



# Handbook of training guidelines

on road safety awareness and education for young drivers



**ICARUS**  
Inter-Cultural Approaches  
for Road Users Safety



*Edited by*

**Francesco Avallone, Anna Maria Giannini, Roberto Sgalla**

# **HANDBOOK OF TRAINING GUIDELINES ON ROAD SAFETY AWARENESS AND EDUCATION FOR YOUNG DRIVERS**

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# ICARUS PROJECT

## Inter-Cultural Approaches for Road Users Safety

ICARUS is an action-research program developed in three broad areas.

The first area involved the setting up of a European network of national institutions focusing on road safety promotion. These institutions shared an assessment tool to be used to analyze the factors related to risky behaviors engaged in by young drivers.

The second area dealt with a study on a large sample of young drivers. The relevant results have been summarized in a report including the following: *i*) common and specific national risk factors; *ii*) individual variables predicting risky behaviors; and *iii*) the existence of groups of drivers at high risk of being involved in traffic accidents.

Based on these data, the third area envisions a training program, which is based on the common and specific national risk factors.

This *Handbook* is concerned with the training program.

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*ICARUS PROJECT*

*Inter-Cultural Approaches for Road Users Safety*

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## Preface

Technological evolution and the process of globalization have profoundly transformed everyday life on our planet. Both old and new problems have been brought to the attention of politicians and society in the aim of finding solutions that can improve life conditions and the coexistence between individuals. The principal areas around which the future of humanity is at risk include: the environment and sustainable development, equity in the distribution of resources, the treatment and prevention of diverse health conditions, and the promotion of work and workers. To address issues of this complexity requires constantly increasing knowledge capable of providing essential and appropriate information, stimulating and supporting an ongoing process of cultural growth, and rendering new knowledge practical and useful.

Several public and private organizations have long been aware of the new societal demands but in many cases, their approach is reductionist and sectional. However, the nature of the problems, that need to be confronted, require elevated levels of integration between diverse institutions.

Road safety and responsible driving are determined by numerous variables and their outcomes not only refer to individual's lives and health, but also reflect styles of human coexistence.

In Italy, a special alliance between the institutions responsible for road safety and the world of scientific research has been developed. In particular, since 2001, the project has been carried out within a road safety education campaign aimed at youth and young adults and promoted by the Italian Police, the Faculty of Psychology of the University of Rome "La Sapienza", the Ministry of Infrastructure and Transportation, the Ministry of Education, University and Research, and the ANIA Foundation. The main objective of this initiative is to help young people understand the importance of respecting rules, promoting a culture of lawfulness, and avoiding at risk behaviors, the principal cause of traffic accidents.

The significant findings obtained in the last ten years<sup>1</sup> form the basis of the proposed ICARUS Project (Inter-Cultural Approaches for Road Users Safety), which is now coming to an end, and thanks to funding from the European Commission, involved 14 countries over 30 months.

The objective of ICARUS has been and continues to be the development of an European network of researchers, educators and police officers involved in the research on and training of young drivers and the main factors endangering road safety.

The research, as documented in a special volume, included youth and young adults living in the following countries: Austria, Bulgaria, Cyprus, Estonia, France, Germany, Ireland, Italy, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia and consented the identification of specific automobile and motorcycle driver profiles in each of the 14 participating countries.

The data collected was used to develop guidelines in road safety and responsible driver training and provides the basis for this *Manual*, which illustrates diverse training programs for European youth between the ages of 17 and 21 years. The *Manual* is accompanied by a training kit containing all of the necessary course materials and exercises, to assist teachers and police officers assume the role of trainers in training events to be realized in the near future.

In thanking the European Community, the Italian Ministry of Internal Affairs, the Head of Italian Police, the General Director of Traffic, Railways, Communications and Special Unit of the Italian Police, and Delegates of the Police Forces and Ministries of Education from the 14 participating countries, we would like to dedicate this work to Europe's youth and young adults who, through understanding the context in which they live and acquiring greater awareness of individual and social behaviors, can contribute to road safety through responsible driving.

Francesco Avallone<sup>2</sup>, Anna Maria Giannini<sup>3</sup>, Roberto Sgalla<sup>4</sup>

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<sup>1</sup>Giannini, A.M. & Sgalla, R. (2009). *Guida pratica per l'educazione stradale. Linee guida e percorsi. Scuola primaria*. Edizioni Centro Studi Erikson: Trento.

Giannini, A.M. & Sgalla, R. (2009). *Guida pratica per l'educazione stradale. Linee guida e percorsi per la scuola secondaria di secondo grado*. Erikson Study Centre Edition: Trento.

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## **Part one**

### **The training model**



## 1. Introduction

By its very nature, the study of road safety is multi-disciplinary. Road safety may refer to the planning and design of roads and highways; to vehicle technology in the form of both active safety (e.g., ABS, ESP) and passive safety (e.g., improving side and front impact, airbags, seatbelts, etc.); to legislative norms and insurance practices; to driver training procedures and the practices used to verify the ongoing competences required to drive a vehicle; to the economic cost of improving safety and the deriving costs of traffic accidents; to the level of respect for the law and rules typical of a particular social context; to the level of awareness with which the topic is experienced in the collective consciousness and is managed by the different institutional actors involved.

The issue of road safety involves a cultural theme. Without a doubt, the importance given to road safety includes respect of rules and laws, but it is also an expression of education, one's civic sense, and refers to the values which animate social life and the concept of individual and collective responsibility.

In sharing this perspective, youth acquire a central role in constructing a new culture of road safety and responsibility for driving behavior. Indeed, young adults are not merely the product of their environment but, on the contrary, they are the agents of the social context in which they live. While the social environment certainly has a decisive role in producing the conditions under which individuals function and behave, environmental action is mediated by the ability to assign meaning to the influences that it exerts. In other words, human action is generative and proactive rather than exclusively reactive<sup>5</sup>.

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<sup>5</sup> BANDURA, A. (1997). *Self-Efficacy: The Exercise of Control*. Freeman: New York.

This implies that youth have an active role in both selecting and shaping their contextual environment; that the human mind is endowed with the ability to independently generate new capacities; and that the possibility of recovering from the difficulties encountered along the journey through life exists.

In this framework, controlling action and regulating cognitive, motivational, and affective processes and physical states becomes of primary importance in driving behaviors. If we assume that for young adults, and in general for most individuals, the knowledge of reality, experience, and adaptation is characterized by active participation in the sense that individuals contribute to creating the “reality” to which they then respond, one then realizes that this approach focuses on the relationship between the individual and their context. The unit of analysis, in other words, is not the single individual with their accompanying inclinations, aspirations and abilities, but the network of relationships that this same individual creates and maintains with the external environment in which they engage in driving behaviors. Safety education is a construction and reconstruction of the representations individuals form in the normative and social contexts wherein they realize life experiences.

Consequently, the training itinerary presented in this *Manual* assigns a central role to the individual in relation to their environment, assisting participants in understanding their surroundings and facilitating their identification of appropriate and effective intervention strategies by increasing knowledge of the self, understanding potentials and limits, and recognizing abilities (both existing and those to acquire) with respect to driving and road safety.

This *Manual* is intended for teachers and police officers from diverse European countries who have expressed their willingness to participate in a training program involving the relationship between self-awareness and driving behavior with the objective of increasing participants’ *ability to anticipate* (predict potential scenarios, anticipate events, implement appropriate intervention strategies); the *ability to self-regulate* (anticipate the consequences of one’s own behavior, understand and control one’s emotional reactions, know how to withstand environmental pressures); and the *ability to be self-reflective* (reflect upon the processes of analyzing reality and decision-making procedures, generating new cognitive and behavioral abilities), as more fully illustrated in Appendix 3 which outlines the potential methodological and technical options available in a training intervention.

The target audience is young adult males and females between the ages of 17 and 21: an age range that represents an important transitional period towards adulthood and that often involves the establishment and consolidation of beliefs, self-image, and behavioral practices which are difficult to modify later on in life.

The adopted methodology is consistent with the perspective of learning through experience. In fact, the training sessions are not dedicated to the mere transmission of information; do not assume the form of lectures; and are not aimed at providing rules or catchphrases.

Instead, the training sessions are designed to permit the journey down a pathway of knowledge on road safety in which participants are expected to play an active role, often in a playful way, in the exploration of the causes of the phenomena, in the discovery of individual and group automatisms; in the identification of concrete actions to raise peer awareness on road safety and responsible driving.

Two different modalities for implementing the training activities are provided: full-time (the training group takes place continuously over the selected time frame) and part-time (participants continue to perform their typical tasks and a small amount of their daily activities is dedicated to road safety training). For each modality, diverse options with respect to feasibility and time constraints are provided<sup>6</sup>.

The *Manual* does not constitute a rigid script or text to meticulously follow: rather, it represents a course or route that the trainer may, if deemed appropriate to the specific context, follow by choosing from various training options included in each unit.

The *Manual* has the advantage of providing all the necessary material (from the orientation unit to the training evaluation unit) by means of a series of worksheets, which support the trainer in the preparation and management of training activities. These worksheets are organized in a ready-to-use- kit and accompanied by a CD, which

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<sup>6</sup> The following full-time options are available:

One day full-time module (5 hours)

Two days full-time module (10 hours)

Three days full-time module (15 hours)

Four days full-time module (20 hours)

The following part-time options are available:

One week part-time module (10 hours: 2 hours a day for 5 days)

Two weeks part-time module (20 hours: 2 hours a day for 10 days)

allows for the reproduction and potential modification of training materials.

Despite the inclusion of supporting materials, the outcome of the training activities will depend, to a large extent, on the competence and commitment of trainers.

Trainers are entrusted with the promotion and organization of the road safety training, the activation of the “group” and the involvement of participants, and the analysis of what emerges from the diverse training sessions. It is important that the youth who participate in this proposed road safety education perceive the trainer as a traveling companion as well as an adult expert interested more in understanding and analyzing than in teaching. The trainer should be seen as contributing to the construction of the future and the management of the relationship between the individual and their life contexts.

## 2. The Training Course

As previously highlighted in the Introduction, the training program presented in this *Manual* assigns a central role to the individual in relation to their environment, assisting participants in understanding their contexts and facilitating their identification of appropriate and effective intervention strategies by increasing knowledge of the self, understanding potentials and limits, and recognizing abilities (both existing and those to acquire) with respect to driving and road safety.

In particular, the objective of the training course involves increasing participants' *ability to anticipate* (predict potential scenarios, anticipate events, implement appropriate intervention strategies); the *ability to self-regulate* (anticipate the consequences of one's own behavior, understand and control one's emotional reactions, know how to withstand environmental pressures); and the *ability to be self-reflective* (reflect upon the processes of analyzing reality and decision-making procedures, generating new cognitive and behavioral abilities).

Also outlined in the Introduction, is the fact that training units are designed to permit the journey down a pathway of knowledge on road safety in which participants are expected to play an active role in the exploration of the causes of the phenomena, in the discovery of individual and group automatisms; in the identification of concrete actions to raise peer awareness on road safety and responsible driving.

The training program also changes in accordance with the duration of the intervention. Using the most extensive training module as an example (involving 20 hours of training), we may succinctly describe the training course as follows. After an introductory unit aimed at clarifying the objectives of the intervention and creating the work group (Unit 1), the goal of the second unit is to explore and examine the phenomena of road safety and to identify and discuss the main driver profiles resulting from the ICARUS research project conducted across European countries (Unit 2). Consequently, attention is focused on the individual in relation to driving contexts in order to explore the perceptual, cognitive and emotional mechanisms, which orient individual behavior and have an impact on driving and risky situations in general (Unit 3). Next, the presented information is clearly

organized, the principal risks of driving behavior are reviewed, and the main risk prevention strategies are analyzed (Unit 4). This exposition is tailored to each of the European participating countries so that the data presented is appropriate and relevant to the particular context. Participants' attention is then focused on the mechanisms of group life and their influence on exposing us to risky driving behaviors (Unit 5). On the basis of the specific training journey, participants are invited to actively contribute to the creation of materials, which increase same-aged peers' awareness of road safety (Unit 6). The concluding unit offers a final synthesis of the information and a training evaluation closes the educational experience (Unit 7).

### 3. Training Modules

As described in the Introduction, two different modalities for implementing the training activities are provided:

- a) FULL-TIME TRAINING MODULES (the training group takes place continuously over the selected time frame);
- b) PART-TIME TRAINING MODULES (participants continue to perform their typical tasks and a small amount of their daily activities is dedicated to road safety training).

For each modality, diverse options with respect to feasibility and existing time constraints are provided.

Four different full-time training modules are available, including 5, 10, 15 and 20 hours of training, respectively.

The full-time training modules are designed to involve five consecutive hours of training over one, two, three or four days. The training days can be carried out in succession (eg., during the summer) or using other models (for example: one day a week for two or more weeks).

The trainer will have the opportunity to build the training process by drawing from the materials presented in this *Manual*. Examples of potential training programs for each of the four full-time training modules are presented in Table 1.

Each of the four training modules always include: Unit 1 (Orientation and Introduction); Unit 4 (Road Safety Education), which represents the most relevant informational content presented with the support of slides outlining the data collected in each of the European participating countries; and Unit 7 (Conclusion and Training Evaluation).

Therefore, the differences between the four modules refer to the other units involving information and practice exercises which, in the 5 hour module, is limited to Unit 2 (Exploration of the Phenomena – The Causes of Traffic Accidents and Young Driver Profiles); in the 10 hour module, in addition to Unit 2, Unit 3 (The Individual Determinants of Driving Behaviors) and Unit 6 (Promoting a Road Safety Culture) are also included. This same training program is used in the 15 hours module however, more time is allowed for further examination and discussion of the individual determinants of driving

behavior and at risk situations. The 20 hours module includes all training units; in particular, the addition of Unit 5 (Driving Behavior and Group Dynamics) and a broader assessment of the issues raised.

**Table 1 – Full-time training modules**

TRAINING MODULES				
Hours	One day full-time module (5 hours)	Two days full-time module (10 hours)	Three days full-time module (15 hours)	Four days full-time module (20 hours)
1	Unit 1	Unit 1	Unit 1	Unit 1
2	Unit 2	Unit 2	Unit 2. Option 1	Unit 2. Option 1
3	Unit 4	Unit 3	Unit 2. Option 2	Unit 2. Option 2
4	Unit 7			
5				
6		Unit 4	Unit 3. Options 1 or 2	Unit 3. Option 1
7		Unit 6		Unit 3. Option 2
8		Unit 7		
9			Unit 3. Options 3 or 4	
10				
11			Unit 4	Unit 3. Option 3
12			Unit 6	Unit 4
13			Unit 7	
14				
15				
16				Unit 5
17				Unit 6
18				Unit 7
19				
20				

Two different part-time training modules are available, including 10 and 20 hours of training, respectively. The part-time training modules are designed to involve two consecutive hours of training over five or ten days (but should be conducted over a limited timeframe). Examples of the two part-time training modules are presented in Table 2.

**Table 2 – Part-time training modules**

TRAINING MODULES			
Days	Hours	One week part-time module (10 hours: 2 hours a day for 5 days)	Two weeks part-time module (20 hours: 2 hours a day for 10 days)
1	1	Unit 1 and Unit 2	Unit 1 and Unit 2. Option 1
	2		
2	3	Unit 3	Unit 2. Option 2
	4		
3	5	Unit 4	Unit 3. Options 1 or 2
	6		
4	7	Unit 5	Unit 3. Options 2 or 3
	8		
5	9	Unit 6 and Unit 7	Unit 3. Options 3 or 4
	10		
6	11		Unit 4
	12		
7	13		Unit 5
	14		
8	15		Unit 6. Option 1
	16		
9	17		Unit 6. Options 2 or 3
	18		
10	19		Unit 7
	20		

## 4. The Training Group and the Trainer

This training program is destined for youth and young adults between the ages of 17 and 21 years from European countries, which participated in the ICARUS Project.

The training participants may represent youth who already belong to a group (for example: class from school; cultural or sport group; members of an association; a summer camp class, etc.) or youth brought together solely to participate in this specific training experience (students from different classes, students from diverse university faculties, young adults from different work settings).

The creation of the group must be preceded by appropriate communication outlining who will be promoting the activity, its objectives, methodology, and the location of the training site.

The number of participants in any one group should be contained: from a minimum of 10 to a maximum of 15-18 youth, preferably of both sexes.

Particular attention should be paid to encouraging youth to attend the entire training course and avoiding absences and delays, which adversely affect the educational process.

The trainer assumes responsibility for the entire educational process. More specifically, they are responsible for:

- a) increasing organizational heads' awareness on the topic of dangerous driving and the importance of promoting and sustaining training activities on road safety and responsible driving;
- b) encouraging youth's communication, curiosity, and desire to participate;
- c) taking possession of the training course, sharing it or introducing modifications that they deem appropriate;
- d) adequately preparing themselves on both the themes and exercise techniques aimed at engaging participants and encouraging youth to express their beliefs and feelings regarding the themes covered;
- e) conducting classroom activities;

f) recording, in the manner deemed most appropriate, all issues which emerge during training sessions (this self-report will be useful both in the continuation of the training activities that take place in the weeks following and as a record for future editions of the training program).

Although the program is designed for a single trainer, there is nothing to prevent that the training is conducted by a pair of trainers. In this event, it is essential that the two trainers share the overall training approach, especially in preparation of the training sessions.

In both the cases of single trainers and pairs of trainers, it is beneficial that a regular meeting is organized (every three to six months) among those who have played the role of trainers, in order to jointly assess the progress of the training activities and the objectives attained.

## 5. Using the Kit

In carrying out their role, the trainer will find support in the materials included in the training kit.

The kit includes the following 7 units:

Unit 1 – Orientation and Introduction.

Unit 2 – Exploration of the Phenomena. The Causes of Traffic Accidents and Young Driver Profiles.

Unit 3 – The Individual Determinants of Driving Behaviors

Unit 4 – Road Safety Education.

Unit 5 – Driving Behavior and Group Dynamics.

Unit 6 – Promoting a Road Safety Culture.

Unit 7 – Conclusion and Training Evaluation.

For each unit, a brief summary of the activities and objectives are provided. In addition, each unit includes a detailed description of the exercises, different training options the trainer may choose from, potential group discussion topics, and a list of necessary materials.

Each unit is also accompanied by worksheets, which serve to carry out the diverse exercises and activities and permits the reproduction of necessary materials.

Unit 4 is slightly different from the rest of the training sessions. Given it is a training session which involves a lot of statistics and differs depending on the particular country in question, the trainer must be careful to select only the relevant slide ahead of time. Thus, different slides will be included in Unit 4, one for each of the participating countries in the ICARUS Project. To a large extent, the slides are similar, with the exception of the statistics and driver profiles which, instead, are specific to each country.

All of the material that is part of the *Manual* is available in the attached CD. The files are provided in both pdf and original versions in order to allow for additions and/or modifications.

A pamphlet is also included for the trainer to complete and use to promote the training course.

## **Part two**

### **The training kit**





**HANDBOOK OF TRAINING GUIDELINES  
ON ROAD SAFETY AWARENESS  
AND EDUCATION FOR YOUNG DRIVERS**

**UNIT 1 – ORIENTATION AND INTRODUCTION**

## **DESCRIPTION OF UNIT 1**

### **ORIENTATION AND INTRODUCTION**

#### **ACTIVITIES**

This unit is dedicated to the training environment, welcoming and greeting participants, establishing feelings of group belongingness, and creating a positive and motivating group climate.

#### **OBJECTIVES**

To create an adequate training setting with respect to climate and motivation through a process of socialization encouraging a common ground and a safe space for participants to engage in comparison and confrontation.

To present the aims and objectives of the intervention, outline the characteristics and methods utilized throughout the course, and introduce the trainer who will be facilitating the intervention.

#### **OUTLINE OF UNIT**

The unit may be divided into different parts:

##### *a) Preparation of the training setting prior to the first meeting*

The trainer is responsible for arranging the setting in such a way that participants feel welcomed, comfortable, and appreciated.

The trainer should ensure that the training environment is sufficiently spacious and illuminated and that each participant has a seat. The trainer should also verify that all educational materials are available and complete (e.g., writing materials, photocopies, place cards, pencils and markers, etc.).

The trainer should organize the setting so that the distance between themselves and the participants is minimal and participants should be arranged in a semi-circle to encourage greater group participation and discourage an excessively formal atmosphere.

*b) Orientation and opening introductions*

As participants arrive, the trainer welcomes them, writing each person's name on the place card (**see Unit 1 – Worksheet A**).

*Materials:* markers, paper place cards.

*c) Introduction of the trainer and the project*

During the orientation and introduction, the trainer explains the project by describing its assumptions and aims. Thus, the trainer will give participants a brief overview of the intervention.

The trainer should present themselves, indicating their name and role (teacher, police officer, etc.) and provide some information with respect to their own motivation for the intervention: why they are interested in facilitating the group, which parts of the project they are principally interested in, and their expectations in terms of the journey the participants are about to embark on.

*d) Introduction of participants*

Following the introduction of the trainer and the project, participant introductions should also be conducted.

The introduction of participants may be accomplished by utilizing 1 of 3 different options from which the trainer may choose.

**\* Unit 1 – Option 1. “Your mood”**

This quickest option requires approximately 30 minutes for a group of 15 participants.

*Objective*

To permit an initial contact with and between participants, by inviting them to express some simple emotions.

*Exercises*

A small piece of Bristol board is distributed to each participant (**see Unit 1 – Worksheet B**) with the instructions, “In one or two words, please describe your mood at the beginning of this experience”.

Once all participants have completed the exercise, the cards are collected and shuffled so that responses remain anonymous.

Each card is then read out to the group without making any comments.

#### *Comments*

After all cards have been read, the trainer summarizes the emotions described by the participants. The trainer should be careful not to be judgmental and to be open to the possibility that some participants may resist the exercise. Ideally, the trainer should attempt to create an educational journey, which is both interesting and engaging for all participants.

*Materials:* Bristol board and pens

#### **\* Unit 1 – Option 2. “If I were...”**

This option involves an engaging exercise, which provides useful information on participants’ characteristics. This option requires approximately 30-40 minutes for a group of 15 participants.

#### *Objective*

To promote relationships among participants and with the trainer and to encourage the socialization process. To create a group structure that is conducive to collective reflection and involves the sharing of subjective life experiences.

#### *Exercises*

The trainer distributes a Worksheet with a series of images representing different means of transportation to each participant. The images are varied and refer to different time periods and diverse conceptualizations of movement and speed (**see Unit 1 – Worksheet C**).

