements of validity and reliability. The observer it requires having the systematic ability to record events differentiating those details that could be significant from those that are not relevant.

Qualitative research methods will be used to explore attitudes, social behaviour and visual information developed by a group of graphic design students will also be evaluated using this method. Furthermore, questionnaires and interviews will permit quantitative work to be obtained with a closer evaluation. The use of questionnaires can present many advantages such as uniformity: each respondent receives identical set of questions. It can also address a large number of issues and questions of concern in a relatively large number of respondents. On the other hand questionnaires also have disadvantages for example it may be difficult to obtain a good response rate. Questionnaires are complex instruments and, if badly designed, can be misleading. For this project the structure of the questionnaire was divided into four categories, including six questions in each one: Personal details (identity), Their role as a designer (cognition), Visual media information in the local area (perception) and Attitudes towards violence against women (behaviour). The questionnaires was designed, with the key aim of allow the students to express honest answers and without any pressure to provide anticipated responses. However, some respondents found it difficult to explain their point of view concerning important issues, (identity, behaviour, violence, cognition). Due to the personal nature of the issues to be investigated in the questionnaires it may be found difficult to express on a blank space of paper. In order to be accurate in measuring the attitudes and perceptions in the group of students this research will use a

method of Cultural Probes; This is an experimental research method, used for the purpose of information gathering for design and in this project it will be used as a part of a strategy of working experimental design, to provide a better understanding of local culture and the perception that the students have and their role as designers in that particular area.

This research focuses in the visual thinking culture that introduces a methodology as well as awareness. Thus, this will try to understand some of the aspects of the social attitudes and the levels of influence of visual media information on the individual. In addition this method will attempt to reinforce the designer's creative process of work with images from a particular point of view at the time, as the student explores the social problems in his/her environment. Students should work based on social problems in their locality, following a methodological process and doing a close research on the subject. As well as defining the user with whom they should focus their work, the proposal should seek to be evaluated through measurable methods.

## 4 Discussions

Encouraging designers to take the potential of crime as a dominant issue in the design process. An initial evaluation of the first exercise provides a positive indication. The exercise has been well received by the students. After the questionnaire was undertaken, at the end of the first section of the project, a number of interesting points were detected.

There is not a clear definition for the design students in higher education about which are the aims and the responsibilities of graphic design. Also they remain unclear about their level of commitment to society as a profession. This has been shown in the questionnaires responses. The opinion of the other students in subjects such as sociology, engineering even industrial design indicate that in general the students do not have a clear idea about the role of the graphic design. (This was showed in an early interview, with a group of intermediate level of graphic design). Another interesting observation is the power of the media and the information that surrounds them. The influence of the consumerism is really strong, however part of the work of graphic design has been involved with marketing, publicity, etc. yet the alarming problem is the graphic design students even imaging that design can work as a social instrument. Moreover, there is a concern about the attitudes shown towards violence and problems in the City: students made a list about their most common perception. The apathy they presented when confronted with these issues was seem as insurmountable, the problems are many and they never think that design could help to solve them. We discussed how graphic design could help in each case. After several classes the perception in the students started to change. In the beginning they visualized that design can solve problems, however that is not the idea: to solve them such issues you have to use more than a magic stick. Graphic design can contribute to society by developing correct information, didactic materials or using animation for public information, yet, these are just tools. The project proposed to change the approach and not just changing the point of view of how you analyze the problems. For example, a couple of students were interesting in the powerful impact of the campaign Vodka Absolute. The idea in the

beginning was just to analyze the concepts of the publicity and the associated campaigns. But other issues such as, what happen developing the promotional materials of this alcoholic beverage for a specific group, yet for this product there is more than one target group. The students in Ciudad Juárez showed that the majority of potential consumers of this product were teenagers. The question here is could design be responsible, and if it is, to what level, and what can we (as graphic designers) do in order to be the conscience of our responsible society.

