

EU-Project „Andrea“

Analysis of Driver Rehabilitation Programmes

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Introduction

Over the last 30 years driver rehabilitation programmes for traffic violators have continuously become a more established measure aiming at the reintegration of high risk drivers in the traffic system again. The objective of the **Andrea-project** is the **Analysis of driver rehabilitation programmes** to answer if these courses are effective and especially what in detail makes the courses effective. The Andrea-project is a follow-up of the EU-project "**DAN**" – **Description and Analysis of post licensing Measures for Novice drivers** (Bartl, 2000). In the DAN-project driver rehabilitation courses were generally recommended for novice traffic offenders. In contrast to the DAN-project in the Andrea study not only measures for novice but also experienced drivers are subject of interest and the analysis of these programmes also concentrates on the effectiveness of single elements.

Here in the introduction the most important aspects of this study shall be presented briefly.

Definition of driver rehabilitation programmes:

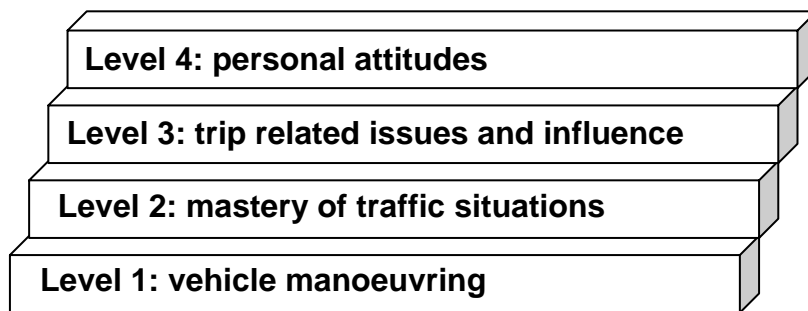
***Rehabilitation Programmes* are systematic measures for traffic offenders – in particular drunk drivers and speed offenders – aiming at a change of their behaviour in order to prevent further offences and to keep or to regain their driving licence.**

Who is the target group of the programmes

Drunk drivers are a minority in traffic but they are responsible for about 10% of accidents in EU-countries, referring to official statistics (there are relatively massive variations between the EU-countries). Drivers who commit serious traffic offences other than alcohol - primarily exceeding the speed limit - are a minority, too. For example in Germany only about 2-3% of drivers are registered in the central licensing register for exceeding the speed limit per year, which over the years is considerably bigger. Driver rehabilitation courses are targeting this small number of drivers who are responsible for a considerable number of accidents.

The programmes applied are generally targeted for offenders with attitudinal deficits. Alcohol addicts, heavy drug abusers and highly aggressive criminal violators can not be treated in these rather short term measures. For medical diseases primarily medical treatment must be applied.

Referring to the hierarchical model of driver behaviour (Keskinen, 1996) which was presented in the EU-project GADGET and applied in the DAN-project driver rehabilitation programmes are focusing on drivers' deficits in the two highest levels.



On level 4 it is the goal of these courses to change wrong personal attitudes and cognitive beliefs concerning drunk driving and risky driving. On level 3 it is the aim to change wrong planning of the trips in order to separate two legal things – drinking and driving. Both are allowed but both together are dangerous and therefore forbidden.

The target group of driver rehabilitation courses typically lack in these two levels three and four but not in the levels one and two. Due to current deficits in these two levels these offenders are categorised as not reliable for traffic participation. There are variations between the legislation in EU-countries but in the end all these drivers are classified as unfit to driver, consequently their licence has been withdrawn or at least they got punished and ordered to clear up their deficits in such a course. The selection system of course participants is different between EU-countries. If a driver wants to gain or regain his/her licence five selection approaches can be distinguished:

- Categorical order to participate if the driver has committed specific offences (e.g. driving with a BAC higher than x%, exceeding the speed limit by x km/h...).
- Individual order by a judge after a serious traffic violation.
- Individual order by the licensing authority based on an individual expertise after a medical psychological assessment.
- Participation is only offered if offenders want to get their licence reissued earlier.
- The offender participates "voluntary" in order to have better chances to pass a later medical psychological assessment.

Summarised, driver rehabilitation courses are treatments with the goal to make "unfit" drivers "fit" again. It can be seen as a chance for reintegration into a safety oriented traffic system. This idea of reintegration becomes even more important when considering that e.g. in Germany 29% of all drunk drivers who are registered in the licensing register are driving without a licence.

Which specific problems shall be compensated with the programmes

Speeding is the most contributing accident factor. Concerning the influence of drunk driving on road traffic accidents Krüger (1995) and Borkenstein (1974) investigated in their real field studies including data from about 20,000 drivers from Germany and about 16,000 drivers from the USA that the accident risk disproportionately increases with the drivers' level of blood alcohol concentration (BAC). In comparison to sober

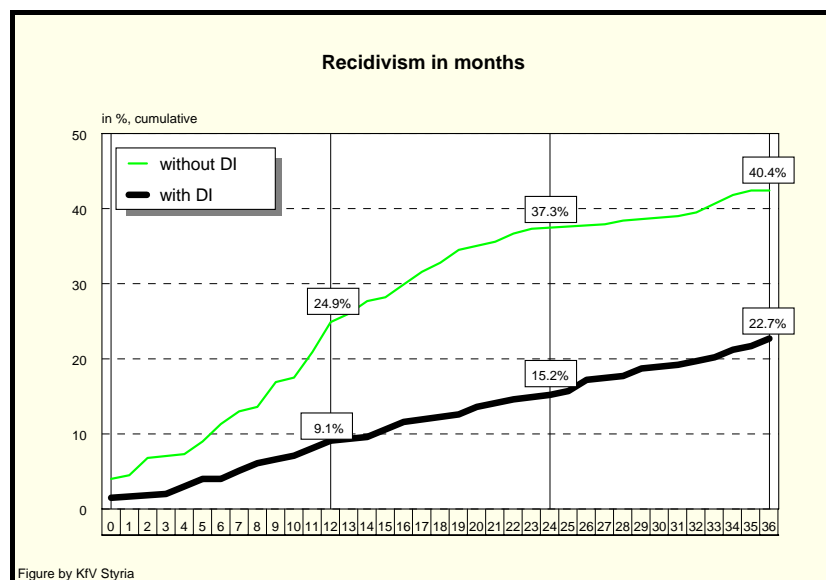
drivers the accident risk is double at a BAC of .05%, already four to five times higher at a BAC of .08% and 25 times higher at a BAC of .16%.

According to these accident factors, driving a motorised vehicle in traffic does not only require skills for manoeuvring but also social responsibility. Traffic violators primarily do not lack skills but positive attitudes towards social responsibility. Especially drunk drivers and speed offenders are characterised as not reliable in traffic. Consequently, their licence is withdrawn. Obviously, punishment and withdrawal of the driving licence alone have to be considered as not sufficient to prevent those drivers from repeated offences. In order to improve drivers' reliability, rehabilitation programmes have been developed in certain EU-countries.

What is the impact of the programmes

Evaluation studies especially of rehabilitation programmes for drunk drivers indicated, that such programmes can reduce the recidivism rate of participants significantly compared to control groups without participation in these programmes.

A recent evaluation study carried out in one of the states of Austria by Schützenhöfer & Krainz (1999) provides an example for the effect of a compulsory driver rehabilitation programme. In this study (also see literature chapter and annex) recidivism rates of drunk drivers with and without participation in a psychological driver improvement course for drunk drivers (DI) were analysed and compared: In the first 12 months after the re-issue of the driving licence, 24.9% of untreated offenders (control group), but only 9.1% of participants in DI courses were detected by the police for drunk driving. After 24 months 37.3% of the control group but only 15.2% of course participants committed repeated offences. After 36 months a recidivism rate of 40.4% was found for the control group but only 22.7% for the DI-participants. These results are highlighted in the following diagram:



Recidivism rates of drunk drivers with and without DI-course participation (by Schützenhöfer & Krainz)

This most recent study confirms results of earlier studies which also proved an almost 50% lower recidivism rate of course participants compared to a control group

without a course. More details and further studies are discussed in the literature chapter of this report.

The influence of the programmes on traffic safety

Although driver rehabilitation courses appear to be effective for their clients, they can only have a limited influence on traffic safety in general as only a small number of drivers can be reached. Therefore, also the scope of this "Andrea" study is limited concerning enhancing traffic safety. General preventive measures such as high quality driver education for all drivers, police surveillance, a safe road environment etc. seem to be of even higher importance for traffic safety. Driver rehabilitation courses are only targeted at a specifically small group of high risk offenders.

Who is responsible for the quality of the courses

As participation in these courses generally follows after a serious traffic offence these courses are directly or indirectly compulsory for the clients. Hence, it must be considered that not the participant himself is the only client but the public represented by their authority which orders the course participation based on a law has to be seen as the principal customer. Consequently, in the Andrea project the analysis of driver rehabilitation programmes primarily focuses on the goals of this principal customer which is the reduction of traffic violations and accidents.

Even when these courses are conducted by private institutes the authority is responsible for the quality assurance of the programmes. These courses do not follow the principles of the free market as participation is not voluntary. These courses are based on specific law. If the law would be changed no clients would be left.

Objective

The objective of the "Andrea"-Project is to enhance traffic safety by providing comprehensive information about individual preventive measures to positively influence high risk drivers. Therefore, a description of driver rehabilitation programmes applied in the EU and an analysis concerning the factors of the various programmes which are most effective have been elaborated. The results of this study can be seen as a general manual for course providers and decision makers.