Each participant is invited to select the means of transportation which they feel best represents themselves and their personal characteristics in response to the instructions, *If I was a means of transportation, I would be.....*

The trainer then goes around the semi-circle and each participant introduces themselves and briefly explains why they chose a particular

means of transportation and how it represents them. The trainer should not intervene during the participant introductions.

#### *Comments*

At the end of the presentations, the trainer should make some general comments regarding what emerged during the introductions, highlighting aspects of diversity and similarities and making the most of the characteristics that may be used for training purposes. In particular, the connections between personal characteristics and preferences and chosen means of transportation should be highlighted.

*Materials:* a copy of the Worksheet, *If I was a means of transportation, I would be.....* for each participant.

### **\* Unit 1 – Option 3. “Avatar”**

This option is engaging and complex. It provides information on participants’ characteristics without a discussion of problems related to driving and driver safety. This exercise requires 50-60 minutes for a group of 15 participants.

#### *Objective*

To promote relationships among participants and with the trainer and to encourage the socialization process. To create a group structure that is conducive to collective reflection and involves the sharing of subjective life experiences.

#### *Exercises*

The trainer should introduce this orientation exercise by referring to social networks such as Facebook. An Avatar is an image that represents your own virtual identity and is often employed by users of social networks in conjunction with one’s name or nickname.

The trainer distributes a piece of white Bristol board and a pencil to each participant and also makes, pencil crayons/markers, pencil sharpeners, and erasers available to everyone (**see Unit 1 – Worksheet D**).

Each participant is asked to design their own Avatar, noting that similar to other social networks, the Avatar should be representative of

themselves or of particular aspects they would like to communicate to the group.

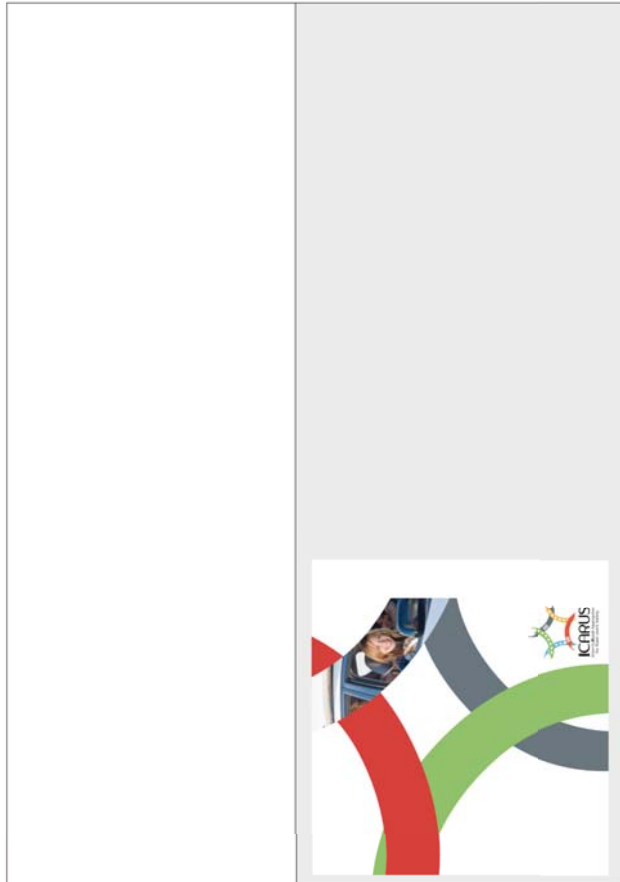
Once everyone has designed their Avatar, the trainer provides each participant with two different colors of Post It notes. Participants are requested to write down their *Likes* and *Dislikes*, similar to the *Like – Dislike* model of social networks. Finally, the trainer asks each participant to hang up their Avatar on the blackboard or wall and stick their Post It notes beside their Bristol board. As they do this, each participant presents their Avatar to the group and explains the reasons that guided their choice of design and their *Likes* and *Dislikes*.

#### *Comments*

At the end of the Avatar presentations, the trainer should make some general comments regarding what emerged during the introductions, highlighting aspects of diversity and similarities and making the most of the characteristics that may be used for training purposes. In particular, the trainer should highlight the importance of knowing oneself and of giving oneself a scheme or plan to attain and maintain likes and interests and to modify personal aspects that are not liked.

*Materials:* Bristol board (white); Pencils, erasers, pencil sharpeners and pencil crayons/markers; Post It notes (2 different colors), Blackboard or wall, Tape.

**Unit 1 – WORKSHEET A**  
**(print out on Bristol board and fold in half)**

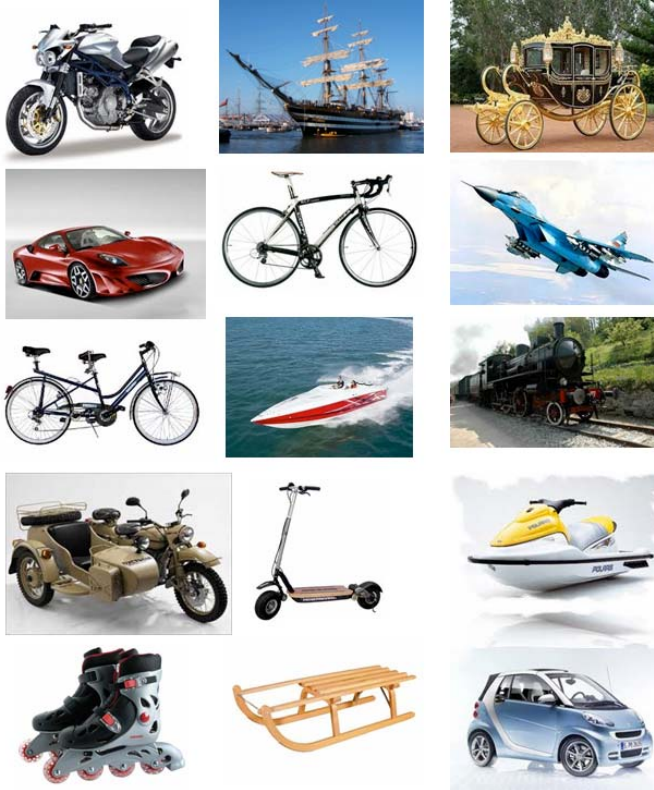


**Unit 1 – WORKSHEET B**  
**(print out on Bristol board and cut out)**

In one or two words, please describe your mood at the beginning of this experience.	In one or two words, please describe your mood at the beginning of this experience.
In one or two words, please describe your mood at the beginning of this experience.	In one or two words, please describe your mood at the beginning of this experience.
In one or two words, please describe your mood at the beginning of this experience.	In one or two words, please describe your mood at the beginning of this experience.
In one or two words, please describe your mood at the beginning of this experience.	In one or two words, please describe your mood at the beginning of this experience.
In one or two words, please describe your mood at the beginning of this experience.	In one or two words, please describe your mood at the beginning of this experience.

**Unit 1 – WORKSHEET C**  
**(print out and distribute to each participant)**

*If I was a means of transportation, I would be....  
(place an X on the chosen means of transportation)*



**Unit 1 – WORKSHEET D**  
**(print out and distribute to each participant)**



**Design your avatar below**



**HANDBOOK OF TRAINING GUIDELINES  
ON ROAD SAFETY AWARENESS  
AND EDUCATION FOR YOUNG DRIVERS**

**UNIT 2 – EXPLORATION OF THE PHENOMENA.  
THE CAUSES OF TRAFFIC ACCIDENTS AND YOUNG  
DRIVER PROFILES**

## **DESCRIPTION OF UNIT 2**

### **EXPLORATION OF THE PHENOMENA. THE CAUSES OF TRAFFIC ACCIDENTS AND YOUNG DRIVER PROFILES**

#### **ACTIVITIES**

This unit is dedicated to the creation of shared knowledge on road safety between participants through diverse group comparison and trainer-led activities.

#### **OBJECTIVES**

To activate participants with respect to the theme of road safety by exploring their existing knowledge and beliefs of the variables which play a significant role in the causes of traffic accidents. This is achieved through the identification of the principal young driver profiles.

#### **OUTLINE OF UNIT**

The unit may be carried out in two different classroom versions, previously chosen by the trainer: one, which focuses on the causes of traffic accidents; the other, on young driver profiles.

#### *Preparation for unit activities*

The trainer invites all group members to participate in a game by presenting the overall objective: to elicit participants' existing knowledge and beliefs. The thematic focus of the activity is then clearly explained (i.e., the causes of traffic accidents or young driver profiles).

For both versions, the training activity involves dividing participants into subgroups. The trainer should make sure that the minimum requirements for small group work are accessible prior to the beginning of the unit. For example, chairs can be moved or there is an adjoining room available.

**\* Unit 2 – Option 1. “The blacklist”**

A simple training exercise, which activates participants by using peer comparisons through subgroups and a process of discovery and knowledge within the entire group. This exercise requires approximately 60 minutes.

*Objective*

Explore participants’ knowledge and beliefs concerning the principal causes of traffic accidents.

*Exercises*

*Phase 1* – Each participant is given a list of 8 potential causes of traffic accidents (**see Unit 2 – Worksheet A**). Individually, they are to rank the list in order from the cause they deem to be most frequent (1st position) to the cause they believe is least frequent (8th position). Ten minutes should be allowed to complete this task.

*Phase 2* – Once all participants have finished their ranked list, the trainer asks everyone to assign points to the diverse positions according to the following scheme:

Ranked 1st: 8 points	Ranked 5th: 4 points
Ranked 2nd: 7 points	Ranked 6th: 3 points
Ranked 3rd: 6 points	Ranked 7th: 2 points
Ranked 4th: 5 points	Ranked 8th: 1 point

Subsequently, the trainer arranges the participants into small groups of approximately 4 people each and gives the following instructions: after discussing and comparing individual lists, each group has to formulate a new collective ranking for the list of traffic accident causes. The trainer is to provide the group with an another worksheet where the new ranking may be recorded (**see Unit 2 – Worksheet A**) and the respective points calculated. Twenty minutes should be allowed to complete this task.

*Phase 3* – Once completed, the trainer should invite all groups to rejoin the entire class with their final lists.

Complete the table (**see Unit 2 – Worksheet B**) with the point totals for each cause. This process will reveal group differences in evaluating the causes of traffic accidents, where present.

Finally, the trainer should distribute a sheet (see **Unit 2 – Worksheet C**) with the rank ordering of traffic accident causes compiled by a group of experts on the basis of available statistics. It should be noted that while there may be some differences across countries, the following ranking is assumed to be “correct” for the purposes of this exercise.

Consequently, ask participants to compare their individual ranking, the group ranking, and the final class ranking; it is probable that the group lists are closer to the actual incidence rates than are the individual rankings.

### *Comments*

The trainer leads a group discussion focused on the fact that some causes were most likely overestimated while others were underestimated: for example, it is likely that going through a red light is ranked by participants as a more frequent cause of traffic accidents than failing to yield to right-of-way. In reality, failing to yield is 15 times more likely<sup>7</sup>.

At the end of the discussion, the trainer should comment on the exercise by making the most of the reflections made by participants during the group discussion and focusing their attention on the fact that our beliefs regarding the causes of accidents condition our behavior with respect to road safety and driving.

In addition, the trainer should include a comment on group decision-making processes. In particular, they should note that ingroup comparisons can increase individuals’ capacity to understand the

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<sup>7</sup> Note for trainer.

The list only includes some potential causes of traffic accidents.

The objective of the exercise is to reveal the differences between incidence rates and subjective perceptions.

Below are the actual incidence rates for the 8 causes of traffic accidents (Giannini, Sgalla, 2009<sub>2</sub>):

- |  |                     |
|--|---------------------|
| 1. Failing to yield to right-of-way                        | approximately 17%   |
| 2. Indecisive or uncertain driving                         | approximately 15%   |
| 3. Speeding  | approximately 12%   |
| 4. Failing to maintain a safe distance                     | approximately 10%   |
| 5. Failing to stop at a red light                          | approximately 1.2%  |
| 6. Collision with a vehicle that is inappropriately parked | approximately 1.0%  |
| 7. Driving under the influence of drugs and/or alcohol     | approximately 0.15% |
| 8. Car breaks not working properly                         | approximately 0.10% |

diverse aspects of situations, thus promoting a more appropriate appraisal of reality.

*Materials:* Worksheets to complete rankings of the 8 causes of traffic accidents, Sheet with correct rankings of 8 causes, Pens.

### **\* Unit 2 – Option 2. “The identikit”**

A playful and engaging training exercise, which activates participants interest and attention through group work that is directed at constructing young driver profiles. This option requires approximately 30 minutes.

#### *Objective*

To increase participants’ knowledge of road safety through a heightened understanding of the characteristics of young drivers in accordance with data that emerged from the empirical research study conducted by ICARUS.

#### *Exercises*

*Phase 1* – The trainer affixes the 3 Identikit posters to the wall (**see Unit 2 – Worksheet D**), distributes a set of cards representing the young driver characteristics to each participant (**see Unit 2 – Worksheet E**), and provides tape so that cards may be taped to the poster.

The trainer then explains that the objective of the game is to reconstruct the Identikit of the 3 young driver profiles: 1) Young At Risk Driver; 2) Young Overconfident Driver; and 3) Young Prudent Driver, utilizing the characteristics represented on the cards.

*Phase 2* – One at a time, participants are invited to select a characteristic to ascribe to any one of the profiles and attach to the Identikit posters. If they are unsure of which card to post, they may skip a turn.

*Phase 3* – Once the Identikit profiles are completed, the trainer should give each participant a copy of the “real” profiles (**see Unit 2 – Worksheet F**) with the respective listing of emotions, characteristics, behaviors and beliefs as emerged from the ICARUS research data. Request that participants compare the Identikit posters with the

correct profiles. In particular, highlight the incorrect associations by enquiring and more closely examining the beliefs underlying participants' specific associations.

*Comments*

At the end of the game, the trainer should encourage participants to reflect on the personal characteristics which they recognize in themselves and invite any volunteers to identify which of the 3 profiles is closest to their own approach to driving. Conclude the discussion by asking participants about potential strategies that may be used with the at-risk profiles in order to increase both one's own and others' safety.

*Materials:* 3 Identikit Posters, Set of Emotions, Characteristics, Behaviors, and Beliefs cards, Description of profiles, Tap

## Unit 2 – WORKSHEET A

**(print out and distribute to individual participants  
and then to groups)**

*On this worksheet, you will find a list outlining 8 potential causes for traffic accidents. Read each cause carefully and rank them in order from the cause you deem to be most frequent (1st) to the cause you believe is least frequent (8th). Ten minutes are allowed to complete this task.*

*When you have completed your ranking, assign each rank the number of points as listed below.*

	Rank Order of Frequency	Points
Car breaks not working properly		
Speeding		
Indecisive or uncertain driving		
Failing to yield to right-of-way		
Driving under the influence of drugs and/or alcohol		
Failing to stop at a red light		
Collision with a vehicle that is inappropriately parked		
Failing to maintain a safe distance		
TOTAL		

Criteria for calculating points:

Ranked 1st: 8 points	Ranked 5th: 4 points
Ranked 2nd: 7 points	Ranked 6th: 3 points
Ranked 3rd: 6 points	Ranked 7th: 2 points
Ranked 4th: 5 points	Ranked 8th: 1 point

**Unit 2 – WORKSHEET B**  
**(to transcribe onto blackboard or use directly)**

*Fill in the points attributed to each cause, rearranging the list by placing the cause with the highest point value at the top of the list and continuing downwards to the lowest scoring cause for traffic accidents:*

Cause	Points Group 1	Points Group 2	Points Group 3	Points Group 4	Points Totals	Rank Order
Failing to yield to right-of-way						
Indecisive or uncertain driving						
Speeding						
Failing to maintain a safe distance						
Failing to stop at a red light						
Collision with a vehicle that is inappropriately parked						
Driving under the influence of drugs and/or alcohol						
Car breaks not working properly						

**Unit 2 – WORKSHEET C**  
**(print out and distribute to participants)**

*Rank order of traffic accident causes compiled by a group of experts on the basis of available statistics. While there may be some differences across various countries, the following list is assumed to be “correct” for the purposes of this exercise.*

The correct ranking of most frequent causes of traffic accidents

- 1) Failing to yield to right-of-way
- 2) Indecisive or uncertain driving
- 3) Speeding
- 4) Failing to maintain a safe distance
- 5) Failing to stop at a right light
- 6) Collision with a vehicle that is inappropriately parked
- 7) Driving under the influence of drugs and/or alcohol
- 8) Car breaks not working properly

**Unit 2 – WORKSHEET D**  
**(print out in A3 format)**

**IDENTIKIT OF THE YOUNG AT RISK  
DRIVER**



**IDENTIKIT OF THE YOUNG  
OVERCONFIDENT DRIVER**



**IDENTIKIT OF THE YOUNG PRUDENT  
DRIVER**



## Unit 2 – WORKSHEET E

(print out, cut and distribute to participants)

<i>Emotions during driving</i> <b>Anger towards obstacles</b>	<i>Emotions during driving</i> <b>Calm</b>	<i>Emotions during driving</i> <b>Aggression towards other drivers</b>
<i>Characteristics</i> <b>Egocentric</b>	<i>Characteristics</i> <b>Sensation seeking</b>	<i>Characteristics</i> <b>Male</b>
<i>Characteristics</i> <b>Altruistic</b>	<i>Characteristics</i> <b>Friendly</b>	<i>Characteristics</i> <b>Female</b>
<i>Behaviors</i> <b>Violates traffic codes</b>	<i>Behaviors</i> <b>Respects traffic codes</b>	<i>Behaviors</i> <b>Drives several KMs</b>
<i>Behaviors</i> <b>Drives few KMs</b>	<i>Behaviors</i> <b>Drives under the influence of drugs and/or alcohol</b>	<i>Behaviors</i> <b>Drives at night</b>
<i>Behaviors</i> <b>Seldomly drives at night</b>	<i>Behaviors</i> <b>Uses safety tools (helmet, seat belts)</b>	<i>Behaviors</i> <b>Does not respect collective/ social norms</b>
<i>Behaviors</i> <b>Respects collective/ social norms</b>	<i>Behaviors</i> <b>Is tolerant of speeding</b>	<i>Beliefs</i> <b>Believes that traffic codes do not disrupt the flow of traffic</b>

Beliefs <b>Believes the use of alcohol influences their capacity to drive</b>	Beliefs <b>Believes the use of alcohol does not influence their capacity to drive</b>	Beliefs <b>Believes they have little control over potential traffic accidents</b>
Beliefs <b>Believes traffic accidents are a result of destiny</b>	Beliefs <b>Believes that traffic codes disrupt the flow of traffic</b>	Beliefs <b>Believes that traffic accidents are the driver's responsibility</b>
Beliefs <b>Believes they can do a lot to avoid traffic accidents</b>	Beliefs <b>Believes that traffic codes guarantee everyone's safety</b>	Beliefs <b>Believes they have a lot of control over potential traffic accidents</b>

**Unit 2 – WORKSHEET F**  
**(print out and distribute to participants)**

*Reconstruction of profiles*

<b>At Risk Driver</b>	<b>Prudent Driver</b>	<b>Overconfident Driver</b>
<i>Emotions during driving</i> 1. Anger towards obstacles 2. Aggression towards other drivers	<i>Emotions during driving</i> 1. Calm	<i>Emotions during driving</i> 1. Anger 2. towards obstacles
<i>Characteristics</i> 1. Sensation seeking 2. Egocentric 3. Male	<i>Characteristics</i> 1. Altruistic 2. Friendly 3. Female	<i>Characteristics</i> 1. Sensation seeking 2. Egocentric 3. Male
<i>Behaviors</i> 1. Violates traffic codes 2. Drives under influence of drugs and/or alcohol 3. Does not respect collective/social norms 4. Drives several KMs 5. Drives at night 6. Is tolerant of speeding	<i>Behaviors</i> 1. Respects traffic codes 2. Respects collective/social norms 3. Uses safety tools (helmet, seat belt) 4. Seldomly drives at night 5. Drives few KMs	<i>Behaviors</i> 1. Violates traffic codes 2. Respects collective/social norms 3. Drives at night 4. Drives several KMs 5. Is tolerant of speeding

<i>Beliefs</i>	<i>Beliefs</i>	<i>Beliefs</i>
1. Believes traffic accidents are a result of destiny	1. Believes that traffic accidents are the driver's responsibility	1. Believes that traffic accidents are the driver's responsibility
2. Believes they have little control over potential traffic accidents	2. Believes they can do a lot to avoid traffic accidents	2. Believes they have a lot of control over potential traffic accidents
3. Believes that traffic codes disrupt the flow of traffic	3. Believes that traffic codes guarantee everyone's safety	3. Believes that traffic codes do not disrupt the flow of traffic
4. Believes the use of alcohol does not influence their capacity to drive	4. Believes the use of alcohol influences their capacity to drive	4. Believes the use of alcohol influences their capacity to drive



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**UNIT 3 – THE INDIVIDUAL DETERMINANTS  
OF DRIVING BEHAVIORS**

## **DESCRIPTION OF UNIT 3**

### **THE INDIVIDUAL DETERMINANTS OF DRIVING BEHAVIORS**

#### **ACTIVITIES**

This unit is dedicated to the exploration of the perceptual, cognitive and emotional mechanisms, which orient individual behavior and which influence driving and risky situations in general.

#### **OBJECTIVE**

To facilitate participants' understanding of some of the individual mechanisms and personal characteristics which both expose us to and protect us from potentially risky situations.

The unit has two different thematic focuses including some of the specific individual determinants, which play a key role in young drivers' behaviors and attitudes when faced with high risk driving situations. The two themes center on:

- Focus 1 – Risk perception and attribution of responsibility.
- Focus 2 – Emotions while driving and respecting rules.

Each of these themes is associated with 2 different training options. The trainer, according to the time that is available to them and the progression of the particular group, may choose which option to propose.

#### **UNIT 3 – FOCUS 1 – RISK PERCEPTION AND ATTRIBUTION OF RESPONSIBILITY.**

##### ***\* Unit 3 – Focus 1: Risk perception and attribution of responsibility. Option 1. “The route”***

A simple exercise, which provides participants with immediate insight and knowledge. It requires approximately 40 minutes to complete.

### *Objective*

To increase participants' awareness and understanding of their own beliefs with respect to driving ability, perceptual capacity and assessment of risk.