Another example is the political campaigns in México. They produce an immense visual pollution and the impact on the environment is irreversible. A group of students pretend to persuade people to give advice using another campaign: this means the creation of more visual pollution. We are responsible for this. What can we do as designers to effect change? Probably we can convince our clients that we need to clean the city after each political event. Who needs to be responsible for this? These are a couple of examples that the designer can in a different ways be responsible for how they perceive a design. Some students became more convinced about the important of graphic design using as a tool to reduce crime.

## 5 Preliminary Conclusions

Seeking a design with conscience becomes a contemporary challenge; consumerism, struggling to survive in a globalize market, the influence of competitiveness of the labour force, as well as a scarce knowledge of what is the social commitment of the Graphic Designer towards society, are some of the main issues that Design faces these days. A design that has aesthetic potential but it is not clear about what is its concept; that is constantly seeking to sell and to be part of a competitive market, forgetting its social and community commitment. This is the design, which students are always searching for. Ways to be updated on trendy software, hope to find jobs in top agencies, fighting to get VIP clients, which usually are those who promote selling tobacco, alcoholic beverages, trendy prototypes of ideal lifestyle (such as anti-aging creams, credit cards, diets, cell phones). It is truly amazing to see how advertising campaigns are able to impose purchasing needs on people, being the image that society has about the purpose of Graphic design is one that promotes consumerism.

The strength and impact that designs have on people, backed up by an overwhelming amount of advertising true mass media, is the spark that triggers the need to buy on potential consumers. Considering that we live in an environment in which violence, lack of security and corruption are everyday events of daily scenery turn into a passive and indifferent society. Living in the border between Mexico and the US is a major challenge. Ciudad Juárez is the largest border city with US and their closeness promotes a constant comparison of life styles. Daily broadcast of data regarding products and trade marks from US, locate Juárez as a bicultural society that struggles everyday to find a graphic identity, confronting our University's (UACJ) graphic design students and putting them on the spot.

The classroom is the place where we build our professionals that will join work force in the future. The Universidad Autónoma de Ciudad Juárez (UACJ) is participating in the development of a case study in which main goal is to promote a change in

student's perception of their role and commitment to this society as professionals. Such proposals intend to involve student with real issues, in which they can use several methods to evaluate and credit a proposed product, with the intention to research deeply and to become aware by them of all the possibilities of participation that graphic design has in searching for ways to contribute in solving issues. This is a design with conscience and responsibility. Group proposals to date have been diverse, starting from didactic material for elementary schools and as manuals, campaigns, info-design and signs, in order to develop topics such as: Children's rights; oral violence, unwanted pregnancies, traffic chaos, alcohol issues, just to name a few.

Important advances have been posted up to date in this search of awakening interest among students to establish that graphic design can work as a tool in crime reduction and prevention. The change of the students was focused on trying to solve a social problem through design, based on a method. With this process, the student is convinced that establishing a methodology will allow a better order of ideas, search the needs of the problem and evaluated; that allows to narrow the margin of error, beyond the needs of the client are the needs of the study group.

One of the most representative changes, was the satisfaction of the students of understand the worth of your profession in the social field. These first groups of students who used this method allowed contributing in a positive way with its society, thus changing an attitude towards the use and application that was given to design.

## References

1. Aziz, A.: Violence and Destruction in an Urban periphery: the case of city of and Juarez, Mexico, ISSN 1405-1079, vol. 21, SCIELO (2012)
2. FICOSEC. Fideicomiso para la Competitividad y Seguridad Ciudadana (ficosec.org) 14 octubre del 2019
3. Clarke, R.V.: Hot Products: Understanding, Anticipating and Reducing Demand for Stolen Goods, Police Research Series Paper 112. Home Office, London (1999)
4. Ekblom, P.: Less Crime by Design. Home Office Research, Development and Statistics (2001)
5. Press, M., Cooper, R., Davey, C., Heeley, J., Wooton, A.: The Wrong Trousers: a critical reflection on design and crime prevention. European Academy of Design Conference, Barcelona, April 2003
6. Indermaur, D.: Situational prevention of violent crime: theory and practice in Australia. *Stud. Crime Crime Prev.* 8(1), 71-87 (1999)
7. Frascara, J.: Graphic Design & Communications. Argentina, Ed., Infinito Buenos Aires (2000)