Who benefits from the results

Three target groups shall benefit from the results of the "Andrea"-Project to enhance traffic safety all together:

1. The report is addressed to experts (psychologists, driving teachers...) who conduct courses in order to review their programmes and if necessary to adapt them. It can also be used for education of staff and especially as a basis for new implementation of courses in certain countries.
2. Conclusions of the report are also of interest for decision-makers on national and on EU-level. The results shall help them to decide whether to implement and if so how to implement driver rehabilitation programmes or to optimise programmes already applied.
3. The clients of the programme – the minority of drivers who commit serious offences – shall benefit from this study as it concentrates on the harmonisation of

high quality for driver rehabilitation programmes in the EU. The client cannot decide whether a course is of high quality. In this sense the study shall be seen as a basis for quality assurance.

In this study the following two main questions shall be answered:

- Are driver rehabilitation courses in general effective?
- What specific elements of the courses are more or less effective?

Methodology

The methodologies applied in the working process of this project can be summarised in the following work-steps:

1. Systematic collection and description of programmes already applied in the EU and Switzerland.
2. Systematic collection and description of evaluation studies on rehabilitation programmes.
3. Workshops for communication between experts to confer upon experience concerning strengths and weaknesses of the programmes.
4. Feedback-study for systematic description of methods and modules applied in various programmes with individual feedback from participants and course leaders.
5. Qualitative analysis of experts for final recommendations concerning which elements of the courses are more or less effective.

Project organisation

This project was co-ordinated by the Kuratorium für Verkehrssicherheit in Austria (Road Safety Board). Furthermore, the scientific and steering committee was formed by scientists of The German BASt (Bundesanstalt für Strassenwesen), University of Turku / Finland, department of psychology and of INRETS in France. The working process was supervised by representatives of the European Commission, DG TREN which partially financially supported the operations of the project.

The connection to the practice was guaranteed by representatives of bodies who conduct driver rehabilitation programmes in EU-countries. The names of these experts from Portugal, Italy, France, England, The Netherlands, Belgium, Germany, Austria and Switzerland are listed in the Annex.

The co-operation between the scientific and steering committee and these experts was organised in two workshops and by mailing.

The operations of the project started in February 2000 and were finalised in December 2001.

Literature Analysis

As already mentioned in the chapter "objective" Borckenstein (1974) and Krüger (1995) investigated that the accident risk disproportionately increases with the drivers blood alcohol level. Hence, the connection between drink driving and accident risk is evident. If drink driving is reduced then accidents are reduced. The same correlation can be set up for speeding, which is the known as the most contributing accident factor. If speeding is reduced, at least speeding accidents can be expected to occur less frequently. Participants of driver rehabilitation courses primarily are alcohol and speed offenders.

This correlation between offences (alcohol, speed) and the accident risk must be considered when evaluating the contribution of driver rehabilitation programmes for traffic safety. Because all evaluation studies discussed below focus on the recidivism criteria (repeated offence) and not on accidents as they occur rather infrequently. But the correlation between these offences and accident risk is evident. Nevertheless, it is only an indirect way to evaluate traffic safety effects.

Driver rehabilitation courses for drunk driving offenders were conducted for the first time in the seventies in Austria, Germany and Switzerland. These first courses were held in groups of about 10 participants led by psychologists. Serious evaluations with randomly selected control groups focussing on recidivism were published in the eighties after the number of rehabilitation courses increased continually. In this chapter primarily those studies are discussed which are focussing on recidivism and have been conducted with control groups. The most important studies in detail are presented in the Annex of this report. Evaluations with a control group design of driver rehabilitation programmes for other than alcohol offenders focussing on recidivism have not been found in literature. Only Christ reported a 15% (n=58) recidivism rate of participants of a course for other than alcohol offenders (n=378) after an average 23 months observation period. But there was no control group available. In comparison to recidivism rates of drunk driving offenders of the two other studies from Austria (presented below) which indicated an approximately 50% reduction compared to their control groups it is about equal.

The "magical minus 50 per cent"

The efficiency of certain course programmes has been proven with control groups in Austria by Michalke et al. (1987) and Schützenhöfer & Krainz (1999), in Germany by Jacobshagen (1997, 1998) and Great Britain by Davies et al. (1999) and also one study from the USA by Jones et al. (1997) had one result in common: Recidivism rates were found to be reduced by about 50% for drunk drivers who participated in a rehabilitation programme compared to drunk drivers without course participation over a two to five years observation period. (For example after a three years period the recidivism rate for participants is about 15% and for the control group about 30%; also see detailed table below.) Consequently, these types of courses have proven success. Furthermore, Winkler et al. (1990) also found a significant reduction of recidivism after a five years observation period. However, slightly different from the studies mentioned above the reduction was not about 50% but about 25% after a five years observation period. But here the difference seems to come from the reference group. Because the recidivism rate of the course participants was 21% after a five years period and about 13% after a three years period. These figures are highly corresponding to recidivism rates of the studies mentioned above and are also about 50% lower than the recidivism rates of the control groups of these studies. But the reference group in the study from Winkler et al. can not be seen as a real comparison

group because individuals of the reference group have been formed those offenders who have been diagnosed positive in an medical psychological assessment. Accordingly, it can not be expected that course participants have a lower recidivism rate than those offenders who's recidivism rate has been diagnosed close to zero in an assessment. It would fit better to compare the result of Winkler et al. with control group result of other studies. Then also an approximately 50% reduction becomes obvious.

In contrast to the positive results of the studies form course programmes in Austria, Germany, England and USA, in Switzerland an evaluation by Mahey et al. (1997) found no reduction in recidivism rates of course participants compared to a control group. This zero result can not be attributed to potential weaknesses of the evaluation itself but the programme evaluated was essentially different from those programmes which were evaluated in the studies mentioned above. Consequently, this study is of high interest as it helps to compare single effective factors of courses, which will be discussed below. The "magical 50 percent" (50% lower recidivism rate of course participants compared to control groups) found in various studies are listed below:

Evaluation studies on recidivism

country	study	observation period	recidivism rates of:		reduction of recidivism
			course participants	control-group	
Austria	Michalke et al. (1987)	2¼ years	A 15.8% B1 12.5% B2 10.3%	30.6%	A 48.4% B1 59.2% B3 66.3%
Austria	Schützenhöfer & Krainz (1999)	3 years	22.7%	40.4%	43.8%
Germany	Winkler et al. (1988)	3 years	IFT 13.5% IRAK 12.8% LEER 14.0%	(17.7%) (18.6%) (18.3%)	no comparison •)
Germany	Winkler et al. (1990)	5 years	IFT 19.6% IRAK 20.5% LEER 22.9%	(25.7%) (24.6%) (26.3%)	no comparison •)
Germany	Jacobshagen (1997)	3 years	14.4%	31.6%	54.4%
Switzerland	Mahey et al. (1997)	5-6 years	19.7%	19.7%	0 ••)
United Kingdom	Davies et al. (1999)	3 years	3.4%	9.6%	after correction 54% •••)
USA	Jones et al. (1997)	1 year	5.6%	10.7%	47.7%

- It is not a control group but a base line group of clients diagnosed positive.
- The programme analysed was essentially different to the other programmes evaluated.
- Reduction after correction in a mathematical model weighting the influence of self selection bias.

A new and so far unpublished evaluation from Brinbaum et al. (in press) indicates an extraordinary low recidivism rate for participants in the German "Mainz 77" programme. After an almost five years observation period only 12,5% of participants were detected for drunk driving again. But this difference to the other studies describe above can be explained by a specific selection procedure prior to the course which had the effect that only the very "low risks" participated. In this study also a kind of reference group was included. Their recidivism rate was 17.5% and the difference to the test group was statistically significant. But this reference group was in a statistical sense not sufficiently independent from the test group as a part of them (to an unknown extend) also took part in the selection process prior to the course but failed. On the other hand offenders who positively passed the selection process decided later not to participate in the course due to any reasons. And these offenders then were included in the control group what possibly contributed to a lower recidivism rate of this reference group.

Similarities and difference of programmes

The courses analysed above resulting in an about 50% reduction of recidivism (difference between treatment- and control group) had certain factors in common:

- The size of the groups was about 10 participants – not more
- Courses were running over a few weeks (3-8 weeks) period
- Courses were held in a certain number of sessions (about 3 to 6 and partly more per 2 to 3 hours each)
- Courses were led by professionals who were sufficiently educated to discuss with problematic clients about problematic personal aspects and were able to set up a professional working relationship.
- The contents of the courses was rather personal self reflection than teaching and there was no fixed programme scheme but interventions were client centred.

In contrast to these courses the course model of the one study of Switzerland which did not indicate a reduction in recidivism was held with 20 participants, was focussing on teaching, was led by experts in their field (e.g. law, medicine) but not experts in leading problematic groups and were rather short term.

Both types of programmes, the successful ones and the one without success were conducted for drink driving offenders only. A mixture with other than alcohol offenders was avoided. But different types of drinkers were included.

The selection bias

All studies have partially weaknesses. And it could be assumed that the rather equal reduction of recidivism of 50% is caused by the same bias in every study. But this is not the case and shall be demonstrated in the following. The hardest issue for these studies was to find random selected samples so that the effects can be attributed as a result of the course and not as a result of the selection of individuals. Because if only the safety minded individuals are participating in a course and the high risk offenders do not participate then it is obvious that the participants have a lower recidivism rate compared to the control group without participation. But in this case the individuals of the treatment group would have a lower recidivism rate anyhow, with or without any treatment. Thus, the selection bias can be seen as the specific challenge in the evaluation of rehabilitation courses applied. Therefore, it is subject of analysis in this chapter. Other methodological evaluation problems seemed to be more general and were not found critical in the studies here.