### *Exercises*

A volunteer is requested for a simple game. Once a volunteer has been identified, ask them if they feel up to the task of completing a driving route while respecting diverse traffic signs (**see Unit 3 – WORKSHEET A**). The volunteer must complete the traffic route with a pen as quickly as possible while paying attention to all traffic signs. The trainer records the time taken by the volunteer to complete the route and notes any errors or violations committed by the “driver”. Now, ask if there is a second volunteer who wants to complete the same route. However, this time the “driver” must complete the exercise as quickly as possible while simultaneously responding out loud to questions about themselves asked by another group member. Again, the trainer records the time taken by the volunteer to complete the route and notes any errors or violations committed. Naturally, the second “driver” will have more difficulty than the first, will commit more errors, and will take more time to complete the task.

This exercise provides the trainer with the opportunity to open up the discussion to the fact that the second situation is much more realistic than the first, in that while we drive, a series of voluntary and involuntary behaviors influencing our risk perception abilities and our responses to dangerous situations are interacting. Along these lines, request that participants identify the behaviors and actions they typically engage in while driving, inviting them to assign each act a level of risk (e.g., tune the radio, look for a CD, light a cigarette, carry on a conversation with passengers, sing, argue with a boy/girl friend, send a text message, read driving directions from a map, set the navigator, etc.).

Guide the group discussion with questions regarding participants' perceptual abilities while driving and their self-awareness of these abilities, leaving space for participants to make comparisons with diverse viewpoints.

### *Comments*

The trainer should close the session with a summary of what emerged, exploiting the perspectives and highlighting the debates or discussions, which proved most interesting and useful in terms of heightening self-awareness.

*Materials:* Worksheet with driving route, Pen.

### ***\* Unit 3 – Focus 1: Risk perception and attribution of responsibility. Option 2. “The questionnaire”***

This option centers on locus of control and causal attribution dimensions.

It is a simple exercise to facilitate even though it is opportune for the trainer to be knowledgeable on the topic areas. Consequently, it is advisable that the trainer carry out a preliminary review of the dimensions covered in this section (**see Unit 3 – WORKSHEET G**). This option requires approximately 60 minutes to complete.

### *Objective*

To encourage awareness of the tendency to attribute the causes of events to oneself, or to external factors and link this awareness to driving behavior.

### *Exercises*

The trainer introduces the activity by explaining that they will initially be using an individual approach and subsequently, a group discussion.

*Phase 1* – Each participant receives a brief questionnaire (**see Unit 3 – WORKSHEET B**) which will provide the identification of two profiles:

Profile A, corresponds to an individual who tends to attribute the causes of events and behaviors to themselves (*Internal locus of control*).

Profile B, corresponds to an individual who tends to attribute the causes of events and behaviors to external factors that do not depend on them (*External locus of control*).

The participants are to complete the questionnaire individually.

*Phase 2* – Subsequently, the trainer displays two images (**see Unit 3 – WORKSHEET C**), representative of the two profile typologies and uses them to introduce the concepts of locus of control and attribution of responsibility. While exhibiting the two locus of control typologies, the trainer should encourage participants to reflect upon their own tendency to attribute to themselves or to external factors the causes of what occurs in their lives and while driving.

#### *Comments*

The trainer concludes the unit by utilizing information that emerged during the session to highlight the importance of personal control and how individuals may exercise it to increase their own safety in general, and prevent high risk situations and traffic accidents in particular.

*Materials:* Questionnaire, Pen.

### **UNIT 3 – FOCUS 2: EMOTIONS WHILE DRIVING AND RESPECTING RULES.**

#### ***\* Unit 3 – Focus 2: Emotions while driving and respecting rules. Option 3. “Emotions in situations”***

This is an exercise, which focuses on the identification of the emotional dynamics and behavioral strategies that may be implemented in particular situations. Moderately difficult to facilitate and brief, this option permits participants to easily approach the world of emotions and to understand which mechanisms these dimensions may activate at an individual level. Similar to other exercises in Unit 3, the trainer should hold a certain level of knowledge on the themes covered: therefore, it is advisable that group facilitators engage in at least a preliminary review of the concepts (**see Unit 3 – WORKSHEET H**). This option requires approximately 45 minutes to complete.

#### *Objective*

To encourage the identification of the most common emotions associated with everyday driving situations and the relevant behavioral strategies to enact in order to manage emotions that, in some cases,

may be dysfunctional when it comes to correct and/or appropriate driving behavior.

### *Exercises*

*Phase 1* – The trainer introduces the activity to participants by explaining that the exercise will require them to “play the part” of a driver in some relatively typical situations; make it clear that it is possible that they may have never found themselves in some or all of the situations but regardless, they can attempt to imagine the event and consequently, their feelings. Distribute the list of emotions to each participant (**see Unit 3 – WORKSHEET D**) and explain that it will be used to talk about the emotions that they may experience in the situations that will be presented. Make sure to specify that the list is only a guide and that they may use emotions not included on the worksheet. Read out the first situation from the list (**see Unit 3 – WORKSHEET E**), and then ask participants the following questions:

- a) *Which emotions would you feel in this situation?* Participants respond individually, using the list of emotions as an aid. The trainer records responses in a Table (**see Unit 3 – WORKSHEET F**). Next, continue with the second question:
- b) *What would you do if you found yourself in this situation?* Again, record individual responses in the Table.

*Phase 2* – After reading out the 3 chosen situations and recording the individual emotions and actions expressed by the participants, the trainer initiates a group discussion by referring to the most frequently reported emotions, to the strategies identified by participants, and to potential alternative strategies that may be used to manage situations and the emotions that they evoke.

Of particular importance, the trainer should focus on dysfunctional emotions while driving. Emotions such as *anger, euphoria, hostility, panic, terror,* and *indifference* have been associated (as found in the research conducted by ICARUS) with young driver profiles that typically expose themselves to dangerous situations; for instance, the “at risk”, “anxious” and “overconfident” profiles (see the description of profiles in Unit 4). With respect to the most important emotions, which influence driving behaviors, the trainer should encourage participants to reflect on the potential consequences of these emotions. Some possible questions include:

- 1) What is the relationship between emotions and the identified strategies? Are they coherent?
- 2) What is the effect of these emotions on subsequent actions?
- 3) How are these emotions important in terms of the actions we enact in response to difficult situations?

In a second step, the trainer may initiate a discussion on participants' perceptions of the modifiability of situations. The aim is to attempt to identify preventive management strategies and eliminate or reduce causes. Some potential questions may include:

- 4) To what extent is it possible to act/not act on this situation?
- 5) In what way may one act prior to the situation presenting itself? In what way may one act once the situation presents itself?

The trainer, also in response to the answers given by the group, should continue with questions, which expand the repertoire of individual strategies, for instance:

- 6) To what extent are the identified strategies functional in terms of increasing one's own and others' safety while driving?
- 7) Do you experience the same feelings in other situations? How do you usually manage these situations?
- 8) How else can you cope with difficult situations you may find yourself in while driving?

#### *Comments*

In concluding the exercise, the trainer draws attention to the importance of being able to recognize the emotions evoked by situations in order to identify effective strategies, which direct behavior towards self-protective behaviors as well as increase personal self-efficacy in difficult situations.

*Materials:* List of situations, Emotion compass, Table to record responses.

### ***\* Unit 3 – Focus 2: Emotions while driving and respecting the rules. Option 4. “Devil’s advocate”***

This option focuses on identifying the factors, which absolve the rules for road safety and the consequences, which derive from not respecting traffic regulations.

Dynamic and easy to facilitate, this activity is extremely relevant to the topic at hand and allows participants to exchange points of view with respect to the system of rules, which are the basis of road safety. This exercise takes approximately 60 minutes to complete.

#### *Objective*

To focus participants' attention on the most frequently committed traffic violations by young drivers. Moreover, to allow participants the opportunity to extrapolate the aspects which found the most frequently violated rules in order to gain knowledge of their origins and functions.

#### *Exercises*

*Phase 1* – Participants are requested to quickly go around the semi-circle and state what they think are the most frequent traffic violations, committed by themselves and their peers. The trainer records responses on the blackboard as they are given. The most frequent violations should be underlined (from 3 to 5 violations).

*Phase 2* – Participants are divided into subgroups (from 3 to 5 subgroups, depending on the total number of participants): each subgroup is assigned a traffic violation. Working separately, each group pretends they are the lawyer responsible for defending the rule that is associated with the allocated violation. In this role, the subgroups have to generate an argument in defense of the rule. Approximately 20 minutes should be given to complete this task.

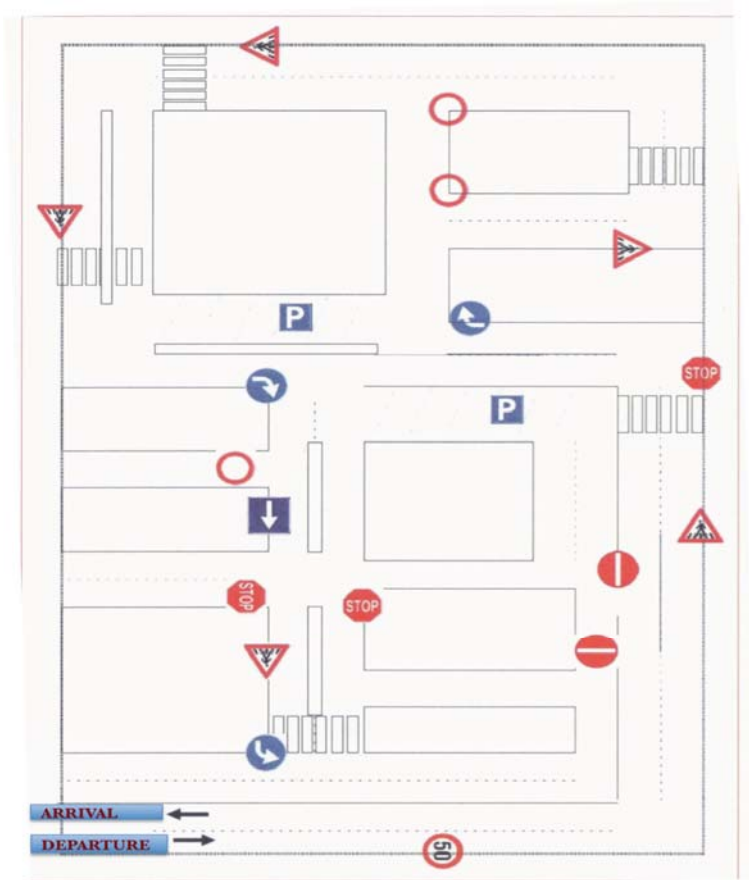
*Phase 3* – Next, subgroups rejoin the class and each group presents their argument as if they were in front of a hypothetical tribunal court.

#### *Comments*

At the end of the presentations, the trainer concludes the session by making some general comments on what emerged and in particular, should refer to the importance of changing perspectives when thinking about certain phenomena (such as rule violations) in order to fully understand its potential scope at individual as well as collective levels.

*Materials:* Blackboard, Sheets of paper

**Unit 3 – WORKSHEET A**  
**(print out on paper or transparency)**



**Unit 3 – WORKSHEET B**  
**(print out and distribute to participants)**

The questionnaire

*Read the following statements; for each assertion, please indicate if you agree, disagree or don't know by placing an X in the corresponding column.*

*Once completed, please add up the number of A's and B's and report the totals in the space provided at the bottom of the page.*

STATEMENT	I agree	I disagree	Don't know
1. Driving without having accidents is primarily a question of good luck.	<b>B</b>	<b>A</b>	
2. When a driver is involved in an accident, it is because they were driving inappropriately or incorrectly.	<b>A</b>	<b>B</b>	
3. Accidents are always a consequence of driver-errors.	<b>A</b>	<b>B</b>	
4. The majority of accidents are caused by poor road conditions and the lack of adequate traffic signs.	<b>B</b>	<b>A</b>	
5. Accidents involving children are difficult to avoid since kids are unpredictable.	<b>B</b>	<b>A</b>	
6. Accidents occur because drivers have not learned to pay sufficient attention while driving.	<b>A</b>	<b>B</b>	
7. If an accident is destined to happen, it will, regardless of one's behavior.	<b>B</b>	<b>A</b>	
8. The majority of accidents are caused by mechanical problems.	<b>B</b>	<b>A</b>	
9. Driving without having accidents depends on the driver's ability to pay attention to what is happening on streets and sidewalks.	<b>A</b>	<b>B</b>	
10. A driver can do a lot to avoid an accident.	<b>A</b>	<b>B</b>	

<b>Total A</b>	<b>Total B</b>
----------------	----------------

### Unit 3 – WORKSHEET C

(to use as a transparency or print out and affix to blackboard to support descriptions of profiles A and B)



**PROFILE A**

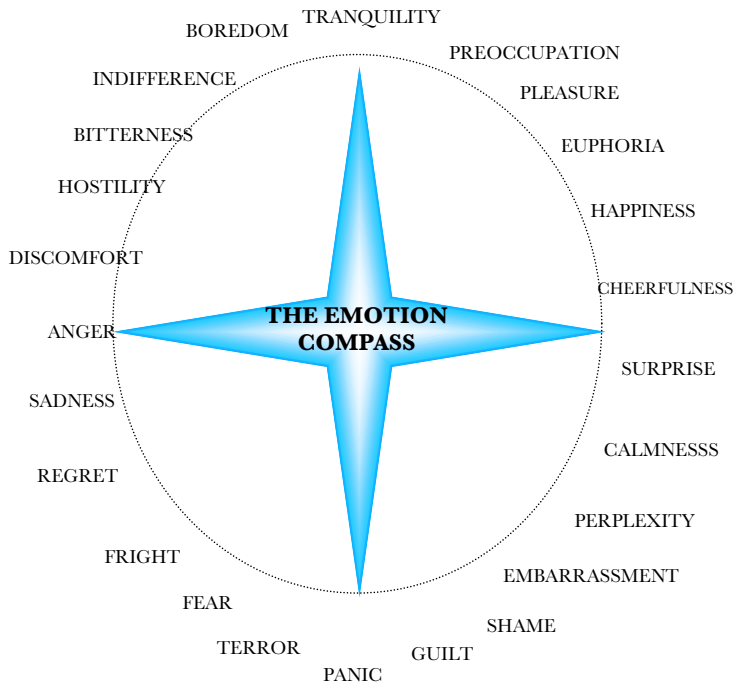


**PROFILE B**

**Unit 3 – WORKSHEET D**  
**(print out and distribute to participants)**

**THE EMOTION COMPASS**

*Use this compass to help you select the emotions you may experience in each of the situations described.*



## **Unit 3 – WORKSHEET E**

**(print out and use to read out the driving situations to participants)**

### THE LIST OF DRIVING SITUATIONS

*Select 3 of the following 4 situations to use with participants.*

*Read out each situation, one at a time, and ask participants to: a) think about how they would feel in that particular situation and b) what they would do in that particular situation. Record their responses in the Table provided in Worksheet F.*

- 1) You are in a hurry, the car in front of you is moving slowly and you are not able to pass them.
  
- 2) You were at a nightclub, you are very tired and also drank some alcohol. You get in the car to go home but after awhile, you realize you are drowsy.
  
- 3) You have gone too far into the intersection and have forced the car coming from your right-hand side to stop. The driver aggressively honks his horn and insults you.
  
- 4) You are returning home with a friend. It is late, and you are on the highway. Your friend decides to experience the thrill of speeding.

### Unit 3 – WORKSHEET F

(transcribe onto blackboard, or use directly)

*In the Table presented below, record participants' responses.*

Situation	a) How would you feel? Emotions	b) What would you do? Strategies
1.		
2.		
3.		

## UNIT 3 – WORKSHEET G

### CAUSAL ATTRIBUTIONS AND LOCUS OF CONTROL

The origins of Causal Attribution Theory may be traced back to the work of Heider<sup>8</sup>, who noted that the attribution of causes for external events is very important in terms of human beings' image within their social environment. According to Heider, in order to explain the causes of both one's own and others' behavior, individuals determine whether the cause of behavior resides in the person themselves or rather, in the surrounding environment. Thus, when individuals explain a behavior (their own or another's), they do it in relation to "why".

Other studies (Weiner, Heckhausen and Meyer<sup>9</sup>) support the notion that behavioral success may be attributed to four basic factors:

- a) an individual's ability and competence;
- b) an individual's level of commitment;
- c) the task's level of difficulty;
- d) luck.

According to this perspective, the causes of behavior (one's own and others') may be divided into:

- *internal causes*: for example, ability, effort, intention;
- *external causes*: for example, task's level of difficulty, luck.

Obviously, a consequence of causal attributions is the perception of responsibility with respect to the outcomes of the behavior. For instance, individuals who believe that the cause of an event is due to chance or bad luck, thus an external cause, feel exonerated from holding any responsibility for that event.

Other authors, who have studied individual personality factors (Rotter<sup>10</sup>), have suggested distinguishing between two different "locus of control" dimensions: internal and external. Individuals with an external locus of control believe that their existence is dominated by factors or forces that are not under their own control; in contrast,

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<sup>8</sup> HEIDER, F. (1944). Social perception and phenomenal causality. *Psychological Review*, 51, 358-74.

<sup>9</sup> WEINER, B., HECKHAUSEN, H. & MEYER, W. U. (1972). Casual ascriptions and achievement behavior: A conceptual analysis of effort and reanalysis of locus of control. *Journal of Personality and Social Psychology*, 21, 239-48.

<sup>10</sup> ROTTER, J. B. (1954). *Social Learning and Clinical Psychology*. Prentice-Hall: Englewood Cliffs (NJ).

individuals with an internal locus of control believe they are capable of controlling their own destiny or future. Consequently, individuals who tend to attribute the responsibility of events to their self rather than to others are defined as having an *internal locus of control*, while those who tend to attribute the causes of events to external factors (such as environment, other people, bad luck, etc.) are defined as individuals with an *external locus of control*.

Research findings from the ICARUS Project suggest that an internal locus of control is more common in the “Safe Driver” profile since the assumption of responsibility of those who have an internal locus of control influences the likelihood of engaging in prudent driving behaviors which respect traffic codes. In comparison, in the case of the “Risky Driver” profile, an external locus of control is more likely due to their tendency to attribute cause to bad luck or blame others for potential accidents. The propensity to lay the responsibility on others, lifts the burden of having to control one’s behavior because it is then viewed as being irrelevant in determining the outcome of a situation.

Reflecting on one’s personal tendency to attribute causes to events and behavior may be useful in directing and improving participant’s driving behaviors.

Therefore, participants may be encouraged to think about and reflect on aspects such as:

- 1) While in the car, how responsible do you feel for what happens to both yourself and others?
- 2) How important is your driving ability in avoiding accidents?
- 3) In which situations do you realize you behave in ways that coincide with the profile that emerged from your questionnaire?

## Unit 3 – WORKSHEET H

### CONFRONTING EMOTIONS

To confront means to face, to cope with, to effectively counteract. In literal terms, one may speak about confronting an enemy or attack. Figuratively, one may refer to confronting a crisis or difficult situation. The most frequently examined area in psychology is the study of individuals' responses to traumatic or threatening life events. In particular, research has focused on the ways in which individuals process and manage information and emotions when faced with problematic and stressful situations. This area falls within the *coping* literature. Special attention has been given to understanding the extent to which the ways of confronting problem situations endure over time and across situations, becoming a real and true personality characteristic.

In this particular setting, we are interested in effectively coping with the emotions that may be experienced while driving. Driving a scooter or car may be accompanied by feelings of pleasure and joy as well as activate feelings of anger, fear or anxiety which, in turn, can strongly alter behavior and have significant consequences for both one's own and others' safety.

#### *Confronting anger and hostile interactions*

Here we refer to severe and profound irritation, sometimes violent, produced from the sense of one's own impotence or from an unexpected disappointment or setback, which results in uncontrollable and unbecoming words and actions. This is commonly a synonym of *rage*. To a lesser extent, it can mean persistent and annoying impatience or disappointment in and spitefulness for being constrained to do something one does not want to do or for being unable to attain something one desires<sup>11</sup>.

The ability to recognize feelings of anger and hostility towards another driver is extremely important; it is also necessary for individuals to understand and contain these emotions and acknowledge the

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<sup>11</sup> AVALLONE, F. (2011). *Psicologia del Lavoro e delle Organizzazioni. Costruire e gestire relazioni nei contesti professionali e sociali*. Carocci: Roma.

potentially serious consequences of manifesting them for both themselves and others. In some cases it may be useful to:

- put oneself in another person's shoes in order to better understand the meaning of their actions;
- develop the habit of viewing one's car as a means of transportation rather than as an extension of oneself;
- react to other's anger with the intention of reducing rather than intensifying it, regarding it as if it may be due to personal variables.

#### *Confronting fear and anxiety*

*Fear*: The sense of insecurity when faced with a real or imagined threat or danger. It can take on the nature of an unforeseen and powerful emotion, which also manifests itself with physical reactions when the threat is unexpectedly presented and results in surprise or appears imminent.

*Anxiety*: The state of agitation and apprehension due to fear, worry, panic, uncertainty and anticipation. It may or may not refer to specific objects or events as well as is accompanied by vasomotor disturbances and visceral sensations<sup>12</sup>.

It is important to recognize that fear has a self-conservation function and thus, it is useful in shifting behavior towards more effective self-protective actions so as to avoid serious consequences. It may be beneficial:

- to express the feelings without apprehension regarding one's self-image given the understanding that fear is a protective emotion and serves a function;
- to understand the type of relationship each of us has with the sensation of fear: there are those who are frightened and others who are attracted to the feeling.

It is also important to understand the nature of one's anxiety, which may be either transitory or a stable personal characteristic. It may be useful:

- to improve one's sense of self-confidence;
- to organize one's activities and/or behavior in a way which provides extended timeframes, facilitating the lowering of individuals' anxiety levels.

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<sup>12</sup> AVALLONE, F. (2011). *Psicologia del Lavoro e delle Organizzazioni. Costruire e gestire relazioni nei contesti professionali e sociali*. Carocci: Roma.



**HANDBOOK OF TRAINING GUIDELINES  
ON ROAD SAFETY AWARENESS  
AND EDUCATION FOR YOUNG DRIVERS**

**UNIT 4 – ROAD SAFETY EDUCATION**

## DESCRIPTION OF UNIT 4

### ROAD SAFETY EDUCATION

#### ACTIVITIES

This unit includes a lesson on road safety: “The responsible driver” and is accompanied by 32 slides (**see Unit 4 – WORKSHEET A**)<sup>13</sup>.

