

# **Diploma Thesis**

#### Title

# **Evaluation of Driver Rehabilitation Programmes**

An analysis of the driver rehabilitation programmes provided by the Austrian Applied Psychology Ltd. with special consideration given to the participants' native language

#### Author

## Julia Bardodej

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### 1 INTRODUCTION

Traffic accidents are one of the major causes of fatal injuries. Between 2003 and 2005 there were almost 50.000 road fatalities and 1.7 million injured road users in the European Union. It is therefore a common aim of the European Union to improve traffic safety throughout its Member States. A large number of traffic offences involve drivers who have already committed an offence before. As mere disqualifications from driving proved to have little effect on reconviction rates amongst traffic offenders, additional road safety measures targeting inappropriate driving behaviour such as speeding, drink-driving or driving while under the influence of drugs needed to be introduced.

One of the road safety measures consequently introduced in many European countries are driver rehabilitation programmes, which are aimed at rehabilitating drivers who have already committed an offence. While the regulations for driver rehabilitation programmes vary in every country, it is their common aim to reduce traffic accident, road fatality, and injury numbers. Traffic accidents often happen due to misjudgements of certain aspects of driving situations, such as driving skills or impairment through alcohol, and drivers not acknowledging the risks of their behaviour. Rehabilitation programmes therefore aim to encourage attitude changes by increasing drivers' risk awareness, transferring offence-related knowledge and encouraging an internal locus of control, which are expected to consequently lead to changes in the participants' driving behaviour.

In Austria, the basic contents and structure of these programmes, as well as the required qualifications of the trainers, are all defined by the official Austrian Rehabilitation Course Regulation. There are four types of rehabilitation programmes, the Rehabilitation Programme for Drink-Drive Offenders, the Rehabilitation Programme for Traffic Offenders, the Rehabilitation Programme for Offences within the Demerit Point System, and the Rehabilitation Programme for Driving Under the Influence of Drugs or Medicine. In order to monitor and ensure the effectiveness of their services, course providers are urged to evaluate their programmes on a regular basis and allow for the integration of up-to-date research findings into their course designs.

In order to maintain the high quality standard of their provided driver rehabilitation courses, the Austrian Applied Psychology Ltd. (AAP) have already conducted two

evaluations in cooperation with the Institute of Economic Psychology, Educational Psychology and Evaluation of the University of Vienna, which took place in 2003 and 2006. This thesis is the third scientific evaluation of the AAP's driver rehabilitation programmes and examines whether they achieve their goals of changing the course participants' attitudes regarding the committed offence, encouraging the internal locus of control, and transferring offence-related knowledge. Additionally, this study also takes a look at whether these effects differ between course participants whose native language is German and participants with a native language other than German, a steadily growing participant group that hasn't received much attention in driver rehabilitation course evaluations so far. Due to the expansion of the European Union the number of course participants with native languages other than German can be expected to grow over the coming years making research regarding this matter a subject of growing interest and importance. This thesis also highlights some of the differences and common aims and goals of European countries as they work more closely together in an attempt to achieve a significant reduction of road deaths and injury numbers in Europe.

### 2 THEORETICAL FRAMEWORK

This chapter concentrates on the theory behind driver rehabilitation programmes and their evaluation. It demonstrates why there is a need for rehabilitation courses and other road safety measures by taking a closer look at international accident statistics and the main causes of traffic fatalities and injuries. It also takes a look at the history of rehabilitation programmes in Austria and other European countries as well as examines the concepts and aims of these programmes. This is followed by an overview of past evaluations of rehabilitation programmes and the general theoretical background of evaluation research, including an explanation of the evaluation model used in this study. Finally, conclusions are drawn for the definition of relevant research questions, which are then thoroughly examined in chapter 3.

## 2.1 Traffic Accident Statistics for Europe and Austria

Figures of the World Health Organization show that road accidents are predicted to be the number three cause of death and injury by 2020 (Dorn, 2008). But a wide number of accidents and injuries could be prevented through the implementation of suitable preventive measures. As the implementation of traffic accident prevention measures usually goes hand in hand with great expenses, decisions regarding the demand for measures, choice of right interventions, and evaluation of their effects, should be based on scientific findings and reliable data sources. National and international traffic accident statistics are a very important and fundamental type of such data sources. Through the systematic collection and processing of road accident and casualty data, they serve as an essential basis for the formation, implementation and evaluation of effective, evidence-based injury prevention strategies and safety promotion.

#### Europe

National databases of different countries often use different criteria for data collection, making it difficult to use them for cross-country comparisons, which have become of major interest and importance as countries work more closely together to achieve higher safety standards on the roads of Europe. This has lead to the introduction of databases specializing in the collection, comparison and provision of international accident data.

These data sources include the IDB, the Injury Database of the European Union set up in 1999 offering standardised cross-national data, CARE, the Community database on Accidents on the Roads in Europe, which started in 1993, the transport statistics of EUROSTAT, the statistical arm of the European Commission, the database of the transport division of the United Nations Economic Commission for Europe (UNECE), and the IRTAD, the International Road Traffic and Accident Database established by the Organisation for Economic Co-operation and Development (OECD) in 1988. Whilst some aspects of the collected data can still vary from country to country, such as the amount of time after the accident taken into account for the calculation of road fatalities, and statistics probably still underestimate the real number of accidents as not all accidents are reported to the police (Department for Transport, 2008b), the provided data sets nevertheless allow for a fair cross-national comparison of accident data. Uniform statisticcounting strategies remain yet to be implemented in all EU countries. Nonetheless, the growing number of international data sources and aims to standardize statistics across borders in Europe reflect the increasing importance ascribed to the field of road safety in the European Union.

According to traffic statistics, the efforts of European countries to improve road safety have lead to a significant drop of almost 30% in road fatalities between 1997 and 2006 (Fig. 1) (Angermann, Bauer, Nossek & Zimmermann, 2007; UNECE, 2007; European Road Safety Observatory, 2008; European Commission, 2008c). While this can partly be regarded as the result of new road safety measures, credit must also be given to other factors such as a growing range of medical possibilities and general progress in motor vehicle safety. Table 1 shows the evolution of traffic fatalities in 27 European countries since 1991. When taking the number of inhabitants into account, Malta has the lowest rate of fatalities per 100.000 inhabitants with about 3 fatalities whilst Lithuania has the highest rate with about 21 fatalities. In Austria there are about 8 traffic fatalities per 100.000 inhabitants.

			Fatalities		
	1991	1995	2000	2005	2007
Austria	1.551	1.210	976	768	691
Belgium	1.873	1.449	1.470	1.089	1.067
Bulgaria	1.114	1.264	1.012	957	1.006
Cyprus	103	118	111	102	89
Czech Republic	1.331	1.588	1.486	1.286	1.221
Denmark	606	582	498	331	406
Estonia	490	332	204	170	196
Finland	632	441	396	379	380
France	10.483	8.892	8.079	5.318	4.620
Germany	11.300	9.454	7.503	5.361	4.949
Greece	2.112	2.412	2.037	1.658	1.580
Hungary	2.120	1.589	1.200	1.278	1.232
Ireland	445	437	418	400	338
Italy	8.109	7.020	6.649	5.818	-
Latvia	997	660	635	442	419
Lithuania	1.193	672	641	773	739
Luxembourg	83	70	76	46	43
Malta	16	14	15	17	12
Netherlands	1.281	1.334	1.082	750	709
Poland	7.901	6.900	6.294	5.444	5.583
Portugal	3.217	2.711	1.877	1.247	974
Romania	3.078	2.845	2.499	2.461	2.794
Slovakia	614	660	628	560	627
Slovenia	462	415	313	258	292
Spain	8.837	5.749	5.777	4.442	3.823
Sweden	745	572	591	440	471
UK	4.753	3.765	3.580	3.336	3.058
TOTAL (EU-27)	76.076	63.106	56.000	45.131	42.500

Table 1: The evolution of road safety in EU member states since 1991. Fatalities by year and country based on CARE or national publications (European Commission, 2008c, p. 1)

Apart from a significant decrease in fatalities, road safety measures have also contributed to an overall decrease in traffic accidents and injuries (Fig. 1). This is especially remarkable considering the consistently rising number of registered vehicles and traffic participants in the European Union (European Road Safety Observatory, 2008; UNECE, 2008).

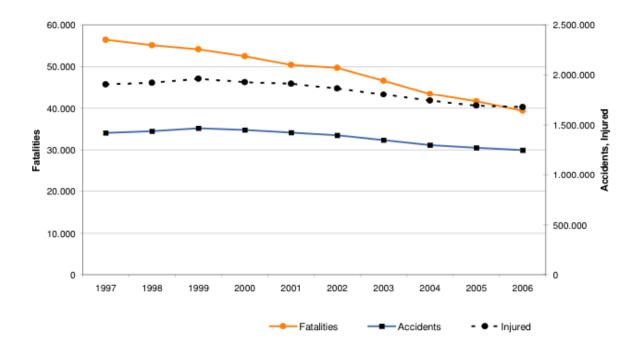


Figure 1: Annual number of fatalities, injury accidents and injured people (EU-25) based on national reports by CARE, 1997-2006 (European Road Safety Observatory, 2008, p. 7)

Despite a significant reduction of road fatalities in recent years, motor vehicle traffic accidents still account for more than 20% of all fatal injuries in the European Union. EU-wide traffic statistics show that more than half of all traffic fatalities in European countries happen in the age group of 25 to 64-year-olds, especially between the ages of 25 and 49. In the age group of 15 to 24-year-olds traffic accidents even account for 51 percent of all fatalities. More than 70% of all fatalities are male and the majority of fatal accidents take place outside the urban area (Angermann et al., 2007; European Road Safety Observatory, 2008; European Commission, 2008a, 2008b).

#### Austria

National transport and traffic accident statistics for Austria are available via the Austrian Road Safety Board and Statistics Austria. Road accidents in Austria have been systematically registered since 1961. Until 1972 there was a clear upwards trend in traffic accidents. This lead to the implementation of numerous road safety measures, such as making the wearing of seatbelts compulsory by law, through which a significant drop in accident and injury numbers could be achieved (Figure 2). 2007 saw a drop in accident numbers by more than 10.000 accidents compared to 1970 (Kuratorium für Verkehrssicherheit, 2008). This is especially impressive considering the growing number of registered vehicles in Austria. Since 1970, the number of passenger cars has almost quadrupled (Statistik Austria, 2008b). In an attempt to further reduce accidents and casualties, new safety measures are being introduced in Austria on a regular basis.

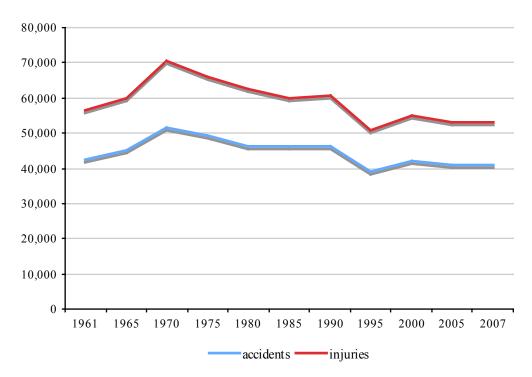


Figure 2: The development of road accidents and injuries in Austria between 1961 and 2007 (Kuratorium für Verkehrssicherheit, 2008, p. 9)

The number of road fatalities in Austria has generally been falling over the past few years. Despite missing the Austrian Road Safety Programme's goal of a maximum of 621 fatalities in 2007 by about 11%, their number still dropped by 5,3% compared to 2006 (Kuratorium für Verkehrssicherheit, 2008).

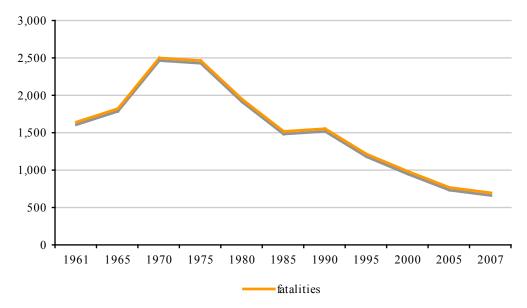


Figure 3: The development of road fatalities in Austria between 1961 and 2007 (Kuratorium für Verkehrssicherheit, 2008, p. 9)

Table 2 shows an overview of accidents and casualties in Austria by region. The data are best compared by calculating the number of accidents per 10.000 inhabitants. The highest rate of accidents per 10.000 inhabitants in 2007 was recorded in Carinthia, followed closely by Vorarlberg. The lowest rates were measured in Tyrol and Burgenland (Kuratorium für Verkehrssicherheit, 2008).

	Accidents			Injuries			Fatalities					
	20	05	20	07	20	05	20	07	2	005	2	007
Burgenland	874	2%	820	2%	1.144	2%	1.143	2%	36	5%	33	5%
Carinthia	2.866	7%	3.214	8%	3.704	7%	4.011	8%	45	6%	58	8%
Lower	6.940	17%	7.323	18%	9.223	17%	9.490	18%	223	29%	192	28%
Austria												
Salzburg	2.842	7%	3.281	8%	3.665	7%	4.190	8%	58	8%	46	7%
Styria	7.018	17%	6.935	17%	9.056	17%	8.893	17%	123	16%	115	17%
Tyrol	4.128	10%	4.019	10%	5.320	10%	5.296	10%	57	7%	49	7%
Upper	8.829	22%	8.496	21%	11.896	22%	11.327	21%	167	22%	147	21%
Austria												
Vorarlberg	1.701	4%	1.824	4%	2.106	4%	2.293	4%	25	3%	16	2%
Vienna	5.698	14%	5.184	12%	7.120	14%	6.568	12%	34	4%	35	5%
Austria	40.896	100%	41.096	100%	53.234	100%	53.211	100%	768	100%	691	100%

Table 2: Accidents, injuries and fatalities in Austria in 2005 and 2007 by region (Statistik Austria, 2008a)

Statistics for the year 2008 show that there were 39.173 road accidents with injuries to persons, compared with 41.096 in 2007. 50.521 injuries also meant a drop of about 5% in injuries and with 679 fatalities there was a decrease of about 2% compared with 2007 (Statistik Austria, 2008c).

The age group most at risk of being involved or fatally injured in a traffic accident in Austria are 15 to 24-year-olds. The number of fatalities is also high above the age of 74, mainly due to a large number of fatal injuries to pedestrians. In accordance with findings for the entire European Union more than 70% of all fatalities are male and most fatal accidents take place outside the urban area (Schrammel, Kaba, Risku & Machata, 1998; Kuratorium für Verkehrssicherheit, 2008).

#### 2.1.1 Causes of Accidents

The systematic collection of detailed data on traffic accidents and their severity is also useful for determining the main causes of road accidents and thereby provides information on which areas are most in need of special interventions. Several studies have shown that human factors account for about 90% of causes of road accidents (Shinar, 1978). The main causes of fatal traffic accidents include speeding, right of way violations, faults when over-taking, distraction, absent-mindedness, inappropriate actions of pedestrians, alcohol, fatigue, heart disease, drug abuse, and safe distance violations. In European countries, technical defects usually account for less than one percent of fatal accidents (Bundesministerium für Verkehr, Innovation und Technologie, 2007; Kuratorium für Verkehrssicherheit, 2008; Stefan, 2008). Figure 4 shows the main causes of fatal crashes in Austria.

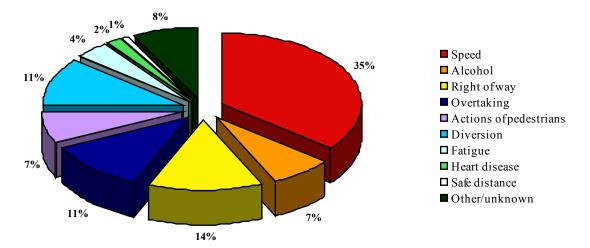


Figure 4: The main causes of fatal traffic accidents in Austria in percentages, 2007 (Kuratorium für Verkehrssicherheit, 2008, p. 72)

A wide number of road safety measures implemented in European countries, including driver rehabilitation courses, deal with drink-driving or speeding as both result in a particularly high number of casualties.

#### Alcohol

In the past decades, alcohol has received particular attention as a risk factor for traffic accidents, reason being that drink-driving leads to a disproportionately high number of road fatalities and drink-drivers are clearly over-represented in road accidents. Road users impaired through alcohol may only represent a small percentage of about 5% of the driver population but are nevertheless estimated to be involved in about a quarter of fatal crashes in Europe. On average, the severity of drink-drive crashes is about twice as high as that of other accidents (European Road Safety Observatory, 2006a; Institute of Alcohol Studies, 2007; Stefan, 2008). As not every country in the EU systematically tests all drivers involved in crashes for alcohol, many alcohol crashes remain undetected. Alcohol accidents are therefore often underreported in official statistics. Based on data from countries which test all drivers involved in accidents for their blood alcohol concentration (BAC), such as Finland, it has been estimated that 25% of the entire number of annual traffic fatalities in the European Union could be prevented if people refrained from driving under the influence of alcohol (European Transport Safety Council, 1995; European Road Safety Observatory, 2006a).

Alcohol-accidents often happen because drivers assume they can still drive normally after having consumed alcohol and do not acknowledge the risks of drink-driving (European Transport Safety Council, 1995). But alcohol can significantly diminish a large number of functions that are essential for the safe operation of a motor vehicle. This is due to the fact that alcohol is a sedative drug which strongly affects the central nervous system. Even small amounts of alcohol can slow down reaction times and make information processing more difficult. Motor activity and vision, essential preconditions of safe driving, are also impaired. Additionally, alcohol may create a sense of overconfidence and lower levels of self-control, resulting in a higher willingness to take risks and decreased motivation to comply with safety standards (Klopf, 2002; Institute of Alcohol Studies, 2007).

Impairment through alcohol is often already noticeable below an alcohol level of 50 millilitres (0,5‰), which is the legal blood alcohol concentration limit for drivers in many European countries, including Austria. Current legal limits in EU countries range from 0,0‰ to 0,8‰ (Allgemeiner Deutscher Automobil-Club, 2007). In order to reach higher BAC levels such as 1,3‰ or above a certain amount of habituation to alcohol is required (Schützhofer, Gruber & Wiener, 2006). The relationship between the relative crash rate and the blood alcohol concentration level is exponential. As shown in figure 5, drivers are already twice as likely to be involved in a crash if they have reached an alcohol level of 0,5‰ than when they are sober (that is 0,0‰) (Kuratorium für Verkehrssicherheit, 2005). There is an on-going international trend in lowering the legal BAC limit as it has proven to reduce the number of alcohol-related fatal crashes (Fell & Voas, 2006).

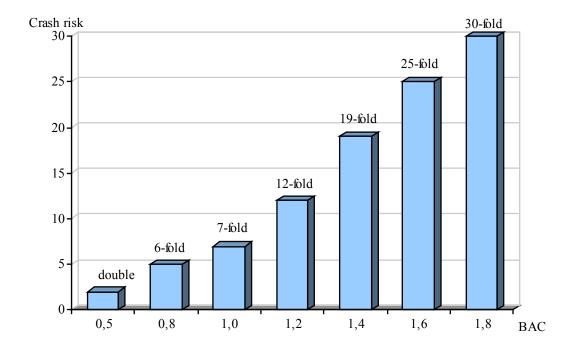


Figure 5: The relationship between crash risk and blood alcohol concentration (BAC) (Kuratorium für Verkehrssicherheit, 2005, p. 2)

In Austria, the legal BAC limit of 0,5‰ was introduced in 1998. Since then the rate of drink-drive accidents has dropped by about 7% compared to the decade before the introduction when the legal limit was 0,8‰. The rate of fatalities has even decreased by 40% (Bartl & Esberger, 1999; Kuratorium für Verkehrssicherheit, 2008). In 2007, there were 2.731 drink-drive accidents, which caused almost 4.000 injuries and 56 alcohol-related road deaths, which was a significant decrease compared to 118 fatalities in 1993 (Fig. 6). About 8% of all traffic fatalities in 2007 were alcohol-related. More than 80% of all drink-drivers in Austria are male, with an especially high rate of drink-drivers in the age group of 20 to 24-year-olds. The majority of alcohol-related traffic accidents happen between midnight and 5 a.m., during which time they account for more than 30% of all motor vehicle accidents. In 2007, the Austrian regions of Burgenland and Vorarlberg had the highest share of alcohol accidents in their total amount of vehicle accidents (Kuratorium für Verkehrssicherheit, 2008).

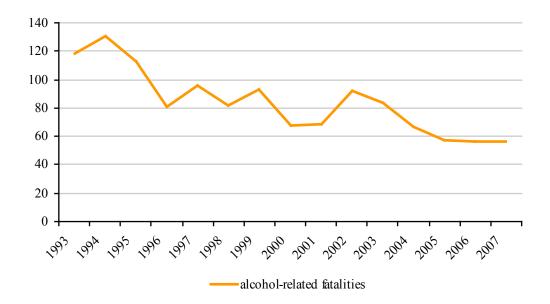


Figure 6: The development of alcohol-related road fatalities in Austria, 1993-2007 (Kuratorium für Verkehrssicherheit, 2008, p. 74)

#### **Speed**

Even though the majority of drivers acknowledge speeding as a clear threat to road safety, exceeding speed limits is very common among drivers and remains an essential contributory factor in one third of all accidents and around 30% of fatal crashes in the European Union. Speed influences the risk of being involved in an accident as well as the injury severity, with the relationship between speed and accident severity being exponential. Reasons for speeding include time pressure, peer pressure, thrill or sensation seeking, unawareness of speed limits, overestimation of abilities, perceptual limitations, use of the vehicle as an emotional outlet, and the temptation to make use of available road and vehicle characteristics allowing for driving at higher speeds (United Nations General Assembly, 2003; European Road Safety Observatory, 2006c; McKenna, 2006; bfu, 2008; Huguenin, 2008; Stefan, 2008; Stradling, 2008).

Despite a reduction of fatal speeding accidents by almost 30% since 2000 (Fig. 7), excessive or inappropriate speed is still the number one cause of traffic accidents and road fatalities in Austria. In 2007, speeding was the main contributory factor in almost 36% of all fatal road accidents. Random speed checks of the Austrian Road Safety Board in 2007 found that 73% of drivers in urban areas exceeded the speed limit in 30 kilometres per hour (kph) zones and 56% were driving too fast in 50 kph zones (Kuratorium für

Verkehrssicherheit, 2008). In order to further decrease the number and severity of speeding accidents, additional road safety measures will need to be introduced.

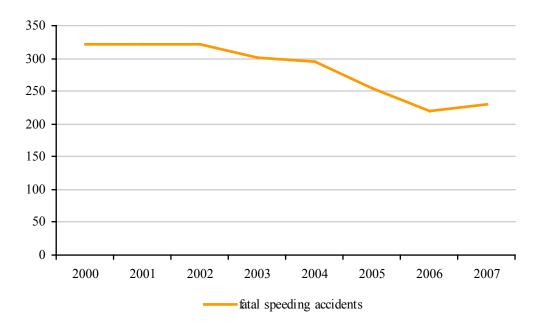


Figure 7: The development of fatal speeding accidents in Austria, 2000-2007 (Bundesministerium für Verkehr, Innovation und Technologie, 2007; Kuratorium für Verkehrssicherheit, 2008)

### 2.1.2 Road Safety Measures

Road traffic accidents have enormous health, social and economic impacts on individuals, families, communities, and nations. Millions of health care costs caused by traffic accident-related hospital admissions and inpatient treatments could be avoided through appropriate injury prevention (Angermann et al., 2007). But not only do accidents increase health care costs, in the case of road accidents they also cause considerable expenses through the damage of property, not to mention the human cost of accidents. Therefore, an increasing number of countries are implementing preventive safety measures and programmes in an attempt to cut down on traffic accidents and thereby reduce and eventually eliminate traffic-related deaths and injuries as well as their associated socioeconomic costs (European Road Safety Observatory, 2006b). Decisions regarding the demand for measures, the choice of suitable interventions, and the evaluation of their effects are usually based on scientific data and traffic accident statistics.

#### **Europe**

Safety policy goals of the European Union are based on the idea of the development of legal measures, international best practice guides and the implementation or, where possible and making sense, the standardization of processes related to traffic statistics and road safety measures. In 2001, the European Commission published a White Paper on Transport policy, in which it proposed the ambitious target of halving the number of road accident victims by 2010 (European Commission, 2001). In order to collect scientific data in addition to general traffic accident statistics on which effective safety measures and programmes can be built, a number of EU-wide road safety research projects have been conducted in recent years. Past research programmes have included the projects IMPROVER, which assessed the impact of various road safety measures (Gail, Pastor, Bugsel, Schleh, Höhnscheid, Bauer & Schmidt, 2007), SARTRE, in which social attitudes towards traffic safety were measured (Evers, 2006), DAN, which described and analysed post-license measures for novice drivers (Bartl, 2000), ANDREA, which investigated the effectiveness of driver rehabilitation courses (Bartl, Assailly, Chatenet, Hatakka, Keskinen & Willmes-Lenz, 2002), and SUPREME, which summarized the best practices in road safety in EU member states (Winkelbauer, 2008). Currently an interdisciplinary project by the name of DRUID is being conducted, which examines the influence of alcohol, drugs, and medicine on road safety and consists of seven work packages, one of which seeks to review the European state-of-the-art of rehabilitation programmes and put together a best practice guide for alcohol- and drug-related rehabilitation courses (Bukasa, 2007; Schulze, Albrecht, Auerbach, Heißing & Knoche, 2007; Klipp & Bukasa, 2009).

Preventive road safety measures that are being taken in European countries include changes in the infrastructure such as roundabouts, traffic calming measures such as humps, the introduction of lower legal BAC limits, publicity campaigns to encourage the public opinion that drinking and driving is socially unacceptable, increased traffic surveillance, police enforcement, driver improvement courses, and new vehicle technology such as alcohol ignition interlocks - which are used in rehabilitation courses for drivers with a serious alcohol problem in Sweden - or integrated speed warning systems - which at present, if installed at all, only react at speeds above 250kph (European Transport Safety Council, 1995; European Road Safety Observatory, 2006a; Institute of Alcohol Studies, 2007; Machata, 2008). Further measures taken include increased pre-

license practice and post-license training, which is a mandatory part of the two-phase licensing system in Austria, Finland, and Luxembourg and a voluntary option in a number of other countries such as Germany and Sweden (Bartl, 2000; Evers, 2000, cited by Twisk & Stacey, 2007, p. 255).

Penalties and secondary and tertiary preventive measures for inappropriate driver behaviour in European countries include fines, disqualification from driving, prison sentences, driver rehabilitation programmes, and psychological or medical assessment. Another increasingly popular measure is the implementation of Demerit Point Systems, where drivers receive penalty points for certain driving offences. Demerit Point Systems have been introduced in a number of EU countries such as Austria, Finland, Germany, and Great Britain. There are also a number of non-legal penalties such as certain insurance companies refusing to insure drivers with a previous drink-drive conviction (European Transport Safety Council, 1995; European Road Safety Observatory, 2006a; Institute of Alcohol Studies, 2007; Twisk & Stacey, 2007; Machata, 2008; Stephan, Brenner-Hartmann & Bartl, 2009).

Road safety measures have clearly proven to reduce road fatalities, yet despite all measures implemented so far, motor vehicle accidents still account for more than 20% of all fatal injuries in the EU. There still are large disparities in fatality numbers between EU countries, ranging from 4 per 100.000 inhabitants in Malta to 22 in Lithuania, which clearly indicate that there is a high potential for the further reduction of road traffic mortality in some EU member states. This also includes Austria, which was among the European countries with the highest road accident potential in 2004 (Angermann et al., 2007; Bundesministerium für Verkehr, Innovation und Technologie, 2007; Bundesanstalt für Straßenwesen, 2008).