In the studies from Davies et al. (1999) in England and from Schützenhöfer & Krainz (1999) in Austria conditions for random selection appeared to be optimal. In Styria which is one state of Austria at that time (mid of nineties) certain district authorities ordered drink driving offenders to participate in a course if they applied for the reissuing of the license. Individuals from these districts later formed the test group. Other district authorities reissued the license without any course participation. These individuals later formed the control group. This situation guaranteed random selection as drink driving offenders seem not to be different from one district to an other. The selection to the test group or the control group was only depending on the general opinion on the rehabilitation courses of the jurists in the local authorities. By the way, in the late nineties this unsystematic situation was harmonised by law so that every drink driver with a blood alcohol concentration of .12% and more has to participate in a course. The sample of 198 male offenders in the test group and 177 males in the

control group was rather small but not too small for the general result which is a reduction of recidivism by about 50% for the test group compared to the control group over a three years period. Generalisation of results of subgroups of this study must consider the small sample and can only be seen as indications.

The study of Davies et al. (1999) does not have a weakness in number of individuals as data from 20,000 drink drive offenders were analysed and 9,000 of them participated in the courses (data of 3,723 participants could have been recorded). But the selection of the test group was not really randomly. Although in certain counties judges could not order offenders to participate in a course and in other counties they could, there was still free choice for the individuals to participate. Davies et al. tried to compensate with a statistical correction of this selection bias and found, after having corrected, a 54% lower recidivism rate for participants compared to the control group after a three years observation period.

In the study by Michalke et al. (1987) the situation was different. In the eighties every drink driving offender who was ordered to participate in a course if he applies for the reissuing of the license had to undergo a traffic psychological assessment. In the psychologists' expertise a course recommendation was given if drink driving was found to be a result of deficits in attitudes and not of alcohol addiction. Accordingly, the pre-selection was executed by an individual test in which it had been analysed whether the rehabilitation programme fits to the offenders deficits - if sustaining deficits were found. Even if this selection procedure of the assessment was not absolutely objective the bias would have occurred to the same extend in both groups, the test group and the later control group. Because the control group was then formed by those individuals who did not participate due to organisational or administrative reasons. After an in average 2¼ years period the authors observed 50% less repeated drink driving offences for the test group compared with the control group. Nevertheless, there has to be stated that data from 223 individuals in the test group and 72 individuals were analysed. Due to this rather small sample main results can be interpreted but interpretations of results of subgroups are limited.

In the German Study from Jacobshagen (1997, 1998) the self selection bias was excluded as participation for novice drivers after an drink driving offence became compulsory. But at the same time through this a control group problem raised up as the participation was compulsory for every offender and no offenders without participation were left over. Therefore, Jacobshagen had to compare the recidivism rates he found for course participants with a reference group of the same age from an earlier time period before these courses for novice drink drivers became compulsory. Finally, he could analyse recidivism from 1,211 participants over a three years period and found that 14.4% were detected for drink driving again. In the reference sample the recidivism rate during a three years period was 31.6%. Michlake et al. (1987) found a recidivism rate of about 15.8% in an in average 2¼ years period compared to 30.8% recidivism in their control group. And Schützenhöfer & Krainz (1999) analysed a recidivism rate of 22.7% for the test group and 40.4% for the control group over an three years period. In the study of Winkler et al. (1988) a recidivism rate of about 13% was found for the test group after a three years period. These figures are not far from those figures which Jacobshagen found. Consequently, Jacobshagen's results are becoming more valid although they are based on a comparison group of other individuals from an observation period certain years earlier.

In the study of Winkler et al. (1988, 1990) individuals of the test group had to undergo a selection procedure similar to the selection in the two studies from Austria discussed above. Drink driving offenders who were in the medical psychological assessment diagnosed negative but their deficits were diagnosed as attitudinal which could be compensated in a driver rehabilitation course were offered to attend a course in order to get their license reissued. From a legal point of view this is self selection but in fact the license was only reissued if the course has been absolved. Hence, from a psychological or motivational point of view the individual had no free choice.

Clients of the programme in the USA evaluated by Jones et al. (1997) also had free choice of participation. The authors controlled for this self selection bias by analysing which characteristics of the subjects were found to have a significant effect on recidivism. then, these independent variables (age, number of prior offences, length of jail) were set at their mean values. Using raw data, the one year recidivism for the treatment group (n=506) was 5.9% compared to 12.5% for the control group (n=1,452) without course. After the correction the recidivism rate for the treatment group became 5.6% and for the control group 10.7%. Accordingly, the effect of the treatment was a reduction of recidivism of 47.7%.

In the same study the effect of an other treatment – an electronic monitoring programme instead of jail – was evaluated, too. Using raw data, the one year recidivism for the treatment group (n=639) was about 3.4% compared to 6.0% for the control group (n=18,419). Also here the selection bias had to be controlled for which again was done by analysing influencing independent variables which were then set at their mean values (age, prior offences, household income, high school education). Then the corrected recidivism rate for the treatment group became 4.3% compared to 6.1 for the comparison group. This is a reduction of 29.5% which is less than the reduction of 47.7% of the rehabilitation course. This comparison can be interpreted as an indication that the method of a rehabilitation course where the client has to discuss about himself in certain sessions with a professional appears to be most effective.

target group orientation

In the studies mentioned above it was also analysed if the measure fits to the target group. Drink drivers are not a homogenous group but are subdivided into different drinking habits. It was tried to analyse individuals' drinking habits or the extent of addiction either by means of questionnaires or by a linear deduction from the level of blood alcohol concentration (BAC) found at the offence. From a theoretical point of view these courses can only be effective for non alcohol addicts because the aim is to separate drinking from driving. But the idea that the individual's BAC at the offence is correlated with the recidivism rate was not confirmed by those studies which were searching for this correlation:

- Schützenhöfer & Krainz (1999): Only slightly but not significant fewer recidivism for participants with a BAC lower than .16% (but rather small subgroup sample).
- Winkler et al. (1990): Recidivism rates were about equal for participants with a blood alcohol concentration higher than .2% and lower. Participants showing an

increased value in an biological alcoholism marker (Gamma GT between 29 to 68 U/l) were more likely to have a repeated drink driving offence (28%) than participants with normal values (20.1%).

- Jacobshagen (1997/1998): The individuals' BAC was not significantly correlated with recidivism rates after the course. But individuals who reported in a questionnaire that they felt absolutely fit but reported at the same time to drink rather high amounts of alcohol (maximum: 6 to 10 units per 8 grams of alcohol each) showed the highest recidivism rate of all sub-groups (40.7%).
- Davies et al. (1999) found no higher recidivism rates after the course for HROs (high risk offenders with a BAC higher than .2%).
- Birnbaum et al. (paper in press) found a lower recidivism rate for course participants with a higher BAC at the offence (.16% to .19%).

Hence, it can be concluded that the BAC at the offence can not predict the positive effect of the course. But a higher subjective alcohol tolerance and increased biological markers seem to be an indicator of addiction and are therefore a contraindication for driver rehabilitation courses. But this conclusion has not been proven for long term rehabilitation courses with a duration of several months.

It was also subject of interest if effectiveness of courses is correlated with the age of offenders. in the studies the following was found:

- Davies et al. (1999): Courses are most effective for middle aged offenders.
- Schützenhöfer & Krainz (1999): Courses are most effective for young first time offenders.
- Michalke et al. (1987): No correlation of course effectiveness with age.
- Winkler et al. (1990): Courses are most effective for older participants.
- Jacobshagen (1997/1998): Courses are most effective for younger participants.

The discrepancy between the evaluation studies concerning the effectiveness for age groups can not sufficiently be explained. Perhaps it depends on the programme as e.g. NAFA courses are tailored for young offenders and indeed are most effective for young offenders. Anyhow, the conclusion could be that courses in general are effective regardless of age.

Baer (1993) described in his questionnaire study of drink driving offenders who participated in courses in Switzerland similarities and differences concerning age. He compared items about feelings and believes about what they have done when driving drunk between young men (n=370 younger than 25 years) and older men (n=370 older than 25 years). He asked them 12 items and reduced the results to two the factors "feeling guilty" versus "not feeling guilty":

	young men	older men
felt more or less guilty about their drink driving offence.	89.1%	88.8%
did not feel guilty about their drink driving offence.	10.9%	11.2%

Furthermore there were no differences found between the age groups concerning if they themselves felt being an alcohol addict and even how often they already passed police controls without being detected for drink driving even when they were. In both age groups almost all participants stated not to be afraid of causing an accident when they are driving drunk.

Although in the sample which was studied by Baer young men reported to have a lower blood alcohol concentration at the offence they more often caused accidents and especially single vehicle accidents were reported from young men double compared to older men. This fits to results of Krüger (1995) who investigated drink driving accidents and found that the accident risk increases with the level of blood alcohol concentration and it increases steeper for young drivers. Consequently, a lower alcohol limit for novice drivers seems to be justified. In Austria a lower alcohol limit for novice drivers (.01%) in combination with a compulsory driver rehabilitation course was introduced in 1992 and has led to a significant accident reduction (Bartl, et al., 1997; Bartl, 2000). Further differences found in the questionnaire study by Baer was that young men were more often in a especially good mood or bad mood (lover's grief) when they were drinking and driving, young men's offences happened almost two times more often at the weekend or on holidays at a feast. Summarised, drinking habits of young men are more spontaneous and target group tailored driver rehabilitation programmes shall focus on this difference.