#### OBJECTIVE

To provide participants with information regarding young driver’s driving behaviors and psychological and behavioral characteristics. To increase their knowledge with respect to the strategies to implement in order to avoid, and/or cope with risky driving situations. Guidelines for the trainer are included in Worksheet A.

#### SLIDES CONTENTS

SLIDE NUMBER	SLIDE TOPIC
1	TITLE PAGE
2	RISK
3	DEFINITION OF RISK
4	SOME STATISTICS
5	EUROPEAN ACCIDENTS AND FATALITIES INSIDE AND OUTSIDE URBAN AREAS
6	EUROPEAN FATALITIES BY GENDER AND USER TYPE
7	EUROPEAN FATALITIES BY AGE
8	EUROPEAN FATALITIES 18-25 YEARS OLD
9	NUMBER OF PERSONS KILLED IN ROAD TRAFFIC ACCIDENTS PER MILLION POPULATION 2011
10	DRIVER PROFILES
11-12	THE “PRUDENT” DRIVER/MOTORCYCLIST PROFILE

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<sup>13</sup> Photographs included in slides have been purchased by iStockphoto®

13-14	THE "AT RISK" DRIVER/MOTORCYCLIST PROFILE
15-16	THE "AGGRESSIVE" DRIVER/MOTORCYCLIST PROFILE
17	DATA FROM ICARUS PROJECT: AUTOMOBILE DRIVER PROFILES
18	DATA FROM ICARUS PROJECT: SCOOTER DRIVER PROFILES (IF ANY)
19	ERRONEOUS DRIVING BEHAVIORS
20	ROAD RISK
21	WHAT DO YOUNG DRIVERS DO?
22	WHY DO THEY DO IT ?
23-24	THE ASSESSMENT OF ABILITY
25	THE PARADOX OF THE INEXPERIENCED DRIVER
26-27	DIFFERENCES IN THE ASSESSMENT OF RISK
28	RISKS OF NIGHTTIME DRIVING
29-30	PREVENTION STRATEGIES
31	COPING STRATEGIES
32	CONCLUSION

## Unit 4 – WORKSHEET A

### SLIDE 1. TITLE PAGE



The trainer presents the lesson by highlighting its objective to provide information on the characteristics of young drivers and promote behaviors aimed at preserving safety.

### SLIDE 2. RISK



The trainer opens the session by requesting that participants state the first word that comes to mind when they think of risk. In order to facilitate brainstorming, the trainer may use a ball, which participants throw amongst themselves to indicate turns. All words are written on the blackboard and used to define risk.

### SLIDE 3. DEFINITION OF RISK



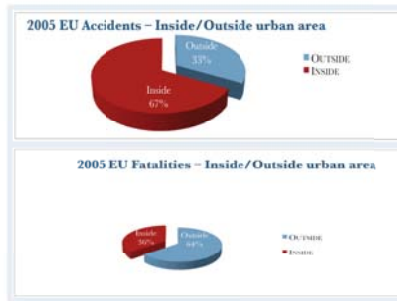
Risk is the potential that a chosen action or activity results in a loss or undesirable event. In defining risk, the trainer expands its definition by specifying that the decision not to act can also lead to a high-risk situation (for example: making the decision to not study, knowing that the following day you have a test, gives rise to the risk of getting a bad mark).

### SLIDE 4. SOME STATISTICS



Briefly illustrate the statistics presented in the next slides.

**SLIDE 5. EUROPEAN ACCIDENTS AND FATALITIES INSIDE AND OUTSIDE URBAN AREA**



**Definitions**

*Accidents (Injury accident)*

Any accident involving at least one road vehicle in motion on a public road or private road to which the public has right of access, resulting in at least one injured or killed person. Included are: collisions between road vehicles; between road vehicles and pedestrians; between road vehicles and animals or fixed obstacles and with one road vehicle alone. Included are collisions between road and rail vehicles.

Injury accidents exclude accidents incurring only material damage.

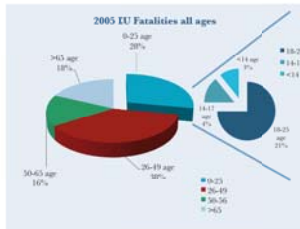
*Fatalities (Fatal accident)*

Any injury accident resulting in a person who is killed (Any person who is killed immediately or dies within 30 days as a result of an injury accident)

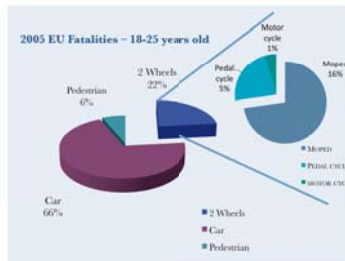
**SLIDE 6. EUROPEAN FATALITIES BY GENDER AND USER TYPE**



**SLIDE 7. EUROPEAN FATALITIES BY AGE**

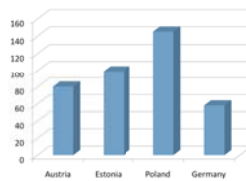


**SLIDE 8. EUROPEAN FATALITIES 18-25 YEARS OLD**



**SLIDE 9. NUMBER OF PERSONS KILLED IN ROAD TRAFFIC ACCIDENTS PER MILLION POPULATION**

NUMBER OF PERSONS KILLED IN ROAD TRAFFIC ACCIDENTS PER MILLION POPULATION (2008)



The slide shows a comparison among some countries on the number of person killed in road traffic accidents per million population.

*This slide is specific to each country.*

## SLIDE 10. DRIVER PROFILES



The ICARUS Project conducted, through the administration of a questionnaire, a research study across European countries. Findings suggested that there are 2 car/scooter driver profiles common across all countries (prudent and at risk drivers). In contrast, a third driver profile changes, depending on the particular country examined (aggressive, overconfident, inattentive, anxious/angry drivers).

## SLIDE 11/12. THE “PRUDENT” DRIVER PROFILE



- Is altruistic and has a positive attitude towards respecting rules and norms;
- Does not feel anger towards other drivers/motorcyclists or when encountering obstacles;
- Believes traffic accidents are caused by factors that fall under their control and that a conscientious driver/motorcyclist can avoid them;
- Respects traffic codes;
- Understands alcohol has a negative effect on behavior.

#### SLIDE 13/14. THE “AT RISK” DRIVER PROFILE



- Displays egocentric attitudes and behavior, moral disengagement, and sensation seeking;
- Feels anger towards other drivers/motorcyclists or when encountering obstacles;
- Believes traffic accidents are caused by factors that do not fall under their control;
- Holds a negative attitude towards traffic codes;
- Believes that alcohol has a positive effect on behavior in general.

#### SLIDE 15/16. THE “AGGRESSIVE” DRIVER PROFILE



*(present this slide only in Austria, Estonia, and Poland)*

- Displays egocentric attitudes and behavior, moral disengagement, and sensation seeking;
- Feels anger towards other drivers/motorcyclists or when encountering obstacles, drives aggressively and is tolerant of speeding;
- Holds a negative attitude towards traffic codes;
- Understands alcohol has a negative effect on behavior.

**SLIDE 15 BIS/16 BIS. THE “OVERCONFIDENT” DRIVER PROFILE**



*(present this slide only in Bulgaria, France, Germany, Italy, Lithuania, Malta and Slovenia)*

- Is altruistic and has a positive attitude toward respecting rules and moral norms;
- Does not feel anger towards other drivers or when encountering obstacles;
- Believes traffic accidents are caused by factors that fall under their control and that a conscientious driver/motorcyclist can avoid them;
- Holds a negative attitude towards traffic codes and is tolerant of speeding;
- Understands alcohol has a negative effect on behavior.

**SLIDE 15 TER/16 TER . THE “INATTENTIVE” DRIVER PROFILE**



*(present this slide only in Latvia)*

- Holds a positive attitude toward respecting rules and moral norms;
- Feels anxious and is tolerant of speeding;
- Is inattentive, distracted, and forgetful while driving;
- Understands alcohol has a negative effect on behavior.

**SLIDE 15 QUARTER/16 QUARTER. THE “ANXIOUS/ANGRY” DRIVER PROFILE**



*(present this slide only in Cyprus, Ireland, and Slovakia)*

- Is altruistic and has a positive attitude toward respecting rules and moral norms;
- Feels anger towards other drivers/motorcyclists or when encountering obstacles, drives aggressively and is tolerant of speeding;
- Believes traffic accidents are caused by factors that fall under their control and that a conscientious driver/motorcyclist can avoid them;
- Respects traffic codes;
- Understands alcohol has a negative effect on behavior.

**SLIDE 17. DATA FROM ICARUS PROJECT  
AUTOMOBILE DRIVER PROFILES**

Driver profiles demonstrated a general tendency with respect to the distribution of sex. In particular, the percentage of male drivers were: Safe drivers = 49.7%; Risky drivers = 82.7%; and Overconfident drivers = 68.3%.

**SLIDE 18. DATA FROM ICARUS PROJECT  
SCOOTER DRIVER PROFILES (IF ANY)**

**SLIDE 19. ERRONEOUS DRIVING BEHAVIORS**

**Errors:** errors involving appraisal, assessment, planning or objectives while driving.

**Inattention/Forgetfulness:** may be an alarm signal indicative of an altered psychophysical state and may be the incentive for committing traffic violations in order to remedy the effects of inattention.

**Violations:** the driving behaviors with the most significant repercussions in terms of road safety. They are typically voluntary in nature and affected by the individual characteristics of the driver.

Once the driver profiles have been outlined, we can examine the different types of incorrect driving behavior, which put both the driver and other road users at risk. They include:

- **Errors:** errors involving appraisal, assessment, planning or objectives while driving. For instance, a driver who is attempting to pass another car and realizes that they miscalculated the time available to them to complete the pass. While they have not violated any rules or norms, they have put both themselves and others at high risk. Although errors are less frequent than other erroneous driving behaviors, they have the potential to cause serious consequences.
- **Inattention/Forgetfulness:** may be an alarm signal indicative of an altered psychophysical state and may be the incentive for committing traffic violations in order to remedy the effects of inattention. For example, if a driver is distracted and misses their exit, there is a good possibility that they may execute an illegal u-turn.
- **Violations:** the driving behaviors with the most significant repercussions in terms of road safety. They are typically voluntary in nature and affected by the individual characteristics of the driver.

The most frequently performed traffic violations are also the most likely to be considered “normal behaviors” due to the cognitive mechanisms which lead individuals to label behaviors they typically engage in as “normal”. In contrast, behaving in ways which are believed to be serious violations, would be too onerous in terms of cognitive dissonance and emotional tension (tendency towards normalization). In addition, there is a specific type of violation, defined as aggressive violations. Namely, they include actions, which go against sound driving behavior, and are associated with anger. Even though they may not deliberately violate traffic codes, they expose drivers to risky and reckless situations (e.g., aggressively honk the horn, express anger towards other drivers, etc.). Several studies have demonstrated that elevated levels of anger while driving are a strong predictor of future traffic accidents.

Violations, in being intentional behaviors chosen by the driver, should not only be considered behaviors, which infringe on the rules of the road, but also as behaviors, which expose us and others to danger. Thus, the focus shifts from respecting traffic codes to the perception and assessment of risk associated with breaching such traffic codes.

#### **SLIDE 20. ROAD RISK**



Although road risk is a noted phenomena among youth, it does not provoke the same type of aversive reaction as do other kinds of risk (for example, academic failure). This is often due to the fact that risky driving behaviors are usually based on an error in cost-benefit calculations. Such calculations, in particular those of youth with little driving experience, may be incorrect in that perceptions of costs and benefits are not absolute but rather, relative and change according to different social groups. Consequently, individuals often believe the benefits of a risky or reckless behavior are higher than the costs. Hence, what are the benefits and the costs?

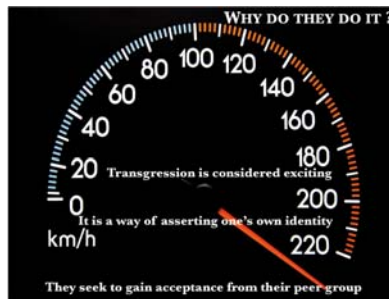
#### **SLIDE 21. WHAT DO YOUNG DRIVERS DO?**



- They tend to not respect speed limits
- They do not pay close attention to maintaining a safe distance

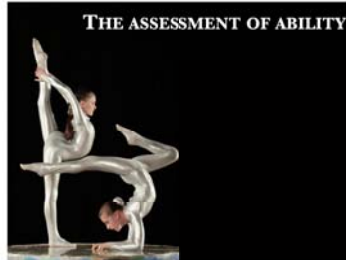
- They tend to engage in dangerous and reckless passes  
This occurs because they tend to underestimate the possibility of becoming personally involved in a traffic accident; in addition, young drivers do not have the ability to immediately see dangers, even when present, given their lack of driving experience.

#### SLIDE 22. WHY DO THEY DO IT ?



- Transgression is considered exciting
  - It is a way of asserting one's own identity
  - It is a way of demonstrating one's self-confidence and ability to control situations
  - They seek to gain recognition and acceptance from their peer group
- While driving is often associated with the notion of autonomy, reckless or dangerous driving is related to self-image. Risky driving may permit youth to demonstrate their self-confidence and ability to control internal and external factors even in situations considered "at the limit". These driving behaviors may provide youth with the feeling of being accepted by their peers precisely because it makes them more similar to other members of their group.

## SLIDE 23/24. THE ASSESSMENT OF ABILITY



When faced with a stimulus, youth and young adults demonstrate faster reaction times than do older drivers. In general, this is an advantage because if the “stimulus” is a danger, a lower reaction time permits youth to respond more quickly. Unfortunately, however, prior to responding, the stimulus must be perceived to be dangerous. Given young drivers’ inexperience: they tend not to recognize the dangerousness of situations deemed hazardous by experienced drivers; and they tend to take much longer to perceive dangerous traffic stimuli compared to older drivers. Thus, the advantage derived from the ability to respond rapidly not only disappears, but young drivers are at even higher risk of being involved in traffic accidents than are older drivers.

They tend to underestimate the possibility of becoming personally involved in a traffic accident because...

when faced with a stimulus they demonstrate faster reaction times... they positively assess their own ability but...

before it triggers a response, the stimulus must be perceived to be dangerous. However, young drivers' inexperience does not facilitate this recognition. Reckless driving



## SLIDE 25. THE PARADOX OF THE INEXPERIENCED DRIVER



In general, and particularly for youth and young adults, the more one engages in a specific behavior, the less likely they are to perceive it as risky and/or dangerous. The frequency of a behavior distorts, minimizes or even negates the perception of risk and potential negative consequences. Obviously, this perception is strengthened by not directly experiencing the negative consequences, which result from risky behavior. In other terms, the more often a risky behavior is performed without experiencing negative consequences, the more likely the conviction that the behavior does not involve risks, is reinforced.

## SLIDE 26 – 27. DIFFERENCES IN THE ASSESSMENT OF RISK

The ability to recognize a risk or danger derives from a series of preventative checks and controls which experienced drivers habitually engage in without being consciously aware. This type of attention permits drivers to become aware of potential dangers and to avoid them.

*The experienced driver:* a) Checks their rearview and side mirrors; b) Pays attention to stationary objects; c) Pays attention to moving objects; and d) Looks both ahead and laterally.

*The inexperienced driver:* a) Conducts few lateral checks; b) Uses their rearview and side mirrors less; c) Is inclined to only look in the lane ahead of them; and d) Primarily pays attention to stationary objects.

In all probability, following a car trip, an experienced driver is perfectly able to appreciate the numerous potentially dangerous situations they found themselves in while the inexperienced driver may not even have

been aware that they could have had an accident. Consequently, the young driver may erroneously conclude that in reality, driving does not involve significant perils.

#### **SLIDE 28. RISKS OF NIGHTTIME DRIVING**



The trainer presents the statistical data. The main causes of nighttime traffic accidents are drowsiness and the use of alcohol. These two factors decrease drivers' ability to maintain their attention on the road, increase reaction time and slow down cognitive functioning in general. These deficits have significant consequences such as increased difficulty maintaining a safe and constant speed and trouble staying within one's own driving lane.

Despite the fact that the influence of alcohol on driving is not easily controllable given it depends on diverse variable factors such as: level of alcohol content, individual tolerance levels, etc., numerous studies have demonstrated that when alcohol consumption, even moderate drinking, is accompanied with sleep deprivation, the risk of being involved in a fatal car accident triples.

#### **SLIDE 29 – 30. PREVENTION STRATEGIES**



Prevention strategies with respect to driving under the influence of alcohol do not exist: the only strategy is to not drink and drive. One effective way of not having to deprive oneself of “enjoying a drink with friends” is to use the group strategy of the “designated driver”. This involves deciding, prior to going out, who within the group is not going to drink and is going to be responsible for driving everyone else home. Acquiring knowledge of the risks associated with driving while intoxicated and presuming that we can still have a drink with friends, assuming responsibility and planning strategies in order to not expose ourselves to risk becomes advantageous.

Prevention strategies with respect to driving while drowsy, tired and/or sleep-deprived, refers to understanding and self-monitoring some subjective features. In particular, the variables to self-monitor are 2:

1) The first involves individual characteristics, namely understanding one’s personal characteristics regarding circadian type. According to studies on circadian rhythms (sleep-wake cycles), there are two types of individuals:

A) Morning LARKS: more active and perform better in the morning;

B) Night OWLS: more active and perform better in the evening.

Understanding one’s own characteristics in reference to this distinction can represent an initial prevention strategy in that research conducted by ICARUS has demonstrated that even when frequency of nighttime driving is held constant, youth characterized by a morning lark circadian rhythm are more likely to experience drowsiness while driving. For this reason, it is beneficial that youth who consider themselves “larks”, avoid driving at night.



- Avoid driving between 12am and 6am
- Avoid sleeping less than 6 hours the night prior to engaging in nighttime driving
- Avoid reducing the amount of sleep one usually gets by more than 2 hours
- Avoid driving after being awake for 18 or more hours
- Avoid consuming alcohol before driving

2) The second aspect of self-monitoring involves individual habits and makes reference to the recommendations presented by numerous studies (National Highway Traffic Safety Administration, 2003), in order to prevent falling asleep at the wheel. These include:

- Avoid driving from 12am to 6am. These are the hours when individual's physiological propensity towards sleep is highest and thus, a decrease in physiological vigilance is experienced.
- Avoid sleeping less than 6 hours the night prior to engaging in nighttime driving. The physiological need for sleep in youth is still substantial and rests at approximately 8 to 10 hours a night. In addition, it is important to acknowledge that there is a natural tendency for this age group to experience a reduction in the number of hours they sleep when one considers their increasing engagement in evening social activities despite scholastic commitments requiring them to wake up early. This may lead to a state of chronic sleep deprivation in addition to highly probable nighttime driving.

### SLIDE 31. COPING STRATEGIES



In the event that one experiences sleepiness while at the wheel, understanding and recognizing the indicators of fatigue is beneficial.

These indicators may be cognitive in nature: Difficulty concentrating; Difficulty following a conversation.

Behavioral: Yawning; Closing eyelids.

Physical: Nausea.

A couple of these indicators is enough to alert individuals and recommend the implementation of efficacious coping strategies such as:

- Stop driving and pass the wheel to another driver.

- Stop and take a 15-20 minute nap: naps that last longer than 20 minutes are counterproductive since they lead to a deep sleep with possible difficulty in reawakening.
- Drink 1-3 small cups of coffee: caffeine is an efficacious stimulant with few lateral side effects and a rapid absorption rate. While relatively small quantities counter the effects of drowsiness without being harmful, large quantities of caffeine may lead to anxiety, irritability, tremors and insomnia.

The combined effect of these two strategies (nap and drinking coffee) results in the maximum benefits in terms of counteracting fatigue.

### **SLIDE 32. CONCLUSION**



### **CONCLUSION**

The blank slide represents each person's freedom of choice in autonomously deciding what to do in accordance with the information and knowledge provided by the unit, while still drawing attention to the aspect one should never stray from, "having fun responsibly".



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**UNIT 5 – DRIVING BEHAVIOR AND GROUP  
DYNAMICS**

## **DESCRIPTION OF UNIT 5**

### **DRIVING BEHAVIOR AND GROUP DYNAMICS**

#### **ACTIVITIES**

This unit is dedicated to the exploration of some of the mechanisms that regulate peer group relationships and that may be particularly significant in orienting and/or influencing driving behavior in group situations.

#### **OBJECTIVES**

To facilitate participants' knowledge of the ways in which group members relate and interact amongst themselves and how these schemes may impact decisions concerning the implementation of fewer or more risky driving behaviors (for example, deciding to speed because requested by other passengers, deciding to drive under the influence of drugs or alcohol, etc.).

#### **OUTLINE OF UNIT**

The unit deals with two issues:

- 1) Group decision making processes;
- 2) Group influences on individual choices.

A classroom exercise is available for each of the two topics. The trainer may decide to use one or both exercises depending on the particular context and the time available.

#### ***\* Unit 5 – Option 1. “The race”***

This training option tackles the subject of group decision making processes. The exercise requires approximately 60-75 minutes to complete.

While it is an easy exercise to facilitate, the trainer may benefit from reviewing some information on the topic (**see Unit 5 - Worksheet A**).

### *Objective*

To encourage participants to reflect on group dynamics, specifically with respect to the peer group during decision making processes, associated with choosing to engage in risky driving behaviors.

### *Exercises*

*Phase 1* – The trainer invites a group of 5 volunteers to participate in a role playing game, in which a group of youth must make a decision about a particular driving situation. Explain to participants that a role play is a fictitious but realistic situation in which participants “act out” a specific role chosen by the trainer. If possible, seek the participation of 3 males and 2 females. Once the volunteers have been identified, ask them to sit in a semi-circle (or around a table), in order that the scene is visible to the other participants acting as observers. Request that the volunteers nominate an individual to play the role of the driver, who is also the owner of the car.

*Phase 2* – The trainer should distribute the sheet outlining the information needed to carry out the role play to each participant and read it out loud to the group (**see Unit 5 – Worksheet B**). Inform the five volunteers that during the role play, they are only to interact with each other; simultaneously invite observers to remain silent. After responding to any initial questions, the trainer should give the group 20 minutes to organize the role play.