#### Austria

In Austria, one of the first steps taken towards an improvement in road safety was the introduction of nationwide traffic accident statistics in 1961. This was an essential first move as in order to effectively implement road safety measures it is important to have suitable data sources for monitoring and analysing all progress and evaluating the effects on safety of the measures taken (Kuratorium für Verkehrssicherheit, 2008). Measures taken since then include the introduction of lower speed limits, compulsory seat belts and helmets, lower BAC limits, and mandatory driver rehabilitation courses (Tab. 3). The drivers' compliance with the introduced rules and laws is monitored by the police. Depending on the offence and its severity, drivers not keeping to the introduced traffic laws and measures can face a fine, temporarily or permanently lose their licence, have to undergo psychological and medical assessment, or have to attend a rehabilitation course. An overview of the main traffic safety measures taken since 1961 is shown in table 3. In accordance with the White Paper published by the European Commission in 2001, the Austrian Federal Government has set itself the goal of halving the number of traffic fatalities and reducing the number of accidents with injuries to persons by 20% by the year 2010. The Austrian Road Safety Programme 2002 - 2010 intends to cover four different fields: human behaviour, vehicles, infrastructure, and the legal and political framework. Although the programme is proving to be effective, there still is a discrepancy between the actual and the desired maximum number of road victims. In 2006 there were 8,8% more fatalities than the maximum number set as a goal for that year (European Commission, 2001; Bundesministerium für Verkehr, Innovation und Technologie, 2004; Kaltenegger, 2007; Stefan, 2008). Ultimately, the aspired, visionary long-term goal in Austria and the rest of the European Union would be to create a transport system safe enough to realize 'Vision Zero', a term introduced by the Swedish government in 1997, meaning mobility without any road victims (Verkehrsclub Österreich, 2000; Stefan, 2008).

Year	Measures introduced
1961	Nationwide accident statistics
1973	Speed limit of 100 km/h on Federal Roads
1974	Speed limit of 130 km/h on motorways
1976	Seat belt compulsory (no threat of punishment)
1983	Emergency helicopters
1984	Seat belt compulsory (threat of punishment)
1985	Helmet compulsory for motorcyclists
1986	Helmet compulsory for moped riders
1988	Alcohol breath test
1990	Seat bealts compulsory for passengers
1991	Graded motorcycle licence
1992	Lasers for speed measurement
	Driving licence trial period
1994	Child's safety seat compulsory
1997	Mandatory driver rehabilitation courses for certain types of traffic offences
	Blood alcohol limit of 10 millilitres for drivers of buses, mopeds and heavy goods vehicles
1998	Blood alcohol limit of 50 millilitres for other drivers
2003	Multi-phase licensing system
2005	Demerit Point System
	Alcohol pre-test instruments
2009	Traffic safety coaching

Table 3: The main accident prevention measures introduced in Austria since 1961 (Kuratorium für Verkehrssicherheit, 2008, p. 10)

## 2.2 Driver Rehabilitation Programmes

Driver rehabilitation programmes are 'systematic measures for traffic offenders – in particular drunk drivers and speed offenders – aiming at a change of their behaviour in order to prevent further offences and to keep or to regain their driving licence' (Bartl et al., 2002, p. 3). Like other road safety measures, driver rehabilitation programmes are intended to reduce road accidents, injuries and fatalities but they are aimed specifically at drivers who have already committed an offence. Rehabilitative measures are designed to influence the attitude and behaviour of this high risk group of drivers as mere punishment and temporary disqualification from driving alone have proven to be insufficient for the prevention of repeated traffic offences. For a more effective prevention of repeated offences, negative attitudes traffic offenders might have towards traffic rules and social responsibility in traffic also need to be addressed. While driver rehabilitation programmes are rehabilitative-psychological interventions, there are also so-called driver improvement programmes, which offer a more educational-pedagogical approach, and specific therapeutic interventions (Bartl et al., 2002). In this study no further distinction is made between the terms driver rehabilitation and driver improvement, thus, both are referred to as driver rehabilitation.

Historical beginnings of driver rehabilitation programmes lead back to the year 1928, when the first rehabilitation courses were held in US prisons by Henderson and Kole. Originally, the participant group consisted of prisoners that had caused fatalities or severe injuries to other persons in drink-drive crashes. In 1938, rehabilitation programmes were also conducted by De Silva in Pennsylvania. The first rehabilitative measures organized by official police authorities took place at the New Jersey Accident Prevention Clinic in 1952. The Highway Safety Act of 1966 lead to the further development and eventually to the legal establishment of programmes for drink-drivers (Schützenhöfer & Schmidt, 1977; Drexler, 2005). Following this, driver rehabilitation measures were also gradually introduced in various European countries.

The following sections take a look at the development, implementation, and evaluation of driver rehabilitation courses in Europe with a special emphasis on Austrian driver rehabilitation programmes, which are then examined in more detail.

### 2.2.1 Driver Rehabilitation Programmes in Europe

The first European countries to implement driver rehabiliation measures were Germany, Switzerland, and Austria in the 1960s and 70s. These three countries also organized the first international driver rehabilitation workshop in Europe in 1979. Various other countries began to establish rehabilitative measures in the eighties and nineties, such as France, Belgium, the Netherlands, Northern Italy, Great Britain, Portugal, and Finland. The introduced rehabilitation programmes vary between the countries as each country has its own specific road safety problems and target group characteristics as well as its own legislation and interventions are usually matched to a country's specific issues. The EUprojects SARTRE and ANDREA found that in countries with lower accident rates and more safety-oriented drivers, such as Britain and Nordic countries, rehabilitation programmes were introduced at a later time and are therefore to this day less established than in other countries such as Germany or Austria (Bartl et al., 2002).

Due to the large variation in characteristics of participants, not only between but also within nations, different programmes for several target groups are offered in most countries. These include courses for drink-drivers, speed offenders, drug offenders, drivers committing an offence whilst still on probation, and offenders within a Demerit Point System. The majority of driver rehabilitation programmes are aimed at drivers who have committed alcohol-related offences or speed violations and have the aim of minimizing casualty and accident rates caused by non-compliance with traffic laws. The EU-project DRUID investigated driver rehabilitation courses for alcohol and drug offenders in 12 European countries — Austria, Belgium, Switzerland, Germany, France, Great Britain, Hungary, Italy, the Netherlands, Poland, Portugal, and Spain - and revealed that whilst all countries were offering rehabilitation courses for drink-drive offenders, only Austria, Germany, Belgium, and Portugal had implemented rehabilitation programmes for driving under the influence of drugs or medicine.

The DRUID project also examined the general structure of the programmes and found that most rehabilitation courses for drink-drive and drug offenders were held as group interventions with 3 to 20 participants and that the duration of the courses varied largely between 5 and 39 hours and 2 to 15 sessions. In about half of all programmes participation was mandatory for offenders, whilst in other programmes participation was voluntary.

Also, the participation lead to different consequences, such as keeping or regaining the permission to drive, a reduction of penalty points, or an abbreviated period of disqualification (Klipp & Bukasa, 2009).

The ways in which participants are assigned to rehabilitation programmes can also differ between countries. Basically, according to findings of the EU-project ANDREA, most countries use one of five different approaches: selection by categorical order if the driver has committed a certain offence, for example driving with a BAC level above the legal limit, individual order for participation by a judge after a serious violation, individual order by a licensing authority based on findings in a medical or psychological assessment, participation in order to speed up the process of license reissueing, and voluntary participation in order to improve chances of passing a later medical-psychological assessment (Bartl et al., 2002).

Differences and similarities of the development and structure between driver rehabilitation programmes in Europe are illustrated below by taking a closer look at programmes in Germany, Great Britain, and Austria.

#### Germany

In Germany, the first driver rehabilitation measure by the name of 'Driver Clinic' was developed in Cologne in 1968. The measure was originally designed for drivers who had collected a high number of penalty points in the German Demerit Point System. Participation in the measure allowed drivers to reduce their points and thereby avoid eventually losing their permission to drive. The programme focused on the topics of realizing and avoiding dangerous situations but it turned out that the target group showed deficits in their attitudes towards adequate traffic behaviour rather than in the adequate anticipation of dangerous traffic situations, which later led to changes in the course contents. Further experiences with rehabilitation courses in Germany led to the conclusion that it was also necessary to structure the courses by specific target groups (Spoerer, Ruby & Siegrist, 1994, cited by Krimbacher, 1999, p. 53).

Since the 1990s the scientific basis, purpose, contents, and methods of driver rehabilitation programmes as well as the required trainer qualifications and quality assurance have been regulated by law, that is the Road Traffic Act, the Driver Licensing Regulation and the

Driving Instructor Act. According to legal provisions, official course providers have to be accredited by the Federal Highway Research Institute (BASt).

In Germany the way drivers are assigned to a rehabilitative measure depends on whether their licence has been withdrawn as a result of their offence. Drivers whose offence did not lead to a disqualification from driving are assigned to a course according to predefined rules without having to undergo an additional assessment. Traffic offenders who have been disqualified from driving on the other hand have to undergo a medicalpsychological assessment, in which their driving aptitude is assessed. Following this, drivers with deficits which can be assumed not to be significantly influenced by a rehabilitation course, such as offenders with a serious alcohol or drug problem, can be assigned to an adequate therapy rather than a rehabilitation course. But in cases where a driver rehabilitation programme is considered to be the appropriate measure, drivers are assigned to a rehabilitation course in order to restore their driving aptitude according to clearly defined criteria regarding the kind of offence and its severity. The medicalpsychological assessment therefore also acts as a screening system through which traffic offenders are divided into subgroups and are thereby assigned to the appropriate programme. This is intended to ensure the best possible fit between course contents and characteristics of the course participants. There are four different types of rehabilitation programmes:

- 1. Rehabilitation programmes for alcohol-related traffic offences
- 2. Rehabilitation programmes for repeated traffic offences
- 3. Rehabilitation programmes for drug-related traffic offences
- 4. Rehabilitation programmes for novice drivers

Rehabilitation courses for alcohol-related offences are again divided into courses for first-time offenders, courses for repeated offenders, and offenders with an especially high blood alcohol level. The rehabilitation courses for novice drivers are aimed at novice drivers who have committed minor traffic offences and are divided into courses for alcohol-related offences and other offences. In general, driver rehabilitation courses have to be attended in order to keep or regain one's permission to drive. Alternatively, rehabilitation courses can also be attended voluntarily in order to reduce the number of collected penalty points, as was originally intended in 1968 (Spoerer, Ruby & Siegrist, 1994, cited by

Krimbacher, 1999, p. 53). In this case the earlier the voluntary participation takes place, the higher the granted discount of penalty points (Bartl et al., 2002).

#### **Great Britain**

In Britain, the first rehabilitation course for drivers impaired by alcohol was developed in 1983 (Cole & Cook, 1994, cited by Krimbacher, 1999, p. 71). The Road Traffic Act 1991 amended the Road Traffic Offenders Act 1988 by adding new sections providing for courts to refer traffic offenders convicted of driving under the influence of alcohol who are disqualified from driving to approved rehabilitation courses. Courts may thereby reduce the period of disqualification for a drink-drive offence by up to 25% if the offender completes an approved rehabilitation course and the original period of disqualification is at least 12 months. These added sections of the Road Traffic Offenders Act 1988 also define the procedure for the operation of the rehabilitation programme. The rehabilitation scheme became permanent throughout England, Wales, and Scotland at the end of December 1999. The Road Safety Act 2006 (Department for Transport, 2006b) later permitted courts to refer certain traffic offenders to rehabilitation courses not only with the incentive of reduced disqualification but also a remission of penalty points.

Rehabilitation courses for drink-drivers in Great Britain usually comprise various group sessions made up of 8 to 20 participants and last between 16 and 30 hours in total. The intention of the courses is to reduce re-offending by enabling offenders to develop non-offending traffic behaviour. The programme is aimed at changing participants' behaviour by influencing knowledge and attitudes towards drinking and driving. All rehabilitation courses must be approved by the Secretary of State and have to meet pre-defined minimum standards (Department for Transport, 2005, 2006a, 2006b, 2007).

All referrals of offenders to rehabilitation courses must be made by a court at the time of sentencing. Acceptance of the referral is voluntary and there is no additional penalty if the offender decides not to accept the referral order or fails to attend a course. No offender may participate in the programme without having been referred to a course by the court. The rehabilitation programme is self-financing as every participant is required to pay a fee for admission (Department for Transport, 2006a).

Apart from rehabilitation courses for drink-drive offenders, rehabilitation programmes in Britain also include speed awareness courses and courses for careless driving referred to as the National Driver Improvement Scheme. As the British government seeks to place a greater emphasis on education and retraining, speed awareness courses are currently being implemented in all parts of Britain as an alternative to penalty fines and penalty points for drivers caught slightly over the speed limit. Only drivers caught speeding at less than 38 miles per hour on a road with a 30 miles per hour limit may attend a speed awareness course. Guidelines on the form and contents of these courses have recently been developed by the Association of Chief Police Officers. If drivers become involved in a traffic incident due to careless driving, they may be given the option to attend a National Driver Improvement course, which acts as an alternative to having the incident referred to the Crown Prosecution Service and receiving penalty points and a fine. Upon successful completion of a course for speeding or careless driving the offender may be granted a reduction of penalty points or a reduction of the disqualification period. So far participation in these courses is voluntary but their implementation as mandatory measures is currently being considered (Department for Transport, 2004, 2008a, 2008d).

There are currently no approved driver rehabilitation courses offered for offenders driving under the influence of drugs. Whilst general drug rehabilitation programmes are available, these are not linked to driving. In 2008, the Department of Transport proposed to work with providers of these programmes in order to help them include issues related to driving under the influence of drugs in their curricula (Department for Transport, 2006a, 2008c).

All providers of rehabilitation courses need to be officially approved or registered. Providers of drink-drive courses need to be approved by the Secretary of State. Providers of speed awareness courses and the National Driver Improvement Scheme have to be members of the Association of National Driver Improvement Scheme Providers and the courses are run in cooperation with local police forces (Department for Transport, 2008d).

The above examples of driver rehabilitation programmes in Germany and Great Britain clearly show that despite similarities between programmes in different countries, each country has its own special way of rehabilitating traffic offenders.

As the courses evaluated for the present study all took place in Austria, driver rehabilitation programmes in this country are inspected in more detail in the following section.

### 2.2.2 Driver Rehabilitation Programmes in Austria

Developments of rehabilitative measures for drivers in Austria first started with the set up of an interdisciplinary group of experts on the matter by the Austrian Road Safety Board in 1972. Inspired by prior developments in the United States, this expert group, consisting of psychologists, jurists, police officials, and publicists, dealt with the development of driver rehabilitation measures adapted to Austrian target groups as well as the measures' legal framework and possible means for monitoring their effectiveness. The first concept of a rehabilitation programme for drink-drivers was completed in 1976 and carried out in Austrian prisons. Between 1976 and 1979 a total of 220 imprisoned traffic offenders took part in this programme. The programme was then shortened in length due to financial reasons and continued to be conducted in two prisons from 1980 to 1986.

Non-imprisoned drunk drivers first got the chance to take part in rehabilitation programmes in 1977 when the possibility of referring drink-drive offenders to a rehabilitation course was included in the Drivers Act 1967 (Republik Österreich, 1967). Back then it was for the licensing authority to individually decide whether an offender who had been disqualified from driving should undergo a rehabilitative measure. Rehabilitation courses for regular drink-drive offenders were first offered in the Austrian cities of Graz and Salzburg, in 1981 and 1982 they were also introduced in Vienna, Linz, Klagenfurt, and Innsbruck.

In 1992, the probationary driving licence for novice drivers was introduced in Austria and course participation became compulsory for drivers who committed a traffic offence whilst on probation. This also led to the development of rehabilitation programmes in connection with traffic offences other than drink-driving. Mandatory driver rehabilitation courses for traffic offenders other than offenders on probation were finally introduced as part of the Driving Licensing Act in 1997 (Republik Österreich, 1997). As this resulted in a rise in participant numbers, this regulation also saw the end of the Austrian Road Safety Board's monopoly for the provision of rehabilitation courses and additional providers

started to be approved by the Ministry of Traffic, Innovation and Technology. In an attempt to standardize all driver rehabilitation courses in Austria as far as possible, the operation, contents, structure, and prices of the courses, as well as the required qualifications of the trainers, were officially defined by the Austrian Rehabilitation Course Regulation in 2002 (Republik Österreich, 2002).

At present, there are four different types of mandatory driver rehabilitation programmes implemented in the Austrian legislation: the Rehabilitation Programme for Drink-Drive Offenders, the Rehabilitation Programme for Traffic Offenders, the Rehabilitation Programme for Driving Under the Influence of Drugs or Medicine, and the Rehabilitation Programme for Offences within the Demerit Point System. All of these programmes are designed for all drivers, meaning that it is possible for drivers on probation and drivers not on probation to take part in the same course. The programmes are entirely self-funding with the offenders paying for their own rehabilitation. Course providers must be officially approved by the Ministry of Traffic, Innovation and Technology. All courses must be conducted by trained traffic psychologists. The courses are usually held as group sessions and single lessons can only be taken if there are either not enough participants for a group session available or under certain special circumstances, such as if an interpreter is required by the participant. However, if none of these reasons apply, single lessons are usually not available to offenders as the group dynamics of group sessions are seen as an important contributory factor towards the effectiveness of the programmes (Republik Österreich, 1997; Krimbacher, 1999; Panosch, 2001; Bartl et al., 2002; Republik Österreich, 2002; Schubert, 2002).

#### **Types of Driver Rehabilitation Programmes**

Altogether there are four different types of driver rehabilitation programmes, which are explored in more detail based on the Austrian Rehabilitation Course Regulation 2002 (Republik Österreich, 2002), the Driving Licensing Act 1997 (Republik Österreich, 1997, 2005), and the Road Traffic Act 1960 (Republik Österreich, 1960) in the following section.

# Rehabilitation Programme for Drink-Drive Offenders

Attendance of the Rehabilitation Course for Drink-Drive Offenders is compulsory for drivers on probation who were caught driving a motorized vehicle with a BAC of more than 0,1% as well as for every driver who is caught driving with a BAC of 1,2% or more and for every driver who refuses to take a breath test when prompted to do so by a police authority. The licensing authority may however still refer individual drivers with a BAC below 1,2% to a rehabilitation course if an intervention of this sort seems indicated (Bartl et al., 2002). Drivers with serious alcohol problems should first be treated for their addiction before being allowed to participate in a rehabilitation course.

The course should comprise at least four group sessions of 15 units of 50 minutes each with 6 to 11 participants for first-time offenders and at least five sessions of 18 course units for re-offenders, who have committed their last drink-drive offence within the past five years. Participants must complete the course within 22 to 40 days. Topics covered in the course include the participants' individual reasons and offences that led to the rehabilitative measure, knowledge about the effects of alcohol on driving behaviour, personal attitudes towards drinking and driving and road safety, drinking habits, and ways of separating drinking from driving and thereby avoiding potentially dangerous traffic behaviour and re-offending under the influence of alcohol in the future.

At least once during the course all participants must take a breath test. Should the measured blood alcohol concentration exceed 0,1‰, the course participant will be excluded from the course and will therefore have to repeat the entire programme. The same procedure applies if a participant refuses to take the breath test.

# Rehabilitation Programme for Traffic Offenders

Participants of this course will have committed a traffic offence not provided for by any of the other rehabilitation programmes, such as exceeding the maximum speed limit by more than 40 kilometres per hour (km/h), or 20 km/h for novice drivers, inside the urban area or more than 50 km/h, or 40 km/h for novice drivers, outside the urban area.

The courses should comprise at least four group sessions of 12 units of 50 minutes each with 6 to 11 participants for first-time offenders and at least five sessions of 15 units for re-offenders, who have committed their last traffic offence within the past five years. Additionally, although not a direct part of the course, all course participants must prove their driving skills in a practical driving test conducted by a specially trained driving instructor comprising 150 minutes. Each course must be completed within 22 to 40 days. Topics covered include considerate driving behaviour, risk awareness, road safety, and the reflection of personality traits, personal attitudes, and inappropriate traffic behaviour as well as possible consequences.

# Rehabilitation Programme for Driving Under the Influence of Drugs or Medicine

This course is a rehabilitative measure for traffic offenders caught driving while impaired by drugs or medicine. Ideally, the courses should comprise at least four group sessions of 15 units of 50 minutes each with 6 to 11 participants for first-time offenders and at least five sessions of 18 units for re-offenders, who have committed their last drug- or medicine-related offence within the past five years. Each course must be completed within 22 to 40 days. Topics covered include reasons for the abuse of drugs or medicine, risk awareness, road safety, effects of drugs and medicine on driving behaviour, and ways for avoiding future re-offences. Currently there are no clearly defined limits for psychoactive substances but it is one of the aims of the current EU-project DRUID to create suggestions for appropriate legal limits (DRUID, 2007).

# Rehabilitation Programme for Offences within the Demerit Point System

There are 13 traffic offences provided for by the Demerit Point System, which was introduced in July 2005. Drivers caught committing two of these offences within two years have to undergo a specific measure. In case of a third offence within two years, the offender is disqualified from driving for three months (Schöllnast, 2007). One of the possible measures after committing two offences within two years is the mandatory attendance of the Rehabilitation Course for Offences within the Demerit Point System. This measure is applied if at least one of the committed offences is either an alcohol-related one, such as driving with 0,1% to 0,79% for drivers with a C-license, 0,1% to 0,79% for drivers with a D-license, or 0,5% to 0,79% for all other drivers if the offence

is not part of the regular rehabilitation course for alcohol offenders, or a safe distance violation, such as keeping an inappropriate safe distance or a safe distance of less than 0.6 seconds, or an emergency lane violation, such as driving or parking on the emergency lane and obstructing the lane for ambulances, or an offence regarding child safety.

Ideally, the courses should comprise two group sessions of 3 to 11 participants for first-time offenders and at least five sessions for re-offenders, who have already participated in a Demerit Point System course within the past five years. Each course must be completed within 8 to 40 days. The course contents depend on the committed offences and will often include topics covered in the Rehabilitation Course for Drink-Drive Offenders and the Rehabilitation Course for Traffic Offenders.

#### Aims of Driver Rehabilitation Programmes

Being road safety measures, the primary aim of the programmes is the reduction of road accidents and casualties as well as their associated costs. As they are aimed specifically at traffic offenders, their goal is the reduction of re-offence numbers. This means that driver rehabilitation programmes are aimed at changing their participants' behaviour, which is to be achieved through a change in attitudes. The acquisition of a more safety-oriented, considerate road behaviour and heightened risk awareness are encouraged through the reflection of negative attitudes and past behaviour, the provision of relevant information to allow for the acquisition of offence-related knowledge, and the encouragement of an internal locus of control (Republik Österreich, 2002). For goals of the rehabilitation courses provided by the AAP see 2.4.

#### **Programme Participants**

As in other European countries, women form only a small proportion of participants in all types of driver rehabilitation programmes. According to figures from the Austrian Road Safety Board about 90% of course participants in 2000 were male (Bartl et al., 2002), which was also found in evaluations by Reshad (1997) and Kases (2002). The majority of participants are assigned to rehabilitation courses due to drink-drive offences. In an evaluation of the AAP's courses by Lüftenegger (2006) this was the case for about 84% of all course participants (n = 341), followed by about 15% attending a course for traffic

offences such as speeding. Only five participants attended courses for driving under the influence of drugs. More than 80% of all participants were male. 22% of all participants had already taken part in one or more rehabilitation courses, which also applied for about 18% of participants in a study by Reshad (1997). While the age of the drink-drive course participants was very varied, the participants of the courses for traffic offences and driving under the influence of drugs were aged between 17 and 26 years. The majority of participants had a BAC of 1,6% or above when they committed the offence leading to the rehabilitation course. Similar results for drink-drive course participants were found in the AAP's evaluation by Schickhofer (2003). Schickhofer also found that the majority of participants (66,5%) were employed as workers or civil servants. The participants' educational levels in drink-drive courses approximately represented those of the general Austrian population with 56,6% having completed compulsory school, an apprenticeship, or professional training as their highest education. Evaluations by Kases (2002) and Reshad (1997) also found that the majority of participants had completed an apprenticeship as their highest level of education.

### Participants with a Native Language other than German

In 1997, about 400 people participated in Austrian driver rehabilitation courses that were conducted in a language other than German. These courses were conducted as group or individual trainings. In Vienna, there were 131 Serbian and Croatian course participants, 28 Turkish participants, and 15 participants with other native languages other than German (Einem, 1997). However, these numbers do not include non-German native speakers attending driver rehabilitation courses conducted in German. Experiences of traffic psychologists regarding the psychological assessment of traffic offenders have shown that a large number of participants with a native language other than German encounter language problems and similar observations have been made regarding rehabilitation courses (compare Litzenberger & Gruber, 2005). Also, the observation of high drop-out numbers among non-German native speakers in evaluations (for example Lüftenegger, 2006) has brought up the question if problems in understanding evaluation questionnaires also imply problems in understanding the course contents and trainers. However, it has not yet been systematically investigated if these observations and subjectively perceived difficulties in understanding go hand in hand with a significant impact on the effectiveness of driver rehabilitation programmes for this participant group, in which case an optimization of the programmes for non-German native speakers would be highly advisable. Due to an increasing internationalization and the expansion of the European Union, the number of course participants with native languages other than German can be expected to rise over the coming years, making research regarding this matter a subject of growing interest and importance.

# 2.2.3 Evaluation of Driver Rehabilitation Programmes in Europe and Austria

Quality assurance and control are important requirements if a wide number of people are affected by a programme or service which is expected by the legislature to show a certain effect and is associated with considerable costs in its conception and conduction (compare Lüftenegger & Langer, 2008). Thus, the effectiveness of driver rehabilitation programmes has been investigated by a wide variety of evaluations, most of which have been able to prove their effectiveness. When comparing outcomes of different evaluations, differences in designs and contents of the examined rehabilitation programmes, possible differences in trainer qualifications, as well as differences in research questions and instruments used in the evaluations should always be taken into account, especially as regards cross-country comparisons. In some countries, such as Austria and Germany, the evaluation of rehabilitation programmes is mandatory by law.

Ideally, evaluations should include a control group made up of non-participants for the comparison of effects with programme participants, who represent the experimental group. However, in countries where the attendance of rehabilitation programmes is compulsory for every offender, such a control group does not exist. Evaluations in these countries must therefore either use data collected before the mandatory introduction of the measure as a control group or use a group of participants to serve as its own comparison. This is also referred to as a design with self-controls and means that a test is conducted on one and the same group before (pre-test) and after (post-test) the intervention, in this case on the rehabilitation programme's participants (Fink, 1995).

There are two basic approaches towards the evaluation of driver rehabilitation programmes, that is the evaluation of so-called 'hard' data and the evaluation of so-called 'soft' data (Christ, 2002).

Hard data primarily refers to the use of reconviction rates as a highly valid measure of a programme's effectiveness. Ideally, reconviction rates of programme participants should therefore be significantly lower than those of non-participants. According to Germany's Federal Highway Research Institute the reconviction rate of rehabilitation programme attendees should not exceed 18,8% (Schmidt & Pfafferott, 2002, cited by Schülken, Leisch, Sachse & Veltgens, 2006, p. 195). Various investigations of reconviction rates

have provided evidence for a significant effect of course attendance on reconviction rates. Whilst these are important findings, it should be noted that re-offending data only record those who have been caught and convicted, not the actual level of re-offending behaviour. A large part of traffic offenders and drink-drivers remain undetected, estimations vary between 100 and 600 undetected cases for each detected case (Klopf, 2002). It has been shown that even ten years after attendance of a rehabilitation course not all of those who have re-offended have also been caught and reconvicted (Kunkel, 1981, cited by Krimbacher, 1999, p. 82). Therefore evaluations examining reconviction rates are time-consuming as the data collection should take place over a longer period of several years, at least over a minimum of three to four years (Christ, 2002).

A different approach to evaluating rehabilitation programmes is the collection of soft data, which refers to the assessment of effects of the programmes on the participants' attitudes, knowledge, personality, skills, and emotions, as well as the general acceptance of the programme (Nichols, 1990). Despite being less valid, soft data deliver more details about which aspects contribute to the effectiveness of a programme than hard data and the collection of such data is a lot more economic. The validity of soft data can be increased through the reduction of the influence of social desirability on participants' answers, which can be achieved through a coding system, which ensures that participants remain anonymous yet still allows for the correct assignment of questionnaires collected at different times of measurement (Patry & Hager, 2000). The following section takes a quick look at some of the soft data that have been analysed in evaluations of driver rehabilitation programmes.