The generally importance of pre-selection of clients is underlined by results of an analysis of Christ (2001): The recidivism rate for a not pre-selected sample of drink driving offenders (n=617) participating in a course was 2.7 times higher than for a highly selected sample of participants (n=165) who underwent a psychological assessment prior to the course. The recidivism rate for the non selected sample was 24% and for the pre-selected sample 9% after a 23 months period. Also the study from Birnbaum et al. (paper in press) demonstrates the influence of client selection on recidivism.

Long term programmes for high risk offenders

The group courses discussed above are rather short term and targeted at offenders with primarily not too extended attitudinal deficits. High risk offenders are often characterised by being hard core drinker, having three or more offences, being especially aggressive or being a repeated offender after having passed a rehabilitation course. For this kind of offenders long term rehabilitation courses have been developed in Germany and on only experimental basis in Austria (Bartl, 1998). These long term programmes are more characterised as psychotherapy than the "ordinary" driver rehabilitation group programmes. They are focussing rather on the entire person. "Not alcohol is the problem, but the sober life of the client" (Höcher, 1998).

Courses conducted in Germany are running over several months mostly in single sessions. A recidivism rate of 2.2% after a two years period was reported by Höcher (1992), 3.6% after three years also by Höcher (1994) and 4.7% after three years by Wolmar (1993). Hellwig & Schacht (2001) reported a recidivism rate of 3% for participants of their courses with in average 20 sessions during a 6 months period.

The weakness of these figures about recidivism is the lack of a control group and an evaluation design with random selection. Furthermore, it often is not clear how many per cent of participants have left the therapy earlier. Nevertheless, the enormous low recidivism figure becomes even more significant when considering that clients of these programmes are really hard core offenders with the highest expected recidivism risk. But also this fact has not yet been proven. It could also be the case that these high risk offenders were arriving at a peak of offences and social crises in their life and from then on they are normalising regardless of the course.

Taking all these pros and cons into account it appears more likely that there is a positive effect of these long term programmes and they shall therefore be applied for those clients who can not be reintegrated by a group course. But further evaluation in a control group design can be recommended.

Others than the recidivism criteria

Recidivism is the hardest criteria to evaluate courses. But it is also of interest if the changes in recidivism are going with changes in other factors (attitudes, cognitive beliefs, knowledge etc.). These factors were also analysed in evaluation studies.

Before-after comparisons found an increase of knowledge concerning the impairment of alcohol. Davies et al. (1999) found an increase in an alcohol knowledge quiz from an average 5.4 points out of 10 before compared to an average 8.1 after the course. Posch (2000) found that knowledge increased significantly. 83% of participants had improved their knowledge after the course. Also Winkler et al. (1990) and Jacobshagen (1997) reported a significant increase of knowledge about alcohol.

As described earlier Bear (1993) found that almost all course participants before the course were not afraid of causing an accident or getting stopped by the police when they were driving drunk, the majority of them did not feel impaired. This can be attributed to a high subjective alcohol tolerance. Posch (2000) found that e.g. the subjective sensitivity towards alcohol impairment was changed after the course: Participants had a significantly higher subjective alcohol tolerance which means that they stated that they should drink less when they want to drive safely. 64% of participants changed their belief in this respect. The changes were significantly more positive in the subgroup of participants with a low resistance against the course at the beginning. Also Davies et al. (1999) reported this effect: After the course participants were more sensitive concerning alcohol impairment as 35% felt they should not drink anything if they wished to be safe to drive, compared to 8% before the course. In the study of Jacobshagen (1997) it was found that 70.6% of participants stated to drink less after the course.

Posch (2000) also reported that fatalistic traffic attitudes were found to be lower. Participants were significantly less attributing external after the course which means that they were less fatalistic but stated more that they themselves were responsible for their alcohol drive. 53% of participants changed their fatalistic beliefs. But it was also observed that 35% of participants had a higher fatalistic belief at the end of the course.

Conclusions of literature analysis

Driver rehabilitation courses can reduce recidivism by about 50%. This reduction can be interpreted as a result of change in attitude and behaviour. But rehabilitation programmes are only successful when they are specifically tailored to the deficits of the clients. These courses which proved success were characterised by small groups (about 10 participants), running over a not too short time period (3 to 10 sessions in 3 to 10 weeks) focussing on self-reflection with discussion and psychotherapeutic elements rather than on pedagogical teaching conducted by experienced professionals. This is in accordance with a finding by Brandstätter & Christ (1998) who recommend the use of psychotherapeutic elements in rehabilitation programmes instead of purely pedagogical teaching, based on results of their course evaluation.

A course trial with 20 participants per group each, imprisoned for drunk driving could not find a reduction in recidivism rates. These courses primarily focussed on teaching and the target group orientation of this short programme (three sessions of three hours each but with different teachers) was poor, as participants were classified as alcohol addicts to a great extent. The teachers who's experience in conducting courses was partly poor, changed every session, thus a personal relationship as a basis for group dynamic obviously could not have been set up.

Driver rehabilitation courses can reduce recidivism but still there are numerous participants who re-offend. For this group of high risk drivers long term rehabilitation programmes seem to be successful - but only "seem to" as the self selection bias could not yet have be excluded and the evaluation studies did not have a control group. These two aspects should be considered in further evaluations of long term rehabilitation programmes. To optimise evaluations of rehabilitation courses the influence of the client selection should be further optimised and perhaps one day an evaluation focusing on the accident criteria can be realised.

System requirements for implementation of driver rehabilitation courses.

The aim of this chapter is to pinpoint the idea of a network of safety measures. Driver improvement courses should be seen as a part of the legal and licensing systems as well as other driver elements of driver training. Therefore, first the important aspects are discussed and then as a background information the systems of the two EU-countries with the longest and most developed history are described in detail. Furthermore, traffic surveillance has an essential role. Driver rehabilitation courses can not be used up to their full potential if there are not enough supporting measures. This perspective should be taken into consideration in implementation of driver improvement. Simply adding a driver improvement course does not solve the safety problems, but several aspects should be considered at the same occasion. The idea here is not to evaluate how good are different systems, but simply to emphasise that also driver rehabilitation and improvement should be seen as one part of the system in any country.

Basic knowledge concerning the traffic problems in a specific country

The driver improvement or rehabilitation system should be matched to the problems of the country. A starting point for developing driver rehabilitation courses is the nature of the driver related traffic problems. This diagnostic information is essential in order to find the specific risk-groups at which the measures should be targeted. As it is well known, for example the attitudes of the drivers differ between the countries (SARTRE 1994). Thus, for instance, epidemiology of drinking and driving and the nature of the problem may vary radically. In Nordic countries typically drinking and driving is related to personal alcohol problems when general driver population has a rather strict attitude to drinking and driving, whereas in wine drinking countries drinking and driving is not considered as serious violation and drinking and driving is not as clearly associated with personal drinking problems. This, in turn, has effects on the goals and pedagogical solutions of the courses, that are implemented. Problem drinkers have to be approached with more therapeutic, life control viewpoints.

Another question is how widespread is the use of illegal drugs in different countries. It is known that in England cannabis users tend to use only cannabis (Carter, 2001) whereas in Finland the use is typically mixed with alcohol and other drugs (information from Finnish police). Illegal or legal drugs other than alcohol are probably a big issue in the future.

Young drivers are a problem in all countries. However, the seriousness of the problem varies. Lifestyle studies have shown, that there are especially risky groups with a car-centred orientation and more general problems of social life. The recent long-term trends in Finland have shown (Hernetkoski et. al. 2001) that generally the development among novice drivers has been positive, but there is an increase in accidents with clear negligence and problems in other areas of life combined. This kind of trends are of special value when the need for measures targeted to risk groups is evaluated.

Another essential viewpoint is the general obedience and acceptance of traffic rules. Especially speed and attitude to speed limits is an essential question. The SARTRE-project (1994) does not, however show any systematic differences in this respect even though there is variance between the countries.

The factors presented above, refer to the need for good knowledge of special safety problems in each country and the qualitative analysis of problems. This is needed to make targeted course settings for problem groups. Long experience in especially German speaking countries has shown, that several different types of courses are needed for specific problem groups (see Austrian and German description in this chapter).

With very high probability the driver improvement systems can not be uniform all over Europe. Variation is the most concrete fact. Basically, the aspects presented above are connected with public opinions, role of safety in road traffic, role of car-oriented lifestyle among drivers, and acceptance of traffic violations. These set a political limit for successful implementation for measures. However, also unpopular decisions are sometimes needed, and the attitudes tend to turn more positive after the decision is made. For example in Austria, driver improvement is well accepted by the political decision makers and the public (see Austrian description in this chapter).

To begin with driver improvement can not simply be done by adopting elements from other countries, that have it already. Some parts may fit well, but some parts may fail, nevertheless that they fit to the system in the other country. According to the project experts, the fit should be proven. This implies rather profound experimentation and evaluation in developing the driver improvement system in a certain country.

Credibility of traffic safety systems

The traffic safety measures should build up a network that gives an idea of serious attempts to tackle the problems.