*Phase 3* – During the role play, a series of events involving relational group dynamics will be presented (for instance, the expression of different positions and opinions, the confrontation between opposing views and positions, participation and isolation, the underestimation of some arguments, the need to not be viewed negatively by one’s peer group, etc.). The trainer will act as an observer and make notes of any concepts or observations to be proposed to the class during the subsequent group discussion.

*Phase 4* – Once the role play is completed, the trainer facilitates a group discussion which focuses on the decisions made (or lack there of) by the group. The discussion may begin with an exploration of the individual experiences of the five volunteers and of the climate developed within the group. To this aim, the trainer may ask questions such as:

- 1) How did you feel during the role play?
- 2) Which aspects do you think conditioned the decision making process within the group?
- 3) What were the main difficulties you encountered?

Next, the trainer should address the entire group and guide the conversation towards a discussion of the ways in which the decision making process within the group unfolded. Some questions might include:

4) How did the group function with respect to the decisions that had to be made?

5) Which moments/events were decisive in the decision making process?

The discussion may be further expanded by shifting the focus to the relationships and roles created within the group, asking:

6) How did the group dynamics influence the decisions that were made/not made?

The trainer will build on responses in order to convey some information on how groups function, with respect to decision making processes and always relate it back to driving behavior.

#### *Comments*

In the final phase, the trainer summarizes the reflections and information that emerged and links it to road safety, highlighting the importance of understanding how group mechanisms function and can influence individual choices in the implementation of different behaviors, including those involved in driving. Consequently, the trainer will stress that the choice of engaging in fewer or more risky driving behaviors may be also partially influenced by the type of role the individual plays within his/her peer group and by the kind of relational mechanisms found within the group itself.

*Materials:* Worksheet with role play instructions.

### **\* Unit 5 – Option 2. “Friends”**

This training option focuses on the themes of social influence and its relevant management strategies. It is straightforward to facilitate and easily understandable by participants. The exercise requires approximately 60 minutes to complete.

#### *Objectives*

To focus participants’ attention on situations involving social influence typical of young drivers, promoting reflection on what may be some of the strategies to handle peer pressure.

### *Exercises*

*Phase 1* - The trainer invites a group of 5 volunteers to participate in a role playing game. Once the volunteers have been identified, select or request that the volunteers nominate an individual to play the role of the driver, while the other four youth play the roles of friends and passengers. When selecting the driver, the trainer should try to choose a youth who holds a certain level of popularity in the group. At this point, the trainer explains the role play to participants. The role play scene represents 5 friends in a car returning home from a night out together. While the driver is at the wheel, his/her friends attempt to convince him/her to speed and perform reckless passes. The task of the driver is to be able to resist the peer pressure, hold their position without being persuaded to do what they tell him/her, thus, proving to be able to make autonomous decisions.

*Phase 2* – Following the description of the role play, the trainer arranges 5 chairs to represent five seats in a car, making sure that the scene is visible to the other participants who will be acting as observers. The trainer invites the observers to remain silent while their classmates organize and plan their role play. Next, the trainer allows 10 minutes for the role play to be carried out.

*Phase 3* – During the role play, the driver must implement strategies to respond to the peer pressure. The trainer and participant observers should, where necessary, take notes.

*Phase 4* – Once the role play is finished, the trainer leads a group discussion focusing on the ways peers can influence each other and the strategies that may be used to cope with the pressures. In particular, the trainer may ask questions such as:

- 1) Was the driver successful in resisting the peer pressure?
- 2) What strategies did the driver use to deal with the peer pressure?
- 3) What advice would you give a friend who finds themselves in the same situation?
- 4) Have you ever found yourself in a similar situation?

### *Comments*

The trainer closes the group discussion by stressing the importance of being able to remain autonomous from the peer group when deciding which behaviors to engage in. This is especially true in driving situations, wherein one is responsible for one's own and others' safety.

## Unit 5 – WORKSHEET A

In life, the “group” constitutes a basic fundamental context: we are born into a group (family); we learn within a group (classroom); we play and socialize in groups (peer group); and we work in groups. One’s peer group, especially during adolescence and young adulthood, represents a particularly significant interpersonal context: serving the important function of meeting individual needs (security, acknowledgement, affiliation, power) and represents the environment in which one experiments with interpersonal and communication styles and defines one’s personal and social identity.

Nowadays, friends and peer groups have acquired more power than in previous generations: they have an educational function but at the same time, may be the source of negative influences and pressures; adolescents and youth seldom know how to say no to friends, even at the cost of adopting risky health and social behaviors.

Within one’s peer group, decisions are often made. The process of group decision making is divided into the following three stages<sup>14</sup>.

*Identification and definition of the problem:* in this phase, group members may cooperate, oppose or obstruct; they may distort, deny or minimize the problem; and they may use stalling tactics to decrease their level of responsibility in making the decision.

*Acquisition and sharing of information:* once the problem has been identified and defined, the next stage involves the searching for and exchanging of information that, once obtained, must be carefully evaluated and shared. Indeed, the information is not always unequivocal and coherent but rather, often ambiguous and contradictory. In some cases, the group is forced to make a decision under constrained time limits.

*Search for and evaluation of alternatives:* in evaluating potential alternatives, it is very likely that different visions of reality and contextual perspectives will collide. This diversity, which at times divides the group into majorities and minorities, is not only linked to individual

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<sup>14</sup> AVALLONE, F. (2011). *Psicologia del lavoro e delle organizzazioni. Costruire e gestire relazioni nei contesti professionali e sociali*. Carocci: Roma.

differences but also depends on shared beliefs regarding what the best thing to do is, how to do it, how to interact, and how to reach a decision. Yet, the confrontation does not only involve diverse beliefs and conceptualizations regarding reality, but also reflects the conflict between diverse interests and values which are part of the struggle for power and leadership common among group members.

The group is a *think tank* through which the ability to evaluate alternatives and make more informed decisions is improved. There are, however, decision *biases*, namely, recurrent core schemas, which may lead to adopting distorted strategies. Decision *biases* include preconceived ideas, misconceptions, biased judgments, and systematic errors in information processing.

Presented below are the main types of decision biases.

- **Groupthink.** This particular decision bias was originally developed by Janis (1972) to refer to political and military choices, which were later revealed to be complete errors<sup>15</sup>. These decisions were made in groups sustained primarily by the need to reach an agreement. The elevated level of group cohesion, the high degree of group belongingness and identification, and the need to maintain positive relationships within the group, appears – together with the time pressures which often require rapid decision making – to be the basis for self-censorship of dissenting members.

The processes by which such a mechanism may operate are relatively simple: an a priori selection of information which only confirms the position taken; difficulty in introducing contradictory arguments particularly in the presence of a charismatic leader; the tendency not to consider divergent positions as indispensable contributions; the search for unanimity; and conditions of uncertainty.

- **False consensus.** The tendency to overestimate the degree of similarity between oneself and others: in other words, some individuals believe others think like them. It is the tendency of group members to suggest that their beliefs or views are also common to many other people and more widespread than are different opinions and beliefs. The mechanisms at the basis of this error in logic may be

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<sup>15</sup> For example: Johnson's decisions related to the increasing involvement in the Vietnam War, Kennedy's decision to invade Cuba at the Bay of Pigs.

traced to the need for affiliation, which can cause individuals to perceive themselves as more similar to their reference group; to the closing down of a group which is self-centered and not inclined to confrontation with other individuals and/or groups; and the effect of the so-called *availability heuristic*, which states that we base our decisions on our own beliefs if we do not know others' opinions and behaviors.

- **Escalation of commitment.** Increasing commitment in a decision despite the fact that all of the information indicates that the outcome of such a choice are entirely negative. The decision maker persists with their choice in order to prove that the original decision was not wrong.

Through our decisions, we contribute to building our life contexts, construct and modify our personal, professional and social realities, and assume responsibility for our actions<sup>16</sup>. Therefore, decisions and responsibilities are intimately related.

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<sup>16</sup> DE LEO G., 1996: *someone* (in individual and role terms) is required – on the basis of their ability, capability and competence – to respond with *something*, (such as actions, communications or omissions attributed to him/her, expression also of intentions, meanings, and values) to *someone else* (that is to someone who has legitimate expectations to claim for answers) *on the basis of norms and rules* which are active and operating in the particular context.

**Unit 5 – WORKSHEET B**  
**(print out and distribute to each participant during group game)**

THE RACE

You are a group of 5 friends who have known each other for a long time and share the same interests. When you are altogether, you follow the rule of making decisions with everyone's consent; if you cannot agree on an unanimous decision, you vote on the issue and the majority wins.

From rumors circulating in town, you know that there will be car race between some of the local guys. Both parents and police cannot know about the race, which was organized by people who do not live in town.

It will be an elimination race: each race involves two cars at a time – which will follow a straight 2 km route – two by two, until the final. Each car also accommodates the driver's friends. You have to decide whether or not to participate in the race, considering that registration costs 50 € but if you win, the prize is 1,000 €.

The driver, who is also the owner of the car, decides to seek the advice of his peers in order to determine whether to take part in the race.

You have 20 minutes to discuss amongst yourselves and decide whether or not to register for the race, participating together as a crew in the same car.

Once the time is up, the driver announces their decision.





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**UNIT 6 – PROMOTING A ROAD SAFETY CULTURE**

## DESCRIPTION OF UNIT 6

### PROMOTING A ROAD SAFETY CULTURE

#### ACTIVITIES

This unit is dedicated to engaging participants in an active exercise on issues of road safety. The task involves participants becoming the authors and creators of a “public service campaign” aimed at increasing youth awareness of driver safety<sup>17</sup>. The trainer may choose the particular exercise from the three options presented below.

When conditions permit, the trainer can strengthen the effect of this exercise (and thus, the program’s influence in general), by making arrangements with local institutional partners, both formal and informal (school, university, municipal administration, sport and social groups, etc.), to facilitate the visibility of the service announcements realized by youth through disseminating them at a community level.

#### OBJECTIVES

Reinforce participants’ learning by direct and active engagement on the topic of safe driving behaviors.

Support the eventual dissemination of a road safety culture among group members and within contexts that are relevant to youth (e.g., school, peer group, social network, etc.).

#### OUTLINE OF UNIT

The unit consists of 3 exercise options, which differ in terms of operational complexity, time requirements, and the instruments necessary for its realization. The specific option utilized is chosen by the trainer, on the basis of interest and feasibility.

All of the unit options involve small group work (approximately 5 participants per group); the trainer can choose whether to assign the groups the same or different exercise options.

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<sup>17</sup> Diverse empirical research studies on the efficacy of educational programs on road safety have highlighted that the active participation of youth through the creation of public service campaigns aimed at peer groups, significantly increases the efficacy of the intervention not only by improving driving behavior but also by reducing the youths’ rate of traffic accidents in comparison to their same-aged peers. For more details, please see IVERSEN, H., RUNDMO, T. & KLEMPÉ, H. (2005). Risk attitudes and behavior among Norwegian adolescents: The effects of a behavior modification program and a traffic safety campaign. *European Psychologist*, 10, 25–38.

*a) Preparation*

The trainer presents the activity to participants, which consists of creating a public service campaign aimed at increasing their peers' awareness on road safety and promoting safe and responsible driving behaviors.

Divide participants in small groups of approximately 5 people each, present the final product that will be realized (or products, depending on whether the trainer has opted to assign different options to different groups) and provide the materials necessary for its completion.

*b) Realization*

**\* Unit 6 – Option 1. “The flyer”**

This option involves the creation of a flyer.

A flyer is a small poster (A3), which allows for easy posting on message boards (for example, at schools or universities), in public locations in general (for example, local café windows, outside night clubs and bars, etc.), in addition to other places typically frequented by youth. This option does not require special technology or tools and is simple and engaging. It requires approximately 90 minutes to complete.

*Exercise*

The trainer presents the objective: Create a flyer, which promotes safe driving behaviors in their peers. Explain to participants that a “flyer” is a small poster (A3 format) and a means of communicating a concept or message using brief phrases and images (**see Unit 6 – Worksheet A**). The trainer should also specify that the flyer needs to be appropriate and relevant to the target audience (peer group), through the use of common language, images, codes and slogans that are recognizable to youth.

The group needs to create the flyer by hand, with the use of pencils, pencil crayons and markers. They may work on rough drafts (of A4 format) which the trainer will provide them with.

The trainer assigns a time limit and leaves groups to work independently; the trainer should not directly follow the groups' work but rather, oversee each groups progress at a distance and providing assistance if requested.

Once all flyers have been completed, each group presents their poster to the class, describing the reasons for their creative and

communicative choices and indicating potential locations their flyer could be posted.

#### *Comments*

The trainer should value the participants' work, appreciating the form and pleasantness of their expression, where appropriate. Also, the trainer should focus on the content of the message transmitted by the flyer, enriching it with their personal notes and comments.

*Materials:* Preprinted sheets (A3 format), Pencils and sharpeners, Pencil crayons, Markers, Sheets for rough drafts (A4 format).

#### *What the trainer can do to increase the final product's visibility*

The trainer, in relation to the quality of the work created, can request the school/university to make color photocopies of the flyer so that they may be posted by the participants in areas frequented by youth.

### **\* Unit 6 – Option 2. “The social network page”**

This option involves the creation of a web page to include in a social network participants already belong to such as Facebook. This is accomplished with the support of a computer with internet access; it is necessary that the trainer first verifies the participants' level of basic technological competence and that there is at least one computer in conjunction with internet service available for each group. This exercise option is very similar to activities youth already engage in, requiring basic knowledge in navigating the internet. This exercise requires approximately 90 minutes.

#### *Exercise*

The trainer presents the objective: Develop a web page for a social network (for example, Facebook), which promotes safe driving behaviors in their peers. The trainer also makes it clear that the page has to be dynamic and communicate efficaciously to the target audience (peer group), through the use of recognizable language, images, slogans, posts and links.

Each group must create a web page utilizing a computer and the format of the preselected social network, and some images coming from internet.

The trainer assigns a time limit and leaves groups to work independently; the trainer should not directly follow the groups' work but rather, oversee each groups' progress at a distance and provide assistance if requested.

Once all web pages have been completed, each group presents their web page to the class, describing the reasons for their creative and communicative choices and indicating how they can keep the page active over time.

#### *Comments*

The trainer should value the participants' work, where appropriate. Also, the trainer should focus on the content of the message expressed by the web page, enriching it with their personal notes and comments.

*Materials:* Computer with internet access.

#### *What the trainer can do to increase the final product's visibility*

The trainer can ask participants to insert a link on their own profiles (or a "I Like") referring to the web page they developed on driver safety; this would ensure that the web page is disseminated among their individual networks.

### **\* Unit 6 – Option 3. “The video”**

This option involves the creation of a video of a maximum of 3 minutes. In order to conduct this exercise, it is necessary that the trainer has a videocamera, VCR or DVD player, and a computer to eventually edit and copy videos. In addition, the trainer needs to assess in advance, the possibility for participants to film at an external location, and based on this assessment, give participants clear guidelines. This exercise is very engaging, yet still requires the ability to use and master some technical equipment; as such, it is moderately difficult to carry out. This option requires approximately 120/180 minutes.

#### *Exercise*

*Phase 1* – The trainer presents the objective: Create a video which promotes safe driving behaviors in their peers. The video may be in whatever form the participants choose: thus, it may be a mini-documentary, a commercial, a short narrated film, an interview, etc.

Despite the fact that participants are free to select their video type, the trainer should be clear in stating that their final product must be consistent with the feasibility of the circumstances and stay within the available limits and resources. The trainer also needs to specify that they cannot use film, which includes individuals who have not given their consent.

The trainer briefly describes the different phases of the small group work, assigning time limits and leaving groups to work independently; the trainer should not directly follow the groups' work but rather, oversee each groups' progress at a distance and provide assistance if requested.

*Phase 2 – Creative design:* participants have to think of a creative design and decide what type of form their video will involve (interview, commercial, story, etc.). They will then write/draw out a short script containing the general content of the video that will help guide them during filming.

*Phase 3 – Filming:* participants film the video either internally or externally and according to the options outlined by the trainer and their creative choices. Once the filming has been completed, if necessary, they may quickly edit the video with the aid of a computer.

*Phase 4 – Presentation:* each group presents their video and provides explanations for their creative and communicative design.

#### *Comments*

The trainer should value the participants' work, where appropriate. Also, the trainer should focus on the content of the message expressed by the video, enriching it with their personal notes and comments.

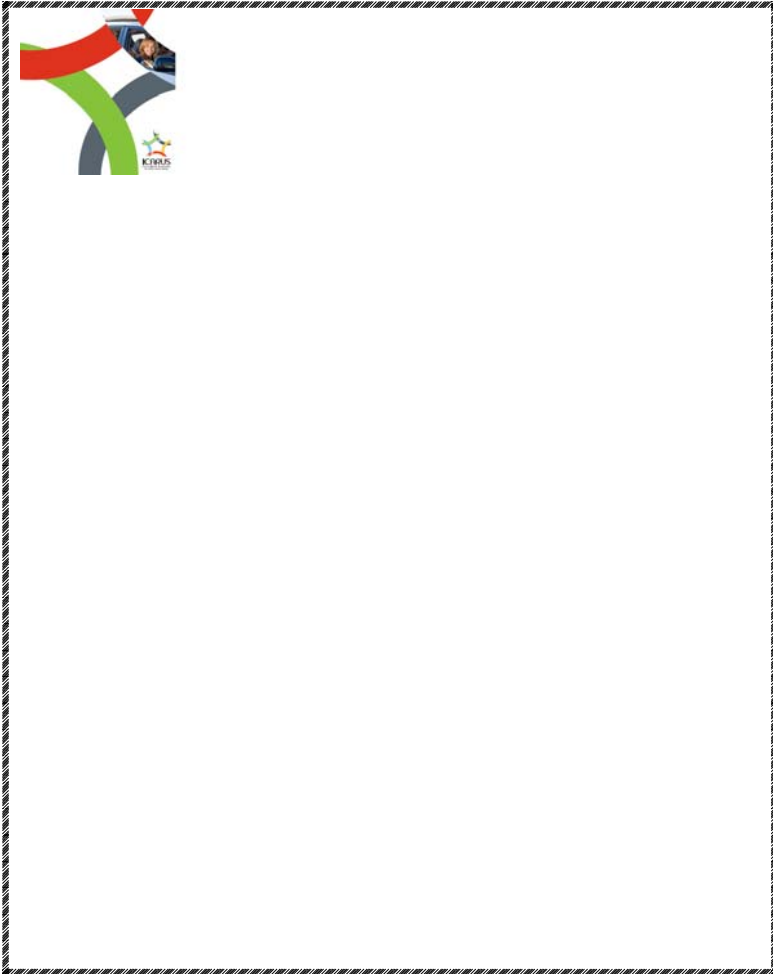
*What the trainer can do to increase the final product's visibility.*

The trainer can suggest the participants download their videos on Youtube and create a link to the video on their own personal social network pages.

*Materials:* Video camera with cassette (or mini DVD), VCR or DVD player, Cables and leads to connect video camera and VCR/DVD player, Computer to edit and copy videos.

## Unit 6 – WORKSHEET A

*(print out in A4 format and distribute to each group. Print out in A3 format for the final flyer.)*







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**UNIT 7 – CONCLUSION AND TRAINING EVALUATION**

## **DESCRIPTION OF UNIT 7**

### **CONCLUSION AND TRAINING EVALUATION**

#### **ACTIVITIES**

This unit is dedicated to the evaluation of the training course and its closure.

The training course, once reached its conclusion, is characterized by all of the work completed by participants, for instance:

- a) development of road safety knowledge;
- b) exploration of the individual, group and contextual determinants of risky driving behaviors;
- c) identification of useful skills needed to manage potential risk situations, such as the ability to appropriately assess reality, decision making processes, self-regulation and coping.

In keeping with these learning principles, the training evaluation is a verification that the trainer does together with the participants, with the intent of understanding the issues which emerged from the training course in terms of self-awareness and how these effects may impact young drivers' safety and protective behaviors.

#### **OBJECTIVES**

To verify the impact of the training course on participant's awareness of road safety themes and risky behaviors.

Recognize participants' personal commitment and the individual outcomes that were achieved.

#### **OUTLINE**

With respect to the training evaluation, the unit is divided in 3 alternative exercises differing in difficulty and length.

Following the evaluation, a closing session including the distribution of certificates of participation is programmed.

### ***\* Unit 7 – Option 1. “The postcard”***

This training option activates participants with respect to the learning principles that were included in the curriculum through the use of symbolic language. The exercise is easily understandable and straightforward to facilitate. It requires approximately 45 minutes to complete.

#### *Exercises*

The trainer distributes a set of four postcards to each participant (**see Unit 7- WORKSHEET A**) representing different driving styles, including those that emerged from the ICARUS research conducted in Europe: at risk/overconfident, aggressive, worried/anxious, and prudent driver profiles. The trainer invites participants to think of a friend who likes to drive and to select a postcard within the set that they would like to send to him/her. Once the particular postcard has been selected, participants have to write their friend a phrase in the form of a message, wish, greeting, or aphorism. In choosing both the postcard and phrase, the participant is reflecting a concept, emotion and/or piece of knowledge that they want to transmit, drawing on the information presented during training. The trainer allows the participants 10 minutes to select the postcard and write a message. Next, the trainer requests that all participants place their postcards in the center of the table (or in a basket, if available), with the image side facing up. After shuffling the cards, the trainer organizes the postcards by type and then reads them out loud, one at a time.

#### *Comments*

The trainer concludes the session by summarizing the main points that emerged from reading the messages and focuses attention on the content that is most relevant to participants.

*Materials:* Set of postcards, Pens.

### ***\* Unit 7 – Option 2. “Training evaluation questionnaire”***

A training exercise, which involves self-reflection with respect to the aspects participants feel they developed and improved through the

training course. This exercise is moderately difficult to facilitate and requires approximately 60 minutes to complete.

#### *Exercises*

The trainer distributes the set of 3 questions to each participant (**see Unit 7 – WORKSHEET B**) and asks them to anonymously answer each question in numerical order. The participants are given a few minutes to respond to the first question, after which, the trainer collects the slip of paper. The same process is followed for the subsequent two questions. At the end, the trainer reads all of the responses given by the participants, keeping to the numerical order.

#### Questions

1. Which aspects or experiences during this training course were most interesting for you?
2. On which issues do you feel you have gained knowledge and/or greater self-awareness?
3. Which driving behaviors and attitudes do you think you will make changes to?

#### *Comments*

The trainer concludes the session by summarizing the issues that emerged from the reading of the responses; also highlighting the similarities and differences between answers. At this point, the trainer can provide participants with a brief personal reflection on the training course by expressing appreciation for participants willingness to share their thoughts and knowledge and the subsequent group dynamics that were activated.