#### Attitudes and Behaviour

The reason why it makes sense to assess attitudes when trying to predict a person's behaviour is that, despite the fact that attitudes do not always concur with the actual behaviour, intentions can be regarded as the best predictor for future behaviour. One of the best-known theories regarding attitudes and behaviour is Fishbein and Ajzen's Theory of Planned Behaviour (Ajzen & Fishbein, 1980). According to this theory intentions depend on the attitudes towards a specific behaviour, the subjective norm, which is made up of perceived social expectations and the motivation or subjectively perceived pressure to fulfill these expectations, and the subjectively perceived level of control over the

behaviour, which refers to the expectation how difficult it would be to perform a specific behaviour. The more precise intentions are defined, the better they are as a predictor. Connections between attitudes and behaviour have also been the subject of a wide number of other psychological theories (compare Herkner, 2001).

#### Knowledge

Attitude changes can be accomplished through the acquisition of new opinions and information, which are also referred to as the cognitive component of attitudes. A lot of drink-drivers have been found to lack relevant knowledge concerning alcohol levels and effects of alcohol. Therefore, a lot of evaluations assess the amount of relevant information that participants learn through the courses.

### Locus of Control

The locus of control can be external or internal. An external locus of control refers to the assumption that external factors such as fate, luck, coincidences, and other people determine one's life and actions as well as their consequences. Whereas an internal locus of control refers to the belief that one's life and actions are determined by one's own behaviour. Persons with an internal locus of control have a higher amount of control over their own actions. For rehabilitation programmes this is important as self-controlled participants can be expected to be more able to keep to their own positive resolutions of not committing another traffic offence (Myers, 2008). It has been suggested by various researchers that culture may have a significant influence on the locus of control (for example Gaa & Shores, 1979; Krampen & Weiberg, 1981).

#### Rating of the trainers and courses

Arguments are more effective if they come from a positively perceived sender (Hovland & Weiss, cited by Herkner, 2001, p. 230). Hence, a positive rating of the trainers can be regarded as beneficial to the effectiveness of the programme. A positive acceptance of the programmes and trainers is an important precondition for the acquisition of knowledge and changes in attitudes (compare Posch, 2000).

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Further information regarding socio-psychological theories behind the collection of soft

data can be found in Herkner (2001) and Aronson, Wilson and Akert (2004).

A wide number of evaluations examining hard or soft data have been carried out over the

past decades. An overview of some of the evaluations conducted in various European

countries and, more specifically, in Austria is given in the following sections and further

subdivided into findings regarding hard data, results regarding soft data, and studies

aiming to search for correlations between both types of data.

Europe

The EU-project DRUID analysed 36 evaluations of rehabilitation programmes for drink-

drivers and drug offenders in the European Union. On average, a reduction of reconviction

rates by 45,5% was reported and in general the programmes led to changes in the

participants' attitudes and knowledge. The EU-wide study also assessed the socio-

demographic characteristics of course participants and found that the majority of offenders

were male, young, had a low socio-economic status, and were usually living alone or

separated (Klipp et al., 2009).

Hard data: Reconviction rates

Jacobshagen (1997) examined the effectiveness of a mandatory drink-drive rehabilitation

programme for novice drivers in Germany. Reconviction rates of 1.211 participants were

analysed for 36 months and compared to data of novice offenders from the time before

course attendance became compulsory. A reduction of reconviction rates by 54% was

observed with 14,4% of course attendees and 31,6% of non-attendees being reconvicted

for drink-driving. The courses proved to be more effective the younger the participants

were as well as for participants with a higher educational level and female drivers. After

the programme 70,6% of attendees reported to drink less than before the intervention.

Biehl and Birnbaum (2004) evaluated a German rehabilitation programme for drug

offenders. Results showed that reconviction rates were significantly reduced by 58% with

8.8% of programme participants (n = 91) being reconvicted within 36 months compared

with 21,1% of non-participants (n = 90).

For the evaluation of the German drink-drive programme IRAK-S for novice drivers reconviction rates of 106 drink-drivers were examined. The programme proved to be effective with 4,7% of attendees being caught reoffending within 38 months compared with 13,2% of non-attendees (Birnbaum, Biehl & Seehars, 2005).

An evaluation of the drink-drive rehabilitation programmes CONTROL and REAL in Germany by Schülken et al. (2006) examined reconviction rates of 358 participants. Both programmes proved to be effective with only 4,2% of attendees committing another offence within an observation period of 36 months.

Davies, Harland and Broughton (1999) evaluated drink-drive rehabilitation courses in England and Wales. They examined repeated drink-drive offences of about 20.000 drivers, 3.723 of them voluntarily participated in rehabilitation programmes for the reduction of their disqualification period by 25%. Methods used included interviews and questionnaires as well as taking a look at reconviction rates over a period of 36 months. Results showed that only 3,4% of offenders who had attended courses had been convicted of a subsequent drink-drive offence, compared with 9,6% of those who had not.

A different evaluation of drink-drive rehabilitation courses in Great Britain by the Transport Research Laboratory in 2007 found that over a period of five years attendees were 44% less likely than non-attendees to be convicted of a subsequent drink-drive offence (Department for Transport, 2008d). Other research in the UK suggested that in 30 months after sentencing those who had attended a course were up to three times less likely to re-offend than those who had not attended (Department for Transport, 2005).

An overview of evaluations examining reconviction rates of participants of rehabilitation programmes for drink-drivers in Europe and Austria is shown in table 4.

Soft data: Attitudes, knowledge, and emotions

The German drink-drive rehabilitation programmes CONTROL and REAL were found to lead to significant changes in the problem awareness of 837 drink-drivers and significantly fewer dysfunctional stress coping strategies were reported after the programmes (Schülken et al., 2006). Participants also reported to be more willing to take on responsibility and to

be more able to make decisions, reported a reduced external and increased internal locus of control, meaning that they saw their own behaviour and its consequences as being more influenced by their own actions and less controlled by external influences such as luck, fate and other people, and reported to be more able to describe and identify their own emotions.

Davies et al. (1999) were able to prove the effectiveness of drink-drive rehabilitation courses on attitudes towards drink-driving in England and Wales. The courses also proved to increase offence-related knowledge. After the course 35% of more than 3.000 course attendees felt they should not drink anything if they wished to be safe to drive, compared to 8% before the course. The mean score for the alcohol knowledge test changed from 5,4 out of 10 before the course to 8.1 after the course. At a final interview at least 18 months after conviction 37% of course attendees said they would only be safe to drive if they drank no alcohol compared to 29% of non-participants. 73% of course attendees answered seven or more knowledge items out of ten correctly, compared to about 25% of non-attendees.

#### Correlations between hard and soft data

In Switzerland an evaluation of the rehabilitation programmes TAV/LAST and START by Bächli-Biétry and Mayer (2006) examined reconviction rates of 264 drink-drivers and 86 drivers convicted of speeding and tried to search for links between reconviction rates and soft data. The study further differentiated between Swiss speed offenders (n = 42) and speed offenders from southeastern Europe (n = 44), especially from former Yugoslavia. Reconviction rates showed that within two years after the beginning of the intervention 7% of drink-drivers and 18% of Swiss speed offenders who had attended a course committed another offence of the same type compared with 11% of drink drivers and 25% of Swiss speed offenders who had not attended a course. Thus the programme was effective for those two groups. Remarkably, the result was very different for speed offenders from southeastern Europe as 31% of course attendees were reconvicted compared with only 8% of non-attendees. Although this may have been partly due to socio-demographic differences between the experimental and the control group, it can be stated that the intervention was not effective for high-risk speed offenders from southeastern Europe, despite of this group showing a higher acceptance and having more

positive expectations of the measure when asked before the course than Swiss offenders. Additionally, the course trainers were asked how much they thought the participants had learnt throughout the course and how much they had been willing to cooperate. Whilst the trainers' estimations positively correlated with the drunk drivers' reconviction rates, no correlation was found for the reconviction rates of both groups of speed offenders. In the group of speed offenders from southeastern Europe participants who were described by their trainers as more cooperative than others even tended to re-offend more frequently than other participants.

#### Austria

The Austrian Rehabilitation Course Regulation states that all rehabilitation courses should be evaluated on a regular basis in order to analyse their effectiveness and ensure a high quality of the provided courses (Republik Österreich, 2002). However, since the introduction of mandatory rehabilitation programmes in Austria in 1997 neither a control group nor information on reconviction rates have been available to evaluators as a central driving license register recording reconviction rates of all rehabilitation course participants does not yet exist. Currently, evaluations of driver rehabilitation programmes must therefore either use data from before 1997 as a control group, as was done by Krimbacher (1999) and Moser (2001), or focus on the collection of soft data. The following sections provide an overview of evaluations conducted in Austria divided into results regarding reconviction rates, results regarding soft data, and one study attempting to identify correlations between both types of data. Finally, the two previous evaluations of the AAP's rehabilitation programmes, which examined soft data, are described.

#### Hard data: Reconviction rates

The first evaluation of driver rehabilitation programmes in Austria took place ten years before attendance became compulsory for offenders. It was therefore possible to examine the courses' effects on reconviction rates of 374 imprisoned and non-imprisoned drink-drivers (Michalke, Barglik-Chory & Brandstätter, 1987). Over an average observation period of 27 months the courses led to a reduction of reconvictions by almost 50% with 15,8% of attendees and 30,6% of the control group being convicted of a subsequent drink-drive offence.

In a later evaluation of drink-drive programmes Schützenhöfer and Krainz (1999) also found a significant reduction of reconviction rates by more than 40%. For this study, reconviction rates of male offenders in Styria were observed over a period of three years between 1994 and 1997, that is before attendance of the courses became mandatory. Whilst a reconviction rate of 22,7% was found amongst the 198 attendees, 42,2% of the 177 non-attendees were caught re-offending. This change in behaviour was particularly significant within the first year after attendance of the measure with 9,1% of participants and 24,9% of non-participants re-offending within this time.

Krimbacher (1999) was able to prove the effectiveness of the 'Model Tyrol' drink-drive courses for first-time offenders and found that 6,3% of 207 course attendees re-offended within 24 months compared with 14,6% of 385 non-attendees, which stands for a highly significant reduction of 56,8%. The control group consisted of data collected before rehabilitation courses became mandatory for all offenders.

In contrast to most other evaluations, Moser (2001) did not find an effect of rehabilitation courses on reconviction rates. The study monitored reconviction rates of 101 male attendees of a drink-drive rehabilitation programme in Carinthia over a period of two years and compared them with a control group of the same size. Re-offending rates of 12,2% for the attendees and 17,9% for non-attendees meant a reduction of only 31,5% through the intervention, which therefore failed to make a significant difference. Despite this, the study came to the conclusion that participants with a lower alcohol level at the time of committing the offence that lead to the measure were less likely to re-offend in the future, whereas in other studies (Krimbacher, 1999; Schützenhöfer & Krainz, 1999) no connection between alcohol levels and reconviction rates were found. Another evaluation in which no effects on reconviction rates were found was conducted in Switzerland in 1997 (Mahey, 1997, cited by Bartl et al., 2002, p. 28). In this evaluation 117 male participants were compared with 126 male non-participants, both groups consisted of imprisoned drink-drive offenders. The course comprised three sessions and every lesson was held by a different expert. Bartl et al. (2002) suggested the absence of a significant effect may have been due to an essentially different programme design in comparison with the programmes examined in other evaluations as well as due to the fact that many participants were diagnosed with alcohol addiction.

Table 4 provides an overview of studies examining the reduction of reconviction rates for drink-drivers through rehabilitation programmes in Europe and Austria.

Reduction of reconvictions	Observation period	Country
48,4%*	27 months	Austria
43,8%*	36 months	Austria
56,8%*	24 months	Austria
31,5%	24 months	Austria
54,4%*	36 months	Germany
64,4%*	38 months	Germany
54%*	36 months	Great Britain
0%	60 – 72 months	Switzerland
36,4%	24 months	Switzerland
	reconvictions  48,4%*  43,8%*  56,8%*  31,5%  54,4%*  64,4%*  54%*	reconvictions         48,4%*       27 months         43,8%*       36 months         56,8%*       24 months         31,5%       24 months         54,4%*       36 months         64,4%*       38 months         54%*       36 months         0%       60 – 72 months

<sup>\*</sup> significant reduction

Table 4: Reconviction rates of participants of drink-drive programmes in Europe and Austria in comparison with control groups

Soft data: Attitudes, knowledge, acceptance of the measure, and emotions

A study by Posch (2000) examined changes in attitudes, offence-related knowledge, and feelings of 104 male drink-drivers through a rehabilitation programme in Vorarlberg. There was a significant increase in knowledge and feelings improved throughout the programme as did the rating of the measure. In the knowledge quiz participants answered an average of about 8 items out of 12 correctly before the intervention and an average of about 10 after the course. Attendees reported a lower subjective alcohol tolerance at the end of the course and believed fewer external reasons such as other people or fate to be responsible for the consequences of their offence. Another important aspect was that participants who reported less confidence in the trainers were less optimistic about their future and the benefits of the course.

Kases (2002) examined effects of a drink-drive rehabilitation programme by comparing data from 49 course attendees with data from 49 offenders who were waiting to be

admitted to the programme and served as a control group. The locus of control was examined with the Questionnaire for Locus of Control and Competence Beliefs (FKK) (Krampen, 1991). After the course attendees reported to be less influenced by external factors, whilst no changes were reported for the control group. The study also examined specific and general self-efficacy expectations, which refers to expectations of being able to deal with problems and difficulties in specific situations or everyday life. Whilst no changes through the intervention were found for the participants' general self-efficacy, the specific self-efficacy expectation not to drink and drive under specific circumstances got significantly stronger. Furthermore, the participants' attitude towards drink-driving became significantly more negative whilst there was no such change amongst non-attendees.

An evaluation of drink-drive courses by Drexler (2005) examined changes in attitudes using a combination of questionnaires and qualitative interviews. An analysis of the questionnaires showed that the courses led to an increase in alcohol-related knowledge, and higher responsibility concerning risks. The participants were also found to have a strong internal locus of control. Hardly any changes were found regarding solutions for avoiding drink-driving in the future and there were no changes regarding the subjective traffic safety. In the interviews participants reported to consume less alcohol after the course than before the intervention and they rated the measure more positively than before the course, which was especially due to positive trainer ratings. Participants also stated that they regarded their work colleagues as an important influence on their drinking behaviour and their risk of drink-driving. An increase in knowledge was also confirmed in the interviews

#### Correlations between hard and soft data

An evaluation of three different types of rehabilitation programmes by Christ (2001, 2002) examined the courses' effects on reconviction rates and attitudes as well as possible connections between hard and soft data. The three programmes were targeted at drink-drivers (n = 165), novice drivers who had committed drink-drive offences (n = 617), and other traffic offenders (n = 378). Within an observation period of 23 months 9% of participants of the programme for drink-drivers were convicted of a subsequent offence, as well as 15% of attendees of the measure for traffic offenders and 24% of novice drivers.

No control group was used for comparison. Furthermore, the trainers were asked to rate how much knowledge they thought the participants had gained from the course. For the course for novice drivers negative ratings by the trainers correlated positively with the participants' reoffence rates. According to Christ (2001) relatively few particular factors which affected the success of the programmes could be identified but it was found that, as the design of the programmes for novice drivers and traffic offenders was based on the programme for drink-drivers, both programmes had potential for improvement as they resulted in higher reconviction rates than the original drink-drive programme.

Evaluations of driver rehabilitation programmes provided by the Austrian Applied Psychology Ltd.

In order to maintain a high quality standard of their provided services, the AAP have already conducted two evaluations of their driver rehabilitation courses in cooperation with the Institute of Economic Psychology, Educational Psychology and Evaluation of the University of Vienna. Both evaluations focused on the examination of soft data such as attitudes, knowledge, and acceptance of the programmes and trainers.

The first evaluation of the AAP's driver rehabilitation programmes was conducted in 2003 and examined changes in attitudes and knowledge throughout the driver rehabilitation programme for drink-drive offenders as well as the general acceptance of the measure and its related legislation (Schickhofer, 2003). The evaluation was conducted in Vienna, Lower Austria, Upper Austria, Styria, Salzburg, and Tyrol. The course participants took part in an anonymous survey before  $(n_{t1} = 248)$  and after  $(n_{t2} = 221)$  the course as well as six weeks after completion of the course ( $n_{t3} = 67$ ). The majority of participants, 83,6%, were male and 59,6% were between 24 and 44 years old. The results showed a significant increase in offence-related knowledge as well as a clearly more positive attitude towards laws concerning driving under the influence of alcohol and the measure itself. However, at the third time of measurement six weeks after the course attitudes towards laws and the measure once again deteriorated significantly despite not falling to the same level as in the pre-test. In the knowledge quiz an average of 6 out of 15 items were answered correctly before the course compared with 12 out of 15 after the course. With 11 correct answers participants with an external locus of control were able to answer significantly fewer items than course attendees with an internal or average locus of control, who managed to score

13 out of 15 correct answers. No significant differences were found for the knowledge scale between the second and third time of measurement. After the course a significantly greater number of participants approved of a lower legal alcohol limit when driving a motorized vehicle. Furthermore, participation in the course led to a greater awareness and understanding regarding the severity of the committed offence. The locus of control was assessed using the Questionnaire for Locus of Control and Competence Beliefs (FKK) by Krampen (1991). A large number of participants already displayed a strong internal locus of control in the pre-test. For this group a significantly lower score in the scale 'Selfconcept of own abilities' (FKK-SK) could be observed after the intervention, which Schickhofer (2003) regarded as the result of an acquisition of more realistic views concerning own abilities through the programme. Participants with an external locus of control in the pre-test reported to be less influenced by external factors after the course. As with the knowledge items, no significant differences were found for the locus of control between the second and third time of measurement. In addition participants were asked which contents they considered to be the most important parts of the programme and participants found information on psychophysiological facts such as the calculation of blood alcohol levels and information on legal requirements to be more important than opinions of other course participants and statistical data.

The second evaluation was conducted by Lüftenegger (2006) in eight different branches of the AAP across Austria and comprised the drink-drive programme, the programe for traffic offenders, and the programme for drug offenders. The evaluation was based on a pre-test-post-test design, therefore the data collection took place before the first and after the last course unit. For the drink-drive programme 268 participants, 58 of them had already participated in a rehabilitation course at least once before, were assessed using anonymous questionnaires regarding changes in attitudes and knowledge as well as differences in those changes between first-time and reconvicted offenders. Participants were aged between 18 and 71 years and were mostly men. The largest effect was found regarding the increase in offence-related knowledge and the effect was found to be greater for first-time offenders. In the pre-test an average of about 1,8 out of 6 Items were answered correctly, in the post-test an average of about 3,2 correct answers was achieved. Like in the first evaluation, the locus of control was assessed using the Questionnaire for Locus of Control and Competence Beliefs (FKK) (Krampen, 1991). Specific self-efficacy regarding expectations to be able to avoid drinking and driving in certain situations was

assessed based on a scale by Kases (2002) and general self-efficacy, that is the expectation of being able to deal with difficulties and problems in everyday life, was assessed based on a scale by Schwarzer and Jerusalem (1999, cited by Lüftenegger, 2006, p. 35). The programme proved to be effective in strengthening the participants' specific self-efficacy and encouraging an internal locus of control, while external attributions remained unaltered through the course. The programme for traffic offenders (n = 51) also had a great effect on the participants' knowledge. The programme also led to an increase in external social attributions, that is other people were reported to have a greater influence on ones life, and emotional instability, which may have been due to an overestimation of own abilities before the intervention. For the five drug offenders only descriptive data were available (see Lüftenegger, 2006, p. 52). The programmes and trainers also received a very positive rating by the course participants.

# 2.3 Programme Evaluation

Programme evaluation has a long history but only became recognized as an independent branch of study in the 1960s (Scriven, 1991). Programme evaluation can be described as 'the use of social research procedures to systematically investigate the effectiveness of social intervention programs that is adapted to their political and organizational environments and designed to inform social action in ways that improve social conditions' (Rossi, Freeman & Lipsey, 1999, p. 20). Programme evaluation can be used to determine the effectiveness or efficiency of innovative programmes, provide a basis for the adaptation and optimization of an existing programme, or assess the merits of established programmes (Rossi, Freeman & Hofmann, 1988). Its purpose can be to assess the need for an intervention, the design or implementation of a programme, the impact of a programme, or its cost-effectiveness (Rossi et al., 1999). Programme evaluations also often serve as a control tool to investigate if an intervention reaches its intended goals. The purpose and goals of evaluations are usually defined by or in interaction with the programme's decision-makers or stakeholders, that is individuals or groups that may be involved in or affected by the evaluation (JCSEE, 1994; Rossi et al., 1999). Programme evaluation is based on the assumption that an intervention should have measurable merits or explicit goals, such as increasing knowledge or changing attitudes, skills, values, or behaviour, and aims to provide reliable and valid empirical evidence of these merits

through the systematic use of scientific research methods. These merits and effects can either be continually measured throughout the programme, so that changes and improvements can be instantly implemented and evaluated, or they can be measured after the programme has ended. Consequently, programme evaluation can be subdivided into so-called formative and summative evaluation, as was originally suggested by Scriven (1991).

Formative evaluation is typically undertaken in the form of several measurements during the development, design, or trial of a programme. Its primary aim is usually to aid the development of a programme rather than to assess its impact. As its purpose is the description of the progress of programmes and the continual modification and optimization by gathering information that will guide programme improvement, formative evaluation should focus on providing information on a programme's weaknesses rather than its strengths. Hence, this type of evaluation is often conducted by the programme's authors themselves or at least reports normally remain in-house. In formative evaluations programmes are more commonly analysed using qualitative research procedures, although quantitative methods may also be applied (Rossi et al., 1988; Rossi et al., 1999; Mittag & Hager, 2000; Spiel, 2001; Bortz & Döring, 2006).

Summative evaluations are 'historical reviews of programs that are performed after the programs have been in operation for some period of time' (Spiel, 2001, p. 12171). The completion of the development or implementation of the programme usually precedes the planning and conduction of this retrospective type of evaluation. Summative evaluations are intended to provide a basis for judgements on certain aspects of a programme's effectiveness and performance, such as whether specific goals were met, without interfering in the course of the programme (Scriven, 1991; Rossi et al., 1999; Mittag & Hager, 2000). In contrast to formative evaluations, they are more likely to make use of quantitative research methods and more frequently involve external evaluators.

Either form of programme evaluation can further be divided into six fields of action (Fink, 1995):

1. Posing questions about the programme that shall be evaluated

Evaluation questions are necessary in order to be able to judge a programme's merits.

## 2. Setting standards of effectiveness

This refers to deciding on the information needed to prove a programme's effectiveness.

# 3. Designing the evaluation and selecting participants

This includes decisions regarding the amount and time of measurements and the persons that should be included in the study as well as their selection.

# 4. Collecting information

This step refers to the identification of relevant variables as well as to the diligent selection, adaptation, creation, and application of adequate measures.

## 5. Analysing data

This refers to the choice and administration of adequate methods of data analysis.

#### 6. Reporting the results

A report should describe the programme and its evaluation and deliver judgements regarding the programme's merits as well as discuss the implications of the evaluation results.

Results of evaluations can be used directly and instrumentally in order to aid decision-making processes and create an empirically founded basis for actions of evaluation sponsors and stakeholders. Thus, the purpose of programme evaluation is often the provision of information regarding the quality of a programme, which then allows for the optimization of its efficiency, quality, and effectiveness or acts as a basis for decisions regarding the programme such as whether a programme should be realized, continued, or sponsored. But evaluation results may also be used conceptionally as a general influence on opinions and ways of thinking about possible solutions to specific problems. Another option is their argumentative use in order to defend certain positions and thereby retain the status quo or to weaken positions in order to bring about changes based on scientific findings (Rossi et al., 1988; Fink, 1995; Rossi et al., 1999).

In an attempt to nationally and internationally standardize the quality of evaluations, a number of institutions have created evaluation guidelines. These include the German Association for Evaluation (Deutsche Gesellschaft für Evaluation, 2004), the Swiss Association for Evaluation (compare Atria et al., 2006), and the American Joint Committee on Standards for Educational Evaluation (JCSEE) (1994). The JCSEE has defined 30 standards as guidelines for evaluating educational and training programmes.

The standards are grouped within the four clusters utility, feasibility, propriety, and accuracy (Owen, 2006). Utility comprises standards that shall ensure the fit of information provided by the evaluation and information needed by stakeholders and intended users. Feasibility refers to the realistic design of evaluations so that they are economic and operable in a natural setting. Propriety standards shall ensure the protection of the rights of individual stakeholders. Accuracy standards are intended to ensure the provision of accurate information about a programme's merits through the evaluation. Although not all of the 30 standards mentioned in the four groups are applicable for all types of evaluations and the standards cannot be regarded as a substitute for professional judgement, the standards of the JCSEE provide a helpful basis for the conduction of professional, ethical, and effective evaluation.

Another helpful basis for evaluations is for instance provided by the Kirkpatrick model, which can be used for summative evaluations and is explored in more detail below as it also served as a basis for the present evaluation.

# 2.3.1 The Four Levels of Evaluation by Kirkpatrick

Summative evaluations of training programmes can be based on the four-level evaluation model by Kirkpatrick (1996, 1998). This is a hierarchical model developed in 1959, which consists of four consecutive levels. Each level has an impact on the following level and serves as a base for the next level's evaluation. The higher the level, the more time-consuming, complicated and expensive its analysis, but each successive level also represents a more precise measure of the programme's effectiveness and provides more valuable and meaningful information. The evaluation process should always start at the first level and then sequentially move through levels two, three, and four without bypassing any levels. The four levels are called 'reaction', 'learning', 'behaviour', also referred to as 'transfer', and 'results' (Figure 8). Evaluations do not necessarily have to comprise all four levels. The present study sets its focus on the first two levels, 'reaction' and 'learning'.

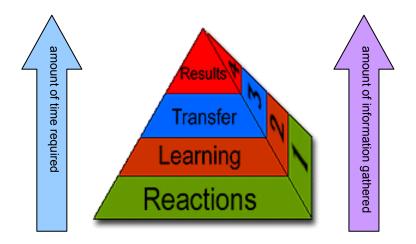


Figure 8: The four levels of evaluation by Kirkpatrick (Lüftenegger, 2006, p.6)

#### **Level 1 - Reactions**

The first and lowest level is entitled 'reactions' and comprises the programme participants' acceptance and satisfaction with the programme and its trainer. Basically, this level shows how participants react to the programme. This level is often assessed using so-called 'smile sheet' as participants' reactions can be assessed using smiley faces. A positive reaction is more likely to lead to good results in learning than a negative reaction. The more favourable the reactions, the more likely the participants are to pay attention and learn the discussed facts. When aiming for the improvement of a training programme, the programme should at least be evaluated at this level. Evaluations on this level only show the participants' reactions at a specific point in time, usually the end of the training, but as they follow a fairly economic procedure and still allow for programme improvements, they are the most common type of programme evaluations.

#### Level 2 – Learning

The second level, 'learning', can be defined as the extent to which aspects such as knowledge, attitudes, and skills of the participants change as a result of attending the programme. In order to determine the amount of learning that has occurred, participants should take a test before and after the training. Learning has taken place if either skills are improved, or attitudes are changed, or knowledge is increased through the course. It is also required in order to reach the next and third level, 'behaviour'. If a change in behaviour is to occur, one or more changes must first take place on level 2.

#### Level 3 – Behaviour

The third level refers to actual changes in behaviour due to the training programme. This level is sometimes also referred to as 'transfer', reason being that evaluations on this level take a look at the transfer of the acquired skills or knowledge into real life situations. Four conditions are necessary in order for changes to occur. The first condition is that the person must have a desire to change. Secondly, the person must know what to do and how to do it. Thirdly, the person must find itself in the right climate for change. And finally, the person must somehow be rewarded for changing. The first two conditions can be accomplished by creating a positive attitude towards the desired change and teaching the necessary knowledge as part of the training programme. Measuring of 'transfer' can be difficult as it is often impossible to predict when exactly the desired changes in behaviour will occur, which can make measurements at this level costly and time-consuming. Measurements at this level therefore require important decisions in terms of when to evaluate, how often to evaluate, and how to evaluate.