Traffic surveillance is a crucial factor. Firstly, it mediates the message of the importance of obeying traffic rules. Missing or inadequate surveillance implies a matter that is of no general concern. Secondly, when especially driver improvement courses are considered, violations are detected by surveillance and thus it is the channel to become a potential customer. If surveillance is not systematic and volume is low, also real risk of apprehension is a random case. Furthermore repeated violations are especially difficult to be detected. This results into random identification of problem drivers and also to a low number of identified problem drivers. This in turn decreases the potential effect of driver improvement and reduces it's acceptability. To be forced to go to a course can be experienced unfair.

Another aspect is that well operating registers for traffic offences are needed. For example in Germany (see German description in this chapter) an elaborated system exists for improving the fit between courses and client problems. Fit between the courses and typical offences of the group is based on both, psychological medical assessment and the type and frequency of offences.

The majority of driver improvement courses are targeted at speed-violators and drivers with alcohol related violations. Surveillance of speed and drinking and driving are of special importance. Volume and targeting speed surveillance seems to vary between the countries (SARTRE, 1994). Police resources for use of radars and especially recently the use of automatic speed surveillance with new technologies could be one essential improvement.

Random breath testing with large volumes is essential in systematic identification of DWI cases, however general traffic surveillance as well as citizen reports to police seem to be effective factors in systematic risk of apprehension. Naturally widespread random breath testing has also an important general preventive function and thus mediates the idea of severity of the violation.

Another aspect is the general traffic education and campaigning. There should be reasonable volume targeted to all road-users to maintain traffic safety and driver behaviour in the mind of the general public. The training and test system required for licensing are also related to the courses. The drivers should be aware of the course systems already when starting to drive. Furthermore, basic driver education sets the framework for the possibilities in the courses i.e. prepare the drivers with sufficient knowledge of skills for driving itself but also to consider factors associated with driving style and motivational factors (see Siegrist, 1999 and Bartl, 2000).

The relations between driver improvement courses and other legal systems targeted to driver licenses

Driver improvement course system can not be used into its full potential without several supporting factors (some of them are mentioned already above).

Driver improvement systems should have some kind of motivating possibility for shortening driving ban or the courses could even replace a penalty or be at least part of it. This aspect has been accepted politically in Germany and Austria. Such aspects are e.g. reduction of penalty points if that kind of system is in use. Another possibility is the shortening of driving ban after repeated or single violations. If driving bans are especially short, like the case is in Finland (in average two weeks after repeated speed violations) (Peräaho et al. 1999) a driver improvement course can not be an appealing alternative for the potential customers, especially when the costs are paid by themselves.

In combined systems it is difficult to define, whether it is the penalty system and sanctions or the educational components, that has the potential of reducing violations. However, the idea of combining sanctions and educational measures is recommended.

Another aspect is the evaluation of driving fitness. A legally based system, that is able from the population of problem drivers to screen unfit drivers with no potential for educational measures or in other ways to maintain their license. These causes may be e.g. deep alcoholism or physical illnesses. Diagnostic screening is discussed more in detail below.

Infrastructure for arranging the courses

To start with driver improvement needs an organisation or organisations responsible for it. Well trained personnel, network of offices and administrative routines are needed. The expertise of behavioural problems as well as educational interventions in these questions is needed. Experts of behavioural science or especially trained traffic instructors should be available. There is experiences with authority based, private country wide organisations and private companies. All these are possible. However, authorities should have a system for surveillance of the quality and the methods used in the courses. The idea is that legislation makes the market, and thus authorities should have control over the market and power to make decisions of the quality and course goals. In a way authorities are the biggest customer of a course provider. These problems have been solved with accreditation of the course providers.

Evaluation of the effects and surveillance of the courses

If driver improvement courses are implemented, their effects should be studied. Evaluation of the effects of educational measures is a difficult task (the problem is approached in detail in ADVANCED –project, Keskinen and Baughan, 2001). A research program for evaluation of the effects should be a standard procedure in implementation and also development of the methods. Guidelines for evaluation are needed both, for the authorities as well as for the course providers. The perspectives may be different for these groups.

If driver improvement courses are implemented, there should be an official board for evaluation or at least explicit description of quality demands concerning the goals, methods and materials planned by the course providers. Co-operation between authorities and course providers is playing an essential role. Furthermore, the course providers should have guidelines for a continuous quality assurance.

System requirements specifically associated with the driver improvement courses

Diagnostic screening system

Diagnostic methods for selection of course clients is needed. For example in Germany a system of medical-psychological screening is developed in order to firstly to detect those drivers, that should not be licensed any more because of lack of fitness. Secondly the screening system divides the potential course participants into subgroups (DWI-problems, degree of alcoholism, speeding and other offences, age groups etc.). This is needed to assure maximum fit between course goals, methods and client problems. To put it simply, a system is needed to find out if the person has potential for getting advantage of the courses, and to what kind of a course the person should go.

Methods of driver improvement courses

According to the course providers in countries with long experience of driver improvement it is difficult to make general driver improvement courses because of the large variation in problems of the participants. This is why several course designs are preferred. Also depending on the target group, both more traditional approaches for driver training and also therapeutic approaches are needed.

The methods may be educational, social or psychological, but nevertheless, the curriculum should be explicit and well documented. This is needed for both, evaluation of the effectiveness of different systems as well as for quality assurance and surveillance. As presented above, the authorities should have a system for supervision of the methods and goals used by the course providers. This does not imply that the methods should be uniform but they should fit to the general framework and also they should be theoretically well based.

A further aspect is the balance between the methods and the goals of the course. The methods should be fitted to the problems of the target group. A course, that is focusing on driving techniques cannot be appropriate for a typical driver with problems with alcohol. Also the resources should be in concordance with the goals. One-day course with the aim of improving the ability of controlling one's impulses in traffic is inadequate. A longer time period is needed. Whenever attitudinal or lifestyle changes are in the focus of the course, the time period should be rather long. Courses aiming at correction of driving mistakes or demonstration of some risky driving habits could be shorter in duration. If active learning methods involving active participation of the clients are emphasised, in general it will limit also the size of the groups. There seems also to be a trend towards extended learning periods.

Quality of training personnel

To start with driver improvement, a qualified training personnel is needed. According to e.g. Finnish experiences with small scale courses for drivers with alcohol-related

violations, training of the experts takes several years, even though the persons were already experts in traffic education. The problem in that case was the lack of knowledge in group dynamics and psychology of alcohol problems. Also an untraditional educational approach (resemblance with short therapy) needs special expertise. There is a need for sufficient amount of experts in behavioural sciences. One solution is to make experienced traffic instructors and behavioural experts to work as a team. Also this solution needs specific training in order to avoid problems in co-operation but also it may have some advantages. (Chatenet and Assailly, 2001)

Furthermore, rules are needed for keeping up the expertise. Solutions may be regular updating of skills and knowledge and minimum number of courses conducted per year. Also the maximum number of courses could be defined in order to avoid the personnel to become too mechanical in their approach (see Austrian and German descriptions in this chapter).

Quality assurance of the courses

All course providers should have a quality assurance system (see e.g. Bartl, 2000). Quality assurance is based on documentation of the curriculum (goals and pedagogical methods) and also documentation of practical implementation and continuous follow-up of implementation including client feedback. Quality assurance does tell about how well the courses follow the plan, however, it does not tell anything about the effectiveness of the courses. This is why also research for effects such as reduction of accidents or repetition of violations is also needed.

Driver Improvement and Rehabilitation measures in Germany

Driving aptitude and rehabilitation measures

The driver improvement and rehabilitation system in Germany is based on the view that negative attitudes, traffic offenders might have towards traffic rules and social responsibility in traffic, should be changed and that the existing range of sanctioning measures - fines, penalties, driving ban and revocation of the driving license - is not sufficient to reach this goal.

The requirement of sufficient fitness to drive is a key element in the German driving license law. Driving aptitude is a legal concept and as such based on different aspects of an individual, including psychological, medical and social ones as well as. As driving aptitude is formally required by law it is necessary that its existence or non-existence can be ascertained. In the case of novice drivers it is generally supposed to be existent as long there are no doubts about the applicant having no physical, mental or personality impairment. Driving aptitude can be questioned - apparently with some reason to do so, and if any doubts actually come to the light, an assessment has to be made. As an assessment can have a negative outcome, remedial measures become necessary for those, who strive for a first or, after revocation, a renewed recognition of their driving ability. As fitness to drive can deteriorate and even become insufficient, medical, social and psychological means to

influence this quality become important. Retraining and rehabilitation measures as pedagogical and psychological forms of intervention are aiming at influencing the attitudes of drivers who have proved aptitude deficiencies by committing traffic offences. They complete a set of other means and ways to influence attitudes, e.g. reflecting individually on things, participating in self-help groups or taking counsel with any appropriate expert.

There is a demarcation line between two areas of the driving aptitude problem. In one area deficiencies with driving aptitude are not so severe that the driving license would be revoked by the authority. In the other area, deficiencies are so severe, that driving aptitude cannot be ascertained any longer and the driving license has to be withdrawn. In this case a new license can only be issued by the authority after dispelling doubts about the aptitude of the applicant, by having made a medical-psychological assessment by a recognised institution. Retraining and rehabilitation measures are working on both sides of this demarcation line. It seems reasonable to reserve the term of retraining measures to the first area, where the emphasis is on the improvement problem, and to take the term of rehabilitation to the second area, where a lost status has to be restored.