*Materials:* Slips of paper with 3 questions.

#### ***\* Unit 7 – Option 3. “Your mood”***

This training option is quick and easy to facilitate. It requires approximately 20 minutes for a group of about 15 individuals.

### *Exercises*

Each participant is given a small piece of Bristol board (**see Unit 7 – WORKSHEET C**), with the instructions, “In one or two words, please describe your current mood, as this training experience is coming to an end”. The trainer should also complete a card expressing their own mood. Once all participants have completed the exercise, the cards are collected, including the one belonging to the trainer, and shuffled so that responses remain anonymous. Each card is then read out to the group without making any comments.

### *Comments*

After all cards have been read, the trainer summarizes the emotions described by the participants. The trainer should be careful not to be judgmental and should express acceptance for all of the feelings that emerged. The conclusion of this sharing session can be directed towards highlighting the importance of having experienced a moment of comparison and reciprocal enrichment.

*Materials:* Bristol board, Pens.

## **\* Unit 7 – Certificates of Participation**

The unit concludes the training course with the handing out of certificates of participation. This is a moment to appreciate participants’ contributions during the training course and their commitment. This requires approximately 10 minutes to complete.

### *Exercises*

The trainer will have filled in each certificate prior to the beginning of the session<sup>18</sup> (with the participant’s name, the date and the trainer’s signature). The trainer informs the participants that they will proceed with the distribution of the certificates of participation, which takes place together with a small celebration. The trainer calls up each participant individually, and hands them their certificate along with the ICARUS adhesives (**see Unit 7 - WORKSHEETS D and E**).

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<sup>18</sup> The adhesive and certificate of participation may bear the words "Friends of Icarus" or any other saying related to road safety.

**Unit 7 – WORKSHEET A (Back).**  
**(print out, cut and distribute a set to each participant)**

     <hr/>	     <hr/>
     <hr/>	     <hr/>

**Unit 7 – WORKSHEET A (Front).**



## **Unit 7 – WORKSHEET B**

**(print out, cut and distribute a set to each participant)**

1. Which aspects or experiences during this training course were most interesting for you?

2. On which issues do you feel you have gained knowledge and/or greater self-awareness?

3. Which driving behaviors and attitudes do you think you will make changes to?

**Unit 7 – WORKSHEET C**  
**(print out on Bristol board and cut out)**

In one or two words, please describe your current mood, as this training experience is coming to an end.	In one or two words, please describe your current mood, as this training experience is coming to an end.
In one or two words, please describe your current mood, as this training experience is coming to an end.	In one or two words, please describe your current mood, as this training experience is coming to an end.
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**Unit 7 – WORKSHEET D**  
**(print out and distribute to each participant)**



**Unit 7 – WORKSHEET E**  
**(print out on adhesive paper, cut and distribute to each participant)**



## **Appendix**



# Appendix 1

## Influences on youthful driving behavior and their potential for guiding interventions to reduce crashes<sup>19</sup>

*Jean Thatcher Shope*<sup>20</sup>

In spite of recent improvements attributed to graduated driver licensing (Williams, 2005) young drivers' high rates of traffic crashes, injuries, and fatalities (National Highway Traffic Safety Administration, 2004) and the high monetary costs of crashes (National Highway Traffic Safety Administration, 2002) are clearly unacceptable. Young people today are driving in a more complex traffic environment than ever before. There are more cars, more congestion, more complex intersections and roadways, and today's drivers are considered by many to be more rude, aggressive, and distracted. In spite of safer vehicles and roadways, driver behavior remains frustratingly less than ideal. Traffic enforcement alone can never adequately control driver behavior; officers cannot be in all places at all times. Novice drivers are influenced by the complexity of this environment as well as the many other factors in their lives.

This paper will first briefly review some key aspects of the young driver crash problem. Then, many different influences on young drivers will be identified and grouped within a conceptual framework.

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<sup>19</sup> SHOPE, J. T. (2006). Influences on youthful driving behavior and their potential for guiding interventions to reduce crashes. *Injury Prevention*, 12 (Suppl. 1), 109-114. This paper was first presented as part of the first Expert Panel meeting of the Youthful Driver Research Initiative, a collaborative research program between the Center for Injury Research and Prevention (<http://www.chop.edu/injury>) at the Children's Hospital of Philadelphia (CHOP) (<http://www.chop.edu>) and State Farm Insurance Companies® (State Farm) (<http://www.statefarm.com>). The views presented in this paper are those of the author(s) and are not necessarily the views of CHOP or State Farm. The author's previous work on which this paper is based has been supported in large part by NIH-NIAAA and NHTSA, and influenced by colleagues Patricia Waller, Ray Bingham, and Jennifer Zakrajsek.

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<sup>20</sup> Jean Thatcher Shope is Research Professor and Associate Director at the University of Michigan Transportation Research Institute (UMTRI), where she has conducted young driver research since 1991.

Based on this framework, interventions to reduce young drivers' crashes can be identified. Potential areas for new or improved interventions for crash reduction will be suggested to guide future work. This paper is not a systematic, critical literature review, but rather a synopsis of the state-of-the-art research based on selected recent studies by the author and colleagues, as well as others in relevant fields. While based primarily on the United States' experience, the approach taken fits to varying extents the situation in any developed country. For developing countries that are seeing increasing ownership and use of motor vehicles, considering the US experience could help them to develop successful prevention strategies before young drivers are killed and injured at high rates (Winston, 1999).

## **BACKGROUND**

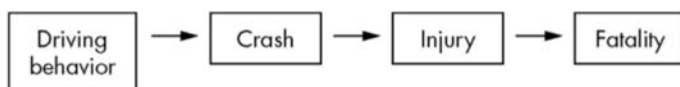
A few aspects of the young driver problem bear mentioning, although they are treated in more depth elsewhere. Teen drivers have the highest crash rate per miles driven of any age group (although the very oldest drivers may be reaching similar levels), and among teens, the youngest teens have the worst crash rate (Insurance Institute for Highway Safety, 2004). Crash rates are lower with each year of increasing age, but not until age 25–30 does the rate level off to that seen throughout most of adulthood. Fatality numbers are high, especially for male drivers, and injury rates are much higher. The crash risk for young drivers is higher at night than for more mature drivers (Williams, 2003). The risk for this group, especially the youngest teens, is also higher with increasing numbers of passengers present, while it is not higher for more mature drivers. Young drivers who had been drinking alcohol are overrepresented in fatal crashes well into adulthood (particularly male drivers). Teens are especially vulnerable to the effects of alcohol for several reasons. Their crash risk increases more steeply with increasing blood alcohol levels. At all blood alcohol levels, teens' crash risk is higher, especially at low and moderate blood alcohol levels (Zador, Krawchuk, Voas, 2000). And teens are relatively inexperienced at driving, drinking, and driving after drinking.

These data clearly indicate a serious public health problem, one that is very complex when all its influences are considered, and one that is challenging to resolve. It is essential, therefore, to understand

the big picture of multiple influences before the best and most promising interventions can be developed to reduce youthful driver crashes. To influence behavior successfully, interventions must be grounded in behavioral science theory. While several theories can and have been applied to driving behavior, three theories are particularly useful in understanding youthful driving behavior. Social Learning Theory is based on the fact that we behave in ways we have learned by receiving positive reinforcement, while Social Cognitive Theory employs a dynamic, reciprocal model in which behavior, personal factors, and environmental influences all interact (Glanz, Lewis, Rimer, 2002). Problem Behavior Theory has demonstrated in adolescents and young adults that while behavior is influenced by multiple factors, behaviors viewed as problems sometimes serve a developmental purpose (Jessor, 1991). The conceptual framework described below draws from these theories.

The outcome of interest in this framework is driving behavior. In order to prevent fatalities from crashes involving young drivers, injuries from those traffic crashes must be prevented, and in order to prevent injuries from those traffic crashes, the traffic crashes themselves must be prevented. While there has been excellent progress in engineering approaches to vehicle safety and roadway design, driver behavior remains a major challenge in preventing traffic crashes (fig 1), and thus is the focus of the larger conceptual framework to be described below.

Figure 1 – Conceptual framework.

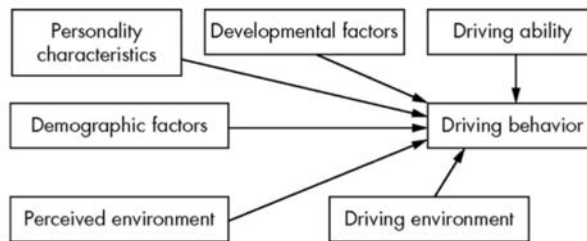


## **CONCEPTUAL FRAMEWORK OF INFLUENCES ON YOUTHFUL DRIVING BEHAVIOR**

The manner in which young people drive is influenced by many different factors. For the purpose of discussion, these factors will be grouped into the categories shown in an overview in figure 2, and discussed in more detail later (fig 3). First, the particular driving behaviors of interest need to be specified. Then, the various factors that are seen to affect youthful driving behavior need to include driving

ability, physical, social, and behavioral development, personality, demographic factors, the perceived environment, and the driving environment.

Figure 2 – Overall influences on youthful driving behaviour.



The relationships between many of these factors and driving behavior have been clarified in research studies. Each factor will be discussed in some detail, beginning with the driving behavior itself.

### ***Driving behavior***

Several driving behaviors seem particularly common in the crashes of young drivers, but are not the only behaviors that could lead to crashes. These behaviors, individually or as a group, need to be modified by interventions in order to reduce crashes and crash related injuries. Young drivers put themselves and others at risk by tending to speed, follow vehicles too closely, make illegal lane changes, and weave through traffic. Young drivers also, more frequently than more mature drivers, fail to yield the right of way at controlled intersections (yield signs, stop signs, and traffic lights) (Shope, 2002). Young, inexperienced drivers are also less likely to perceive hidden traffic risks and react to them appropriately (Fisher, Laurie, Glaser, 2002).

Impaired driving after drinking (and less often after using drugs) is more commonly a young adult driver problem, with alcohol related crash rates demonstrating that finding. Impaired driving can also be due to fatigue or distraction. Drowsy or sleepy driving due to fatigue is more common among young drivers than mature drivers. Most adolescents do not get enough sleep, and that sleep loss interferes with their functioning (Wolfson, Carskadon, 1998). Lifestyle issues can be involved as well.

Young novice drivers also seem more easily distracted from the driving task and are inexperienced at judging the driving demand in relation to additional tasks (Greenberg, 2003). The use of cell phones, radio and CD players, as well as eating, drinking, smoking, or interacting with passengers, are other sources of distraction that young novice drivers may not have adequate experience to handle while driving.

Young drivers and passengers also put themselves at greater risk of injury in crashes by wearing their safety belts less often than more mature drivers and passengers. The reasons for this lack of utilizing a proven safety measure are not entirely clear.

### ***Driving ability***

A basic ability to drive is certainly necessary for a person to drive and avoid crashes. This ability is acquired through knowledge, skill development, and experience. All new drivers must acquire knowledge of the rules of the road and how a vehicle works. This knowledge is often gained in a driver education or driver training class, with some behind-the-wheel learning. Driver education is currently under scrutiny, as the need for a more science based approach is acknowledged. In addition to the necessary knowledge, basic skills must also be acquired. Young novice drivers must learn skills in car handling and essential maneuvers (starts, stops, turns, lane keeping, speed control, etc). Subsequently, competence in those skills must be achieved through practice, some in driver education, but mostly in supervised practice with an experienced driver (typically a parent for teens) over an extended period of time. Even when the basic knowledge and skills have been acquired, much experience is necessary for driving ability to become satisfactory. Crashes and offenses go down over time as novice drivers gain experience in the complex psychomotor task of driving (Mayhew, Simpson, Pak, 2003; McCartt, Shabanova, Leaf, 2003; Waller, Elliott, Shope, *et al.* 2001).

### ***Developmental factors***

For young people, developmental issues are prominent during the time they are learning to drive and during the early years of driving. Many young people, especially teens, are still developing and growing physically. Their hormones are “raging” and their energy levels are high. Recent research reveals that their brains may not be fully developed, perhaps until age 25, especially the prefrontal cortex where

impulse inhibition, decision making, and judgment are centered (Paus, 2005). The sleep patterns and needs of young people are also different from those of adults. Young people's biorhythms tend to demand that they go to sleep later at night and wake later in the morning than mature adults. Yet most high schools, to which many teens drive themselves, have early morning start times (National Sleep Foundation, 2006).

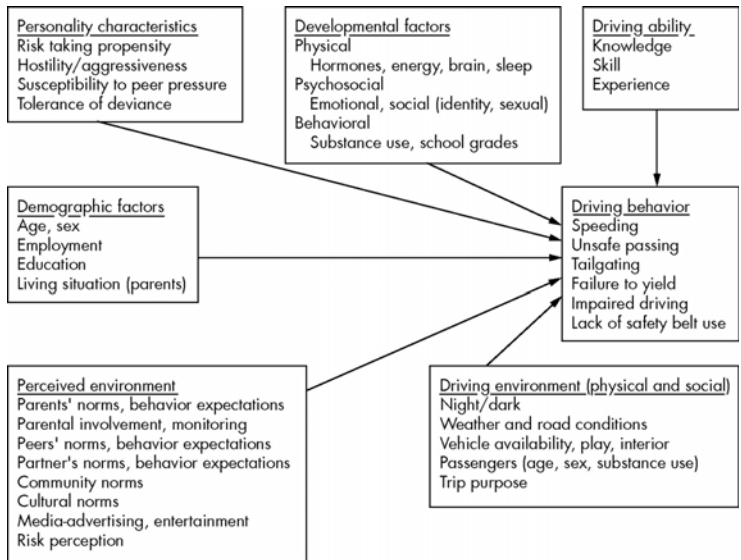
In addition to the physical changes, several aspects of psychosocial development can affect young people's driving. Young drivers are still developing emotionally and seeking their identity as individuals, as well as evolving in their relationships with peers. Their social life and sexual identity are of keen importance to them. They are testing their limits and abilities while still developing. All these issues and factors are brought into the car with young people when they get behind the wheel and may affect their driving behavior.

Behavioral development is also a factor with youngsters who report early access to and use of tobacco, alcohol, and marijuana; this group has more evidence of risky driving, even drink/driving in their driving records (Copeland, Shope, Waller, 1996). In addition, youngsters with better grades in school tend to have less risky driving (Shope, Waller, Lang, 1997).

### ***Personality factors***

Several personality factors are related to risky driving among young people. Those with a risk taking propensity or sensation seeking personality are more likely to be involved in crashes (Jonah, 1997). Those who exhibit tendencies toward hostility and aggression are also more likely to be involved in crashes. And those who are more susceptible to peer pressure are likely to have more crashes (Shope, Raghunathan, Patil, 2003). Another measure of interest is tolerance of deviance, the acceptance of behaviors that most others consider wrong or immoral. Those young people with a high tolerance of deviance (who do not consider deviant behavior to be wrong) have more traffic crashes (Bingham, Shope, 2004).

Figure 3 – Influences on youthful driving behaviour.



**Demographic factors**

There are several demographic factors that are related to crashes. The youngest drivers have more crashes as mentioned earlier. Even though novice drivers in general have more crashes early on, age at licensure is also a contributor to crash risk, with younger licensees having more crashes (Elliott, Raghunathan, Shope, 2002) Young male drivers are more likely to be involved in fatal crashes than young female drivers, and to engage in risky driving (Elliott, Shope, Raghunathan, *et al.*, 2006). Employment is related to driving behavior among young people in that those who are employed are more likely to report having driven after drinking. Among young adults in general, those with less education tend to show more driving problems, including drink/driving, but the relationship can be slightly different by sex and various levels of educational attainment (Bingham, Shope, Tang, 2005). Young drivers who report that they live with both parents have less risky driving than those who live with only one parent, perhaps

because of the ability of parents to monitor and be involved in their teens' behavior (Lang, Waller, Shope, 1996).

### ***Perceived environment***

This category is perhaps the largest and most complex set of influences on youthful driving behavior. For his or her entire life, the young driver has been developing perceptions related to driving behaviors that are "normal" or expected, and these perceptions strongly influence how they drive. The first to be discussed will be perceptions that come from individuals in the young driver's personal life, followed by a discussion of perceptions that come from broader sources.

From birth on, most youngsters are driven around in a car by parents, and their perceptions about driving are being formed. Parents' driving is a strong influence on and example for the subsequent driving of a young person. People drive in ways similar to their parents (Ferguson, Williams, Chapline, *et al.*, 2001). Parents' expectations of their young driver are also important, and when those are conveyed clearly and convincingly, those expectations can affect driving behavior. Parents who are involved in their young people's lives, who monitor, who nurture, who have high expectations, and who are not overly permissive, tend to have youngsters who drive with fewer crashes and offenses (Bingham, Shope, 2004). Other individuals who can influence young people's driving are their peers. It has already been mentioned that those who are susceptible to peer pressure have more offenses and crashes. Having friends involved early with alcohol is related to problem driving among teen drivers. The driving behavior of peers sets a norm that is an understandable influence on young drivers. Peer passengers can also influence young drivers' behavior, as seen in the negative influence of a young male passenger on male drivers, and the moderating effect of a young female passenger on drivers of both genders (Simons-Morton, Lerner, Singer, 2005). In addition, the norms and expectations of a partner (girlfriend, boyfriend, significant other, or spouse) can have an important influence on driving behavior.

Beyond parents, peers, and partners is the wider world perceived by the young driver, that of the community, the culture, and the media. The young person's perception of driving risk is developed from these sources: how dangerous it is to drive, how likely a crash is, how likely it is that someone could get injured or killed, or how likely one is to get a ticket, be fined, or jailed for a particular driving infraction. Community

norms and enforcement for driving behavior and how these are conveyed to young people will influence their perception of driving risk and, therefore, their driving. The US culture promotes car oriented expectations to young people, and not always in ways that promote the safest driving. Race car driving is a very popular sport and source of entertainment. The result is that even young teenagers expect to drive a car, own a car, and actually often need a car for transportation to meet basic needs. Some parents even purchase a car for their teen driver, and they may not purchase the safest or smartest vehicle for a young driver. The media, both advertising and entertainment, also promote fast driving and performance driving more than safe driving. Further, youngsters spend a lot of time with video games, many of which encourage aggressive behavior or car racing, with potential effects on young people's subsequent driving behavior.

### ***Driving environment***

The environment in which young people drive, both its physical and social aspects, has several features that are related to subsequent risky driving. In terms of the physical environment, as mentioned earlier, driving at night (in the dark) is more risky for young people than for more mature drivers. While this finding may not be completely understood, it is an environmental factor of considerable importance. Bad weather and road types and conditions with which the young driver has had little experience may also present problems.

Teens' ownership of a vehicle is related to more driving and higher crash rates. Further, teens who own vehicles tend to exhibit more risky driving behavior and traffic violations (Williams, Leaf, Simons-Morton, *et al*, 2006). The type of vehicle being driven can also present problems to young drivers, who may not have gained the driving experience to handle SUVs, large vans, pick up trucks, etc. Having young novice drivers drive newer, heavier vehicles with more safety features may prevent injuries in case of a crash more so than older, smaller vehicles. Further, the physical aspects of the vehicle interior can be important. Being familiar with the vehicle controls, and having essentials such as sunglasses within easy reach is important. Finally, avoiding unsafe actions with food, beverages, cigarettes, cell phones, radios, and CD players are especially important for young novice drivers.

Little is known, but much can be imagined, about what is going on inside the vehicles driven by young drivers. This social context of their driving is an important influence on the outcome of risky driving, as

the increased crash risk in the presence of passengers indicates. More risky driving is associated with being a teenager and being male (Simons-Morton, Lerner, Singer, 2005). Social interaction very likely leads to distracting a young driver from the driving task. Social interaction such as conversation, or merely the presence of particular passengers, may also lead to different driving behaviors. The purpose of a driving trip has also been suspected of being related to risky driving. Trips to school, work, or to do errands may not lead to as much risky driving as trips for recreational or entertainment purposes.

## **IMPLICATIONS FOR PREVENTION**

Potential interventions to prevent youthful driving behavior that may lead to crashes can target the driving behavior directly, or target one or more of the factors that influence the driving behavior. Some of these factors lend themselves to being changed more than others that should not be the target of interventions. The factors that cannot be changed can be used, however, to guide and inform interventions to prevent youthful risky driving.

### ***Driving behavior***

Driving behavior that is unsafe can be directly targeted by interventions through establishing and implementing policy. After legislation is passed, and laws implemented, however, the laws must be enforced to affect behavior. Enforcement should be certain, not allowing unsafe behavior to go unchecked, and it should be swift, not allowing delays to dilute the effect on subsequent behavior. Enforcement should also be consistent, not permitting the perception that the consequences will not happen to all drivers all the time. Obviously, this ideal is difficult to achieve, without, for instance, being able to implement such technology as red light or speed cameras that enforce particular behaviors certainly, swiftly, and consistently. Other new technology of interest would allow monitoring of teens' driving by parents, such that undesirable behavior could lead to consequences such as a loss of driving privileges, or desirable behavior could lead to an increase of driving privileges.

### ***Driving ability***

Ensuring that novice drivers have sufficient ability to drive independently is essential. Driver education and training is currently conducted in different ways, by different people, with different qualifications, and with different requirements for those qualifications. As mentioned earlier, a scientific basis for current practices may be lacking (Mayhew, Simpson, 2002). It is important to identify what adequate education and training to drive should be, and then to require that. It is also important to determine scientifically what adequate practice and experience would be for licensure to drive independently, and then to require that as well. There is little current knowledge available, however, to do so. Without that knowledge, caution is certainly advisable before allowing teens, who have had a driver education course, to drive earlier than those who have not.

Traditional driver education courses may not adequately address lifestyle issues that are also related to risky driving. One program that attempted to do so was a high school based alcohol misuse prevention program that included refusal skills practice and had a positive effect on students' first year serious driving offenses (Shope, Elliott, Raghunathan, *et al*, 2001).

Graduated driver licensing (GDL) has been a key step in the right direction of helping teens develop their driving ability before being exposed to increasingly risky driving situations. States that do not have GDL should implement it, and states that have it should enhance their program to be the best possible (Williams, Ferguson, Wells, 2005). With or without GDL, parents of young people learning to drive should ensure that driving ability (knowledge, skill, and experience) is demonstrated through practice under different conditions. Privileges can be gradually granted as they are earned by teens exhibiting responsible independent driving.