#### Level 4 - Results

The fourth and final level measures the success of a training programme on an organizational or institutional level, for example the reduced frequency of repeated traffic offences due to the attendance of rehabilitation courses. The results can be seen as the final results that occurred because the participants attended the programme. Aims to achieve certain results on this level are usually the overall reason for conducting the training programme in the first place. Measurement on this level is the most complicated and time-consuming one as the results are often difficult to measure or hard to link directly to the training programme.

## The Four Levels of Kirkpatrick Applied to the Present Evaluation

Figure 9 shows Kirkpatrick's model applied to the evaluation of driver rehabilitation programmes.

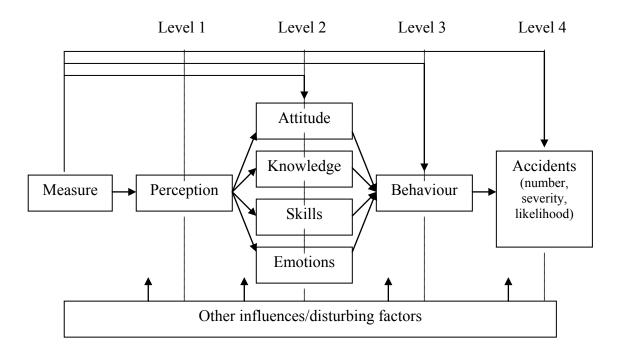


Figure 9: The four stages of effect measurement (Utzmann, 2008)

Changes in attitudes and knowledge are explicit goals of the AAP's driver rehabilitation courses and are therefore assessed as part of this evaluation. The native language and subjective understanding of the programme can be regarded as parts of the 'other influences' not further described in this model. As practical driving lessons are not part of the rehabilitation courses, the skills dimension is only assessed subjectively with one or two questions per course. As changes of the participants' emotional state are not an explicit goal of the programmes, their assessment is not included in this study. In order to assess the model's third and fourth level, the availability and assessment of hard criteria such as reconviction rates and accident numbers would be necessary but such data are at present not available to course providers. This evaluation therefore puts its focus on the first two levels of Kirkpatrick's evaluation model.

# 2.4 Research Goals and Questions

The main goal of this summative programme evaluation is to control the effectiveness of the driver rehabilitation programmes provided by the Austrian Applied Psychology Ltd. with the best possible inclusion of all course participants and create a scientific basis for a possible optimization of the programmes with special consideration being given to participants with a native language other than German.

As the term 'effectiveness' needed to be further specified in order to allow for a reliable evaluation, three goals of driver rehabilitation programmes were specified by the AAP. The primary goal of the programmes is the achievement of positive changes in attitudes regarding the relevant traffic offences. The encouragement of an internal locus of control is a secondary goal of the programmes. A tertiary goal is the transmission of relevant knowledge. All of these goals are intended to consequently lead to positive changes in the course participants' road-user behaviour.

Another goal is that the programmes should lead to changes in attitudes and an increase in knowledge for all course participants regardless of their native language. The ability to understand the course trainers and contents is an essential precondition for reaching the course goals and thus for changes in attitudes and behaviour to occur. Thus, an important question arises as to whether participants with a native language other than German encounter any difficulties understanding the trainer or course contents and whether improvements are necessary for this participant group in order for the programmes to be as effective as possible (compare 2.2.2.3). So far, in evaluations of driver rehabilitation courses, little consideration has been given to course participants with native languages other than German, obstructing chances of course improvement for this participant group. The present study investigates if there are any differences in effects of the programme for drink-drivers between participants with a native language other than German and German native-speakers. Additionally, subjective problems in understanding the courses are assessed for all participants regardless of their native language in order to detect if there are any general weaknesses in the comprehensibility of the courses. The evaluation also explores the frequencies of nationalities and native languages of the course participants, which may serve as a basis for possible course optimizations, such as the provision of course materials in specific languages, and act as a reference for future research.

Another aspect of the evaluation is the rating of the courses and trainers as these are also important contributory factors towards the effectiveness of the programmes.

The research questions resulting for this evaluation based on the theoretical background and the goals defined by the AAP are shown in table 5.

New research question for all types of programmes	1.	Which nationalities and native languages are most frequent among programme participants?
Research questions for all programmes based on the course goals and also examined in	2.	How do the participants rate the trainers and courses in general?
previous evaluations of driver rehabilitation programmes	3.	Do the programmes lead to the desired attitude changes of the participants?
	4.	Do the programmes increase the participants' offence-related knowledge?
New research questions for the drink-drive programme	5.	Do participants whose native language is German differ from participants with a native language other than German regarding desired attitude changes through the programme?
	6.	Do participants whose native language is German differ from participants with a native language other than German regarding the increase in offence-related knowledge through the programme?
	7.	How do the participants rate the comprehensibility of the courses?
	8.	Do participants whose native language is German differ from participants with a native language other than German regarding their subjective rating of the comprehensibility of the courses?

Table 5: List of research questions

# 3 METHODS

The methodological part of this thesis covers the original design of the evaluation, the research instruments used for the various rehabilitation programmes, the actual research process, and the gathered sample of course participants.

# 3.1 Research Design

The summative evaluation of the AAP's driver rehabilitation programmes was based on a pre-test-post-test design and to be conducted nationwide in all branches of the AAP in Austria. The data collection was intended to last three months. As there was no control group available, the evaluation had to rely on self-controls. The programmes to be examined were the Rehabilitation Programme for Drink-Drive Offenders (A-programme), the Rehabilitation Programme for Traffic Offenders (V-programme), the Rehabilitation Programme for Driving Under the Influence of Drugs or Medicine (D-programme), and the Rehabilitation Programme for Offences within the Demerit Point System (P-programme). All course participants were asked to fill out a questionnaire immediately before the first session (t1) and straight after the last session of the course (t2). In order to reduce the influence of social desirability on the participants' response behaviour, the anonymity of the participants was ensured using a coding system. For this system, every participant had to fill out a four-letter code on the first page of every questionnaire, which was made up of the first and third letter of the participant's mother's first name and the first and third letter of the participant's father's first name.

	Pre-test (t1)	Post-test (t2)
A-programme	Before first course session	After last course session
V-programme	Before first course session	After last course session
D-programme	Before first course session	After last course session
P-programme	Before first course session	After last course session

Table 6: Research design with pre-test and post-test

Special consideration was given to participants with a native language other than German and it was aimed to include all course participants in the evaluation as well as possible. In order to avoid non-German native speakers dropping out of the evaluation due to language problems, an abbreviated version of the questionnaire for the drink-drive programme was translated into Serbian, Croatian, Turkish, and Polish as these languages were assumed by the trainers to be the most frequent amongst course participants. Course participants were offered the possibility to choose their questionnaires in the language they were most fluent at out of five available languages.

Questionnaires for the P-programme were also subdivided into three different versions as the subjects covered in the P-courses were individually adapted to the committed offences of the participants. As soon as one of the committed offences involved alcohol, the P-A questionnaire was conducted. If the offences did not involve alcohol but violations of the safe distance, the offender had to complete the P-S questionnaire. The P-P questionnaire for violations of the emergency lane regulations was only to be conducted if the offender did not receive penalty points for either of the other two offences. It was expected that due to the low number of P-course participants the possibility might arise that not all three types of questionnaires would be conducted. But as it could not be foreseen which of the three offences would be committed and drop-outs due to no questionnaire being available for the committed offence would have been especially critical with so few participants taking part in the first place, three different questionnaires were made available.

#### Tasks of the Trainers

As the survey was conducted nationwide, the questionnaires were handed out, collected, and returned to the AAP's head office in Vienna by the course trainers. The trainers were given detailed instructions in order to standardize the conduction process as far as possible. The instruction leaflet can be found in the appendix. To allow for the correct assignment of the pre- and post-test questionnaires despite some of the participants forgetting to fill out the anonymous code, the questionnaires were additionally marked with the official course number by the trainers.

#### **Questionnaire Translations**

In accordance with scientific translation standards the questionnaires were translated into Serbian, Croatian, Turkish, and Polish by professional translators and then re-translated into German by other professional translators, and finally compared with the original questionnaires in order to ensure the correspondence of all questionnaires as regards content and meaning. The non-German questionnaires excluded the scales of the Questionnaire for Locus of Control and Competence Beliefs (FKK). These were not translated as a valid translation of the scales would have required the expertise of psychologists fluent in those languages, which were not available within schedule. Additionally, various research has suggested there may be an influence of culture on the locus of control, raising concerns regarding the comparability of results (compare Gaa & Shores, 1979; Krampen & Weiberg, 1981). Consequently, the FKK was excluded from the translation. Also, for economic reasons, only the most essential personal details were asked for, that is the gender, age, nationality, and the native language, whilst the German version also asked for details regarding owned driving licences as well as if the person was a professional driver or on probation.

### 3.2 Research Instruments

This section covers the scales and items used in the questionnaires that were handed out before (pre-test) and after the rehabilitation courses (post-test). The research instruments are listed in the same order as they appeared in the questionnaires. An overview is shown in table 10.

#### **Demographics and Data Regarding the Offence**

	Pre-test	Post-test	
Used in:	✓	Only gender, age, native language	

Personal data such as gender, age, nationality, and native language, as well as data about the offence and the previous attendance of rehabilitation courses were collected based on details relevant for the evaluation of driver rehabilitation courses according to the EU- project ANDREA (Bartl et al., 2002) and on the data collected in the current EU-project DRUID (Bukasa, 2007).

# **Attitudes Regarding the Offence**

	Pre-test	Post-test
Used in:	$\checkmark$	$\checkmark$

The attitude items were used to measure if the course participants' attitude towards drink-driving, driving under the influence of drugs, speeding or violations of safe distance or emergency lane regulations changed through the course. The items for the drink-drive programme were based on a drink-drive rehabilitation course evaluation in England and Wales by Davies et al. (1999) as these items covered relevant attitudes that should ideally change through rehabilitation programmes. For the other courses the items were slightly modified according to the relevant offences. The items for the traffic offenders courses were modified based on the Austrian Rehabilitation Course Regulation (Republik Österreich, 2002), a study regarding attitudes towards speeding in Switzerland (bfu, 2008), and a talk on speeding in Great Britain by Stradling (2008).

The attitude items covering the topics safety, law, and social life were assessed on a four-point scale. For the A-programme six of these attitude items were used, four of them covered attitudes towards safety, one item regarding attitudes towards the law, and one item regarding social life. The V-programme questionnaires included five of these attitude items, that is four items regarding safety and one item regarding the law. The D-programme questionnaires also included five of these attitude items with three concerning safety and one item each regarding the law and social life. For the P-programme four items were used. The P-A questionnaire included three items regarding safety and one item regarding the law. Examples of attitude items are shown in table 7.

Depending on the type of programme there were also one or two items asked in order to assess the course participants' attitudes regarding own driving skills. Participants of all programmes were asked how they would rate their own driving skills on a scale of one ('very good') to five ('very bad'). Participants of the A- and P-A programme were also

asked after how many small beers they reckoned they would still be able to drive safely with six available options ranging from 'none' to 'nine or more'. In the V-programme participants were asked at how many kilometres per hour they believed to still be able to drive safely on an empty country road under normal driving conditions during daytime with six options ranging from 'below 70 km/h' to 'more than 220 km/h'.

The reliability for the four-item scale regarding attitudes towards safety in the A-programme was 0,61 (Cronbach's alpha).

A-, P-A programme	After one or two drinks one can still drive safely. (safety)	
	The legal blood alcohol limit is too high. (law)	
	It is difficult to separate drinking from driving without disadvantages to one's social life. (social life, only used in A-programme)	
V-programme	Exceeding the tempo limit is not dangerous if one drives carefully. (safety)	
	The legal speed limits are too high. (law)	
D-programme	The risk of having an accident while under the influence of drugs is just as high as without drugs. (safety)	
	Laws regarding driving under the influence of drugs are too strict. (law)	
	It is difficult to separate drugs from driving without disadvantages to one's social life. (social life)	

Table 7: Examples of attitude items

#### Knowledge

	Pre-test	Post-test
Used in:	$\checkmark$	$\checkmark$

The knowledge tests assessed if there was an increase in offence-related knowledge through the rehabilitation courses. The multiple-choice tests were based on those used by Lüftenegger (2006) for the last evaluation of the AAP's rehabilitation programmes in order to allow for a direct comparison of the results, apart from the tests for the Demerit Point System programme, which were based on the course manual as this programme was introduced after the last evaluation had been conducted. The test comprised six items for

the A-courses and five items for all other programmes. For each item one out of six possible anwers was correct. The six answers also included the option 'don't know' in order to avoid forcing people to take random guesses if they did not know the answer. Examples of knowledge items are shown in table 8.

A-programme	- Which of the following drinks leads to the highest blood alcohol level?  ☐ Schnapps, double (0,04 l)  ☐ White wine (1/8 l)  ☐ Red wine (1/8 l)  ☐ Sparkling wine (0,1 l)
	☐ Beer (0,5 l) ☐ Don't know
V- programme	- How long does the probationary period last?  ☐ 6 months ☐ 1.5 years ☐ 5 years ☐ 1 year ☐ 2 years ☐ Don't know
D-programme	- Which of the following substances is an opiate?  □ Nicotine □ Heroin □ LSD □ Mescaline □ Ecstasy (XTC) □ Don't know
P-A programme	- What happens if 3 Demerit Point System offences are committed within 2 years?  ☐ Rehabilitation course ☐ Disqualification from driving ☐ That depends on the committed offences ☐ Medical check up ☐ Safety training ☐ Don't know

Table 8: Examples of knowledge test items

# **Internal Locus of Control (FKK)**

	Pre-test	Post-test
Used in:	$\checkmark$	$\checkmark$

The two scales 'Internality' (FKK-I) and 'Self-concept of own abilities' (FKK-SK) of the FKK - Questionnaire for Locus of Control and Competence Beliefs by Krampen (1991) were used in order to assess if the courses increased the internal attribution of the

participants. Both scales were also part of the AAP's previous evaluations by Lüftenegger (2006) and Schickhofer (2003). They were chosen as the FKK can be regarded as a reliable, valid, economic, and well-established instrument for the assessment of the locus of control and the results can be directly compared with those of the AAP's previous evaluations. Also, topics covered by the items include those of direct relevance to traffic behaviour (for example, 'Whether I have an accident only depends on myself and my own behaviour.'). The items number 1, 3, 4, 6, 10, 12, 13, and 15 (pre-test) were part of the FKK-I scale, which measures the subjectively perceived control over one's life. The other eight items belonged to the FKK-SK scale, which assesses the generalized competence belief of having a possible course of action available in certain situations. For this study as only changes in internality were of interest, and also for economic reasons, the FKK's two externality scales were not included in the questionnaires. The FKK was not used for the non-German versions of the A-questionnaire (compare 3.1.1). All items were measured on a six-point scale. Examples of items for both scales are shown in table 9.

The Cronbach's alpha reliabilities of the FKK scales for the A-programme were 0,63 (FKK-I) and 0,69 (FKK-SK).

Internality (FKK-I): My life and daily routine are only determined by my own actions and wishes.

Self-concept of own abilities (FKK-SK): I always know how to act in ambiguous or dangerous situations.

Table 9: Examples of items of the Questionnaire for Locus of Control and Competence Beliefs (FKK-I, FKK-SK)

#### **Rating of the Course and Trainer**

	Pre-test	Post-test
Used in:	-	$\checkmark$

The participants were asked to rate the courses and the trainers in general on a scale of one ('very good') to five ('very bad'). Posch (2000) found that positive trainer ratings were relevant for the effectiveness of rehabilitation courses. Similar questions were also used by Lüftenegger (2006).

# Comprehensibility

	Pre-test	Post-test
Used in:	_	$\checkmark$

The three comprehensibility items measured if the course participants experienced any problems in understanding the courses. Participants were asked to rate how well they had understood the course contents, the trainer, and the other course participants on a scale of one ('very well') to five ('very badly'). The understanding of other participants was considered to be important as the group dynamics of group sessions are regarded as an important contributory factor towards the effectiveness of the programmes. In order to be able to assess if possible problems in understanding the courses were related to the participants' native language, the understanding of the courses was assessed for participants whose native language was German as well as for non-German native speakers. The items were therefore only used for the A-programme.

The reliability of this self-constructed scale was 0,79 (Cronbach's alpha).

#### **Overview of Research Instruments**

A total of twenty questionnaires were part of this evaluation, that is ten questionnaires for each time of measurement. This high number of questionnaires for the evaluation of four programmes resulted out of an inclusion of four foreign languages for the A-programme and a subdivision of the P-programme depending on the committed offence within the Demerit Point System. Therefore, there were A-programme questionnaires in five different languages - German, Croatian, Serbian, Turkish, and Polish, three questionnaires for the P-programme depending on the committed offence – drink-driving (P-A), violations of the safe distance (P-S), and violations of the emergency lane (P-P), one questionnaire for the D-programme, and one questionnaire for the V-programme, all of which had separate versions for the pre-test and post-test. An overview of questionnaires and research instruments used for the pre- and post-tests of each programme is shown in table 10.

Programme	Pre-test	Post-test
A-programme (in five languages)	<ul> <li>Personal data</li> <li>Data regarding the offence</li> <li>Attitude towards drink-driving</li> <li>Alcohol and drink-driving knowledge</li> <li>FKK (Questionnaire for locus of control and competence beliefs)<sup>a</sup></li> </ul>	<ul> <li>Attitude towards drink-driving</li> <li>Knowledge about alcohol and drink-driving</li> <li>FKK<sup>a</sup></li> <li>Rating of course and trainer</li> <li>Comprehensibility</li> </ul>
D-programme	<ul> <li>Personal data</li> <li>Data regarding the offence</li> <li>Attitude towards driving under the influence of drugs</li> <li>Drug knowledge</li> <li>FKK</li> </ul>	<ul> <li>Attitude towards driving under the influence of drugs</li> <li>Drug knowledge</li> <li>FKK</li> <li>Rating of course and trainer</li> </ul>
V-programme	<ul> <li>Personal data</li> <li>Data regarding the offence</li> <li>Attitude towards speeding</li> <li>Speed knowledge</li> <li>FKK</li> </ul>	<ul> <li>Attitude towards speeding</li> <li>Speed knowledge</li> <li>FKK</li> <li>Rating of course and trainer</li> </ul>
P-programme - P-A	<ul> <li>Personal data</li> <li>Data regarding the offence</li> <li>Attitude towards drinkdriving</li> <li>Demerit Point System and alcohol knowledge</li> <li>FKK</li> </ul>	<ul> <li>Attitude towards drink-driving</li> <li>Demerit Point System and alcohol knowledge</li> <li>FKK</li> <li>Rating of course and trainer</li> </ul>
- P-S	<ul> <li>Personal data</li> <li>Data regarding the offence</li> <li>Attitude towards safe distance regulations</li> <li>Demerit Point System and safe distance knowledge</li> <li>FKK</li> </ul>	<ul> <li>Attitude towards safe distance regulations</li> <li>Demerit Point System and safe distance knowledge</li> <li>FKK</li> <li>Rating of course and trainer</li> </ul>
- P-P	<ul> <li>Personal data</li> <li>Data regarding the offence</li> <li>Attitude towards emergency lane regulations</li> <li>Demerit Point System and emergency lane knowledge</li> <li>FKK</li> </ul>	<ul> <li>Attitude towards emergency lane regulations</li> <li>Demerit Point System and emergency lane knowledge</li> <li>FKK</li> <li>Rating of course and trainer</li> </ul>

<sup>&</sup>lt;sup>a</sup> not used in the non-German questionnaires

Table 10: Overview of research instruments

# 3.3 Sample

The evaluation was conducted in Vienna, Burgenland, Styria, Upper Austria, Salzburg, Lower Austria, Tyrol, and Carinthia between March and July 2009.

The pre- and post-test data of 391 course participants were available, 360 of them completed the A-programme, 29 the V-programme, and 2 the P-programme. In the A-programme, 347 participants attended group sessions, on the V-programme this was the case for 15 participants. All other participants, including both participants of the P-programme, received single lessons. Despite an extension of the research period for the D-programme, no data were available for this type of programme. As in previous evaluations the vast majority of participants were male. This was the case for 327 participants (90,8%) on the A-programme, 28 participants (96,6%) on the V-programme, and one participant (50%) on the P-programme. The age of the participants varied largely from 17 to 71 years with an average of about 37 years for the A-programme and about 23 years for the V-programme. The two participants of the P-programme were aged 40 and 42 years.

323 participants of the A-programme (89,7%) were German native-speakers. Participants who stated they had multiple native languages (n = 6) were included in the German native-speaker group if one of the stated languages was German. The majority of participants with a native language other than German were Turkish, Croatian, Bosnian, or Serbian native speakers. Out of the 36 participants with a native language other than German, 6 participants completed the questionnaire in Croatian, 3 in Turkish, 2 in Serbian, and 1 in Polish. 324 participants were of Austrian nationality (90%). An overview of central sample characteristics is shown in table 11.

	Participants	Male participants	German native- speakers	Austrian nationals
A-programme	360	327	323	324
V-programme	29	28	23	25
D-programme	0	0	0	0
P-programme	2	1	2	2
TOTAL	391	356	348	351

Table 11: Sample overview for all programmes

Out of the 360 participants of the A-courses 162 persons owned only a B driving licence, which is the licence for standard passenger cars. Ninety-nine participants owned an A (motorcycle) as well as a B licence. Sixteen participants had an A, B, C, E, F, and G licence. All other participants owned a mixture of either of these licences. For 18 participants there were no data available. Eighteen participants stated to be professional drivers (5%). Fifty-eight participants reported to be drivers on probation (16%). For 228 participants the traffic offence was detected by a traffic control (63%), for 87 drivers the cause was an accident (24%), and 40 participants stated that undefined other causes had led to the rehabilitation course (11%). Five participants did not state what had led to the rehabilitative measure. The majority of course participants were first-time offenders, whilst 83 participants had already attended a rehabilitation course at least once before (23%).

Out of the 29 participants on the V-courses, 20 held only a B driving licence, 6 held A as well as B, 2 drivers held the licences B and F, and 1 person owned only an A licence. Twenty-four of the participants stated to be drivers on probation and one person reported to be a professional driver. For eight drivers the offence was detected through a traffic control, three participants reported their involvement in a traffic accident had led to the rehabilitative measure, and 18 participants stated that other undefined reasons had led to their participation in the course. Two participants had already attended one or more rehabilitation courses.

## 3.4 Procedure

The questionnaires were handed out as planned by the trainers of all branches of the AAP in group sessions as well as single lessons (compare 3.1). For the V- and D-courses the data collection period had to be extended in an attempt to acquire more data. As after five months there still were no data available for the D-courses, the D-programme had to be excluded from the analysis. Due to the low number of P-courses only one of the three types of questionnaires (P-A) for this course was used in this evaluation.

The statistical procedures used included descriptive statistics, univariate analyses of variance (ANOVAs) using weights according to the weighted least squares method with and without repeated measures, and a multivariate analysis of variance (MANOVA) with repeated measures.

The knowledge and attitude items of the A-programme were analysed using univariate analyses with repeated measures combined with the weighted least squares method (WLS). This approach was favoured over a multivariate analysis in order to even out the differences in sample sizes between German native speakers and participants with a native language other than German through the use of weights. In order to include the weights for both times of measurement in SPSS the data had to be restructured so that the original within-subjects factor 'time of measurement' was handled as a between-subjects factor. The ANOVAs therefore had two between-subjects factors, the native language (German/non-German) and the time of measurement (pre-test (t1)/post-test (t2)). The fact that this resulted in dependent data for the time of measurement was dealt with by transforming all persons into random factors, so that there was a person for every factor level, that is two persons for every t1/t2. This was done in accordance with Bortz (2005, p. 355) according to which an ANOVA with repeated measures can also be dealt with as an ANOVA without repeated measures if the original data are turned into ipsative data. In contrast to the standard approach, calculations for this procedure include all persons, even if there only are data available for either the pre- or post-test. Sample sizes therefore varied slightly between the pre- and post-test but this was tolerated in favour of the possibility to apply weights and achieve more accurate results. All analyses were conducted using the statistical package SPSS 17.0 on Mac OSX.

## 4 RESULTS

This chapter takes a look at the analysis of the gathered evaluation data and its results. The information is listed in the same order as the research questions stated in table 5 and for each rehabilitation programme separately. As there were no data available for the Rehabilitation Programme for Driving Under the Influence of Drugs or Medicine this programme is not dealt with in this chapter. The level of significance was set at p = 0,05. The A- and V-programme were analysed using analyses of variance. As there were only two participants available for the P-programme, no inferential statistical analysis was possible. The data for this programme were therefore described as two single case studies and are dealt with separately in 4.5. All analyses were conducted using the statistical software SPSS 17.0.

# 4.1 Nationalities and Native Languages

<u>Research question 1</u>: Which nationalities and native languages are most frequent among programme participants?

## A-programme

The majority of participants on the A-programme were Austrian nationals (90%) and German native speakers (89,7%). The most frequent other nationalities were Turkish, Bosnian, German, Croatian, and Serbian. The most frequent other native languages were Turkish, Croatian, Bosnian, Serbian, and Serbo-Croatian. For details see table 12 and 13. Additionally, a chi-square test was conducted in order to compare the collected data with the frequencies of nationalities in the Austrian population according to Statistik Austria (2009a). Only the most frequent nationalities were used, that is Austrian, Turkish, Bosnian, German, Croatian, and Serbian. The rest were grouped together as 'other nationalities'. The chi-square test was found to be non-significant (p = 0,106).

Nationality	Frequency	Percent
Austrian	324	90,0
Turkish	7	1,9
Bosnian	6	1,7
German	6	1,7
Croatian	5	1,4
Serbian	4	1,1
Slovakian	2	0,6
Albanian	2	0,6
Swiss	1	0,3
Iranian	1	0,3
Macedonian	1	0,3
Polish	1	0,3
TOTAL	360	100,0

Table 12: : Frequency of nationalities, A-programme

Native Language	Frequency	Percent
German	323	89,7
Turkish	8	2,2
Croatian	7	1,9
Bosnian	6	1,7
Serbian	5	1,4
Serbo-Croatian	4	1,1
Albanian	3	0,8
Slovakian	2	0,6
Polish	1	0,3
Persian	1	0,3
TOTAL	360	100,0

Table 13: Frequency of native languages, A-programme

# V-programme

Twenty-five of the 29 participants on the V-programme were Austrian nationals, 2 were of Turkish and 2 were of Bosnian nationality. The native language of 23 participants was

German, for 4 participants it was Turkish, for 1 participant it was Bosnian, and for 1 it was Croatian.

# P-programme

Both participants on the P-programme were Austrian nationals and German native speakers.

# 4.2 Rating of Courses and Trainers

Research question 2: How do the participants rate the trainers and courses in general?

All participants were asked to rate their courses and trainers on a scale of one (very good) to five (very bad).

## A-programme

The trainers conducting the A-programme received an average rating of 1,24 (SD = 0,548) and the top rating from almost 80% of participants. The average rating of the A-courses was 1,69 (SD = 0,857).

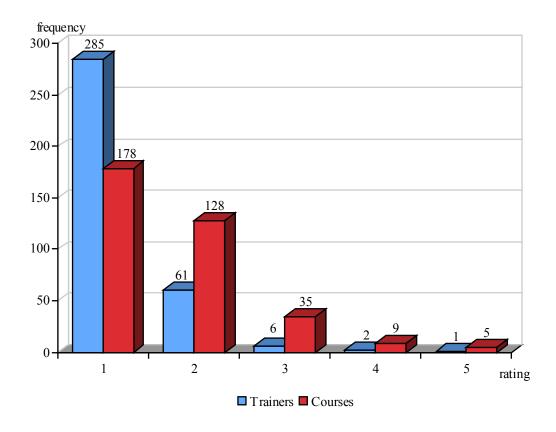


Figure 10: Rating of the courses and trainers, A-programme

## V-programme

Twenty-one participants on the V-programme rated their trainers as very good. Six participants rated them as good and one as average. One person did not leave a rating. The average rating was 1,29 (SD = 0,535).

The courses received a positive rating from the majority of participants with 12 persons rating them with '1' and 11 persons rating them with '2'. Three rated them with '3' and two with '5'. One participant did not rate the course. The average course rating was 1,89 (SD = 1,1).