In the area of improvement measures three categories can be found:

- The first category comprises deliberate measures to train one's abilities for safe and ecological driving. In Germany such a measure is the safety training for car drivers, which is co-ordinated by the German Traffic Council as a central institution for the co-ordination of road safety activities and offered by a variety of institutions. In the near future an additional measure is to be expected in this category: a second stage of driver training for novice drivers on a deliberate basis after their first months of driving on their own.
- The second category comprises educational and psychological courses for novice drivers, who have committed traffic offences, which were registered by the police.
- The third category comprises educational and psychological measures for drivers in general, detected repeatedly with traffic offences.

In the area of rehabilitation measures three types of interventions can be differentiated:

- Psychological rehabilitative courses which lead without further medical-psychological assessment to the reissue of the driving license. These courses are for less severe cases of insufficient driving aptitude only.
- Psychological rehabilitative courses directed to drivers with more severe aptitude deficiencies and long term therapeutic interventions, in cases where aptitude problems are so aggravated, that only the most intensive forms of intervention seem promising.
- Other forms of courses or consultative interventions serving to prepare an individual for a medical psychological assessment of driving aptitude.

Sometimes the term rehabilitation is used exclusively for the first of these intervention types. In a broader sense it fits as well for the other approaches, which possess rehabilitative functions as well.

For our purpose we will concentrate on measures for traffic offenders and not consider deliberate driver improvement measures like safety training. Furthermore we will observe a differentiation into two areas of measures, separated by the

demarcation line between the task of improving driving aptitude on the one side and restoring it after the revocation of a driving license on the other side.

General characterisation

The objective of the measures, in a special preventive perspective, is the changing of unsuitable attitudes and values as well as enlarging knowledge for a safe and responsible participation in traffic. Because of their high number and wide circulation among the target group, driver improvement courses for novice drivers are pursuing additionally a general preventive target.¹

The intervention approach of driver improvement and rehabilitation is generally characterised by working on cognitive, affective and normative implications of one's traffic offences in group sessions under the guidance of specially qualified trainers ("moderators"). This approach is regarded as an active method, that can reach the intended aims of inducing attitudinal and behavioural change better than passive forms of influencing by sanctioning or common forms of instruction (BARTHELMESS & HAUSER, 1985). The general format of this approach (courses, moderated leading style) is common in all target group oriented educational road safety programs that arouse in Germany since the seventies.

First experiences with such courses in Germany, beginning in 1968, have shown the necessity of a structuring which follows specific target- and problem groups (SPOERER, RUBY & SIEGRIST, 1994).

Subsequently specific courses were designed (1) for novice drivers with traffic offences already on a comparably low offence level (differentiated into courses for alcohol and non alcohol related offences), (2) for drivers with repeated traffic offences, (3) for drivers with alcohol related traffic offences (differentiated into courses for first time, repeated and high BAC-level offences), and, in recent times, and (4) for drivers with drug related traffic offences.

The assignment of a traffic offender to the appropriate course is ruled by explicitly defined criteria, reflecting the kind and the severity of the offence, and assessment procedures. A rule based schematic assignment is applied in the sector of less severe traffic offences that do not yet lead to a disqualification of the driving license. An assessment based assignment, which is taking into consideration individual aspects of the offender, is used in the cases, where the driving license has been withdrawn because of severe traffic offences, which have proven an insufficient fitness to drive. In these cases courses or other rehabilitative measures can help the offender to restore his driving aptitude.

It is to be noticed, that in the German driving licence law the statement and assessment of insufficient fitness to drive is basically a juridical act. But to assess that someone is fit to drive or to reconstitute this capacity of an individual, medical and psychological expertise and therapeutic contributions are, beside other foundations and means, used to a high extent.

¹ cf. ZUZAN 1994

Intervention measures and their assignment criteria

The following description observes the generally made distinction between driver improvement courses as educational-pedagogical interventions on the one side and rehabilitation courses as rehabilitative-psychological interventions on the other side. Individual consultations, which by law are granted as an alternative option to anyone who has to participate in a course are only treated briefly. These individual consultative interventions are not so frequently used, probably because they are more expensive than a course.

Another individual intervention to be mentioned is the traffic psychological consultation from a psychologist in the sector of driver improvement, which is recommended to offenders with a higher level penalty points and who should consider their fitness to drive in a more thorough way than it is possible in an improvement course of only pedagogical character.

The subsequent information is restricted to the most important aspects only, as detailed information is available in other publications (SPOERER et al., 1994; DAN-Report 2000; BODE&WINKLER 2000).

Driver improvement courses

The following four courses belong to the category of intervention measures for drivers with repeated traffic offences. A differentiation is made for the target groups (novice drivers und drivers in general) and for the course contents (traffic offences with and without relation to alcohol).

- (a) General improvement courses for novice drivers with repeated traffic offences²
- (b) Special improvement courses for novice drivers with repeated traffic offences, including alcohol related offences
- (c) General improvement courses for (all) Drivers with repeated traffic offences below a penalty point score of 18 points³, and
- (d) Special improvement courses for (all) Drivers with repeated traffic offences, including alcohol related ones, below a penalty point score of 18 points.

The general improvement courses are held by specifically trained driving instructors, the special improvement courses by psychologists who are specifically trained as well. Although the courses seem similar, the target groups cannot be put together in one course. To each target group a separate course session has to be delivered, although this eventually leads to problems in filling up the courses and offering them within due time. Beside these courses, the before mentioned consultation with a traffic psychologist, introduced in 1-1-1999 with the novelised traffic law, is to be mentioned.

General improvement courses for novice drivers with repeated traffic offences

These courses are held in groups with at least 6 and not more than 12 participants. Four sessions are offered, each lasting 135 minutes, over a period of 2 to 4 weeks. Participants can apply for a single consultation instead of the course. In this case 4 sessions of 60 minutes each are held. An additional intervention element consists of a test drive of 30 minutes for each participant.

² For the offence level see the following sections below and, for more details, DAN-Report 2000

³ For the Penalty Point System in Germany cf. DAN-Report 2000

During the course sessions the traffic offences having led to the compulsory participation are discussed as well as the reasons for the offences and the general problems and difficulties of novice drivers.

The test drive is carried out under the supervision of the course trainer with two more participants as passengers in the car. The behaviour during the test drive is being observed, problematic traffic situations are discussed and feed-back as well as additional information is given.

The inventory of pedagogical-didactical means, chosen for these courses, i.e. group discussions, provision of specific information, observation of behaviour during the test drive and the analysis of problematic traffic situations is seen as most effective to influencing the participants towards more favourable safety attitudes, improvement of hazard perception and, by this, constructing a base for a safer and more emphatic driving behaviour.

Special improvement courses for novice drivers with repeated traffic offences, including alcohol related offences

These courses are, identically to the general improvement courses, held in groups of 6 to 12 participants over a time span of 2 to 4 weeks. There are two course versions existing ('NAFA' and 'ALFA'), coming from different providers and differing in the general theoretical background of the intervention approach (Behavioural Depth Therapy, Individual Therapy after Alfred Adler).

The course comprises three sessions of 180 minutes each and an additional pre-conversation. Individual consultation sessions can be granted on the application of the participant, too. In this case the intervention goes over three sessions of 90 minutes each besides the pre-conversation.

The inventory of influence taking means in these course is partly the same as in the general improvement courses, but there are additional specific elements. As in the general improvement courses there is group discussion on the reasons of the traffic offences and behaviour strategies to avoid them, beyond this there are a specific information on the effects of alcohol and other impairing drugs, the developing and experiencing of individual behaviour patterns to change problematic personal drinking habits and to separate reliably drinking and driving in the future, and homework tasks between the sessions. Test driving is not included.

Assignment to the Improvement Courses for Novice Drivers

The regulations for the assignment of novice drivers to the Improvement Courses are fixed in the German traffic law.⁴ Novice drivers being detected with one severe traffic offence ('category A'; e.g. driving over a red light, ignoring a red sign, exceeding a speed limit by more than 20 km/h) or two less severe traffic offences (category 'B': e.g. driving with defective tyres, parking unlawfully on motorways or expressways) during the two years probation time have to undergo the improvement measure if the driving licence shall not be withdrawn. In all cases where there is an alcohol related offence among the assigning offences, the respective person has to take part in a special improvement course.

⁴ § 2a Abs. 2 Nr. 1 StVG (Road Traffic Law); § 2a Abs. 4, Satz 2 StV)

Improvement courses for non novice drivers with repeated traffic offences below 18 penalty points

Improvement courses for non novice drivers with repeated traffic offences below the level of 18 penalty points in the Central Index of Traffic Offenders are corresponding to Novice driver's improvement courses in all relevant characteristics: target, contents, structure, duration, division into courses on alcohol related and on other traffic offences. The difference is only in the assignment: compared to novice drivers non novice drivers are assigned to the courses at a much higher offending level. As a consequence, a much smaller proportion of the offenders in this target group is seized for the courses.

Assignment to the improvement courses for non novice drivers

With the novelised driving licence law in Germany since 1st of January 1999, beside other changes, the penalty point system was changed in an relevant aspect of the assignment system to DI measures, being of importance also for the general philosophy of the system. Independent activity in favour of improving one's driving aptitude was supported by granting substantial penalty point discounts to traffic offenders in cases of a deliberate early participation in DI measures. The earlier someone with a possibly growing threshold of penalty points takes action for improving his driving aptitude, the higher will be the granted discount of penalty points.