### ***Developmental factors***

It is difficult to target developmental factors with an intervention, as they are, for the most part, not possible to change. But programs can take into account the developmental issues teens bring to the driving task. Licensing age could be reconsidered because of developmental factors. Developmental issues can also be a consideration as GDL programs are enhanced and parents' decisions regarding their own youngsters' driving are being made. Emotional development and maturity, as well as past behavior, as assessed by parents, could be a

guide to decisions about teens' readiness to drive independently. Teens' sleep needs also could be considered in GDL program restrictions on new drivers, as well as in high schools' decision making regarding morning start times.

### ***Personality factors***

Personality is not usually considered possible to change but again could be considered by parents making decisions about their own teens' readiness to drive independently.

### ***Demographic factors***

Most demographic factors are not possible to change, but they could also be considered in decisions about readiness to drive independently. An older age of licensure may be desirable, but when considering sex, however, it is more complicated; should young men have to wait to drive longer than young women based on their higher crash numbers? Unfortunately, not enough is known about employment and driving among young teens to make suggestions.

### ***Perceived environment***

Several things could be done to target young people's perceptions about driving, gleaned from the environment in which they find themselves. Parents could be targeted to learn to set a good driving example and be the best role models. Parents can also be given assistance in learning ways to be more involved with their teens' driving and set more realistic restrictions on their novice teen drivers to enhance their safety (Simons-Morton, Hartos, Leaf, *et al*, 2005). Creative programs are also needed that use peers and partners to promote safer driving by young people.

Communities could work to change their norms about young people's driving behavior for example, sending clear, instead of mixed, messages about drink/driving. Changing the cultural norms about driving would be harder, although there is some current interest in the US overdependence on the automobile, the negative health effects of the built environment, energy use, and emissions. The media, both advertising and entertainment, could provide good avenues for interventions, although it may be challenging to enlist their collaboration. Risk perception can be changed, thus providing opportunities for intervention. Publicizing active traffic safety

enforcement programs increases the perception of enforcement, thus resulting in safer driving behavior (Jackson, 2003).

### ***Driving environment***

Interventions have begun to target the driving environment, notably in the GDL night driving restriction. Restricting novice teen drivers from being exposed to the higher risk of late night driving until they have gained driving experience has been effective in reducing night-time crashes (Shope, Molnar, 2004). Parents can be encouraged to restrict novice teens' driving under certain weather and road conditions until their experience is adequate. Parents can also be advised about the risks associated with making a vehicle available to their teen, and the types of vehicles that would be safer for teens to drive. This ecologic approach has value and has also been used by GDL programs and by individual parents to restrict numbers of passengers and the age of passengers allowed to ride with a novice teen driver. Perhaps passenger sex should also be considered. Trip purpose has also been included in some GDL programs, usually to permit exceptions (not necessarily appropriately) to the program's restrictions.

### ***Successful interventions***

Successful interventions can be developed based on an understanding of the factors from the above conceptual framework. Interventions must be comprehensive to affect the complex issues involved in youthful driving behavior. Ideally, one would begin with interventions that are most likely to succeed, or that will effect the greatest difference in outcome. The framework presented can serve to guide the development of further research questions as well as interventions to be implemented and evaluated.

Further research will be needed to understand the viewpoints of young drivers themselves and their interpretations and explanations of the relationships in the framework, as well as their views of potential interventions. For instance, not wearing seat belts may serve a developmental purpose or function, such as "looking cool" for some young people. Interventions would not be successful without an understanding of the "purpose" of such a behavior, so that safer means to "be cool", for instance, could be promoted.

The intent of an intervention needs to be clear, and the expected outcome (not necessarily reduced crashes or changed driving behavior) identified. With a sound conceptual basis, interventions will be more

likely to succeed, but of course they must be ongoing. If not, behaviors will return to pre-intervention levels. Successful interventions must also be ongoing because there are always new young drivers entering the driving population. And it may be that changing the behavior of a large group of people will be more easily accomplished with policy level changes rather than with individual behavioral approaches.

Evaluation of interventions is essential, and should include process evaluation as well as evaluation of the impact (on the intermediate measure of interest) and the outcome (driving behavior or crash). Ongoing research and evaluation of interventions may serve to add to and/or refine the conceptual framework presented. It is also important in intervention development to anticipate and monitor for unintended consequences, especially with young people. They can be very creative in reacting to well intentioned intervention efforts, resulting in surprising and often unanticipated outcomes.

## CONCLUSION

It is important to study the issues and gather the evidence that links youthful driving behavior with the multiple factors that may influence that behavior: driving ability, development, personality, demographic factors, perceived environment, and the driving environment. Research may need to be conducted to fill in some gaps in existing knowledge. Recommendations for interventions should be based on research results in the conceptual framework. After interventions have been developed, implemented, and evaluated, revisions of the interventions will likely be necessary. After revisions, re-evaluation will be required.

Motor vehicle crashes due to young people's high risk driving behavior can be reduced. Doing so will require developing sound programs based on a conceptual framework such as that presented. Program implementation must then be thorough, and compliance with the program ensured. Parental involvement seems essential, and community involvement will enhance any program. Much has been learned about the factors related to high risk driving, and intervention programs can build on what is known while contributing further to the growing knowledge base being gathered for the purpose of protecting young drivers.

## Appendix 2

### Young drivers and the perception of risk

*Anna Maria Giannini & Fabio Lucidi*<sup>21</sup>

Several scientific studies have attempted to explain the data on traffic accidents among youth and young adults. When compared to drivers of other age groups, young drivers often engage in high risk behaviors while at the wheel. For instance, on average they tend to not respect speed limits, they do not maintain a safe distance from other drivers, and young drivers tend to pass in both inappropriate and dangerous situations. In order to effectively intervene, thereby reducing the probability that young drivers are involved in accidents, acknowledging that this group represents a population at risk is not sufficient. Rather, first it is necessary to analyze the cause of this reality. It is on the causes that one can develop efficacious interventions.

The tendency of youth and young adults to engage in risks while driving and their elevated likelihood of being involved in traffic accidents may be explained by several factors. One factor is this groups' systematic distortion of perceptions of risk in connection with driving. Regardless of the fact that risky driving is a well-known phenomena among youth both in terms of its frequent occurrence and its social and economic cost, it does not provoke the same level or kind of aversion that is instead, common with other types of risk which have less of an impact on human lives (for example, the risks associated with academic failure). In order to understand the phenomena, it is necessary to reflect on the fact that choosing to engage in reckless driving behaviors is the result of an error in cost-benefit calculations. Errors in the perception of costs and benefits of a particular behavior occur because they are not absolute but rather, relative: perceptions of

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<sup>21</sup> Giannini A. M., Lucidi F., I giovani guidatori e la percezione del rischio, in: GIANNINI A. M., SGALLA R. (2009). *Guida pratica per l'educazione stradale. Linee guida e percorsi per la scuola secondaria di secondo grado*, Edizioni Centro Studi Erikson, Trento, pp. 27- 36. Translated and reprinted by authors' kind permission.

costs and benefits change according to different social groups (for instance, they differ widely across diverse age groups) and within the same group, among different individuals.

Following this line of reasoning, if young drivers perceive that the risks related to driving are few, evidently they believe that the benefits of reckless driving are high while the costs are low. Therefore, it is important to understand both the perceived benefits and costs of young drivers in order to make appropriate modifications, decreasing the first and increasing the second.

Let's begin with the benefits: for youth and young adults, breaking the rules may be exciting, permits one to assert their own identity and allows one to prove him or herself. If one of the functions of driving is to aid in the acquisition of autonomy, reckless driving serves in the construction of one's self-image. In particular, reckless driving may permit an adolescent boy to demonstrate self-confidence and the ability to control situations. These behaviors may be experienced as a way to feel similar to others and as a means to establish oneself and one's reputation within a social group.

Now, let's move on to the costs. Logically speaking, the cost in terms of human lives, not to mention the healthcare, social and economic costs associated with traffic accidents, is indisputably unacceptable. However, human beings in general, and youth and young adults in particular, do not think solely based on logic but also include perceptions and subjective evaluations of the danger related to external circumstances and one's personal ability to confront them. Let's attempt to distinguish between these two elements.

## **THE EVALUATION OF DANGER DERIVED FROM DRIVING**

Young drivers tend to underestimate the probability of becoming personally involved in a traffic accident. This fact is often explained by referring to the fact that youth and young adults, in general, feel immortal and/or invulnerable. Although it is probable that this is true, it is certainly not the only explanation. In addition, there is also young drivers' inability to foresee risks, even when present, given their limited driving experience.

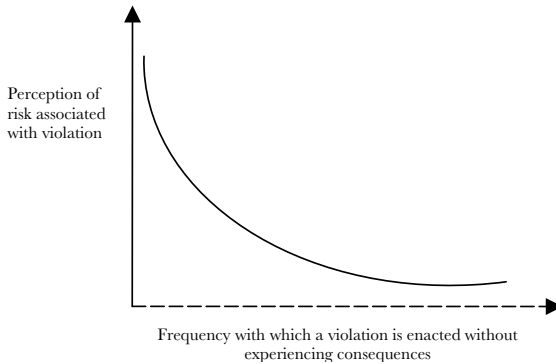
Diverse studies have demonstrated that the more youth and young adults engage in a particular behavior, the less likely they are to perceive it as risky and/or dangerous. Indeed, it would be absurd and illogical for an adolescent to behave in a certain way if they genuinely perceived it as a threat to their health and safety. Therefore, the frequency of a behavior distorts, minimizes or even negates the perception of risk and potential negative consequences: “If I don’t perceive there to be risks to the behavior I am about to engage in, I don’t see why I shouldn’t do it”. Obviously, this perception is strengthened by not directly experiencing the negative consequences which result from risky behavior. In other terms, the more often a risky behavior is performed without experiencing negative consequences, the more likely the conviction that the behavior does not involve risks, is reinforced. Figure 1 graphically presents the relationship between the frequency with which a violation is enacted without experiencing negative consequences and the perception of risk associated with the violation.

### *An example*

John goes to a dance club every Saturday night. To get there he travels along a suburban road with a speed limit of 70 km/hr (it’s a road with many intersecting private and public streets). The road is straight and John systematically speeds every time, driving at 100 km/hr. John has been committing this violation for almost a year, every week, and nothing has ever happened. If we were to ask John to tell us what the potential consequences of his behavior are, we should not be surprised if his response is: “None, maybe sooner or later a speeding ticket, but nothing more”. John knows perfectly well that going over the speed limit is a traffic violation, but it is not sufficient for youth to identify a behavior as a “violation”, rather young drivers must clearly perceive both the possible consequences of such a violation and the associated risks.

In addition, it should be noted that the ability to recognize danger, while driving, derives from a series of checks and controls which experienced drivers habitually engage in without being consciously aware.

Figure 1 – Relationship between frequency with which a violation is enacted without experiencing consequences and the perception of risk associated with the violation.



An experienced driver checks their rearview and side mirrors from time to time, pays attention to both stationary (street signs) and moving (other vehicles) objects, and looks both ahead and laterally. This type of attention permits experienced drivers to become aware of potential dangers and to avoid them. In contrast, the inexperienced driver tends to engage in significantly fewer lateral checks, to use their mirrors less, is inclined to only look ahead and primarily pays attention to stationary objects. Thus, inexperienced drivers are not fully aware of the potential dangers until it is too late and they find themselves involved in an accident. In other words, following a car trip, an experienced driver is perfectly able to appreciate the numerous potentially dangerous situations they found themselves in while the inexperienced driver may not even have been aware that they could have had an accident. Consequently, the young driver may erroneously conclude that in reality, driving does not involve significant perils.

## THE EVALUATION OF ONE'S OWN ABILITIES

Even in the presence of limited ability and lack of experience, young drivers tend to largely overestimate their own driving abilities. Indeed, it is well-known that even though the technical competences necessary for driving a car (for example, use of pedals, shifting gears, steering wheel, etc.) are quickly learned, it is only with time and driving experience that such skills become efficient enough to not require the driver's direct attention, allowing them to access the resources necessary to prevent dangerous situations or to adequately react in case of unforeseen events or conditions.

To be adequately aware of and perceive one's own ability to manage specific and difficult maneuvers (for example, passing an 18-wheeler) or deal with particular environmental conditions (for example, nighttime driving) allows drivers to appropriately choose between confronting or not confronting such tasks. However, if these critical driving situations are confronted without an accurate appraisal of one's own abilities, the consequences may be dramatic. Unfortunately, similar to evaluations of risk, an individual's estimate of his/her abilities becomes increasingly more inaccurate every time a risk is taken without experiencing a negative consequence.

Figure 2 graphically presents the relationship between the frequency with which a violation is enacted without experiencing negative consequences and the appraisal of one's own ability to manage the risk associated with the violation.

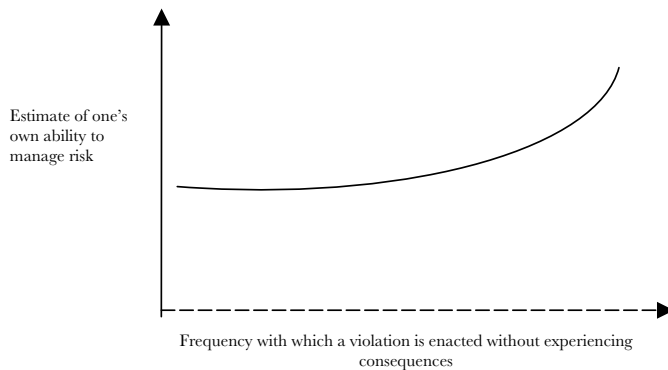
### *An example*

Once again we will use the example of John who goes to a club every Saturday night and does not respect the speed limit on a dangerous suburban road. If we ask John to estimate his ability to manage potential risks associated with his behavior (for example, a slow moving vehicle has suddenly turned from a lateral street and is now in front of him), we should not be surprised if John, despite having never been in this particular circumstance, responds by stating he would definitely be able to deal with the situation.

There is another reason that encourages young drivers to think they are more capable than they really are: when faced with a stimulus, youth and young adults demonstrate faster reaction times than do

older drivers. This is an advantage because if the “stimulus” is a danger (for example, the break lights of the car in front of us) a lower reaction time permits youth to respond (by breaking) more quickly. Unfortunately, however, prior to responding, the stimulus must be perceived as dangerous. Diverse studies have demonstrated that when compared to older drivers, young drivers take much longer to perceive dangerous traffic stimuli. Thus, the advantage derived from the ability to respond rapidly not only disappears but young drivers are at even higher risk of being involved in traffic accidents than are older drivers. Regrettably, while young drivers appear to be aware of their advantage over older drivers (faster reflexes, better vision, etc.), they fail to fully recognize the disadvantage caused by their lack of experience. This poor appraisal, which makes youth perceive themselves as more capable than they really are, leads them to believe they can permit themselves a more reckless driving style. For instance, it is a widespread fact that young drivers are less likely to maintain a safe distance from other drivers and more frequently violate speed limits.

Figure 2 – Relationship between the frequency with which a violation is enacted without experiencing negative consequences and the appraisal of one’s own ability to manage the risk associated with the violation.



In summary, it may be concluded that young drivers’ lack of risk perception is not only a result of their age but also and more

importantly, a consequence of their inexperience. This finding is to our advantage given that although we cannot do anything about young drivers' age, we can intervene, at least in part, with the problems associated with inexperience.

Interventions should seek to increase the awareness of dangerous and/or risky situations which drivers face daily and in parallel, encourage a more realistic appraisal of one's own driving abilities. Finally, intervening with young drivers should also include the modification of these drivers' beliefs regarding the advantages which derive from the image of a "reckless driver".

[...] Reckless driving may be the manner in which an adolescent demonstrates their autonomy, self-confidence and ability to control situations. Such needs are important for each of us and should not be undervalued. The goal is to associate the satisfaction of these needs with prudent rather than imprudent behaviors. How can this be done? One possibility is to "challenge" the youth to demonstrate their ability to make autonomous decisions without being pressured by others.

For the problem of youths' lack of awareness of dangerous and/or risky situations, the objective is to encourage young drivers to understand the existence of dangerous situations even when they are not evident.

Not surprisingly, some causes are overestimated while others are underestimated. For example, it is probable that going through a red light may be considered a more likely cause of traffic accidents than failing to respect the right-of-way when, in reality, the second cause is 15 times more probable.

Finally, let's consider the problem related to young drivers' belief that their driving abilities are better than they really are. This problem is a delicate one because we do not want to give youth the idea that they do not know how to drive, but rather that every driver, regardless of how well they are able to maneuver their vehicle, in some situations may not be able to do so adequately.

Therefore, "ability" does not only mean to be able to do something but rather, to be able to do something even under unexpected circumstances. This type of ability is acquired only through experience.



## Appendix 3

### Learning and Training<sup>22</sup>

*Francesco Avallone*

#### THE PSYCHOLOGY OF LEARNING

In layman's terms, to learn means to gain knowledge of (a subject) or skill in (an art, trade, etc.) by study, instruction or experience. Thus, learning refers to a series of processes which permit individuals – through the acquisition of new knowledge and new methods of behaving or the modification of knowledge and behaviors – to gradually attain a broader and solid command of different life contexts.

Human and animal learning processes have been studied by numerous disciplines: genetics, neurology, etiology, education, anthropology and sociology. Psychology has made a significant contribution to both the description and understanding of diverse processes which characterize human learning. In short, five core contributions have been identified.

The first includes research – classical conditioning (Pavlov, 1927), operant conditioning (Skinner, 1948), and combined response learning (Atkinson, 1957) – which bases learning on the *stimulus-response relationship* and on the importance of both positive and negative reinforcement.

The second involves a vast movement that studies the processes which support *cognitive or complex learning*: in this perspective, learning reflects the grasping of essential relationships and the meaning of a situation – *insight* (Köhler, 1925), sign theory/latent learning (Tolman,

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<sup>22</sup> AVALLONE, F. (2011). *Psicologia del Lavoro e delle Organizzazioni*. Costruire e gestire relazioni nei contesti professionali e sociali. Carocci, Roma, pp. 595-612. Translated and reprinted by author's kind permission.

1932) – and managing the process of acquisition and the elaboration of information (Searleman & Hermann, 1994)

The third contribution originates from Albert Bandura's (1986) *social learning theory*, and highlights the possibility of learning through observing others and the consequent modeling of one's own behavior in accordance with behavior perceived to be most efficacious.

The fourth group derives from *psychodynamic approaches* which stress the relevance of emotions and motivation. In particular, they make reference to anxiety, fear of learning, and personality characteristics which either support or hinder learning (Ancona, 1975). These perspectives must then be integrated with developmental theory and research. For instance, with Piaget (1952) and Vygotsky's (1934) contributions on cognitive development; Erikson's (1963) work on education and development; and Kohlberg's (1976) theory of moral development. The last contribution refers to Bruner (1960) and Ausubel's *constructivist approach* (Ausubel, Novak, Hanesian, 1978). Jerome Bruner noted that students should attempt to learn the structure of a body of knowledge, in other words, they need to understand the basic ideas that found the knowledge and the interconnected associations rather than try to learn fragmented and separate facts such as remember names, dates, places, rules and formulae. Bruner also introduced the concept of *discovery learning*: students should learn to uncover what it is they need to know. Ausubel distinguishes between a first stage of learning (information acquisition), which may result from assimilation or discovery and a second stage of learning (information integration), which may result in either mechanical or meaningful learning. This distinction highlights the importance of linking and integrating new information and ideas to existing cognitive schemas (Ausubel, Novak, Hanesian, 1978).

Constructivism is in contrast with a conception of learning founded on objectivism. Objectivism assumes that knowledge exists independently of the individual; that some people (experts, teachers, etc.) possess knowledge which other people (for example, students) do not have; that knowledge may be transferred from one person to another with the aim that a student can acquire all the knowledge a teacher holds (Bednar, Cunningham, Duffy, Perry, 1991). Instead, constructivism asserts:

- *meaningful learning is an active creation of knowledge structures* (for example: concepts, rules, hypotheses, associations) based on personal experience. In other terms, the learner constructs a personal vision

of the world by using their existing knowledge, interests, values and objectives to select and interpret available information.

- *the essence of a particular piece of knowledge can never be completely transferred* from one person to another given that knowledge is the result of a personal interpretation of experience which is influenced by factors such as age, gender, race and extent of existing knowledge.

Learning is a process, not a product; it involves continuous revision which each of us engages in when faced new information and data regarding reality in order to articulate our own vision of the world and acquire a broader command of life contexts (Bruner, 1966).

According to this theoretical framework, to facilitate learning and change in knowledge structures, it is useful for the learning process to systematically make reference to realistic contexts in order to confront problems; to consistently utilize multiple perspectives to facilitate the comprehension of interconnections and the complexity of problems; and to frequently employ open discussion as a method to encourage the discovery of meanings and the interdependence of actions and situations (Biehler & Snowman, 1997).

Learning processes follow different paths depending on the various life stages: for our purposes, we are interested in the learning of young adults. Obviously, within this group, we are interested in a progression of competence at both individual and collective levels; an indispensable tool to deal with the processes of innovation and development.

## LEARNING AND TRAINING

The term “training” may be viewed as representing a large box including extremely different activities and situations with diverse meanings<sup>23</sup>. Rather than rejecting the unifying term “training”, organizations and workers have attempted to deal with increasingly narrow linguistic terms and nomenclature by adding the most varied adjectives with the intent of qualifying and differentiating particular approaches, products, and training strategies. Thus, one may speak of professional training, managerial training, worker training, specialized and unspecialized training, role training, psychosocial training, etc. In addition, there are training courses, specialization programs, refresher

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<sup>23</sup> The content of this paragraph is part of a larger study on education (Avallone, 1989).

courses, and retraining. The defining linguistic parameters now refer to individuals, content and training situations as if individuals, in and of themselves, determine characteristics of the intervention or as if content, in and of itself, is sufficient to establish the nature, objectives and methods of the training process. In the face of numerous differentiating factors, reference to the process of learning is commonly recognized to be the unifying element. To educate or train means to intervene in the overall dynamics that characterize the process of learning in adults both within society and in organizational contexts. Therefore, implicit is the understanding and knowledge of the numerous group, organizational, and socio cultural variables which influence the potential and capacity of individuals to construct and modify their environmental 'maps' and their position within that schema; the founding and enrichment of knowledge systems and the understanding of relevant personal and cultural factors which are linked to such systems; the analysis and management of affective and motivational dynamics which characterize specific styles of relating with others, the organization, and the external world.