## P-programme

Both participants on the P-programme rated the courses and trainers as very good.

# 4.3 Attitudes and Knowledge

<u>Research question 3</u>: Do the programmes lead to the desired attitude changes of the participants?

<u>Research question 4</u>: Do the programmes increase the participants' offence-related knowledge?

<u>Research question 5</u>: Do participants of the programme for drink-drive offenders whose native language is German differ from participants with a native language other than German regarding desired attitude changes through the programme?

<u>Research question 6</u>: Do participants whose native language is German differ from participants with a native language other than German regarding the increase in offence-related knowledge through the programme?

### A-programme

The research questions whether the programme leads to the desired attitude changes or an increase in offence-related knowledge and whether participants of the programme for drink-drive offenders whose native language is German differ from participants with a native language other than German regarding these changes were examined using two-way

ANOVAs with repeated measures and weighted least squares weights (WLS). This procedure was favoured over a multivariate analysis in order to use the weights to even out the differences in sample sizes between German native speakers and participants with a native language other than German. The dependent variables comprised the attitude towards safety, attitude towards law, attitude regarding social life, attitude concerning the subjective alcohol limit, attitude regarding subjective driving skills, and offence-related knowledge. The independent factors were the participants' native language (German/non-German) and the time of measurement (pre-test/post-test). The internal locus of control scales were analysed separately using a MANOVA with repeated measures as the scales were not part of the non-German questionnaires and therefore no comparison was made between German and other native languages. For this analysis the time of measurement was the independent factor and the two FKK scales, FKK-I and FKK-SK, were the dependent variables.

## Attitude towards safety

For the analysis of the four-item scale regarding attitudes towards safety the data of 356 participants were available for the pre-test and 359 participants for the post-test, 322 of them were German native speakers. The main effect of the time of measurement proved to be significant at p < 0.001 (F = 24,426,  $\eta^2 = 0.065$ ). The main effect of the native language was non-significant (p = 0,366). The interaction effect between the time of measurement and the participants' native language was non-significant (p = 0,436).

## Attitude towards the law

The attitude towards the legal BAC limit, which was assessed with a single item, did not change significantly over time (p = 0,774) and did not show any interaction effects with the native language (p = 0,627). The main effect of the native language was significant at p = 0,010 (F = 6,640,  $\eta^2 = 0,016$ ). The analysis was based on 355 participants for the pretest and 358 participants for the post-test with 321 German native speakers.

## Attitude regarding social life

The participants' attitude regarding whether it was difficult to separate drinking from driving without disadvantages to one's social life showed no significant differences between pre-test and post-test ( $n_{t1} = 353$ ,  $n_{t2} = 359$ , p = 0,066). The main effect of the native language was non-significant (p = 0,379). Neither was there a significant interaction effect with the participants' native language ( $n_{German} = 321$ , p = 0,101).

## Attitude concerning the subjective alcohol limit

The attitude towards after how many small beers course participants thought they could still drive safely showed significant differences when asked before and after the course at p < 0.001 (F = 14,219,  $\eta^2 = 0.039$ ). Before the course 210 participants stated they could drink one or two beers and still be able to drive safely, 97 participants reported they could only drive safely if they had not consumed any beer. After the course 186 participants believed they could drink one or two beers and 121 participants stated they would only drive safely if they had not consumed any beer. There was no significant interaction effect with the participants' native language (p = 0.619). The main effect of the native language was non-significant (p = 0.219). The analysis was based on 356 participants for the pretest and 357 for the post-test, 321 of them were German native speakers.

### Attitude regarding subjective driving skills

Participants of the A-programme did not rate their own driving skills significantly differently in the pre-test and post-test ( $n_{t1} = 355$ ,  $n_{t2} = 356$ , p = 0,889). At both times of measurement more than 80% of participants stated they believed themselves to be good or very good drivers. There was no significant interaction with the native language ( $n_{German} = 320$ , p = 0,357). The main effect of the native language was non-significant (p = 0,645).

## Offence-related knowledge

The analysis of the knowledge quiz was based on data from 345 participants in the pre-test and 357 in the post-test. The participants' offence-related knowledge proved to change highly significantly throughout the course at p < 0.001 (F = 411,467,  $\eta^2 = 0.546$ ) with the

participants correctly answering an average of about 2 out of 6 items in the pre-test and about 4 out of 6 items in the post-test. The main effect of the native language was significant at p < 0,001 (F = 18,727,  $\eta^2$  = 0,059). There was no significant interaction with the native language (p = 0,914).

Details regarding the F-test, significance, partial eta squared, and means and standard deviations in the pre- and post-test for attitudes and knowledge are shown in table 14 (excluding the FKK scales).

Scale/items	F-test	Significance (p)	Partial Eta	M (SD)	M (SD)
			Squared $(\eta^2)$	pre-test	post-test
Attitude towards	24,426	0,000*	0,065	1,98 (0,62)	1,62 (0,58)
safety					
Attitude towards	0,083	0,774	0,000	3,06 (1,02)	3,06 (1,06)
the law					
Attitude	3,401	0,066	0,010	1,80 (1,09)	1,76 (1,03)
regarding social					
life					
Attitude	14,219	0,000*	0,039	1,90 (0,72)	1,57 (0,64)
concerning the					
subjective					
alcohol limit					
Attitude	0,020	0,889	0,000	1,82 (0,73)	1,86 (0,71)
regarding					
subjective					
driving skills					
Offence-related	411,467	0,000*	0,546	2,03 (1,19)	4,36 (1,33)
knowledge					

<sup>\*</sup> significant result

Table 14: Main effects of the time of measurement for attitudes and knowledge, A-programme

## Internal locus of control

As the two FKK-scales were only part of the German questionnaires, changes in the internal locus of control were examined separately using a MANOVA with repeated measures with the independent factor 'time of measurement (pre-test/post-test)' and the dependent variables 'internality (FKK-I)' and 'self-concept of own abilities (FKK-SK)'.

The data of 336 participants were available for the analysis. The multivariate analysis with Pillai's Trace was significant at p < 0.001 (F = 27,129,  $\eta^2$  = 0,140). In the univariate tests, both, the internality scale FKK-I and the self-concept of own abilities scale FKK-SK, proved to be significant regarding differences between the pre-test and post-test at p < 0.001 (see table 15).

Scale	F-test	Significance (p)	Partial Eta Squared (η²)	M (SD) pre-test	M (SD) post-test
Internality (FKK-I)	42,805	0,000*	0,113	4,32 (0,68)	4,51 (0,75)
Self-concept of own abilities (FKK-SK)	23,058	0,000*	0,064	4,57 (0,62)	4,72 (0,71)

<sup>\*</sup> significant result

Table 15: Results of univariate tests and descriptives for the internal locus of control, A-programme

Table 16 shows the differences in means and standard deviations between the pre-test and post-test for all attitude scales and items, including the internal locus of control scales, and the offence-related knowledge quiz.

Scale/items	M (SD)	M (SD)
	pre-test	post-test
Attitude towards safety*	1,98 (0,62)	1,62 (0,58)
Attitude towards the law	3,06 (1,02)	3,06 (1,06)
Attitude regarding social life	1,80 (1,09)	1,76 (1,03)
Attitude concerning the subjective alcohol limit*	1,90 (0,72)	1,57 (0,64)
Attitude regarding subjective driving skills	1,82 (0,73)	1,86 (0,71)
Offence-related knowledge*	2,03 (1,19)	4,36 (1,33)
Internality (FKK-I)*	4,32 (0,68)	4,51 (0,75)
Self-concept of own abilities (FKK-SK)*	4,57 (0,62)	4,72 (0,71)

<sup>\*</sup> significant results

Table 16: Means and standard deviations of attitudes and knowledge in pre-test and post-test, A-programme

## V-programme

For the V-programme the research questions 3 to 6 were answered using a multivariate analysis of variance with repeated measures. The data of 29 participants were available for the analysis. No differentiation was made between German native speakers and participants with a different native language. The dependent variables comprised the attitude towards safety, attitude towards the law (speed limits), attitude towards subjective speed limit, attitude towards subjective driving skills, offence-related knowledge, internality (FKK-I), and self-concept of own abilities (FKK-SK). The time of measurement (pre-test/post-test) was treated as the independent factor. Neither the MANOVA with repeated measures using Pillai's Trace (p = 0,716, F = 0,664,  $\eta^2$  = 0,170) nor the univariate analyses for any of the dependent variables showed significant results. Only for the knowledge quiz a slight tendency towards significance was observed with p = 0,095 (F = 2,984,  $\eta^2$  = 0,096).

In the pre-test 22 out of 29 participants reported they believed they could drive safely on an empty country road under normal driving conditions during daytime at up to 100 kilometres per hour or less, in the post-test the same applied to 20 participants. At both times of measurement about 86% of participants rated their own driving skills as either good or very good. Further information on the differences in means between pre- and post-test is shown in table 17.

Scale/items	M (SD)	M (SD)
	pre-test	post-test
Attitude towards safety	1,92 (0,75)	1,79 (0,77)
Attitude towards the law	3,17 (1,04)	2,97 (0,87)
Attitude regarding the subjective speed limit	2,24 (0,58)	2,34 (0,67)
Attitude regarding subjective driving skills	1,79 (0,86)	1,76 (0,69)
Offence-related knowledge	2,07 (0,84)	2,38 (0,94)
Internality (FKK-I)	4,28 (0,67)	4,44 (0,72)
Self-concept of own abilities (FKK-SK)	4,67 (0,73)	4,69 (0,80)

Table 17: Means and standard deviations of attitudes and knowledge in pre-test and post-test, V-programme

## P-programme

Results for the two participants of the P-programme are described in section 4.5.

# 4.4 Comprehensibility

Research question 7: How do the participants rate the comprehensibility of the courses?

Research question 8: Do participants whose native language is German differ from participants with a native language other than German regarding their subjective rating of the comprehensibility of the courses?

Participants of the A-courses were asked to rate how well they understood the course contents, the trainer, and the other course participants on a scale of one (very well) to five (very badly).

## A-programme

The majority of participants on the A-programme stated they had understood the contents, the trainers, and the other participants very well with an average rating of 1,21 (SD = 0.538, n = 335) for understanding the course contents, an average of 1.12 (SD = 0.457, n = 332) for understanding the trainers, and a mean of 1.45 (SD = 0.718, n = 322) for understanding the other participants. Details regarding the rating are shown in figure 11.

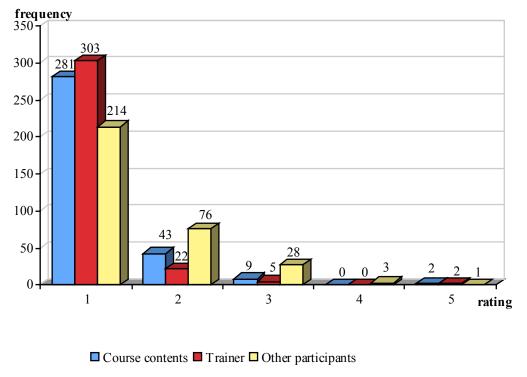


Figure 11: Frequencies for the comprehensibility scale, A-programme

The question whether German native speaker differ from participants with a native language other than German regarding their subjective rating of the course comprehensibility was examined using a univariate analysis of variance (ANOVA) with the native language (German/non-German) as the independent factor and WLS weights to even out differences in sample sizes. As the comprehensibility scale was only part of the post-test, no repeated measures design was needed. The analysis included 308 German native speakers and 33 participants with a native language other than German. Due to the WLS method Levene's test of equality of error variances proved to be non-significant, indicating a homogeneity of variances across groups, which is a precondition for the conduction of the ANOVA and was achieved through the use of weights. The ANOVA proved to be non-significant with p = 0,112 (F = 2,533,  $\eta^2 = 0,007$ ).

# 4.5 Single Case Descriptions for the Rehabilitation Programme for Offences Within the Demerit Point System

For this programme, the collected cases are described individually as due to the small sample size the data could not be analysed using inferential statistical methods. Each case is described regarding personal and offence-related information, means of the attitude, internality, and knowledge scales, subjective opinions regarding alcohol consumption, driving skills, and the legal BAC limit, as well as changes through the course.

## Single case study No. 1

Ms A. received single lessons with an emphasis on drink-driving in Vienna. She is Austrian and 40 years old. Her native language is German and she holds a driving licence of type B. Ms A. had already taken part in a previous rehabilitation course within the Demerit Point System. A comparison of the means of the attitude, internality (FKK-I) and self-concept (FKK-SK) scales shows that the participant's overall attitude towards safety improved slightly through the programme whilst a slight decrease in internal attributions was found for both FKK scales. The exact values are shown in table 18.

	Attitude towards safety	Internality (FKK-I)	Self-concept of own abilities (FKK-SK)
Pre-test	1,67 (SD=0,58)	3,88 (SD=1,46)	4,75 (SD=1,41)
Post-test	1,33 (SD=0,58)	3,63 (SD=1,16)	4,63 (SD=0,52)

Table 18: Scale means and standard deviations (SD) of single case study No. 1

Ms A. was able to correctly answer 3 out of 5 knowledge items after the course compared with 2 items before the course. She fully agreed with the statement that the current legal limit is too high, both before and after attending the course. Her opinion regarding how much beer she believed she could consume and still be able to drive safely also remained stable throughout the course with Ms A. stating 'none' as her answer. Ms A. regarded herself as a very good driver, both before and after the course. Ms A. stated to be very content with the trainer and the rehabilitation course.

## Single case study No. 2

Mr B. received single lessons with an emphasis on drink-driving in Carinthia. He is 42 years of age and of Austrian nationality. Mr B. is a German native-speaker and possesses driving licences of type A and B. He is a first-time offender within the Demerit Point System. His attitude towards safety remained stable throughout the course with a high safety-orientation before as well as after the intervention. As shown in table 19 the mean of the internality scale (FKK-I) decreased slightly whilst the mean of the self-concept scale (FKK-SK) scales increased. Mr B.'s attitude towards safety remained stable with a high safety orientation before as well as after participation in the programme. He strongly disagreed with the statement that the legal limit was too high after the course, while he tended to agree before the course. At both times of measurement, he declared to be a very good driver and be only safe to drive if he hadn't consumed any beer at all. Mr B. stated to be very content with the trainer and the rehabilitation course.

	Attitude towards safety	Internality (FKK-I)	Self-concept of own abilities (FKK-SK)
Pre-test	1,00 (SD=0,00)	5,50 (SD=1,07)	5,36 (SD=0,74)
Post-test	1,00 (SD=0,00)	5,38 (SD=1,19)	6,00 (SD=0,00)

Table 19: Scale means and standard deviations (SD) of single case study No. 2

# **5 DISCUSSION**

The following discussion seeks to interpretatively answer the research questions defined in chapter 2.4 based on the statistical analyses described in chapter 4 as well as to relate the results to other literature and prior evaluations of the AAP. After general comments regarding the evaluation, the results are discussed regarding changes in attitudes and knowledge, the reported comprehensibility of the A-courses, the participants' native languages and nationalities, as well as for the rating of the courses and trainers. Finally, a concluding overview and an outlook regarding possible future research are given.

### **General comments**

Due to the majority of participants being German native speakers, there were large differences in sample sizes between German native speakers and participants with a native language other than German. These differences were evened out using weights as part of the statistical analyses in order to achieve more accurate results.

Despite efforts to reduce social desirability by ensuring participants remain anonymous through the use of a special coding system, a possible influence of social desirability on the participants' answers cannot be entirely ruled out, especially as a positive completion of the rehabilitation course is required if the participant wishes to regain the permission to drive.

## Attitudes and knowledge

## A-programme

The analyses of the A-programme proved to be significant for the attitude towards safety scale, the attitude towards the subjective alcohol limit, the internality scale (FKK-I), the self-concept of own abilities scale (FKK-SK), and the knowledge test.

As in previous research by Davies et al. (1999), changes in attitudes were most significant regarding traffic safety. The course participants already showed a tendency towards safety

orientation before the course but the safety orientation significantly further increased through participation in the rehabilitative measure. The number of participants stating they would only be safe to drive if they did not consume any alcohol also rose through the course. These results indicate that after the course the reported attitudes to drinking and driving had changed positively. After the course participants were in particular more willing to accept statements that drinking even a small amount of alcohol would make driving less safe.

The FKK scales were already slightly above average before the course but further increased in the post-test. Participants of the A-programme thereby display an increased belief that their lives and actions are determined by their own behaviour. This finding is concurrent with the results of the AAP's previous evaluation by Lüftenegger (2006) and is of special relevance for rehabilitation programmes as internally controlled participants have a higher level of control over their behaviour and can be expected to be more able to keep to their own positive resolutions of not committing another traffic offence, which shall be established through participation in the programme (compare Krampen, 1991; Myers, 2008). An increase in internal attributions was also found in other evaluations of driver rehabilitation programmes, for example by Schülken et al. (2006).

The most significant change through participation in the rehabilitation programme was found regarding the participants' offence-related knowledge with a large effect size of almost 55%. This shows that the transfer of knowledge is one of the strongest points of the programme as the offence-related knowledge significantly increased through the measure. As the acquisition of relevant information can provide a cognitive basis for attitude changes, this can be regarded as a very important finding. The result goes hand in hand with the AAP's previous evaluations by Lüftenegger (2006) and Schickhofer (2003). Similar observations regarding the effect of rehabilitation programmes on participants' knowledge were also made by Davies et al. (1999), Posch (2000), and Drexler (2005).

There was no significant effect of the participants' native language on any of the assessed attitudes or the acquired knowledge, which suggests that the programme has the same effect on all of its participants regardless of their native language.

## V-programme

No significant changes regarding attitudes could be observed for the programme for traffic offenders. Only the knowledge quiz showed a slight tendency towards a statistically significant increase through the measure. The absence of significant results may be due to the relatively small sample size of 29 participants. A previous examination of this programme's effects on participants' attitudes by Lüftenegger (2006), which examined data from 51 participants, found significant effects on their knowledge, emotional instability, and socially caused externality.

## Comprehensibility

## A-programme

The comprehensibility of the course contents and trainers can be regarded to be very good. This is especially important as the ability to understand the trainers and contents is an essential precondition for changes in attitudes and behaviour to occur and thus for reaching the course goals. Also, participants reported to understand the other course participants very well, which is important as the reason courses are mostly held as group sessions is that the group dynamics and exchange of thoughts among participants are seen as important contributory factors towards the effectiveness of the programme. No significant differences regarding the comprehensibility of the courses was found in connection with the participants' native language. Participants with a native language other than German therefore did not appear to encounter more difficulties in understanding the courses than the German native speakers. The higher amount of missing data may have been due to the fact that these were the last questions of the post-test and therefore participants were not as highly motivated to answer them. Also, the 13 participants on the A-programme who received single lessons were excluded from answering the question regarding the understanding of other course participants.

## Native languages and nationalities

## A-programme

About 90% of participants on the programme for alcohol offenders were of Austrian nationality. This also corresponds to official population statistics according to which 10,4% of the Austrian population are non-Austrian nationals (Statistik Austria, 2009b). Official statistics also show that the most frequent other nationalities in Austria are former Yugoslavian, which includes Croatian, Serbian, and Bosnian, followed by German and Turkish, a finding also widely in accordance with the results of this evaluation. The majority of course participants of a different nationality than Austrian were Turkish, followed by Bosnian, German, Croatian, and Serbian. A chi-square test was conducted and showed no significant differences between the frequencies of nationalities in the courses and in the Austrian population (Statistik Austria, 2009a).

The most frequent native languages other than German were Turkish, Croatian, Bosnian, and Serbian. In contrast to reports by the trainers, Polish did not feature amonst the most frequent native languages spoken by course participants. During the observation period only one Polish native speaker participated in the programme, this person was also the only participant to complete the questionnaires in Polish. Future evaluations of the AAP's courses should therefore include Bosnian rather than Polish translations of the questionnaires. An evaluation of an Austrian drink-drive programme by Kases (2002) on the other hand found Polish to be the most frequent other nationality amongst course participants with 89% of participants being Austrian nationals and 5% being of Polish nationality. However, the study by Kases only examined the data of 49 course attendees.

## V-programme

On the programme for traffic offenders there were two participants of Turkish nationality and two of Bosnian nationality. The other native languages were Turkish, Bosnian and Croatian. As among the 29 participants there were four participants whose native language was Turkish, it can be assumed that a translation of the questionnaires for this programme into Turkish would be advisable if the courses were to be evaluated over a longer period of time with a greater number of participants in the future.

## Rating of courses and trainers

The courses and trainers of all programmes received a very positive rating by the course attendees, which is especially remarkable considering that participation in the programmes is not voluntary. A positive rating of the trainers can be regarded as particularly beneficial seeing as arguments have proven to be more effective if they come from a positively perceived sender (Hovland & Weiss, cited by Herkner, 2001, p. 230). A positive acceptance of the courses and trainers is an important contributory factor towards the effectiveness of the programmes and an essential precondition for the acquisition of knowledge and positive changes in attitudes (compare Posch, 2000). A very positive rating of the AAP's courses and trainers was also found in the previous evaluation by Lüftenegger (2006).

### Conclusion and outlook

Three main programme goals were defined by the AAP. The primary goal is the achievement of positive attitude changes regarding the offence. The secondary goal is the encouragement of an internal locus of control. The tertiary goal is the transmission of offence-related knowledge. Another goal is that the programmes should lead to changes in attitudes and an increase in knowledge for all course participants regardless of their native language. All of these goals are intended to consequently lead to positive changes in the course participants' road-user behaviour.

For the A-programme all the main course goals could be achieved. The programme proved to lead to changes in the participants' attitudes, encourage the internal locus of control, and increase the participants' offence-related knowledge. Also, the programme showed to be effective for all participants regardless of their native language. The course contents, trainers and other participants were reported to have been understood very well by all course participants, again regardless of their native language. Therefore, based on the results of this evaluation, no additional measures specifically for participants of the A-programme with a native language other than German appear to be necessary as the programme was found to be effective for all participants regardless of their native language. For future evaluations, it might be interesting to again compare German native speakers with participants with a different native language by looking at reconviction rates

once a central driving license register has been established in Austria.

Changes through the V-programme were not as strong as changes through the A-programme. Only a tendency towards a significant increase in knowledge was found. As significant effects on the participants' knowledge and attitudes were found in a previous evaluation of this programme (Lüftenegger, 2006) the absence of significant results may have been due to the small sample size. Ideally, for future research, this programme should be evaluated over a longer period of time in order to achieve greater sample sizes and thereby gain more reliable results regarding the programme's effectiveness.

A longer observation period would also be advisable for the P- and D-programmes. In order to gain enough data to be able to conduct inferential statistical analyses an observation over a few years is likely to be necessary. As there were only the data of two P-course participants available for this evaluation, only the creation of single case reports was possible. Due to lower participation rates than expected, there were no data available for the D-course.

Findings regarding the nationalities of course participants widely corresponded with official statistics of the Austrian population, with about 90% of participants being Austrian nationals and the most frequent nationalities other than Austrian being Turkish, Bosnian, German, Croatian, and Serbian, which also represented the most frequent native languages.

The courses and trainers received very positive ratings by the participants, indicating that course attendees were very content with the services provided by the AAP and thereby providing an ideal basis for changes in attitudes and knowledge to occur.

## **6 SUMMARY**

Driver rehabilitation courses have been mandatory for certain groups of traffic offenders in Austria since 1997. It is the programmes' predominant aim to reduce traffic accidents, injuries, and fatalities, which is expected to be achieved through changes in the participants' attitudes and knowledge and consequently in their behaviour as a road-user. In accordance with the official Austrian Rehabilitation Course Regulation all registered providers offering these measures should evaluate their programmes on a regular basis in order to ensure a high quality of their services.

The aim of this thesis was to examine the effectiveness of the driver rehabilitation programmes provided by the Austrian Applied Psychology Ltd. (AAP). For this, the programme participants took part in a pre-test-post-test designed evaluation by filling out questionnaires between March and July 2009. The AAP defined three major goals for their courses, which comprised the achievement of changes in relevant attitudes, the encouragement of the internal locus of control, and the transmission of offence-related knowledge.

Special attention was also given to course attendees with a native language other than German. Participants of the programme for drink-driving whose native language was German were compared with participants with a native language other than German in order to examine if the rehabilitative measure was equally effective for the increasingly growing participant group of course attendees with a non-German native language, a group that had not received much attention in evaluations of driver rehabilitation programmes before. In order to reduce the drop out rate amongst this participant group the questionnaires were also translated into Croatian, Serbian, Turkish, and Polish. Furthermore, the comprehensibility of the courses was examined as understanding the course contents and trainers can be regarded an important precondition for changes in attitudes and behaviour to occur.

The statistical analyses were based on the data of 360 participants for the programme for drink-drive offences, 29 participants for the programme for traffic offences, and two participants for the programme for offences within the Demerit Point System. There were no data available for the rehabilitation programme for driving under the influence of drugs

within the given observation period. For the programme for drink-drive offences all goals could be achieved, the participants' attitudes changed and the knowledge significantly increased for both German native speakers and participants with a native language other than German. The internal locus of control also got significantly stronger throughout the programme. About 10% of participants were non-German native speakers with the most frequent native languages being Turkish, Croatian, Bosnian, and Serbian. The comprehensibility of the course contents and trainers received very good ratings from the participants. The programme for drink-driving thereby proved to be effective for all course participants regardless of their native language. For the programme for traffic offences no significant effects were found, which may have been due to the small sample size. However, the results showed a tendency towards an increase in knowledge through the programme. The data of the two participants available for the programme for offences within the Demerit Point System were only described as single case analyses as the small sample size did not allow for inferential statistical analyses. In all rehabilitation programmes the courses and trainers received very positive ratings from the course attendees.

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# **APPENDIX**

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## **Abstract (German)**

Die vorliegende Arbeit widmet sich der wissenschaftlichen Evaluation der verkehrspsychologischen Nachschulungsprogramme der Austrian Applied Psychology GmbH (AAP). Hierfür wurden drei Kursziele formuliert, welche die Veränderung relevanter Einstellungen, die Förderung internaler Kontrollüberzeugungen, und die Zunahme deliktbezogenen Wissens umfassen. Diese Veränderungen sollen folglich zu einer Verhaltensänderung bei den Nachschulungsteilnehmern führen. Weiters wurde erstmals untersucht, ob sich Unterschiede in der Effektivität der Nachschulungen zwischen Teilnehmern mit deutscher Muttersprache und Teilnehmern mit nicht-deutscher Muttersprache zeigen, eine Thematik, welche in Nachschulungsevaluationen bislang kaum behandelt wurde. Aufgrund der zunehmenden Internationalisierung und der Erweiterung der Europäischen Union ist künftig mit einem Anstieg des Anteils von Teilnehmern mit nicht-deutscher Muttersprache zu rechnen, wodurch Forschung in diesem Gebiet von zunehmender Relevanz ist. Auch die Verständlichkeit der Kurse, sowie die Bewertung der Kurse und Trainer durch die Teilnehmer wurden untersucht.

Die Nachschulungsteilnehmer wurden mittels Fragebögen einer Pretest-Posttest Untersuchung unterzogen. Um eine möglichst umfassende Einbindung aller Teilnehmer sicherzustellen und Ausfälle zu vermeiden, wurden die Fragebögen zusätzlich auf Türkisch, Serbisch, Kroatisch und Polnisch übersetzt. Insgesamt wurden unter der Verwendung univariater und multivariater Varianzanalysen sowie von Deskriptivstatistik Daten von 360 Teilnehmern des Nachschulungsprogrammes für alkoholauffällige Kraftfahrer, 29 Teilnehmern des Programmes für verkehrsauffällige Kraftfahrer, und 2 Teilnehmern des Programmes im Rahmen des Vormerksystems untersucht. Für die Nachschulung drogenauffälliger Lenker waren keine Daten zur Auswertung vorhanden.