Up to a threshold of 8 penalty points a discount of 4 points is granted in the case of a deliberate participation in a Driver Improvement course. In the case of a deliberate course participation at a penalty point threshold between 9 and 13 points, the discount is reduced to 2 points. Between 14 to 17 points participation in the DI measure is compulsory, if there hasn't been a participation within the last five years. By this bonus for deliberate action in favour of ones driving aptitude, some flexibility and a strengthening of individual responsibility has been introduced into the assignment system for DI measures, that, nevertheless, principally remains a schematic one.

Driver rehabilitation

The assignment of a driver to a rehabilitation measure is connected to an additional individual assessment of the driving aptitude deficits of a traffic offender. By the assessment, the appropriateness of the rehabilitation course for the given aptitude problem is being checked. Persons with deficiencies not to be influenced by the rehabilitative measure (e.g. alcohol or drug addiction) can be selected and referred to adequate therapies.

Such individual assessments are performed in the medical psychological assessment, that traffic offenders have to undergo after a disqualification of their driving license and applying for an new license.

Similar to the DI, the rehabilitation measures are divided into measures for non alcohol offences and for alcohol offences. Additionally there is a rehabilitation measure approach for drug related offences.

Rehabilitation courses for drivers with repeated traffic offences without alcohol involvement

These courses are offered for drivers with a disqualification of their license because of having passed the ultimate limit of 18 penalty points, having a recommendation to participate in a rehabilitation measure from the medical psychological assessment of their driving aptitude.

In the two courses offered⁵ 8 to 10 persons are having up to 7 sessions over a period of some 6 weeks. In one of the courses⁶ a follow-up period of 15 months comes after the sessions, ending with a final session.

Main elements in the intervention strategies are the training of self-observation while driving, a reassessment of one's offensive driving style, enlarging sensitiveness for everything provoking offensive driving, as well as elaborating and stabilising behavioural alternatives for a safe and rule oriented driving.

In the individual assessment, course participation is excluded in view of insufficient physical preconditions for vehicle driving, high resistance to behavioural change, physical or psychical deficits excluding driving aptitude, problems with drinking and driving, serious communication problems.

Rehabilitation courses for drivers with alcohol related traffic offences

In this group of rehabilitation measures a distinction is to be made between courses for drivers with first time alcohol related traffic offences and courses for drivers with repeated ones.

Courses for first time alcohol offenders

These courses have been conceived for first-time-alcohol-offenders in traffic, to whom the driving licence has been withdrawn, which is regularly decided, starting from a BAC-level of 0.08%⁷.

Two courses are offered⁸. They are held with groups of 8 to 10 participants. The number of sessions is between 3⁹ and 6¹⁰ over three to four weeks.

By analysing inadequate behaviour in the past, providing relevant information on the question of drinking and driving, by group discussion, role plays and additional methods a change in attitudes and behaviour shall be induced.

Course participation depends on the precondition that the individual ability to be trained is given. This is to be stated, as mentioned above, in the frame of the medical psychological assessment of the driving aptitude or in a deliberate presentation to an assessment for this question.

The following excluding criteria for participation are in use: addiction to alcohol and drugs, insufficient health status, insufficient knowledge of the German language, very low intelligence, repeated severe offences in traffic and elsewhere.

⁵ "Punktefrei und sicher fahrer", "Selbstkontrolle beim Fahren"

⁶ "Punktefrei und sicher fahren"

⁷ In January 2001 a withdrawal of the driving license from a BAC-level of 0,05% on has been announced by the German Government.

⁸ "Hamburg 79", "Modell Mainz 77"

⁹ "Hamburg 79"

¹⁰ "Modell Mainz 77"

Courses for drivers with repeated alcohol related traffic offences

Drivers with repeated alcohol related traffic offences to whom the individual preconditions for correcting the given deficiencies have been assessed and a recommendation for a rehabilitation measure has been given can participate in respective rehabilitation courses, of which three different models are existing¹¹. Partly these courses are accessible also for first time alcohol traffic offenders - especially those with a higher BAC-level.

The courses are led by specially trained psychologists and held in groups up to 11 participants over a time span of up to 7 weeks. The number of sessions is in one of the courses 6¹², in the other ones 13.

The courses are aiming at the alteration of the relevant attitudes and behavioural patterns. Critical patterns and sequences of behaviour are identified and discussed, favourable behavioural alternatives for critical situations are developed and experienced. Different additional psychological training measures are used, e.g. distraction training, individual psychological 'life style' analyses, projective techniques or role plays.

In one of these models¹³ a two week pre-phase with preparatory information and self observation of one's drinking habits is put before the course. The course is followed by a one year 'practical phase', in which the participants are regularly working on written training material, e.g. minute sheets, which is send out regularly to all course participants. These meet again in the end for a final exchange of experiences. Criteria for participation in these courses are defined by each of them. Main aspects are absence of alcohol and drug addiction, and physical and psychical preconditions to follow the courses in a constructive way.

Rehabilitation courses for drivers with drug related traffic offences

Since August 1997 a rehabilitation course for drivers with drug related traffic offences is offered in the German federal state of Hessen.¹⁴ The target group consists of drug consumers with a soft consumption pattern (e.g. Cannabis, designer drugs) and where addiction to drugs is excluded.

The rehabilitation program of a total of 24 hours goes over 6 sessions. In the first 4 sessions (4 hours each) the participants work on the problematical attitudinal and behavioural aspects of their drug consumption and elaborate a personal change program to be experienced in a practical implementation phase over 5 weeks. Success as well as failures are reflected and behavioural planning is optimised in a second phase of the course, which comprises 2 other sessions (4 hours each).

The aim of the course is total abstinence from drugs and a positive personal assessment of this abstinence. The participants have to proof their abstinence over a period of two years after the course by 3 drug screenings.

¹¹ "Alkoholtrinken und Fahren - Verfahren zur Verhaltensänderung (IFT)"; "I.R.A.K. - Individualpsychologische Rehabilitation alkoholauffälliger Kraftfahrer"; "Kurse für alkoholauffällige Kraftfahrer - Modell LEER"

¹² "IFT"

¹³ "LEER"

¹⁴ "DRUGS" (Drogen und Gefahren im Straßenverkehr); offered by TÜ Hessen and Gesellschaft für Ausbildung, Fortbildung und Nachschulung (AFN); cf. ZIEGLER et al., 1998

The individual preconditions are investigated in a medical and psychological assessment of the driving aptitude. Relevant criteria for participation are willingness to co-operate, credibility, partial insight into the problematic aspects of drug consumption and driving, first interest in self-exploring activities, and absence of alcohol problems. Aspects excluding a participation are drug addiction, insufficient physical and psychical preconditions for a constructive participation and insufficient understanding of the German language.

Additional measures related to driving aptitude in Germany

Additional consultative and rehabilitative measures of different kind in the context of driving aptitude rehabilitation are offered in Germany. The aim of these measures is to prepare drivers who have to undergo a medical psychological assessment of their driving aptitude.

A growing number of them is offered on internet pages, some of them promising ways to get a new driving license without seriously working on the individual problems of one's driving aptitude.

There are long term intensive therapeutic interventions offered to those drivers, whose driving aptitude problems are so severe, that rehabilitative capacity of the above mentioned measures is not sufficient. There are especially those to be mentioned, which have been scientifically evaluated.¹⁵ They comprise up to 70 individual and/or group sessions over a period of up to 12 month. Evaluation studies proved very low re-offending rates for these measures, e.g. from the IVT-HÖ measure only a share of 6,4 % had been relapsing in a five-year period after a successfully completing the course. The drop-out share among the participant of these long-term measures is, of course, much higher than in the other rehabilitation courses.

Qualification

General driver improvement courses are given by driving instructors, who have been introduced to give these courses by a officially acknowledged preparatory seminar. The driving instructors have to be licensed for instructing on A and B driving licenses and have to dispose of three years of professional activity during the last 5 years. Moreover the licence for giving the improvement courses is attached to a compulsory further training, which comprises a three-day seminar during the first two years of giving courses. Afterwards a further training seminar has to be attended only every four years. These qualification requirements for course instructors are put down in the law.¹⁶

Special driver improvement courses are given exclusively by individuals with a university degree as psychologist¹⁷, possessing a further training in traffic psychology and job experience as a traffic psychologist. The same qualification requirements are

¹⁵ There are three such therapies: IRAK-L; IVT-HÖ; Verkehrstherapie Meyer-Gramcko; for evaluation cf.: WOLMAR, R. v. (1993, p. 114-116; HÖCHER, G. (1992, p. 265-275); SOHN, J.-M. & MEYER-GRAMCKO, F. (s.a. p. 317-321); UTZELMANN, BERGHAUS, KROJ (ed.) (1993); ECHTERHOFF, W. (1998, p. 113-116)

¹⁶ § 2b, 2 Road Traffic Law and Driving Instructor Law

¹⁷ Dipl.-Psych.

valid for rehabilitation courses, which replace a repeated assessment of the driving ability, and for psychological consultation hours on traffic problems. Job experience can derive from two sources: conducting courses for drivers with traffic offences and activities in the assessment of driving fitness. In the same way as it is done with the general improvement courses, qualification requirements for these interventions of a psychological type are put down directly in the law.¹⁸

A broader range of qualifications is to be found among the intervention measures (consultation hours, courses, therapies) aiming at the abridgement of a license suspension, imposed by a court, or the preparation for a first or a repeated medical psychological assessment of driving fitness. In the sector of these intervention measures, to a great extent, the same organisations and individuals are acting as in the before mentioned sector of measures with immediate legal consequences. As far as that goes the specific psychological qualifications have to be mentioned as a primary source. In addition to it, still further qualifications from other education and professions are to be found. In the sector of alcohol offensive drivers special consultation hours and courses of advisory boards for addiction problems are to be mentioned. MAURER & RUDOLPH (2000) recently have presented a comprehensive rehabilitation course for drivers with alcohol offences. The course programme aims at optimising and promoting the advisory boards' activities in this field. The personnel being active in the consultation and course work possesses professional qualifications as social worker/social educator, often supplemented with special qualifications in consultative and preventive work for addicted individuals.