An analysis of the multiplicity of training methods highlights numerous differences, which do not only represent a nomenclature but rather, refer to diverse conceptualizations of learning and, at a meta-scientific level, to diverse conceptualizations of man. At the same time, the centrality of organizational dynamics in the training process postulates a diverse relevance of the function and evolution of organizations wherein value systems, norms, behavioral models, and symbols interfere in a relationship of reciprocal interdependence on the learning processes of both individuals and groups.

In other words, by its very nature, the term "training" adopts a linguistic multiplicity, a system of multiple signs suitable for the complex learning process of adults. On the one hand, the transmission of the already known allows for the use of a more conventional language, one that is consolidated and in line with the tradition of the educational process. On the other hand, exploration, the asking of questions, and the liberation of unexpressed potentials implies a different conception of the organization and individuals and moves us towards a less formalized and standardized language capable of mobilizing emotions and thoughts in light of conclusions which are only generically defined and entrusted to the initiatives of individuals and organizations.

Thus, through its signs and symbols, training is able to speak

different “languages”. While its capacity to renew itself and adapt to diverse demands has its advantages, this same characteristic may become a limit if there isn’t a clear understanding of: the “training concept” underlying every training program; the professional tools required by who is asked to promote and manage training.

In the last years, the international literature on education and training has proliferated in terms of the number of contributions examining both theoretical frameworks and empirical findings, and descriptive papers on intervention techniques and methods in organizational contexts. Moreover, there obviously isn’t a lack of literature on defining the training process in all of its phases. However, rather than present the extensive findings here (Bass & Vaughan, 1966; Goldstein, 1974; Wexley & Latham, 1981; Goldstein & Gessner, 1988; Quaglino, 1985; Bellotto & Trentini, 1989; Avallone, 1989), I believe it to be more useful to identify some important points associated with the way in which to conceptualize and understand training on the part of academics and workers within the field. To this end, I have identified a series of parameters that, when taken together, make it possible to delineate precise training concepts. The parameters may be succinctly described as follows:

*a) conceptualization of the individual*, with particular attention to their relationship with work and the meaning of their presence in organizational contexts;

*b) conceptualization of the organization*, of both its potentials and limits, of its role in terms of the external environment and with respect to the members whom operate within it;

*c) learning theory* which sustains training and education and orients choices regarding methodologies and techniques;

*d) role of the trainer*, interprets organizational and consumer culture as well as acts within a specific method of training;

*e) training environment* and prepared training setting;

*f) psychosocial dynamics activated* within training situation and particular organizational context.

### ***Imitative Training***

On the basis of the above parameters, it becomes possible to identify an early conceptualization of training, with archaic origins, utilized for centuries and still proposed today with contemporary and appropriate methods and content: this type of training may be defined

as imitative.

*Imitative Training* is played out through a process of adjustment between individuals and their behavior and a consolidated model involving some kind of reproduction. The trainee must adhere loyally to the model. Typically found in traditional organizations based exclusively on agriculture and artisan products, *Imitative Training* is the most common instrument used to learn a trade and/or skill and includes direct training of the individual within the family-run business or by the craftsman. From a professional point of view, the knowledge and skills acquired through this type of exercise and practice are sufficient to address training demands. Although imitation, adjustment, and reproduction are formally circumscribed to work methods and techniques which are often based on manual tasks, they have been extended to the sharing and revival of dominant cultural and professional values and thus, function as a type of social control for knowledge and new generations. The so-called apprentice, which has very early origins (in actual fact, the first trace of one dates back to the Code of Hammurabi<sup>24</sup>), constitutes the most historically relevant example of imitative training and applied, in some cultural contexts, to the training itinerary of a number of professions. It is not surprising, therefore, that imitative training is still present in the panorama of current forms of teaching and training, every time the prevailing demand is to acquire, in a mostly mechanical and automatic manner, specific abilities.

Today, the area of imitative training which has seen the most development, is that concerning the use of computer and information technology, often reduced to the acquisition and proposition of response sequences and disconnected from the understanding of the logical, technical and organizational model.

*Imitative Training* implies that individuals are guided, educated, molded, and called on to operate rather than to understand and think, assuming that the gap between those who 'know' and those who 'can't know' (and are limited to only acquiring manual operations), is insurmountable. The organizations' task is to be quick and efficient, and in order to do so, it must mobilize a portion of its internal resources equipped with technological instruments from which to draw fast, precise, automatic and quantitatively relevant operational behaviors.

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<sup>24</sup> Is considered one of the oldest compilations of laws. It was drafted during the reign of the Babylonian King Hammurabi, who reigned from 1792 to 1750 B.C.

The learning theory, which is most frequently referred to, is behavioral in nature. The intent is to consolidate, through the presentation of an appropriately stimulating situation and the administration of reinforcements, the acquisition of rapid, automatic and efficacious responses. The trainer is, fundamentally, an advocate of the model and a demonstrator of techniques but is also a distributor of reinforcements. The training environment is often the work setting or a classroom where the most common technique used is simulation.

*Imitative Training* solicits and sustains, within the internal organizational context, dynamics involving adjustment to the model and reproduction of the known. This dynamic is not only reassuring for the organization, which bases its operations and training strategies on the certainty of knowledge, but also for the individual who is exonerated from any interrogation and all responsibility that isn't directly tied to the correct execution of operations. At present, this dynamic is widely diffused in the world of corporations, public administration, healthcare and the military. Without a doubt, the adjustment and propositioning of a model allows for a minor expenditure of energy, rendering repetitive behaviors automatic, permitting a modest personal investment in one's work, and making it easy to find manual labor even though many consider it difficult given that we live in a computerized society.

### ***Achievement Training***

Continuing with the use of the six parameters presented previously, a second conceptualization of training comes to light.

This conceptualization is rooted in the cultural tradition of education and applied, with more than minor differences, in all organizational contexts. This type of training is representative of the transmission of knowledge, the diffusion of knowing, the satisfaction of increasing needs of information, and the compensation of professional deficiencies in the work place. We may define this second method as *Achievement Training*. The use of this term highlights the 'bridging the gap' function of this approach with respect to a reality, which is characterized by deficiencies. The approach involves increasing knowledge to a prefixed and desired level, necessary and sufficient for attaining a degree or certificate or carrying out the duties of a particular profession. On the other hand, *Achievement Training* also

means to transform, to endow with what previously lacked, to elevate a preexisting level.

*Achievement Training* realizes its maximum expression within educational organizations: curriculum, programs, and teaching techniques are external and visible signs of an approach centered on the necessity and possibility of transferring established knowledge, an already structured knowledge and/or skill, and providing models and certainties.

The association between this training approach and the work setting is a relatively recent phenomena. When, during the second phase of industrial development, job-related performance implied a broader knowledge base and a more complex capacity to understand and intervene, a multiplicity of both public and private professional schools and companies emerged with the aim of training specific professional activities, specific entry level tasks, according to the needs and demands of the industrial job market.

This training option proposes as its basis, a process still utilized in the culture of many current enterprises: a process of removal, of separating the organization from questions of training, delegating not only tasks of transmitting knowledge and professional abilities but also of support and reinforcement of the production system to a third-party distinct and separated from the work context.

This training framework views, at least with respect to the previous forms implemented, individuals as needy and lacking in information and knowledge and organizational entities as guardians of knowledge and the instruments with which this knowledge may be transmitted. In addition, it proposes that individuals, thanks to their bio psychosocial aptitudes and the socialization process, are able to construct and elaborate complex cognitive systems and to intentionally modify and transfer new understandings into a preexisting cognitive system. *Achievement Training*, thus, counts on the rational and elaborative abilities of individuals depicted as a large information processor. From this viewpoint, the trainer is on the one hand, a custodian of specific professional knowledge and on the other, an expert on the learning process and focuses their work on encouraging cognitive change and the transferring of learning. Typically, the training environment is a classroom equipped with diverse and sometimes sophisticated educational technologies and ready to employ active methods aimed at mobilizing energy that will sustain the learning process. Within this conceptualization, the

activated dynamic is distant from the processes of adjustment and reproduction – typical, as we have seen, of imitative training – and instead, reflects defined, scientific, technological and normative models to incorporate and assimilate. The defining of knowledge rises in value; referring to the internal world of desires and dislikes becomes an annoying inconvenience which inhibits learning and must be kept under control; resistance towards learning and change are a symptom to combat rather than analyze. Although it is likely we will not be able to live without *Achievement Training*, it is also desirable to continue the examination of boundaries between established knowledge and knowledge and between the valuing of tradition and the necessity to surpass it.

### *Integrative Training*

For a long time, individuals worked in their own living environments, within the nuclear family or in the village and wherein they realized their life and professional experiences. If we exclude the thousand-year-old tradition of membership in military organizations, we need to await the development of the industrial revolution and the creation of the first factories. Factories provided a new work environment and shone a light on the problems common in professional performance that are present on a larger scale, in organizational contexts.

Initially, the factory not only meant the distancing of one's own natural environment and the experiencing of new work methods, but also a different way to relate with others. With industrial development and the consequent transferring of populations from small centers to urban cities, individuals' bonds to primarily traditional groups began to loosen, feelings of insecurity increased, the need to find new forms of group solidarity on the job grew, and the questioning of one's own professional contribution and organizational position began.

Organizations, on the other hand, began to recognize the centrality of managing human resources in order to attain production objectives and alternate positions of authoritarian managing with analyzing the individual-organization relationship. At times, individual needs and organizational demands appear to be in open conflict; previously used relational styles result inadequate to confront the complexity of organizational events; and significantly divergent behavioral values and models require significant cultural homogenization. In other words, organizations require individuals to

renounce a part of themselves in order to identify with the organization; to make oneself as similar as possible to the dominant values and beliefs; to limit the expression of differences; and to integrate oneself within the organizational environment. In this historical cultural context, while training projects designated “imitative” and “achievement” continue to exist, new interventions explicitly and implicitly aimed to integrate individuals and groups within the organizational culture have begun to take form.

*Integrative Training* refers to facilitating the insertion and adaptation within groups and organizations; complete and adjoin that which is deemed lacking; merge and homogenize beliefs and values; introduce elements typical of primary groups in work groups (which, are secondary groups by nature); increase group identification and the feeling of belongingness; and contain personal identities and individual differences in the name of social integration.

*Integrative Training* is founded on a more complex vision of human behavior. A vision which values the internal world of representations and experiences but is animated by a conceptualization of stable and prearranged adaptation wherein the tension derived from differences and conflict is contained and kept in check in the interest of both individuals who can receive confirmation and reassurance, and the organization, who can then count on a cohesive and integrated work force to face challenges of the external market.

In general, the training environment is separated from the workplace, in a comfortable setting, which encourages communication and a spirit of community. A small group is preferred and the training process is based on learning from experience in the here and now. Animation, participation and group work are the primary training tools. The trainer, an expert in these techniques, works on processes of projective and introjective identification with participants. The dynamics emphasized include organizational membership; valuing of the organization with respect to external agencies; and the minimization of differences and conflict. Likewise, all questions regarding the organizational system and subjective meanings of work experiences and the dynamics underlying organizational life are systematically evaded. Consequently, this approach favors the division of the training experience from the work context, in particular, for individuals with a strong personal and professional identity.

### *Growth Training*

Our era is marked by rapid changes. Even the confines of space and the pace of time seem to have acquired a different nuance. The multi-determination of economic, cultural, organizational and social phenomena has been acknowledged. When standardization and validation appear to prevail, the desire to affirm differences reappears. The polytheism of values cancels consolidated rituals and practices. The most educated and informed individual always questions the seldom resolved problem of one's own personal and professional identity.

This training approach oscillates between conservation and change, uncertain whether to take the path of diffusion and confirmation or to venture in new territory which values the ability to gain knowledge in more than just the specific content; the capacity to question and identify problems rather than only the ability to provide predetermined answers; and the ability to create, to plan, to formulate projects rather than the mere tendency to manage the already existing. The question does not appear to be circumscribed to only those responsible for operating an organization but concerns all individuals who look at their future work with openness and inventiveness.

Organizations currently refer to the future with stupor, trepidation and a wait-and-see approach, aware of the risks of onerous and rapid changes but at the same time, finding it impossible to avoid the necessity of rethinking their own method of functioning. Contrasting are the desire and the fear of new ideas; the necessity and reluctance of having to make more professional contributions; and the hope and aversion towards a world that is not only dominated by rules of either the financial market or technology. In this uncertain and constantly moving environment, a space for a different conceptualization, which we may define as *Growth Training*, is created.

*Growth Training* does not aim to transmit knowledge, facilitate the acquisition of specific professional abilities, or encourage the integration of individuals with proposed models but rather, seeks to create a situation which makes it possible for participants to develop their own models and to structure and elaborate them as well as to analyze the meaning of one's own professional contribution and organizational position. Within this framework, in order to integrate learning in an individual's behavioral repertoire and to liberate new

potentials, there must be understanding, elaboration, and discussion of individual and collective behaviors and attitudes, as well as the subjective and organizational motives which determined them, thereby increasing the possibility of discovering and giving life to diverse behaviors.

The separation between cognitive and affective-motivational dimensions is similar to the gap that exists between the reality of training and the reality of the work setting. Essentially, the trainer's job is to lead a group that is intent on analyzing and overcoming stereotypical, automatic and standardized behavioral strategies; that encourages the reexamination and broadening of reference systems; that facilitates the expression of emotions and the analysis of elements pertaining to work and one's relationship with the organization; and that stimulates a methodology involving exploration and analysis.

Obviously, this type of training cannot be prescribed but rather, involves the simultaneous availability of individuals, organizations and trainers to engage in depth analysis, critical questioning. When this availability or readiness is realized at an individual level, increased awareness, reflectiveness and creativity is possible. Instead, at an organizational level, the potential for elaboration, planning, and increased awareness of the objectives to pursue and to identify for the future is possible. Historically, *Growth Training* has been used in creativity training, in research seminars and psychosocial training. Diverse obstacles and oppositions towards *Growth Training* exist. Although the training is realized with groups of individual employees, it is simultaneously directed towards the organization by means of a particular intervention methodology, which begins with the analysis of a question and ends with the verification of the process. This requires the setting in motion of considerable force and energy that is undoubtedly anxiety provoking in contexts which cannot tolerate the analysis of phenomenology due to the real possibility that through training, the motives on which the organization was founded and developed are viewed as no longer appropriate and consequently, revised.

The four training approaches described above are summarized in Table 1, and are not always easily identified given that training interventions frequently involve more than one conceptualization. This is a result of the fact that within an organization, several cultural nuclei often coexist, each with a different way of conceptualizing and realizing training activities. Consequently, it is not surprising when,

for example, within the same company one encounters diverse visions of work training precisely because the evolution and history of single parts of an organization are often diverse and separate.

On the other hand, the influence of tradition should not be underestimated. It leads to the reintroduction of initiatives and projects belonging to a precise conceptualization of training which may have been functional in a previous historical period and particular cultural context, but which now lack the capacity to respond to new demands and needs. At times, especially when work functions are isolated while involving numerous personnel which have matured professionally within a specific training framework, it may be difficult to pursue new channels, to be open to different ways to view training, and to measure oneself against a diverse professional terrain involving the mastery of theoretical and methodological instruments unrelated to one's past experiences.

Some of these hazards are, for the most part, present in both public and private training venues that are not obligated to come face to face with the job market and which often continue to set up projects and programs designed to permit the survival of bodies and/or organizations appointed to their realization.

The expansion of potential competence areas, in which one may provide training and the use of diverse languages and different underlying formulations, creates problems with respect to the characteristics of the training professional.

In my opinion, a trainer is not a bearer of specific knowledge even though one cannot deny their contribution at a cognitive level (limited, obviously by the specific area in which they are competent). Rather, a trainer is an administrator of the training process. Thus, the trainer, by definition, is not a teacher. If teaching is required, the trainer may request contributions from specific disciplines.

The trainer has solid competencies in organizational analysis, is an expert in the learning process, can lead training groups in accordance with internal and institutional dynamics and possesses a repertoire of techniques with respect to the analysis of training requests and demands, the development of interventions, the management of the classroom or instruments utilized onsite, and the evaluation of the training experience.

The trainer's professional activities, therefore, take form along three phases:

a) *Diagnosis phase*. Refers to questioning, in depth analysis of the

intervention requests exploration of the organizational culture in its entirety and of the specific area and functional subcultures, clarification of the problem areas which may be realistically confronted during training, definition of the objectives, and establishment of a relationship with both the client and the consumers;

*b) Intervention phase.* Regardless of the form the intervention assumes, this phase involves planning, the proposal of theoretical and methodological instruments which are coherent with the specific training situation, and the foreshadowing of potential alternative itineraries. The planning stage does not represent – as is common in interventions which focus on content – a rigid and meticulous proposal of the training course but rather, involves a primarily generative phase tied to the specific intervention and participants and a particular organizational reality. The realization of the intervention includes the meeting of individuals who, through the resources and processes of a small group, permit the unification of thoughts and action, the analysis of behavior, the revisiting of knowledge systems and styles, and the acquisition of energy to invest;

*c) Evaluation and verification phase.* Although this phase involves a professional area, which has already been individualized and defined, until this point, both theoretical reflection and applied practice has been modest. A profession that is entirely concentrated on techniques and operatives and which is not able to express itself in terms of standards of quality control and evaluation criteria, is incomplete.

These three phases highlight the notion of multidisciplinary knowledge, which is based in psychology.

It is noteworthy that the majority of trainers do not have a background in psychology but rather, were taught onsite, by a training agency or by a more experienced colleague. Regardless, one cannot deny that the trainer's work – even when solely focused on the transmission of content – reflects processes, which have been traditionally the object of psychological research and intervention. Within this perspective, the primary difficulty – in the current debate on the training profession – appears to be that of comparing models, theories and techniques belonging to diverse cultural and organizational alternatives. The problem lies not so much in the establishment of a superior model but rather, in clearly and unambiguously identifying (for clients and participants) one's paradigm and what one is willing and able to do.

**Table 1. Training paradigms**

Formulation	Imitative training	Achievement training	Integrative training	Growth training
<i>Individual</i>	To guide	To cultivate	To integrate	To make responsible and render autonomous
<i>Organizational Demands</i>	Standardized contributions	Specialized knowledge	Belongingness, integration	Critical and creative thought
<i>Learning</i>	Focused on stimuli	Focused on knowledge	Focused on group dynamics	Focused on the individual who analyzes and develops
<i>Trainer</i>	Model	Expert of specific content/knowledge	Animator	Analyst of complexity
<i>Evaluation</i>	Correspondence to model	Learning of content	Socialization and group participation	Ability to analyze and diagnose

The diverse linguistic terms included in training conceptualizations is not disorienting but instead, increases the possibility of utilizing diverse cultural and professional strategies, appropriate and sensitive to the expectations of those who view training as an instrument for both individual and collective evolution.

## **ORGANIZATIONAL LEARNING**

We are accustomed to viewing learning as a process typical of the individual despite the fact that common experience provides us with numerous examples wherein understanding, knowledge, and *know-how* have become qualities of a group or entire organization.

In some cases, defined *single-loop learning* (Argyris & Schön, 1996), instrumental learning takes place wherein action strategies and organizational practices that do not correspond to expectations are modified without changing existing organizational values and norms. Thus, single-loop learning tends to correct errors in order to allow the pursuit of fixed objectives while maintaining performance within existing boundaries.

In some other cases, defined *double-loop learning* (Argyris, Schön, 1996), learning and change take place not only in action strategies and organizational practices but also in the organization's values and norms.

Finally, there exists a type of double-loop organizational learning through which organizational members can modify both particular content and the actual system of learning which orients and conditions reality schemes, problem analysis, and the way in which decisions are made. This type of learning is defined as *deutero learning* and signals the transition from routine systems of learning to learning systems that are open to change (Argyris & Schön, 1996). *Growth Training*, is the preferred instrument to realize this type of learning.

In summary, we can state that organizational learning takes place when individuals or groups within an organization become aware of a problematic situation and decide to analyze it in the interest of the organization. Generally speaking, the learning process begins once the discrepancy between actual and anticipated outcomes is acknowledged, thereby activating new thought processes and actions which encourage the restructuring of work-related activities with the aim of modifying organizational practices and values. Nonetheless, forces which slow, hinder or block organizational learning processes may be present: a low inclination towards questioning, investigating and analyzing; the exercising of authority that is based on a hierarchy rather than on competence; organizational practices which do not facilitate the assumption of responsibility; and a systematic devaluing of diverging positions and arguments are the factors which most frequently impede organizational learning.

We may conclude this chapter by reminding readers of the straightforward definition of organizational learning: an organization that facilitates the learning of all of its members and is also capable of constantly transforming itself (Pedler, Boydell & Burgoyne, 1989). Acquired knowledge, competence and practices can be transmitted from one generation to another similar to the way it is possible to acquire increasing mastery of the mechanisms that facilitate learning to learn, in such a way as to transform the process of environmental adaptation, which will also be characterized by a high level of change in the future. An organization that is slow to learn is condemned to fail.

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# ICARUS PROJECT

## INTER - CULTURAL APPROACHES FOR ROAD USERS SAFETY

ICARUS is an action-research program developed in three broad areas. The first area involved the setting up of a European network of national institutions focusing on road safety promotion.

The second area dealt with a study on a large sample of young drivers living in Austria, Bulgaria, Cyprus, Estonia, France, Germany, Ireland, Italy, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia and consented the identification of specific automobile and motorcycle driver profiles in each of the participating countries.

Based on these data, the third area envisions a training program, for European youth between the ages of 17 and 21 years, which is based on the common and specific national risk factors. The training itinerary assigns a central role to the individual in relation to their environment, assisting participants in understanding their surroundings and facilitating their identification of appropriate and effective intervention strategies by increasing knowledge of the self, understanding potentials and limits, and recognizing abilities with respect to driving and road safety.

The adopted methodology is consistent with the perspective of learning through experience. The training sessions are not dedicated to the mere transmission of information but are designed to permit the journey down a pathway of knowledge on road safety in which participants are expected to play an active role in the exploration of the causes of the phenomena, in the discovery of individual and group automatisms; in the identification of concrete actions to raise peer awareness on road safety and responsible driving.

The Handbook is accompanied by a training kit containing all of the necessary course materials and exercises by means of a series of worksheets, which support the trainer in the preparation and management of training activities.

## Credits

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