Im Nachschulungsprogramm für alkoholauffällige Lenker gaben etwa 10% der Teilnehmer eine nicht-deutsche Muttersprache an, als häufigste Sprachen erwiesen sich Türkisch, Kroatisch, Bosnisch und Serbisch. Um Unterschiede in der Stichprobengröße zwischen Teilnehmern mit deutscher und jenen mit nicht-deutscher Muttersprache durch Gewichtung auszugleichen, wurde die Weighted Least Squares Methode (WLS) verwendet. Die Ergebnisse für das Programm für alkoholauffällige Kraftfahrer zeigten signifikante Einstellungsänderungen und eine deutliche Zunahme des Wissens bei den

Kursteilnehmern, sowie keine Unterschiede bei diesen Effekten hinsichtlich der Muttersprache. Auch die internale Kontrollüberzeugung der Teilnehmer stieg signifikant an. Die Verständlichkeit der Kurse wurde von den Teilnehmern sehr positiv bewertet. Auch hier zeigten sich keine Unterschiede in Abhängigkeit von der Muttersprache. Das Programm erwies sich demnach als effektiv, sowohl für Teilnehmer deutscher als auch jene nicht-deutscher Muttersprache. Für das Programm für verkehrsauffällige Kraftfahrer wurden keine signifikanten Effekte gefunden, was möglicherweise auf die geringe Stichprobengröße zurückzuführen ist. Es zeigte sich lediglich eine Tendenz in Richtung Wissenszunahme. Die einer signifikanten Daten der Teilnehmer Vormerksystemprogrammes wurden aufgrund der geringen Stichprobengröße nur anhand deskriptiver Werte in Einzelfalldarstellungen beschrieben. Die Bewertung der Nachschulungskurse und Trainer fiel für alle Programme sehr positiv aus.

#### **Abstract**

The aim of the present study is to evaluate the driver rehabilitation programmes of the Austrian Applied Psychology Ltd (AAP). The effectiveness of the programmes was operationalised through the specification of three course goals, which are the achievement of positive changes in attitudes regarding the relevant traffic offences, the encouragement of an internal locus of control, and the transmission of relevant knowledge. All of these goals are intended to consequently lead to positive changes in the course participants' road-user behaviour. Additionally, the evaluation also examined whether there are any differences in the effectiveness of the programmes between participants whose native language is German and participants with a native language other than German, an aspect that hasn't received much attention in driver rehabilitation course evaluations so far. Due to the expansion of the European Union the number of course participants with native languages other than German can be expected to grow over the coming years making research regarding this matter a subject of growing interest and importance. Additionally, subjective problems in understanding the courses were assessed and participants were asked to rate the courses and trainers.

The pre-test-post-test evaluation was conducted using course-specific questionnaires, which were filled out by the course participants. In order to avoid non-German native speakers dropping out of the evaluation due to language problems, the questionnaires were also translated into Serbian, Croatian, Turkish, and Polish. The data of 360 participants of the rehabilitation programme for drink-drive offenders, 29 participants of the programme for traffic offenders, and 2 participants of the programme for offences within the Demerit Point System were analysed using descriptive statistics as well as univariate and multivariate analyses of variance. There were no data available for the rehabilitation programme for driving under the influence of drugs or medicine. About 10% of the participants of the rehabilitation programme for drink-drive offenders had a native language other than German, the most frequent languages being Turkish, Croatian, Bosnian, and Serbian. In order to even out differences between the sample sizes of German native speakers and participants with a native language other than German the Weighted Least Squares method (WLS) was applied.

Results for the programme for drink-drive offenders showed significant changes in the participants' attitudes and knowledge regardless of the participants' native language. The internal locus of control also got significantly stronger throughout the programme. The comprehensibility of the course contents and trainers received very good ratings from the participants. The rehabilitation programme for drink-drive offenders thereby proved to be effective for all course participants regardless of their native language. No significant effects were found for the programme for traffic offences, which may have been due to the small sample size. However, the results showed a tendency towards an increase in knowledge through the programme. The data of the two participants available for the programme for offences within the Demerit Point System were only described as single case analyses as the small sample size did not allow for inferential statistical analyses. In all rehabilitation programmes the courses and trainers received very positive ratings from the course attendees.

4 4	103		
<b>A1</b>	Ŀn	gus	n

#### Dear course participant,

This questionnaire is part of a scientific study for the improvement of the rehabilitation courses. Your details are anonymous and have no effect on your passing of the course.

As you are answering the first part of the questionnaire straight away and the second part at the end of the course, we need you to create an anonymous four-letter code. Through this code we will know which questionnaires belong together. The data used for the code is not known to us.

#### Please fill out the 4 fields:

Field 1: First letter of your mother's first name. Field 2: Third letter of your mother's first name. Field 3: First letter of your father's first name. Field 4: Third letter of your father's first name.

1	2	3	4

Please read every question carefully and do not skip any questions. Answer each question by marking the answer with a cross or filling in the answer.

Thank you very much for your participation!

		Personal details
Gender:	□ male □ female	
Age:		
Nationality:		☐ Austria ☐ Bosnia ☐ Other (please indicate):
Native language	:	☐ German ☐ Bosnian ☐ Other (please indicate):
Driving licence(	s):	$\square$ A $\square$ B $\square$ C $\square$ D $\square$ E $\square$ F $\square$ G
Are you a driver	on probation?	□ No □ Yes
Are you a professional driver?		□ No □ Yes
	Reaso	n for course attendance
How was the drink-driving detected?		☐ Just traffic control☐ Accident☐ Other
-	taken part in a reha	

## Your opinion

Please indicate how much you agree with the following statements.

	strongly disagree	tend to disagree	tend to agree	strongly agree
• After one or two drinks one can still drive safely.				
• Some people can still drive without any problems after three beers.				
• Even a single drink makes you drive less safely.				
• The risk of having an accident when sober is just as high as with a blood alcohol concentration of 50 millilitres.		0		
• The legal limit is too high.				
• It is difficult to separate drinking from driving without disadvantages to one's social life.				
Your es	timation			
Please mark the applicable answers.				
• After how many small beers (0,331) do you	$\square$ 0	□ 1-2	□ 3-4	
think you can still drive safely?	□ 5-6	□ 7-8	□ 9 or	more
• How well do you think you can drive (1 = very well, 5 = very badly)?	①	2 3	4	(5)

## What do you know?

The following questions have ONLY ONE correct answer. If you do not know the answer, please mark 'Don't know' as your answer.

From which blood alcohol concentration level do	you have to attend a compulsory rehabilitation
course?	you have to attend a comparisory remainment
☐ from 50 millilitres	☐ from 80 millilitres
☐ from 120 millilitres ☐ from 200 millilitres	☐ from 160 millilitres ☐ Don't know
L Holli 200 lillillillics	Don't know
What happens if you refuse to take a breath test?	1.13%
$\Box$ The driving licence is withdrawn for 3 months, no $\Box$ A fine of € 580,- must be paid.	o rehabilitation course.
☐ A blood test has to be conducted by the medical concentration.	officer in order to determine the blood alcohol
☐ The car has to be left at its current place and the c station the following day.	driving licence can be collected from a police
☐ A blood alcohol level of 160 millilitres is assume	d, which leads to a compulsory rehabilitation
course and a psychological examination.	
□ Don't know	
A man and a woman with the same body weight dr higher blood alcohol level. Why?	ink the same amount of alcohol. The woman has a
☐ Because men work harder and metabolise more a	
☐ Because women have a lower proportion of fluid ☐ Because women are smaller than men.	in their body.
☐ Because women have fewer white blood corpusciliver.	es available for the metabolism of alcohol in their
☐ Because women have a lower proportion of fat.	
□ Don't know	
How many grammes of alcohol does a man weighin	g 90 kg metabolise per hour?
☐ 4,5 grammes	□ 90 grammes
□ 0,9 grammes □ 9 grammes	□ 18 grammes □ Don't know
) grammes	L Don't know
How can the metabolism of alcohol be sped up?	
☐ Coffee ☐ Sleep	
☐ High-calorie food	
☐ Lots of exercise	
☐ The metabolism cannot really be sped up ☐ Don't know	
Which of the following drinks leads to the highest b	lood alcohol level?
$\square$ Schnapps, double (0,04 l)	☐ White wine (1/8 l)
$\square$ Red wine (1/8 l)	$\square$ Sparkling wine (0,1 l)
$\square$ Beer $(0,5 l)$	□ Don't know

#### Your convictions

Please give your opinion on the following statements. You can mark each statement as very true, true or tending to be true to agree with the statement or as very false, false or tending to be false to disagree. Please clearly mark each answer that best represents you personal opinion with a cross.

An example: "I am a lively person."		 -	+	++	+++
If this statement is <b>very false</b> for you, please mark:			•	•	
If this statement is <b>false</b> for you, please mark:					
If this statement <b>tends to be false</b> for you, please ma	rk:	_			
If this statement <b>tends to be true</b> for you, please man		+			
If this statement is <b>true</b> for you, please mark:		++			
If this statement is <b>very true</b> for you, please mark:		+++			
Please answer one statement after the other and do similar meaning. Please also give your opinion on ev				statem	ents hav

This statement is:	Very false	Very true
1. It mainly depends on myself if other people act according to my wishes.	+	++ +++
2. I sometimes feel like I am lacking ideas and action.	+	++ +++
3. Whether I have an accident only depends on myself and my own behaviour.	+	++ +++
4. If I make plans, I am completely certain that my plans will become reality.	+	++ +++
5. I don't like ambiguous situations as I don't know how to act.	+	++ +++
6. The best way to prevent illnesses is through my own behaviour.	+	++ +++
7. I often don't know how to realize my wishes.	+	++ +++
8. I know loads of ways to prevent illnesses.	+	++ +++
9. I always know how to act in ambiguous or dangerous situations.	+	++ +++
10. I can determine a large part of what happens in my life.	+	++ +++

11. Sometimes I have no idea what to do in a situation.	 	-	+	++	+++
12. Usually I can stand up for my own interests and reach my goals.	 	-	+	++	+++
13. If I get what I want, it is a consequence of my own efforts	 	-	+	++	+++
14. Even in difficult situations I can think of many different plans of action.	 	-	+	++	+++
15. My life and daily routine are only determined by my own actions and wishes.	 	-	+	++	+++
16. I can always think of many solutions to problems.	 	-	+	++	+++

# Additional items for the post-test (A2 English):

#### Your opinion: course & trainer

<ul> <li>How would you rate the trainer (1 = very good, 5 = very bad)? Please mark the applicable a</li> </ul>
--

- ① ② ③ ④ ⑤
- How would you rate the course (1 = very good, 5 = very bad)?
  - ① ② ③ ④ ⑤

#### Did you understand the course?

If you had an interpreter, please skip the following questions.

- How well did you understand the course contents (1 = very well, 5 = very badly)?
  - ① ② ③ ④ ⑤
- How well did you understand the trainer (1 = very well, 5 = very badly)?
  - 0 2 3 4 5
- How well did you understand the other participants (1 = very well, 5 = very badly)? (Please skip if you only had single lessons.)
  - ① ② ③ ④ ⑤

Sehr geehrte Kursteilnehmerin, sehr geehrter Kursteilnehmer,

Diese Befragung ist eine wissenschaftliche Untersuchung zur Optimierung der Nachschulungskurse. Ihre Angaben sind anonym und haben keinerlei Auswirkung auf das Bestehen des Kurses.

Da sie den ersten Teil der Befragung jetzt ausfüllen, und den zweiten Teil am Ende des Kurses, benötigen wir einen anonymen Kode. Durch diesen Kode wissen wir, welche Fragebogenteile jeweils zusammengehören. Für den Kode verwenden wir Daten, die uns nicht bekannt sind.

#### Bitte füllen Sie dazu die 4 Felder aus:

Feld 1: Erster Buchstabe des Vornamens Ihrer Mutter.
Feld 2: Dritter Buchstabe des Vornamens Ihrer Mutter.
Feld 3: Erster Buchstabe des Vornamens Ihres Vaters.
Feld 4: Dritter Buchstabe des Vornamens Ihres Vaters.

1	2	3	4

Bitte lesen Sie sich jede Frage genau durch und lassen Sie keine Frage aus. Beantworten Sie die Fragen durch Ankreuzen oder Ausfüllen.

Vielen Dank für Ihre Mitarbeit!

Angaben zu Ihrer Person								
Geschlecht:	□ männlich □ weiblich							
Alter:	l							
Nationalität:		☐ Österre ☐ Bosnie ☐ Sonstig						
Muttersprache:		☐ Deutsch ☐ Bosnisch ☐ Sonstige (bitte angeben):						
Führerschein(e)	:	$\square$ A $\square$ B $\square$ C $\square$ D $\square$ E $\square$ F $\square$ G						
Sind Sie Probef	ührerscheinbesitzer?	□ Nein □ Ja						
Sind Sie Berufs	kraftfahrer?	☐ Nein ☐ Ja						
	Angaben	zum Nac	chschulungsanlass					
Wie wurde die A	Alkoholfahrt festgestellt?		<ul><li>□ Nur Verkehrskontrolle</li><li>□ Unfall</li><li>□ Sonstiges</li></ul>					
	on mal an einer Nachsch ge Lenker teilgenommen?		□ Nein □ Ja					

## **Ihre Meinung**

Bitte geben Sie an, wie sehr Sie den folgenden Aussagen zustimmen.

		stimmt gar nicht	stimmt kaum	stimmt eher	stimmt genau
•	Nach 1 oder 2 alkoholischen Getränken kann man noch sicher fahren.				
•	Manche Leute können nach 3 Bier noch problemlos fahren.				
•	Bereits nach 1 alkoholischem Getränk fährt man weniger sicher.				
•	Das Risiko, nüchtern einen Unfall zu haben, ist genau so hoch wie mit 0,5 Promille.				
•	Die gesetzlich erlaubte Promillehöhe ist zu hoch.				
•	Es ist schwierig, Lenken und Alkohol zu trennen, ohne dass das Sozialleben darunter leidet.			0	
	Ihre Eins	chätzung			
Bi	tte kreuzen Sie die jeweils zutreffende Antwort an	1.			
•	Nach wieviel kleinen Bier (0,331) glauben Sie,	$\square 0$	□ 1-2	□ 3-4	
	noch sicher fahren zu können?	□ 5-6	□ 7-8	□ 9 ode	er mehr
•	Wie gut können Sie Ihrer Meinung nach Autofahren (1 = sehr gut, 5 = sehr schlecht)?	①	2 3	) 4	(5)

## Was wissen Sie?

Bei den folgenden Fragen ist jeweils NUR EINE Antwortmöglichkeit richtig. Sollten Sie die Antwort nicht wissen, kreuzen Sie bitte "Weiß nicht" an.

Ab welcher Blutalkoholkonzentration wird auf jeder  □ ab 0,5 Promille  □ ab 1,2 Promille  □ ab 2,0 Promille	n Fall eine Nachschulung angeordnet?  ☐ ab 0,8 Promille ☐ ab 1,6 Promille ☐ Weiß nicht
Was passiert bei einer Alkotestverweigerung?  □ Es kommt zu einem Führerscheinentzug von 3 Mc □ Man muss eine Strafe von € 580,- zahlen. □ Es muss ein Bluttest beim Amtsarzt zur Kontrolle vorgenommen werden. □ Man muss das Auto stehen lassen und kann sich of Tag bei der Polizei abholen. □ Es wird eine Alkoholisierung von 1,6 Promille an Nachschulung und verkehrspsychologische Unte	der Blutalkoholkonzentration den Führerschein erst am nächsten agenommen, verpflichtende
Ein Mann und eine Frau mit demselben Körpergew eine höhere Blutalkoholkonzentration. Warum?  Weil Männer schwerer arbeiten und dadurch meh Weil Frauen einen geringeren Körperflüssigkeitsa Weil Frauen kleiner sind als Männer.  Weil Frauen weniger weiße Blutkörperchen zum Weil bei Frauen der Fettanteil geringer ist.	r Alkohol abbauen. anteil haben.
Wieviel Gramm Alkohol baut ein 90kg schwerer Ma  ☐ 4,5 Gramm  ☐ 0,9 Gramm  ☐ 9 Gramm	ann pro Stunde ab? □ 90 Gramm □ 18 Gramm □ Weiß nicht
Wodurch kann der Abbau von Alkohol beschleunigt  ☐ Kaffee. ☐ Schlafen. ☐ Kalorienreiches Essen. ☐ Viel Bewegung. ☐ Der Abbau kann nicht wesentlich beschleunigt wo ☐ Weiß nicht.	
Welches der folgenden Getränke führt zur höchsten  ☐ Doppelter Schnaps (0,04 l)  ☐ Rotwein (1/8 l)  ☐ Bier (0,5 l)	Alkoholisierung?  ☐ Weißwein (1/8 l)  ☐ Sekt (0,1 l)  ☐ Weiß nicht

### Ihre Überzeugungen

Bitte nehmen Sie nun zu den folgenden Aussagen Stellung. Sie haben dabei die Möglichkeit, jeder Aussage stark, mittel oder schwach zuzustimmen oder sie schwach, mittel, stark abzulehnen. Markieren Sie bitte jeweils das Antwortkästchen (durch deutliches Ankreuzen), das Ihrer persönlichen Meinung am besten entspricht.

Meinung am besten entspricht.	aren aca	thenes	7 KIIK	reuzeii)	, 445 111	rer pers	omichen
Hier ein Beispiel: "Ich bin ein lebhafter Mensch."				-	+ -	++ +	++
Ist diese Aussage für Sie sehr falsch, durchkreuzen Sie bi Ist diese Aussage für Sie falsch, durchkreuzen Sie bi Ist diese Aussage für Sie eher falsch, durchkreuzen Ist diese Aussage für Sie eher richtig, durchkreuzen Ist diese Aussage für Sie richtig, durchkreuzen Sie b Ist diese Aussage für Sie sehr richtig, durchkreuzen	itte: Sie bitte Sie bitte oitte:	: e:	  + + -	- + + +			
Bitte bearbeiten Sie alle Aussagen der Reihe nach einen ähnlichen Wortlaut oder Sinn. Bitte nehmen Si							n haben
Diese Aussage i	st: seh	r falsc	h			sel	nr richtig
Es hängt hauptsächlich von mir ab, ob sich andere Menschen nach meinen Wünschen richten oder nicht.	; <u>-</u>			-	+	++	+++
2. Ich komme mir manchmal taten- und ideenlos vor	·			-	+	++	+++
3. Ob ich einen Unfall habe oder nicht, hängt alleine von mir und meinem Verhalten ab.	-			-	+	++	+++
4. Wenn ich Pläne schmiede, bin ich mir ganz sicher dass das Geplante auch Wirklichkeit wird.	·, -			-	+	++	+++
5. Mehrdeutige Situationen mag ich nicht, da ich nich weiß, wie ich mich verhalten soll.	ht -			-	+	++	+++
6. Ich kann mich am besten selbst durch mein Verhalten vor Krankheiten schützen.	-			-	+	++	+++

8. Ich kenne viele Möglichkeiten, mich vor	
Erkrankungen zu schützen.	

7. Ich weiß oft nicht, wie ich meine Wünsche

verwirklichen soll.

9.	In unk	laren c	der	gefährl	lichen	Situationen	weiß	ich
	imme	r, was	ich	tun kan	ın.			

10. Ich	kann	sehr vie	el von	dem,	was in	meinem	Leben
pas	siert,	selbst be	estimm	ien.			

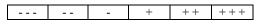
11	. I	M	anc	hmal	weiß	ich	über	haupt	t nich	t, was	ich	in	
----	-----	---	-----	------	------	-----	------	-------	--------	--------	-----	----	--

 	-	+	++	+++

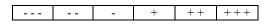


einer Situation machen soll.

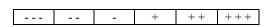
12.	Gewöhnlich kan	n ich n	neine I	Interesse	n selbst
	vertreten und erre	eiche d	labei, v	was ich v	vill.



13. Wenn ich bekomme, was ich will, so ist das immer eine Folge meiner Anstrengung und meines persönlichen Einsatzes.



14. Auch in schwierigen Situationen fallen mir immer viele Handlungsalternativen ein.



15. Mein Lebenslauf und mein Alltag werden alleine durch mein Verhalten und meine Wünsche bestimmt



bestimmt.

 	-	+	++	+++

 Für die Lösung von Problemen fallen mir immer viele Möglichkeiten ein.

## Additional items for the post-test (A2):

#### Ihre Meinung: Nachschulung & KursleiterIn

- Wie bewerten Sie den Kursleiter/die Kursleiterin insgesamt (1 = sehr gut, 5 = sehr schlecht)? Zutreffendes bitte ankreuzen.
  - (1) (2) (3) (4) (5)
- Wie hat Ihnen die Nachschulung insgesamt gefallen (1 = sehr gut, 5 = sehr schlecht)?
  - ① ② ③ ④ ⑤

#### War der Kurs für Sie verständlich?

Falls Sie einen Dolmetscher hatten, lassen Sie die folgenden Fragen bitte aus.

- Wie gut haben Sie die Kursinhalte verstanden (1 = sehr gut, 5 = sehr schlecht)?
  - 1 2 3 4 5
- Wie gut haben Sie den Kursleiter verstanden (1 = sehr gut, 5 = sehr schlecht)?
  - 0 2 3 4 5
- Wie gut haben Sie die anderen Teilnehmer verstanden (1 = sehr gut, 5 = sehr schlecht)? (Bei Einzelkursen bitte auslassen.)
  - 0 2 3 4 5

AK1						
Poštovana učesnice tečaja, poštov	ani učesni	če tečaja,				
Ovaj upitnik predstavlja <b>naučno istraž anonimni</b> i nemaju učinak na polaganje		optimizaciju te	čajeva do	odatne o	buke. V	aši podaci s
Budući da prvi dio upitnika popunjavate Pomoću ove šifre znamo koji dijelovi u poznati.						
Molimo Vas da u tu svrhu ispunite 4 p	oolja:					
Polje 1: Prvo slovo imena vaše majke. Polje 2: Treće slovo imena vaše majke. Polje 3: Prvo slovo imena vašeg oca.						
Polje 4: Treće slovo imena vašeg oca.			1	2	3	4
Molimo Vas da pažljivo pročitate svako stavljanjem križića ili popunjavanjem.	o pitanje i no	emojte preskoči	ti nijedno	pitanje.	Odgovo	rite na pitanj
Zahvaljujemo Vam na suradnji!						
	Vaši osobi	ni podaci				
Spol: ☐ muški ☐ ženski						
Starost:						
Državljanstvo:	☐ Hrvatsk☐ Austrija☐ navedite):_		(	(molimo		Vas,
Maternji jezik:	☐ Hrvatsk☐ ☐ navedite):_	i Ostalo		molimo		Vas,
Podaci o r	azlozima	za dodatnu (	obuku			
Kako je utvrđena vožnja u alkoho		☐ Samo provje		ometu		
stanju?		☐ Prometna ne	•	,		
Da li ste već bili učesnik dodatne obu sklonih vožnji u alkoholiziranom stanju?		□ Ne □ Da				

## Vaše mišljenje

Molimo Vas, navedite u kojoj mjeri se slažete sa slijedećim izjavama.

womino vas, navedne u kojoj mjen se siazete sa snjedećim izjavama.						
		uopće nije točno	jedva točno	približno točno	potpuno točno	
•	Nakon 1 ili 2 alkoholna pića još uvijek je moguća sigurna vožnja.					
•	Neki ljudi nakon 3 piva još uvijek mogu voziti bez problema.					
•	Već nakon 1 alkoholnog pića vozi se manje sigurno.					
•	Rizik od prometne nesreće u trijeznom stanju isti je kao i sa 0,5 promila.	_			0	
•	Zakonski dozvoljeni iznos promila je previsok.					
•	Teško je razdvojiti upravljanje vozilom i alkohol, bez posljedica za društveni život.	0				
	Vaša pi	rocjena				
Molimo	Vas, označite križićem odgovarajući odgov	or.				
•	Nakon koliko malih piva (0,331) smatrate	$\square$ 0	□ 1-2	□ 3-4		
	da još uvijek možete sigurno voziti?	□ 5-6	□ 7-8	□ 9 ili	više	
•	Po vašem mišljenju, koliko ste dobar vozač (1 = vrlo dobar, 5 = vrlo loš)?	①	② (3	3 4	(5)	

## Koliko znate?

Kod slijedećih pitanja točan je SAMO JEDAN od ponuđenih odgovora. Ako ne znate odgovor, molimo vas da označite križićem opciju "Ne znam".

Od koje koncentracije alkohola u krvi se obavezno p □ od 0,5 promila □ od 1,2 promila □ od 2,0 promila	oropisuje dodatna obuka?  ☐ od 0,8 promila ☐ od 1,6 promila ☐ Ne znam				
Što se dešava u slučaju odbijanja alko testa?  □ Vozačka dozvola se oduzima na 3 mjeseca, bez d □ Mora se platiti kazna od € 580, □ Mora se izvršiti ispitivanje krvi kod nadležnog sl koncentracije alkohola u krvi. □ Automobil se mora ostaviti, a vozačka dozvola m dana u policijskoj postaji. □ Pretpostavit će se alkoholiziranost od 1,6 promila imati obaveznu dodatnu obuku i prometno-psiho □ Ne znam	lužbenog liječnika radi provjere nože se preuzeti tek slijedećeg n, što će za posljedicu				
Muškarac i žena iste tjelesne težine popiju istu količinu alkohola. Žena ima veću koncentraciju alkohola u krvi. Zašto?  □ Zato što muškarci teže rade i time razgrađuju više alkohola.  □ Zato što žene imaju manji udio tjelesne tekućine.  □ Zato što su žene manje od muškaraca.  □ Zato što žene imaju manje bijelih krvnih zrnaca za razgradnju u jetri.  □ Zato što je kod žena udio masti manji.  □ Ne znam					
Koliko grama alkohola za jedan sat može razgraditi □ 4,5 grama □ 0,9 grama □ 9 grama	muškarac težak 90kg?  ☐ 90 grama ☐ 18 grama ☐ Ne znam				
Čime se razgradnja alkohola može ubrzati?  ☐ Kavom.  ☐ Spavanjem.  ☐ Kaloričnim jelom.  ☐ Obimnim kretanjem.  ☐ Razgradnja se ne može značajnije ubrzati.  ☐ Ne znam.					
Koje od slijedećih pića dovodi do najveće alkoholizi  □ Dupla rakija (0,04 l)  □ Crveno vino (1/8 l)  □ Pivo (0,5 l)	iranosti?  ☐ Bijelo vino (1/8 l)  ☐ Pjenušac (0,1 l)  ☐ Ne znam				

### Additional items for the post-test (AK2):

#### Vaše mišljenje Dodatna obuka i voditelj tečaja

•	Kakva je vasa ukupna ocjena voditelja tecaja (1 = vrlo dobar, 5 = vrlo los)? Molimo Vas da
	križićem označite odgovarajuću ocjenu.

① ② ③ ④ ⑤

• Kakav je vaš ukupni utisak o dodatnoj obuci (1 = vrlo dobar, 5 = vrlo loš)?

① ② ③ ④ ⑤

#### Da li Vam je tečaj bio razumljiv?

Ako ste imali prevoditelja, molimo Vas da preskočite slijedeća pitanja.

• Koliko ste dobro razumjeli sadržaj tečaja (1 = vrlo dobro, 5 = vrlo loše)?

① ② ③ ④ ⑤

• Koliko ste dobro razumjeli voditelja tečaja (1 = vrlo dobro, 5 = vrlo loše)?

① ② ③ ④ ⑤

• Koliko ste dobro razumjeli druge učesnike (1 = vrlo dobro, 5 = vrlo loše)? (U slučaju pojedinačne obuke, molimo Vas da preskočite ovo pitanje.)

① ② ③ ④ ⑤

AS1			_				
Poštovana učesnice tečaja, poštov	ani učesni	če tečaja,					
Ovaj upitnik predstavlja <b>naučno istraživanje za optimizaciju tečajeva dodatne obuke</b> . Vaši podaci su <b>anonimni</b> i nemaju efekat na polaganje tečaja.							
Pošto prvi deo upitnika popunjavate sa Pomoću ove šifre znamo koji delovi up poznati.							
Molimo Vas da u tu svrhu ispunite 4 p	olja:						
Polje 1: Prvo slovo imena vaše majke. Polje 2: Treće slovo imena vaše majke. Polje 3: Prvo slovo imena vašeg oca.							
Polje 4: Treće slovo imena vašeg oca.			1	2	3	4	
Molimo Vas da pažljivo pročitate svako pitanje i nemojte preskočiti nijedno pitanje. Odgovorite na pitanja stavljanjem krstića ili popunjavanjem.  Zahvaljujemo Vam na saradnji!  Vaši lični podaci							
Pol: ☐ muški ☐ ženski							
Starost:							
Državljanstvo:	☐ Srbija ☐ Austrija ☐ navedite):_	Ostalo	(	(molimo		Vas,	
Maternji jezik:	□ Srpski □ navedite):_	Ostalo	(	(molimo		Vas,	
Podaci o r	azlozima	za dodatnu o	buku				
Kako je utvrđena vožnja u alkoholisanon	n stanju?	☐ Samo prover☐ Usled saobra☐ Ostalo					

□ Da

Da li ste već bili učesnik dodatne obuke vozača □ Ne

naklonjenih vožnji u alkoholisanom stanju?

## Vaše mišljenje

Molimo Vas, navedite u kojoj meri se slažete sa sledećim izjavama.

		uopšte nije tačno	jedva da je tačno	biće da je tačno	potpuno tačno
•	Posle 1 ili 2 alkoholna pića još uvek može da se vozi sigurno.				
•	Neki ljudi posle 3 piva još uvek mogu da voze bez problema.		_	0	
•	Već posle 1 alkoholnog pića vozi se manje sigurno.				
•	Rizik od saobraćajne nesreće u treznom stanju isti je kao i sa 0,5 promila.		_	0	
•	Zakonski dozvoljeni iznos promila je previsok.				
•	Teško je razdvojiti upravljanje vozilom i alkohol, bez posledica za društveni život.		_	_	
	** *				
	Vaša p	rocena			
Molimo	Vas, označite krstićem odgovarajući odgov	or.			
•	Posle koliko malih piva (0,331) smatrate	$\square 0$	□ 0 □ 1-2		
	da još uvek možete da vozite sigurno?	□ 5-6	□ 7-8	□ 9 ili	više
•	Po vašem mišljenju, koliko ste dobar vozač (1 = vrlo dobar, 5 = vrlo loš)?	①	② ③	) 4)	<b>(</b> 5)

## Koliko znate?

Kod sledećih pitanja tačan je SAMO JEDAN od ponuđenih odgovora. Ako ne znate odgovor, molimo vas da označite krstićem opciju "Ne znam".

Počev od koje koncentracije alkohola u krvi se obav □ od 0,5 promila	vezno propisuje dodatna obuka? □ od 0,8 promila				
□ od 1,2 promila □ od 2,0 promila	□ od 1,6 promila □ Ne znam				
	Li Ne Zildili				
Šta se dešava u slučaju odbijanja alko testa?  U Vozačka dozvola se oduzima na 3 meseca, bez de	odatne obuke.				
<ul> <li>☐ Mora da se plati kazna od € 580,</li> <li>☐ Mora da se preduzme ispitivanje krvi kod nadlež</li> </ul>	źnog lekara radi provere				
koncentracije alkohola u krvi.  ☐ Automobil mora da se ostavi, a vozačka dozvola može da se preuzme tek sledećeg					
dana u policijskoj stanici.  ☐ Pretpostaviće se alkoholisanost od 1,6 promila, što će za posledicu					
imati obaveznu dodatnu obuku i saobraćajno-ps.  □ Ne znam	ihološki pregled.				
Muškarac i žena iste telesne težine popiju istu količ	inu alkohola. Žena ima veću koncentraciju alkohola				
u krvi. Zašto?  □ Zato što muškarci teže rade i time razgrađuju viš	e alkohola				
☐ Zato što žene imaju manji udeo telesnih tečnosti.					
<ul><li>□ Zato što su žene manje od muškaraca.</li><li>□ Zato što žene imaju manje belih krvnih zrnaca za</li></ul>	razgradnju u jetri.				
<ul><li>□ Zato što je kod žena udeo masti manji.</li><li>□ Ne znam</li></ul>					
Koliko grama alkohola za sat može da razgradi muš	karac težak 90kg?				
☐ 4,5 grama ☐ 0,9 grama	□ 90 grama □ 18 grama				
□ 9 grama	□ Ne znam				
Čime se razgradnja alkohola može ubrzati?  ☐ Kafom.					
☐ Spavanjem.					
☐ Kaloričnim jelom. ☐ Obimnim kretanjem.					
☐ Razgradnja se ne može značajnije ubrzati.☐ Ne znam.					
Koje od sledećih pića dovodi do najveće alkoholisa					
☐ Dupla rakija (0,04 l) ☐ Crveno vino (1/8 l)	☐ Belo vino (1/8 l) ☐ Penušavac (0,1 l)				
□ Pivo (0,5 l)	□ Ne znam				

(1)

2

### Additional items for the post-test (AS2):

#### Vaše mišljenje Dodatna obuka i rukovodilac tečaja

Kakva je vasa ukupna ocena rukovodioca tecaja (1 = vrio dobar, 5 = vrio los)? Molimo vas da
krstićem označite odgovarajuću ocenu.

- Kakav je vaš ukupni utisak o dodatnoj obuci (1 = vrlo dobar, 5 = vrlo loš)?
  - 0 2 3 4 5

(3)

4

(5)

#### Da li Vam je tečaj bio razumljiv?

Ako ste imali prevodioca, molimo Vas da preskočite sledeća pitanja.

- Koliko ste dobro razumeli sadržaj tečaja (1 = vrlo dobro, 5 = vrlo loše)?
  - ① ② ③ ④ ⑤
- Koliko ste dobro razumeli rukovodioca tečaja (1 = vrlo dobro, 5 = vrlo loše)?
  - ① ② ③ ④ ⑤
- Koliko ste dobro razumeli druge učesnike (1 = vrlo dobro, 5 = vrlo loše)? (U slučaju pojedinačne obuke, molimo Vas da preskočite ovo pitanje.)
  - 0 2 3 4 5

AT1							
Değerli Kursiyer,							
Bu anket, <b>tazeleme eğitim kursunun er</b> Bilgileriniz <b>anonimdir</b> ve kursun başarıs				an bilin	nsel bir a	ıraştırm	adır.
Anketin ilk bölümünü şimdi, ikinci bölümünü ise kurs sonunda dolduracağınız için anonim bir koda ihtiyacımız vardır. Bu kod sayesinde hangi soru formu bölümlerinin birbirine ait olduğunu anlamaktayız. Kod için bizim bilmediğimiz verileri kullanmaktayız.							
Lütfen 4 alanı doldurunuz:							
Alan 1: Anne adının ilk harfi. Alan 2: Anne adının üçüncü harfi. Alan 3: Baba adının ilk harfi.							
Alan 4: Baba adının üçüncü harfi.			1	2	3	4	
Lütfen her soruyu dikkatle okuyunuz doldurarak cevaplandırınız.	ve hiçbir	soruyu boş bıra	akmayınız	z. Sorula	arı işaret	leyerek	veya
İşbirliğiniz için çok teşekkür ederiz!							
	Kişisel l	Bilgiler	-		-		
Cinsiyet: ☐ Erkek ☐ Kadın	,	8					
Yaş:							
Uyruk:	☐ Türkiye ☐ Avustur ☐ Diğer (l						
Ana dil:	□ Türkçe □ Diğer (l	ütfen belirtiniz):				_	
Tazeleme	Eğitimin	ie Katılma Ne	edeni				
Alkollü araç kullandığını nasıl tespit edil	di?	□ Sadece trafik □ Kaza □ Diğer	kontrolü				
Alkollü araç kullananlar için düzenl tazeleme eğitimine daha hiç katıldınız m		☐ Hayır ☐ Evet					

## Sizin Düşünceleriniz

Lütfen aşağıda belirtilen ifadelere ne ölçüde katıldığınızı belirtiniz.

		Doğru değil	Pek doğru değil	Kısmen doğru	Kesinlikle doğru	
	2 alkollü içecekten sonra bile güvenli e araç kullanılabilir.					
	nsanlar 3 bira içtikten sonra bile uz bir şekilde araç kullanabilirler.					
	e 1 alkollü içecek içilse bile araç daha etsiz bir şekilde kullanılır.					
	alınmadan araç kullanılırken ki kaza ),5 promil alkollüyken ki kaza riski ile r.					
<ul> <li>Yasal yüksel</li> </ul>	olarak izin verilen promil değeri çok c.					
kullan	yaşantı zarar görmeden araç mayı ve alkol kullanmayı birbirinden ık çok zor.					
	Sizin Tal	nminleriniz				
Lütfen do	ğru bulduğunuz cevabı işaretleyiniz.					
	let küçük bira (0,33 lt.) içtikten sonra	$\square 0$	□ 0 □ 1-2		□ 3-4	
hala ei	nniyetli bir şekilde araç kullanılabilir?	□ 5-6	□ 7-8	□ 9 fazla	veya daha	
	öre ne kadar iyi bir sürücüsünüz (1 = ri, 5 = Çok kötü)?	(1)	② ③	) (4)	(S)	

## Neyi, Ne Kadar Biliyorsunuz?

Aşağıdaki sorularda cevap şıklarından daima SADECE BİRİ doğrudur. Cevabı bilmediğiniz takdirde lütfen "Bilmiyorum" şıkkını işaretleyiniz.

Kandaki alkol oranı han verilmektedir?  □ 0,5 promilden itibaren  □ 1,2 promilden itibaren	gi düzeyde (	olduğunda	□ 0,8 pi	romi	tazeleme ilden itibar ilden itibar	en	verilmesine	karar
☐ 2,0 promilden itibaren			□ Bilmi			CII		
Alkol testi yaptırmayı ret ettiğinizde ne olur?  □ Tazeleme eğitimi olmadan sürücü belgesine 3 boyunca el konulur.  □ 580 Avro ceza ödenmesi gerekir.  □ Kandaki alkol oranının tespit edilebilmesi için resmi olarak görevli bir hekim tarafından kan testi yapılmalıdır.  □ Araç olduğu yerde bırakılır ve sürücü belgesi bir sonraki gün polisten alınabilir.  □ 1,6 promil alkollü olduğunuz kabul edilir ve bunun sonucunda zorunlu bir tazeleme eğitimine ve trafik psikolojisi araştırmasına katılmanız gerekir.  □ Bilmiyorum								
Aynı beden ağırlığına sahip bir erkek ve kadın aynı miktarda alkol içer. Kadının kanındaki alkol oranı daha yüksektir. Neden?  □ Çünkü erkekler daha ağır işlerde çalışır ve alkol daha hızlı metabolize (yıkım) olur.  □ Çünkü kadınların vücutlarındaki sıvı oranı daha düşüktür.  □ Çünkü kadınları erkeklere oranla daha küçüktür.  □ Çünkü kadınların karaciğerinde, metabolizasyon (yıkım) için daha az akyuvar vardır.  □ Çünkü kadınların vücudunda yağ oranı daha düşüktür.  □ Bilmiyorum								
90 kg ağırlığında bir erkek bir saatte kaç gram alkol metabolize (yıkım) etmektedir?  ☐ 4,5 gram ☐ 0,9 gram ☐ 18 gram ☐ 9 gram ☐ Bilmiyorum								
Alkolün metabolizasyonu ((yıkım)) neyle hızlandırılabilir?  Kahve.  Uyumak.  Kalorisi bol yiyecekler.  Çok hareket.  Metabolizasyonu (yıkım) önemli oranda hızlandırmak mümkün değildir.  Bilmiyorum.								
Aşağıda belirtilen içki türle □ Duble şnaps (0,04 lt.) □ Kırmızı şarap (1/8 lt.) □ Bira (0,5 lt.)	rinden hangis	si en yüksek		z şaı (0,1	rap (1/8 lt.) lt.)			

## Additional items for the post-test (AT2):

#### Düşünceniz: Tazeleme Eğitimi ve Kurs Eğitmeni

•	Kurs eğitmenini genel olarak nasıl değerlendiriyorsunuz (1 = Çok iyi, 5 = Çok kötü)? Lütfen uygun
	şıkkı işaretleyiniz.

0 2 3 4 5

• Tazeleme eğitimini genel olarak beğendiniz mi (1 = Çok iyi, 5 = Çok kötü)?

0 2 3 4 5

#### Kurs Sizin İçin Anlaşılır Mıydı?

Size kurs boyunca bir tercüman eşlik ettiyse lütfen aşağıdaki soruları boş bırakınız.

• Kursun içeriğini ne kadar iyi anladınız (1 = Çok iyi, 5 = Çok kötü)?

① ② ③ ④ ⑤

• Kurs eğitmenini ne kadar iyi anladınız (1 = Çok iyi, 5 = Çok kötü)?

0 2 3 4 5

• Diğer katılımcıları ne kadar iyi anladınız (1 = Çok iyi, 5 = Çok kötü)? (Tekli kurs söz konusu ise lütfen boş bırakınız.)

0 2 3 4 5

AP1								
Szanowna Uczestniczko kursu, szanowny Uczestniku kursu								
	Niniejsza ankieta stanowi <b>badanie naukowe, mające na celu optymalizację kursów dokształcających</b> . Twoje informacje są <b>anonimowe</b> i nie mają żadnego wpływu pozytywny wynik kursu.							
Ponieważ pierwszą część ankiety wypełnisz teraz, a drugą po zakończeniu kursu, konieczny jest anonimowy kod. Ten kod pozwoli nam na przyporządkowanie do siebie odpowiednich części ankiety. Kod tworzymy z danych, które nie są nam znane.								
W tym celu proszę wypełnić poniższe o	eztery pola:	:						
Pole 1: pierwsza litera imienia matki. Pole 2: trzecia litera imienia matki. Pole 3: pierwsza litera imienia ojca.								
Pole 4: trzecia litera imienia ojca.			1	2	3	4		
Proszę uważnie przeczytać każde pytanie i nie pominąć żadnego z nich. Odpowiedzi na pytanie należy udzielać przez zakreślenie lub wypełnienie odpowiedniego pola.  Dziękujemy za współpracę!								
	Dane os	sobowe						
Płeć: ☐ mężczyzna ☐ kobieta								
Wiek:								
Narodowość:	□ Polska □ Austria □ inne (pr	oszę podać): ):_				-		
Język ojczysty:	□ polski □ inne (pr	oszę podać): ):_				-		
Informac	je o przyc	czynie doszka	llania					
W jaki sposób stwierdzone zostało pro pojazdu w stanie nietrzeźwości?	owadzenie	☐ Tylko kontro ☐ Wypadek ☐ Inne	ola ruchu	drogowe	ego			
Czy brałaś/brałeś już udział w do kierowców ze względu na prowadzenie w stanie nietrzeźwym?		□ nie □ tak						

•		•
Twoje	e <b>zo</b>	anie

Podaj, na ile zgadzasz się z poniższymi stwierdzeniami.						
	wcale	raczej nie	raczej tak	zgadzam się		
<ul> <li>Po wypiciu 1 lub 2 napojów alkoholowych można nadal bezpiecznie prowadzić pojazd.</li> </ul>						
<ul> <li>Niektóre osoby potrafią bezpiecznie prowadzić po wypiciu 3 piw.</li> </ul>						
<ul> <li>Po wypiciu 1 napoju alkoholowego prowadzi się pojazd mniej bezpiecznie.</li> </ul>						
<ul> <li>Ryzyko wypadku na trzeźwo jest takie samo, jak przy zawartości alkoholu we krwi na poziomie 0,5 promila.</li> </ul>						
<ul> <li>Ustawowo dopuszczalna granica zawartości alkoholu we krwi jest za wysoka.</li> </ul>						
<ul> <li>Trudno oddzielić kierowanie pojazdem od picia alkoholu bez zakłócania swojego życia społecznego.</li> </ul>		0				
Twoje	zdanie					
Proszę zakreślić odpowiednią odpowiedź.						
Po wypiciu ilu małych piw (0,33 l) Twoim zdaniem można jeszcze bezpiecznie prowadzić pojazd?	$\Box$ 0	□ 1-2	□ 3-4			
	□ 5- 6	□ 7-8	□ 9 lı	ub więcej		
<ul> <li>Twoim zdaniem jak dobrze umiesz prowadzić pojazd (1 = bardzo dobrze, 5 = bardzo źle)?</li> </ul>	①	② ③	4	<b>S</b>		

## Co wiesz?

Przy następnych pytaniach TYLKO JEDNA odpowiedź jest prawidłowa. Jeżeli nie znasz odpowiedzi,

to zaznacz "nie wiem".	reaz jest prawiatowa. vezen me znasz oupowiedzi,				
Od jakiego poziomu stężenia alkoholu we krwi zaw □ od 0,5 promila □ od 1,2 promila □ od 2,0 promila	sze konieczne jest doszkalanie?  od 0,8 promila od 1,6 promila nie wiem				
Co stanie się w przypadku odmowy testu spożycia alkoholu?  ☐ Nastąpi odebranie prawa jazdy na okres 3 miesięcy, bez doszkalania.  ☐ Trzeba zapłacić karę w wysokości 580,— €.  ☐ Konieczne jest pobranie krwi przez urzędowego lekarza w celu pomiaru stężenia alkoholu we krwi.  ☐ Należy pozostawić pojazd, a prawo jazdy można odebrać dopiero następnego dnia na policji.  ☐ Zakłada się, że stężenie alkoholu we krwi wynosi 1,6 promila, co pociąga za sobą obowiązek doszkolenia i przejścia badania komunikacyjno-psychologicznego.  ☐ nie wiem					
Kobieta i mężczyzna o tej samej wadze ciała spożywają tę samą ilość alkoholu. Kobieta ma wyższe stężenie alkoholu we krwi. Dlaczego?  Gdyż mężczyźni ciężej pracują i dlatego są w stanie wyeliminować więcej alkoholu.  Ponieważ kobiety mają niższy udział cieczy w masie ciała.  Ponieważ kobiety są mniejsze od mężczyzn.  Ponieważ kobiety mają mniej białych krwinek do redukcji w wątrobie.  Ponieważ udział tłuszczu w ciele kobiety jest mniejszy.  nie wiem					
Ile gramów alkoholu na godzinę jest w stanie wyelin ☐ 4,5 g ☐ 0,9 g ☐ 9 g	minować mężczyzna o wadze 90 kg?  ☐ 90 g  ☐ 18 g  ☐ nie wiem				
Co może przyspieszyć proces eliminacji alkoholu?  Kawa.  Sen.  Kaloryczne pożywienie.  Dużo ruchu.  Znaczne przyspieszenie eliminacji jest niemożliw  Nie wiem.	ve.				
Który z poniższych napojów powoduje najwyższy v □ podwójna wódka (0,04 l) □ czerwone wino (1/8 l) □ piwo (0,5 l)	vzrost zawartości alkoholu we krwi?  ☐ białe wino (1/8 l) ☐ wino musujące (0,1 l) ☐ nie wiem				

odpowiedź.

# Additional items for the post-test (AP2):

### Twoje zdanie: doszkalanie i kierownik kursu

• Jak ogólnie oceniasz kierownika kursu (1 = bardzo dobrze, 5 = bardzo źle)? Zaznacz odpowiednią

	①	2	3	4	<b>⑤</b>				
•	<ul> <li>Jak ogólnie oceniasz kurs doszkoleniowy (1 = bardzo dobrze, 5 = bardzo źle)?</li> </ul>								
	1	2	3	4	<b>⑤</b>				
	Czy kurs był dla Ciebie zrozumiały?								
Jeżeli korzystałaś/korzystałeś z usług tłumacza, to pomiń następne pytania.									
<ul> <li>Jak dobrze zrozumiałaś/zrozumiałeś treści kursu (1 = bardzo dobrze, 5 = bardzo źle)?</li> </ul>									
	①	2	3	4	<b>⑤</b>				
<ul> <li>Jak dobrze rozumiałaś/rozumiałeś kierownika kursu (1 = bardzo dobrze, 5 = bardzo źle)?</li> </ul>									
	①	2	3	4	\$				
<ul> <li>Jak dobrze rozumiałaś/rozumiałeś innych uczestników (1 = bardzo dobrze, 5 = bardzo źle)?</li> <li>(Pomiń w przypadku kursu indywidualnego.)</li> </ul>									
	①	2	3	4	<b>⑤</b>				

V1			_			
Sehr geehrte Kursteilnehmerin, sehr geehrter Kursteilnehmer,						
Diese Befragung ist eine wissenschaft Ihre Angaben sind anonym und haben k						ulungskurse.
Da sie den ersten Teil der Befragung je wir einen anonymen Kode. Durch zusammengehören. Für den Kode verwe	diesen	Kode wisser	n wir, w	elche Fr		
Bitte füllen Sie dazu die 4 Felder aus: Feld 1: Erster Buchstabe des Vornamens Ihrer Mutter. Feld 2: Dritter Buchstabe des Vornamens Ihrer Mutter. Feld 3: Erster Buchstabe des Vornamens Ihres Vaters. Feld 4: Dritter Buchstabe des Vornamens Ihres Vaters.  1 2 3 4				4		
Bitte lesen Sie sich jede Frage genau odurch Ankreuzen oder Ausfüllen.	durch und	assen Sie kei	ine Frage	aus. Beant	tworten Si	ie die Fragen
Vielen Dank für Ihre Mitarbeit!						
Ang	gaben zu	Ihrer Perso	on			
Geschlecht: ☐ männlich ☐ weiblich						
Alter:						
Nationalität:	☐ Österre ☐ Serbier ☐ Kroatie ☐ Türkei ☐ Sonstig	1	oen):			
Muttersprache:	☐ Deutsc ☐ Serbisc ☐ Kroatis ☐ Türkisc ☐ Sonstig	eh sch	oen):			
Führerschein(e):		в 🗆 С 🗆	D □ E		G	
Sind Sie Probeführerscheinbesitzer?	□ Nein □ Ja					
Sind Sie Berufskraftfahrer?	□ Nein □ Ja					
Angaben	zum Na	chschulung	gsanlass			
Was hat zur Nachschulung geführt?		□ Nur Verk □ Unfall □ Sonstiges		olle		
Haben Sie schon mal an einer Nachsch verkehrsauffällige Lenker teilgenommer		□ Nein □ Ja				

## **Ihre Meinung**

Bitte geben Sie an, wie sehr Sie den folgenden Aussagen zustimmen.

		stimmt gar nicht	stimmt kaum	stimmt eher	stimmt genau
•	Solange man das eigene Fahrzeug unter Kontrolle hat, ist es nicht riskant schneller zu fahren als erlaubt.				
•	Die gesetzlichen Geschwindigkeitsbeschränkungen sind zu hoch angesetzt.				0
•	Das Risiko, mit überhöhter Geschwindigkeit einen Unfall zu bauen, ist genau so hoch wie mit der erlaubten Geschwindigkeit.				
•	Geschwindigkeitsüberschreitungen sind nicht gefährlich, wenn man beim Fahren gut aufpasst.	0			0
•	Wer zu schnell fährt, gefährdet andere Verkehrsteilnehmer.				
	Ihre Eins	schätzung			
Bi	tte kreuzen Sie die jeweils zutreffende Antwort a	_			
•	Mit wieviel km/h glauben Sie, auf einer leeren	□ unter 70 km/h		□ bis zu 100 km/h	
	Landstraße bei normalen Fahrbedingungen untertags noch sicher fahren zu können?	□ bis zu 140 km/h		□ bis zu 18	0 km/h
		□ bis zu 220	0 km/h	□ über 220	km/h
•	Wie gut können Sie Ihrer Meinung nach Autofahren (1 = sehr gut, 5 = sehr schlecht)?	①	2 (	3 4	(5)

Was wissen Sie?					
Bei den folgenden Fragen ist jeweils NUR EINE Anwortmöglichkeit richtig. Sollten Sie die Antwort nicht wissen, kreuzen Sie bitte "Weiß nicht" an.					
Ab welcher Geschwindigkeitsüberschreitung im  ☐ Mehr als 10 km/h zu viel.  ☐ Mehr als 20 km/h zu viel.  ☐ Mehr als 30 km/h zu viel.	Ortsgebiet muss man zu einer Nachschulung?  ☐ Mehr als 50 km/h zu viel.  ☐ Mehr als 40 km/h zu viel.  ☐ Weiß nicht				
Ab welcher Geschwindigkeitsüberschreitung Nachschulung?  ☐ Mehr als 60 km/h zu viel.  ☐ Mehr als 40 km/h zu viel.  ☐ Mehr als 50 km/h zu viel.  ☐ Mehr als 20 km/h zu viel.  ☐ Mehr als 30 km/h zu viel.  ☐ Weiß nicht	außerhalb des Ortsgebiets muss man zu einer				
Welche Promillegrenze gilt für Probeführerschei	inbesitzer?				
□ 0,0 Promille. □ 0,4 Promille. □ 0,8 Promille.	□ 0,1 Promille. □ 0,5 Promille. □ Weiß nicht				
Wie lange dauert die Probezeit?					
☐ 6 Monate. ☐ 1,5 Jahre ☐ 5 Jahre	☐ 1 Jahr ☐ 2 Jahre ☐ Weiß nicht				
Wie lange wird die Probezeit aufgrund der Nach	schulung verlängert?				
☐ 6 Monate. ☐ 1,5 Jahre ☐ 5 Jahre	☐ 1 Jahr ☐ 2 Jahre ☐ Weiß nicht				
Additional items for the post-test (V2):					
Ihre Meinung: Nach	nschulung & KursleiterIn				
• Wie bewerten Sie die Kursleiterin / den Kursleiter insgesamt (1 = sehr gut, 5 = sehr schlecht)? Zutreffendes bitte ankreuzen.					
0 2 3 4 5					
• Wie hat Ihnen die Nachschulung insgesamt g	sefallen (1 = sehr gut, 5 = sehr schlecht)?				
① ② ③ ④ ⑤					

D1		
DI		

Sehr geehrte Kursteilnehmerin, sehr geehrter Kursteilnehmer,

Diese Befragung ist eine wissenschaftliche Untersuchung zur Optimierung der Nachschulungskurse. Ihre Angaben sind anonym und haben keinerlei Auswirkung auf das Bestehen des Kurses.

Da sie den ersten Teil der Befragung jetzt ausfüllen, und den zweiten Teil am Ende des Kurses, benötigen wir einen anonymen Kode. Durch diesen Kode wissen wir, welche Fragebogenteile jeweils zusammengehören. Für den Kode verwenden wir Daten, die uns nicht bekannt sind.

### Bitte füllen Sie dazu die 4 Felder aus:

Feld 1: Erster Buchstabe des Vornamens Ihrer Mutter.
Feld 2: Dritter Buchstabe des Vornamens Ihrer Mutter.
Feld 3: Erster Buchstabe des Vornamens Ihres Vaters.
Feld 4: Dritter Buchstabe des Vornamens Ihres Vaters.

1	2	3	4

Bitte lesen Sie sich jede Frage genau durch und lassen Sie keine Frage aus. Beantworten Sie die Fragen durch Ankreuzen oder Ausfüllen.

Vielen Dank für Ihre Mitarbeit!

	Angaben zu Ihrer Person				
Geschlecht:	□ männlich □ weiblich				
Alter:					
Nationalität:		☐ Österreich ☐ Serbien ☐ Kroatien ☐ Türkei ☐ Sonstige (bitte angeben):			
Muttersprache:		☐ Deutsch ☐ Serbisch ☐ Kroatisch ☐ Türkisch ☐ Sonstige (bitte angeben):			
Führerschein(e):		$\square$ A $\square$ B $\square$ C $\square$ D $\square$ E $\square$ F $\square$ G			
Sind Sie Probefü	ihrerscheinbesitzer?	□ Nein □ Ja			
Sind Sie Berufsk	craftfahrer?	□ Nein □ Ja			

Angaben zum Nachschulungsanlass					
Was hat zur Nachschulung geführt?	□ Nur Verk □ Unfall □ Sonstiges		le		
Was wurde bei Ihnen festgestellt? (Mehrfachnennungen möglich)	☐ Cannabis ☐ Heroin ☐ Sonstiges		☐ Medik	☐ Kokain ☐ Medikamente ☐ Weiß nicht	
Haben Sie schon mal an einer Nachschulung für drogenauffällige Lenker teilgenommen?	□ Nein □ Ja				
Ihre M	leinung				
Bitte geben Sie an, wie sehr Sie den folgenden Aus	sagen zustimn	nen.			
	stimmt gar nicht	stimmt kaum	stimmt eher	stimmt genau	
<ul> <li>Solange man das Fahrzeug unter Kontrolle hat, ist es kein Problem unter Drogeneinfluss zu fahren.</li> </ul>					
Bereits nach einem geringen Drogenkonsum fährt man weniger sicher.			_	0	
• Das Risiko, unter Drogeneinfluss einen Unfall zu bauen, ist genau so groß wie ohne Drogen.					
Die gesetzlichen Bestimmungen bezüglich Drogen am Steuer sind zu streng.					
<ul> <li>Es ist schwierig, Lenken und Drogen zu trennen, ohne dass das Sozialleben darunter leidet.</li> </ul>					
Ihre Eins	schätzung				
Bitte kreuzen Sie die jeweils zutreffende Antwort a	n.				
• Wie gut können Sie Ihrer Meinung nach Autofahren (1 = sehr gut, 5 = sehr schlecht)?	①	2 (	3 4	(5)	

Bei den folgenden Fragen ist jeweils NUR EINE Anwortmöglichkeit richtig. Sollten Sie die Antwort nicht wissen, kreuzen Sie bitte "Weiß nicht" an.

Was versteht man unter dem synergistischen Effekt?
☐ Die kombinierte Wirkung unterschiedlicher Drogen ist oft größer als die
Wirkungen der einzelnen Substanzen zusammen.
☐ Die Veränderung der Sinneswahrnehmung durch Halluzinogene Drogen wie LSD.
☐ Die stimulierende Wirkung des Koffeins auf den Körper.
☐ Die Effekte von künstlich im Labor erstellten Drogen.
☐ Die Störung des Zentralnervensystems durch Drogenkonsum.
□ Weiß nicht.
Was bedeutet der Begriff "Toleranz" im Zusammenhang mit Drogen?
☐ Es stört einen nicht, wenn andere Drogen nehmen.
☐ Bestimmte Substanzen können legal in der Apotheke gekauft werden.
☐ Wenn man unter Drogeneinfluss einen Verkehrsunfall verursacht, ist man nicht zu
100% schuldig
☐ Andere Leute sagen, es ist in Ordnung Drogen zu nehmen.
☐ Zum Erreichen der ursprünglichen Wirkung braucht man immer höhere Mengen
der Droge.
□ Weiß nicht
Zu welcher der folgenden Kategorien zählt man Cannabis?
□ Stimulanzien.
☐ Zentral dämpfende Substanzen.
☐ Amphetamine.
□ Opiate.
☐ Halluzinogene.
□ Weiß nicht
Welche der folgenden Substanzen zählt man zu den Opiaten?
□ Nikotin.
☐ Heroin.
$\square$ LSD.
☐ Meskalin.
☐ Ecstasy (XTC).
☐ Weiß nicht.
W.1.1. D
Welche Droge enthält den Wirkstoff THC?
☐ Morphium. ☐ Heroin.
□ LSD.
☐ Cannabis.
□ Kokain. □ Weiß nicht.

# Additional items for the post-test (D2):

## Ihre Meinung: Nachschulung & KursleiterIn

•	Wie bewerten Sie die Kursleiterin / den Kursleiter insgesamt (1 = sehr gut, 5 = sehr schlecht)?
	Zutreffendes bitte ankreuzen.

1 2 3 4 5

• Wie hat Ihnen die Nachschulung insgesamt gefallen (1 = sehr gut, 5 = sehr schlecht)?

0 2 3 4 5

P-A1			

Sehr geehrte Kursteilnehmerin, sehr geehrter Kursteilnehmer,

Diese Befragung ist eine wissenschaftliche Untersuchung zur Optimierung der Nachschulungskurse. Ihre Angaben sind anonym und haben keinerlei Auswirkung auf das Bestehen des Kurses.

Da sie den ersten Teil der Befragung jetzt ausfüllen, und den zweiten Teil am Ende des Kurses, benötigen wir einen anonymen Kode. Durch diesen Kode wissen wir, welche Fragebogenteile jeweils zusammengehören. Für den Kode verwenden wir Daten, die uns nicht bekannt sind.

### Bitte füllen Sie dazu die 4 Felder aus:

Feld 1: Erster Buchstabe des Vornamens Ihrer Mutter.
Feld 2: Dritter Buchstabe des Vornamens Ihrer Mutter.
Feld 3: Erster Buchstabe des Vornamens Ihres Vaters.
Feld 4: Dritter Buchstabe des Vornamens Ihres Vaters.

1	2	3	4

Bitte lesen Sie sich jede Frage genau durch und lassen Sie keine Frage aus. Beantworten Sie die Fragen durch Ankreuzen oder Ausfüllen.

Vielen Dank für Ihre Mitarbeit!

	Angaben zu Ihrer Person					
Geschlecht:	□ männlich □ weiblich					
Alter:						
Nationalität:	☐ Österreich ☐ Serbien ☐ Kroatien ☐ Türkei ☐ Sonstige (bitte angeben):					
Muttersprache:	☐ Deutsch ☐ Serbisch ☐ Kroatisch ☐ Türkisch ☐ Sonstige (bitte angeben):					
Führerschein(e)	$\square A \square B \square C \square D \square E \square F \square G$					
	Angaben zum Nachschulungsanlass					
Haben Sie schon mal an einer Nachschulung im □ Nein Rahmen des Vormerksystems teilgenommen? □ Ja						

## **Ihre Meinung**

Bitte geben Sie an, wie sehr Sie den folgenden Aussagen zustimmen.

	stimmt gar nicht	stimmt kaum	stimmt eher	stimmt genau
• Nach 1 oder 2 alkoholischen Getränken kann man noch sicher fahren.				
Bereits nach 1 alkoholischem Getränk fährt man weniger sicher.				_
• Das Risiko, nüchtern einen Unfall zu haben, ist genau so hoch wie mit 0,5 Promille.				
• Die gesetzlich erlaubte Promillehöhe ist zu hoch.				_
Ihre Eins	chätzung			
Bitte kreuzen Sie die jeweils zutreffende Antwort an	n.			
• Nach wieviel kleinen Bier (0,331) glauben Sie, noch sicher fahren zu können?	$\square 0$	□ 1-2	□ 3-4	
noch sicher fahren zu können?	□ 5-6	□ 7-8	□ 9 od	er mehr
• Wie gut können Sie Ihrer Meinung nach Autofahren (1 = sehr gut, 5 = sehr schlecht)?	①	2 3	4	(5)

Bei den folgenden Fragen ist jeweils NUR EINE A nicht wissen, kreuzen Sie bitte "Weiß nicht" an.	nwortmöglichkeit richtig. Sollten Sie die Antwort
Was passiert bei 3 Vormerkungen innerhalb von 2 Ja	ahren?
□ Nachschulung.	☐ Ärztliche Kontrolle.
☐ Führerscheinentzug. ☐ Das ist von der Art der Delikte	☐ Fahrsicherheitstraining. ☐ Weiß nicht
abhängig.	
Welches ist kein Vormerkdelikt?	
□ Nichtbeachtung einer Stopptafel	
☐ Umfahren geschlossener Eisenbahnschranken.	
☐ Überfahren einer Roten Ampel.	
☐ Überschreitung der Höchstgeschwindigkeit. ☐ Gefährdung durch nicht richtig gesicherte Ladung	,
□ Weiß nicht	,
Bei welchem Vormerkdelikt wäre die Maßnahme eir	ne Perfektionsfahrt?
☐ Verstoß gegen Tunnel-Fahrverbot mit gefährliche	
☐ Nicht-Einhaltung des Sicherheitsabstands.	
☐ Befahren des Pannenstreifens. ☐ Blockieren einer Eisenbahnkreuzung.	
☐ Nichtbeachtung der Kindersicherung.	
☐ Weiß nicht.	
Wieviel Gramm Alkohol baut ein 90kg schwerer Ma	nn pro Stunde ab?
4,5 Gramm	□ 90 Gramm
□ 0,9 Gramm □ 9 Gramm	□ 18 Gramm □ Weiß nicht
Ein Mann und eine Frau mit demselben Körpergeweine höhere Blutalkoholkonzentration. Warum?	icht trinken dieselbe Menge Alkohol. Die Frau hat
☐ Weil Männer schwerer arbeiten und dadurch mehr	
☐ Weil Frauen einen geringeren Körperflüssigkeitsa☐ Weil Frauen kleiner sind als Männer.	nteil haben.
☐ Weil Frauen weniger weiße Blutkörperchen zum A	Abbau in der Leber haben.
☐ Weil bei Frauen der Fettanteil geringer ist.	
☐ Weiß nicht	
Additional items for the post-te	est (P-A2):
<u> </u>	` '
Ihre Meinung: Nachsch	iulung & KursleiterIn
• Wie bewerten Sie die Kursleiterin / den Kursleite Zutreffendes bitte ankreuzen.	er insgesamt (1 = sehr gut, 5 = sehr schlecht)?
0 2 3 4 5	
Wie hat Ihnen die Nachschulung insgesamt gefall	len $(1 = \text{sehr gut}, 5 = \text{sehr schlecht})$ ?
0 2 3 4 5	

P-S1									
Sehr geehrte Kursteilnehmerin, se	ehr geehrter Kursteilneh	mer,							
Diese Befragung ist eine wissenschaft Ihre Angaben sind anonym und haben k					ulungsku	ırse.			
wir einen anonymen Kode. Durch	Da sie den ersten Teil der Befragung jetzt ausfüllen, und den zweiten Teil am Ende des Kurses, benötigen wir einen anonymen Kode. Durch diesen Kode wissen wir, welche Fragebogenteile jeweils zusammengehören. Für den Kode verwenden wir Daten, die uns nicht bekannt sind.								
Bitte füllen Sie dazu die 4 Felder aus:									
Feld 1: Erster Buchstabe des Vornamens Feld 2: Dritter Buchstabe des Vornamens Feld 3: Erster Buchstabe des Vornamens	s Ihrer Mutter.								
Feld 4: Dritter Buchstabe des Vornamen	s Ihres Vaters.	1	2	3	4				
Bitte lesen Sie sich jede Frage genau odurch Ankreuzen oder Ausfüllen.	durch und lassen Sie keine	Frage aus	s. Beanty	worten Si	ie die Fra	agen			
Vielen Dank für Ihre Mitarbeit!									
Ang	gaben zu Ihrer Person								
Geschlecht: ☐ männlich ☐ weiblich									
Alter:									
Nationalität:	☐ Österreich ☐ Serbien ☐ Kroatien ☐ Türkei ☐ Sonstige (bitte angeben)	):							
Muttersprache:  Deutsch  Serbisch  Kroatisch  Türkisch  Sonstige (bitte angeben):									
Führerschein(e):	$\Box$ A $\Box$ B $\Box$ C $\Box$ D	□Е □	]F 🗆	G					
Angaben	zum Nachschulungsa	nlass							
Haben Sie schon mal an einer Nachscl Rahmen des Vormerksystems teilgenom									

## **Ihre Meinung**

Bitte geben Sie an, wie sehr Sie den folgenden Aussagen zustimmen.

2.000 geoon die uit, wie bein die uit reigenuen rund				
	stimmt gar nicht	stimmt kaum	stimmt eher	stimmt genau
<ul> <li>Die gesetzlichen Bestimmungen zum Sicherheitsabstand sind zu streng.</li> </ul>				
• Es ist kein Problem, einen geringeren Sicherheitsabstand zu halten, solange man sein Auto gut unter Kontrolle hat.				
<ul> <li>Der gesetzlich vorgeschriebene Mindest- Sicherheitsabstand ist zu gering.</li> </ul>				
<ul> <li>Wer den Sicherheitabstand nicht einhält, gefährdet andere Verkehrsteilnehmer.</li> </ul>				
Ihre Eins	chätzung			
Bitte kreuzen Sie die jeweils zutreffende Antwort an	1.			
<ul> <li>Mit welchem Sicherheitsabstand glauben Sie bei 130 km/h auf der Autobahn sicher unterwegs zu sein?</li> </ul>	☐ 1 Autolär☐ 5 Autolär☐ 15 Autolär☐ 15 Autolär☐ 15 Autolä	ngen	☐ 3 Autoläi ☐ 10 Autolä ☐ 20 Autolä	ängen
• Wie gut können Sie Ihrer Meinung nach Autofahren (1 = sehr gut, 5 = sehr schlecht)?	①	2	3 4	(5)

Bei den folgenden Fragen ist jeweils NUR EINE Anwortmöglichkeit richtig. Sollten Sie die Antwort nicht wissen, kreuzen Sie bitte "Weiß nicht" an.						
Was passiert bei 3 Vormerkungen innerhalb von 2						
☐ Nachschulung. ☐ Führerscheinentzug.	☐ Ärztliche Kontrolle. ☐ Fahrsicherheitstraining.					
☐ Das ist von der Art der Delikte	☐ Weiß nicht					
abhängig.						
Welches ist kein Vormerkdelikt?						
☐ Nichtbeachtung einer Stopptafel ☐ Umfahren geschlossener Eisenbahnschranken.						
☐ Überfahren einer Roten Ampel.						
☐ Überschreitung der Höchstgeschwindigkeit.						
☐ Gefährdung durch nicht richtig gesicherte Ladur ☐ Weiß nicht	ng.					
Bei welchem Vormerkdelikt wäre die Maßnahme e  ☐ Verstoß gegen Tunnel-Fahrverbot mit gefährlich						
□ Nicht-Einhaltung des Sicherheitsabstands.	ich Gutern.					
□ 0,1 bis 0,79 Promille bei C-Lenkern.						
☐ Blockieren einer Eisenbahnkreuzung. ☐ Nichtbeachtung der Kindersicherung.						
□ Weiß nicht.						
Wind a life in Cirl along the land of the control o	P. l. J. J					
Wieviel sollte der Sicherheitsabstand unter normale □ 0,1 Sekunden.	en Fahrbedingungen mindestens betragen? $\square 0.5$ Sekunden.					
☐ 1 Sekunden.	□ 3 Sekunden.					
□ 5 Sekunden.	□ Weiß nicht.					
Wieviel Meter beträgt der Richtabstand bei 50 km/  ☐ 5 Meter.	h'? ☐ 39 Meter.					
☐ 15 Meter.	□ 3 Meter.					
□ 25 Meter.	□ Weiß nicht.					
Additional items for the post-t	test (P-S2):					
Ihre Meinung: Nachso	chulung & KursleiterIn					
• Wie bewerten Sie die Kursleiterin / den Kursleiter insgesamt (1 = sehr gut, 5 = sehr schlecht)? Zutreffendes bitte ankreuzen.						
① ② ③ ④ ⑤						
Wie hat Ihnen die Nachschulung insgesamt gefa	allen (1 = sehr gut 5 = sehr schlecht)?					
	(1 John Bar, 5 John Johnson).					
0 2 3 4 5						

P-P1		

Sehr geehrte Kursteilnehmerin, sehr geehrter Kursteilnehmer,

Diese Befragung ist eine wissenschaftliche Untersuchung zur Optimierung der Nachschulungskurse. Ihre Angaben sind anonym und haben keinerlei Auswirkung auf das Bestehen des Kurses.

Da sie den ersten Teil der Befragung jetzt ausfüllen, und den zweiten Teil am Ende des Kurses, benötigen wir einen anonymen Kode. Durch diesen Kode wissen wir, welche Fragebogenteile jeweils zusammengehören. Für den Kode verwenden wir Daten, die uns nicht bekannt sind.

### Bitte füllen Sie dazu die 4 Felder aus:

Feld 1: Erster Buchstabe des Vornamens Ihrer Mutter.
Feld 2: Dritter Buchstabe des Vornamens Ihrer Mutter.
Feld 3: Erster Buchstabe des Vornamens Ihres Vaters.
Feld 4: Dritter Buchstabe des Vornamens Ihres Vaters.

1	2	3	4

Bitte lesen Sie sich jede Frage genau durch und lassen Sie keine Frage aus. Beantworten Sie die Fragen durch Ankreuzen oder Ausfüllen.

Vielen Dank für Ihre Mitarbeit!

Angaben zu Ihrer Person					
Geschlecht:	□ männlich □ weiblich				
Alter:					
Nationalität:	☐ Österreich ☐ Serbien ☐ Kroatien ☐ Türkei ☐ Sonstige (bitte angeben):				
Muttersprache:	☐ Deutsch ☐ Serbisch ☐ Kroatisch ☐ Türkisch ☐ Sonstige (bitte angeben):				
Führerschein(e):	$\square$ A $\square$ B $\square$ C $\square$ D $\square$ E $\square$ F $\square$ G				
Angaben zum Nachschulungsanlass					
Haben Sie schon mal an einer Nachschulung im Rahmen des Vormerksystems teilgenommen? □ Ja					

(5)

## **Ihre Meinung**

Bitte geben Sie an, wie sehr Sie den folgenden Aussagen zustimmen.

	stimmt gar nicht	stimmt kaum	stimmt eher	stimmt genau
<ul> <li>Die Bestimmungen zur Benutzung von Pannenstreifen sind zu streng.</li> </ul>				
<ul> <li>Längere Zeit auf dem Pannenstreifen zu stehen ist bei gut sichtbarer Absicherung ungefährlich.</li> </ul>			0	
• Die gesetzlichen Bestimmung zur Nutzung des Pannenstreifens sind sinnvoll.				
<ul> <li>Es sollte erlaubt sein, den Pannenstreifen in Ausnahmesituationen auch ohne Gebrechen oder Unfall befahren zu dürfen.</li> </ul>				

## Ihre Einschätzung

Bitte kreuzen Sie die jeweils zutreffende Antwort an.

•	Wie gut können Sie Ihrer Meinung nach					
	Autofahren (1 = sehr gut, 5 = sehr schlecht)?	1	2	3	4	

					tte "Weiß nicht" an	n. Soliten Sie die Antwort
	Nach: Führe	schulu rschei st von		g.	ungen innerhalb vo Pelikte	on 2 Jahren?  ☐ Ärztliche Kontrolle.  ☐ Fahrsicherheitstraining.  ☐ Weiß nicht
	Nicht Umfa Überf Übers Gefäh	beacht hren g ahren schreit	eschlos einer F ung de	ner Sto ssener Roten A r Höch	opptafel Eisenbahnschranke	
	Verste Nicht 0,1 bi Block Nicht	oß geg -Einha s 0,79 tieren o	gen Tur Iltung o Promil einer E ung de	nnel-Fa des Sic lle bei isenba	t wäre die Maßnahr ahrverbot mit gefäh herheitsabstands. C-Lenkern. hnkreuzung. lersicherung.	me eine Perfektionsfahrt?  nrlichen Gütern.
	Einsp Polize Rettu Fahrz Panne	urige l eifahrz ngsfah euge d	Fahrzei	uge. .ßenau	icht am Pannenstre	rifen fahren?
	Verw Langt Besch Einsc Ausw Weiß	endung fristige aleunig halten reicher nicht	g eines es Stehe gen bei der Wa n zur U	Warn enlasse m Wie arnblir nfallve	nkanlage. ermeidung.	en Fahrzeuges. en Fließverkehr nach einer Panne. est-test (P-P2):
	÷	÷				chschulung & KursleiterIn
				die Kı	ırsleiterin / den Ku	rsleiter insgesamt (1 = sehr gut, 5 = sehr schlecht)?
	_	_	es bitte	_		
	D 	2	3	4	<b>(</b> )	
	_	_	_	_		gefallen (1 = sehr gut, 5 = sehr schlecht)?
(	D	2	3	4	(5)	

### **EVALUATION DER NACHSCHULUNGSKURSE**

Sehr geehrte Kursleiterinnen und Kursleiter der AAP,

Gemäß der Nachschulungsverordnung FSG-NV § 8 muss die Wirksamkeit der Nachschulungskurse regelmäßig überprüft werden. Im Auftrag der AAP wird daher eine Evaluation aller Nachschulungskurse in allen Landesstellen durchgeführt, für die Ihre Mitarbeit benötigt wird. Im Rahmen der Evaluation sollen jedem Kursteilnehmer zwei Fragebögen vorgegeben werden. Ein wesentlicher Unterschied zur letzten Evaluation besteht darin, dass ein besonderes Augenmerk auf Teilnehmer mit nicht-deutscher Muttersprache gelegt werden soll. Für den Alkoholkurs gibt es daher neben dem deutschen Fragebogen auch Fragebögen auf Serbisch, Kroatisch, Türkisch und Polnisch.

Anbei finden Sie wichtige Informationen zur korrekten Fragebogenvorgabe.

### ABLAUF DER EVALUATION

Bitte geben Sie jedem Kursteilnehmer:

- den ersten Fragebogen zu Beginn der ersten Kurseinheit, noch bevor Sie die ersten Kursinhalte vermitteln.
- den **zweiten Fragebogen am Ende** der letzten Kurseinheit, bevor Sie die Teilnahmebestätigungen austeilen.

Untersuchungszeitraum:	
------------------------	--

Die Teilnehmer werden jeweils ca. 20 Minuten zum Ausfüllen benötigen.

### AUSWAHL DER FRAGEBÖGEN

Je nach <u>Kurs</u> und <u>Messzeitpunkt</u> gibt es **unterschiedliche Fragebogenversionen**. Im Alkoholkurs wird weiters nach der <u>Muttersprache</u> der Teilnehmer unterschieden. In der linken oberen Ecke der ersten Seite jedes Fragebogens finden Sie eine Kennzeichnung. Diese zeigt an, in welchem Kurs und zu welchem Zeitpunkt der jeweilige Fragebogen vorgegeben werden soll:

A	Alkoholkurs (Deutsch)
AK	Alkoholkurs, für Teilnehmer mit kroatischer Muttersprache oder jene, die Kroatisch besser als
	Deutsch beherrschen
AP	Alkoholkurs, für Teilnehmer mit polnischer Muttersprache oder jene, die Polnisch besser als
	Deutsch beherrschen
AS	Alkoholkurs, für Teilnehmer mit serbischer Muttersprache oder jene, die Serbisch besser als
	Deutsch beherrschen
AT	Alkoholkurs, für Teilnehmer mit türkischer Muttersprache oder jene, die Türkisch besser als
	Deutsch beherrschen
D	Drogenkurs
P-A	Vormerksystem-Kurs mit Schwerpunkt Alkohol*
P-P	Vormerksystem-Kurs mit Schwerpunkt Pannenstreifen*
P-S	Vormerksystem-Kurs mit Schwerpunkt Sicherheitsabstand*
V	Verkehrsauffällige/Probeführerscheinkurs
1	1. Fragebogen (für den Beginn der 1. Kurseinheit)
2	2. Fragebogen (für das Ende der letzten Kurseinheit)

<u>Beispiel:</u> A1 = deutschsprachiger Fragebogen für den Beginn des Alkoholkurses

**A2** = deutschsprachiger Fragebogen für das Ende des Alkoholkurses

<sup>\*</sup> Für die Vormerksystem-Kurse soll jedem Teilnehmer nur eine der 3 Fragebogenformen vorgegeben werden. Falls der Teilnehmer nicht nur eine der 3 Deliktarten begangen hat, gilt:

P-A: Diese Fragebogenform wählen, sobald der Teilnehmer mindestens 1 Alkoholdelikt begangen hat.

\* **P-S**: Diese Fragebogenform wählen, wenn der Teilnehmer KEIN Alkoholdelikt begangen hat, aber mindestens ein Sicherheitsabstandsdelikt.

**P-P**: Diese Form wird nur vorgegeben, wenn der Teilnehmer WEDER Alkoholdelikte NOCH Sicherheitsabstandsdelikte begangen hat.

#### KENNZEICHNUNG DER FRAGEBÖGEN

Bitte kennzeichnen Sie jeden Fragebogen auf der ersten Seite rechts oben mit dem **Datum** (dd mm) der Kurseinheit.

Beispiel: 15 02 = Die Kurseinheit findet am 15. Februar statt.

Bei Kursen mit **Dolmetscher** schreiben Sie bitte ein "D" hinter das Datum.

<u>Beispiel</u>: 08 02 D = Die Kurseinheit findet am 8. Februar statt und wird unter Anwesenheit eines Dolmetschers abgehalten.

Bitte sammeln Sie die Fragebögen jedes Kurses in einem eigenen Kuvert, welches Sie mit der **offiziellen Kursnummer** beschriften

#### VORGABE DER FRAGEBÖGEN

Im Alkoholkurs erfragen Sie bitte zuerst der <u>Muttersprache der Teilnehmer</u> und teilen Personen mit serbischer, kroatischer, türkischer oder polnischer Muttersprache, sowie Personen, die eine dieser Sprachen besser beherrschen als Deutsch, die Fragebögen in der jeweiligen Sprache aus (AS, AK, AT oder AP). In allen anderen Kursen gibt es nur eine deutsche Fragebogenversion.

Bitte weisen Sie die Teilnehmer auf den Einführungstext am Fragebogen hin und betonen Sie die Wichtigkeit den Kode auszufüllen und alle Fragen vollständig zu beantworten, da nur so eine sinnvolle Auswertung möglich ist.

Um zu gewährleisten, dass alle Angaben anonym sind, muss jeder Teilnehmer einen **Kode** in den 4 Feldern auf der ersten Seite des Fragebogens angeben. Der Kode besteht aus dem ersten und dritten Buchstaben des Vornamens der Mutter und dem ersten und dritten Buchstaben des Vornamens des Vaters des Teilnehmers. Nur durch diesen Kode können die Fragebögen vom Beginn des Kurses jenen vom Ende des Kurses zugeordnet werden. <u>Bitte kontrollieren Sie daher beim Einsammeln, ob jeder Teilnehmer den vierstelligen Kode ausgefüllt hat.</u>

### TEILNEHMER MIT VERSTÄNDNISPROBLEMEN

Da die Erfassung von Verständnisproblemen Teil der Untersuchung ist, brechen Sie die Fragebogenvorgabe bitte nur ab, falls der Person das Ausfüllen überhaupt nicht möglich ist. Bitte stellen Sie für alle Teilnehmer sicher, dass zumindest **Kode, Nationalität und Muttersprache**\_angegeben sind.

### RÜCKSENDUNG DER FRAGEBÖGEN

WICHTIG! Bitte sammeln Sie die Fragebögen jedes Kurses in einem eigenen Kuvert, welches Sie mit der offiziellen Kursnummer beschriften. Lassen Sie jedes Kuvert möglichst bald nach Kursende der AAP Geschäftsstelle in Wien zukommen.

Bei Fragen zur Evaluation stehe ich Ihnen gerne zur Verfügung: Tel. 0650 54 12345

E-mail: Julia.Bardodej@yahoo.co.uk

Vielen Dank für Ihre wertvolle Mitarbeit!

Mit freundlichen Grüßen

Julia Bardodej

### **CURRICULUM VITAE**

### PERSONAL DATA

Name Julia Bardodej
Date of birth 22.02.1981
Place of birth Vienna, Austria

E-mail <u>Julia.Bardodej@yahoo.co.uk</u>

### WORK HISTORY

Oct. – Dec. 2007 Training Consultancy for Individuals and Businesses, WIFI

Vienna - Training Institute of the Federal Economic

Chamber: internship

April – June 2005 Austrian Eating Disorders Association

Nov. 2003 – Nov. 2004 Sprachreiseteam / Good Hope Studies

August – Sept. 2004 Austrian Students' Support Foundation

July – August 2003 Capital Photography, The London Dungeon, London

Oct. 1999 – Oct. 2002 update.co.at

March 2000 – March 2001 Capital Photography, The London Dungeon, London

Oct. 1999 – Feb. 2000 Au pair in Holland Park, London

July – August 1997/98 Heimhilcher & Partner / Vacutech / update

### **EDUCATION**

March 2003 - present Psychology, University of Vienna (equivalent to MSc)

Jan. 2002 – April 2003 BA (Hons) Multimedia Arts, Middlesex University, London,

in association with SAE Institute, Vienna

March 2000 – March 2001 Diploma in Multimedia Production, SAE Technology

College, London

Sept. 1999 – March 2000 Certificate in Multimedia Design, SAE Technology College,

London

June 1999 Matura at the AHS Gymnasium Haizingergasse, Vienna

(equivalent to A levels)

I hereby confirm that all relevant parts of this thesis were carried out by myself.	
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Signature	