To obtain a new driving license after a withdrawal, in many cases is a long and difficult way, not easily to be overlooked by the individual concerned. Correspondingly, there is a great demand for consultation, especially, when it is important to get the new license straight and without too much loss of time. Under these circumstances it is not astonishing that a broad variety of consultation and support services are offered to drivers. The qualification basis of these services is not restricted to the sector of psychological or psycho-social professions. Advertisement in magazines and special web-sites in the internet are the main forms of contacting individuals who might be interested. There is a great variety in the services offered for support: special reference books, individual consultation hours, seminars, courses, and self-help groups. Up to now there are no research results enabling any systematic and comprehensive description of the support, which is offered and which drivers are making use of. Some of the well established institutions in this field complain of dubious methods in consulting, which can be observed in cases, where the attitudinal causes of offensive behaviour are not properly tackled and only tactical advice is given to adapt oneself in a superficial way to social expectation.

Traffic lessons (provided with § 48 Road Traffic Act) constitute an additional form of educational intervention, aiming at an improvement of traffic and driving behaviour. This intervention form has an own profile with regard to qualification.

The road traffic authority can oblige individuals to attend traffic lessons, if he or she has offended against traffic regulations and a need for education is discernible.¹⁹ Lessons are given in different forms and volumes by experts of the road traffic

¹⁸ §§ 36, 43 and 71 Driving Licence Regulations

¹⁹ cf. BODE, H. J. & WINKLER, W. (2000), p. 383

authority, who co-operate with external specialists like policemen, driving teachers, social workers or lawyers. A survey of this intervention form does not exist for Germany. Systematic information for Switzerland are to be found in SPOERER et al. (1994).

Concerning the assignment of participants to the traffic lessons, practices at juvenile courts are to be mentioned,²⁰ where juvenile traffic offenders can be assigned to either traffic lessons organised by the road traffic authorities or the above mentioned psychological traffic courses.

Compared to the general and special improvement courses, which are legally regulated as well, traffic lessons are not so common. They complete the range of intervention measures in cases e.g., where a traffic participant has no driving license (driving a motor-vehicle in traffic without a license). Nevertheless traffic lessons represent an intervention structure closely connected to public administration and jurisdiction (road traffic administration, probation system) which is known as well in other European countries and which is open to a broad range of qualification resources, psychological and psycho-social ones included.

Quality assurance

The main quality standards for driver improvement and rehabilitation measures with legal consequences (penalty point discount, rehabilitation of driving aptitude) are laid down in the law.²¹ The following items are regulated:

- purpose, contents and methods of the measure
- qualification of the staff
- scientific basis
- quality assurance

Contrary to rehabilitation measures with legal consequences there's no need of specific legal regulations for intervention measures, which have only indirect consequences for the legal approval of driving aptitude. Having attended these measures, there has always to be an additional check by a competent institution, basically the driving license authority, which in many cases makes use of medical psychological assessments as expert reports. The quality standards for the MPA and the requirements for the institutions, delivering them, are laid down in the law in a similarly detailed way as it is the case for the intervention measures with legal consequences.²²

The most comprehensive legal regulations are made for rehabilitation courses which lead to the legal approval of driving aptitude without an additional MPA (and which are substitutive in so far) and the psychological consultation hours²³, leading to an penalty point discount.

Quality standards for rehabilitation courses with a substitutive character are defined on the following four levels, which are connected to each other:

- (1) the relevant legal regulations on the national and the federal state level,

²⁰ MÜLLER, D. (2001)

²¹ Road Traffic Act, Driver Licensing Regulations, Driving Instructor Act

²² cf. § 11 Driver Licensing Regulations

²³ after § 4, 9 Road traffic Act

- (2) the official approval of each measure, based on an examination, by the appropriate federal state authority,
- (3) the expert discussion which delivers scientific criteria for the judgement of a measure,
- (4) the accreditation of the providers of the courses and other intervention measures by a national authority through a legally ruled, explicitly defined accreditation procedure.

The legal provisions start with the definition of the purpose of the courses, which is the restoration of sufficient driving ability. The law assumes that personal quality can be achieved by these courses on the condition that certain prerequisites are given, primarily the recommendation from a medical psychological expertise to attend the course.

In addition the wording of the statutory order enumerates the following prerequisites for an official approval as a substitutive rehabilitation course:

- the course conception has to be developed on a scientific basis
- the appropriateness of the course has to be confirmed by an independent scientific expert's report
- the qualification of the course leader has to correspond to the requirements enumerated in the law
- the effectiveness of the courses has to be proved by a scientific evaluation and guaranteed permanently by follow up evaluations.

Apparently, these legal regulations refer broadly to the sphere of science from where the guidelines for assessing the intervention design, the effectiveness of the measure, and the methods for evaluation and quality assurance are to be developed. As main elements of quality assurance NICKEL (1992, p. 373-381) mentioned the further training of the course leaders, the availability of supervision and the control of quality by a quality management system.

According to the legal provisions, course providers have to be accredited for offering the courses to the public. The BASt (Bundesanstalt für Strassenwesen), which is a scientific-technical institution of the federal minister of transport building and housing, has been charged by law with the responsibility of accrediting course providers. The accreditation procedure is based on international norms.²⁴ It follows the same principles as the accreditation of the bodies for driver testing and for medical psychological assessments, which are likewise institutions of non-public character in the German driving licence system.

The purpose of accreditation is to assure a steadily delivering of a high course quality. The main elements of the accreditation procedure are

- an initial accreditation based on the assessment of the applicant's quality management system – including the assessment of the scientific approach of the course -,
- follow-up accreditation every five years, and
- on-site examinations every year.

For traffic psychological consultants the law contains the following provisions for quality assurance:²⁵

²⁴ DIN EN 45013, release Mai 1990, and 45010, release March 1998

²⁵ § 71 Driver Licensing Regulations

- official approval of the consulting staff based on a confirmation of the Professional Organisation of German Psychologists' traffic psychology section²⁶,
- definition of qualification requirements for practising (vocational education, job experience, participation in a quality assurance systems described in the wording of the decree),
- co-operation of the Professional Organisation of German Psychologists' traffic psychology section in the examination of the qualification, especially the continuous participation in a quality assurance system. Minimum requirements of the quality assurance system include a standardised documentation of the consultation sessions, regular examination and assessment of the consultation documents and proof of the participation in further education or on the job consultation of at least 16 hours during a two years period.
- Responsibility of the competent state authority for the official approval of the traffic psychological consultant.

The legal provisions to the special improvement courses in the system of the driving license on probation and in the general penalty point system refer to the following items:

- target group of the measure
- number of participants per course
- parts of the course (pre-conversation, sessions, homework) and duration
- content, Methods and goals of the course
- prerequisites for single sessions instead of a course participation,
- requirements for an approval of course leaders
- responsibility of the state authority for the approval of course leaders and the supervision of the courses

In contrast to the before mentioned measures no requirements are made in the law for a quality assurance system or an accreditation of the institutions, which deliver the courses. A scientific foundation nevertheless is intended in the law, insofar qualification requirements for the course leaders are mentioned explicitly. Part of the qualification requirements is the possession of a university degree as a Psychologist and the presentation of a course conception, based on scientific principles.

Comparable to the special improvement courses, legal provisions are also made for the essential quality standards of the general improvement courses.²⁷ They are related to the following items:

- target group of the measure
- number of participants per course
- parts of the course (sessions, test-drive) and duration
- content, methods and goals of the course
- prerequisites for single sessions instead of a course participation,
- requirements for an approval of course leaders (diving instructors with a special training for the course)
- responsibility of the state authority for the approval of course leaders and the supervision of the courses

The course leaders have to take part in a standardised further training and have the possibility to receive consultations on the job.

²⁶ Berufsverband Deutscher Psychologinnen und Psychologen e.V.

²⁷ §§ 2 and 4 Traffic Road Act, §§ 35, 37, 42 and 44 Driver Licensing Regulations

As essential elements of quality assurance subsequently the detailed codification of the courses in the law and the compulsory further training of the course leaders have to be pointed out.

Driver rehabilitation courses in Austria

History

In the year 1972 a first interdisciplinary working group with experts of the Kuratorium für Verkehrssicherheit was set up to develop driver rehabilitation programmes in Austria similar to programmes already applied in the USA (Schützenhöfer, A. & Schmidt, 1977). The first "driver improvement course" in Austria was held for imprisoned drunk drivers in 1976. In the year 1977 the possibility for the licensing authority to order such a course for drunk drivers (not only for imprisoned offenders) was included in the road traffic act (Christ, Panosch & Bukasa, 2000). Now, the authorities were free to decide whether an offender has to participate to get his license reissued. First courses for not imprisoned offenders were conducted in the city of Graz since June 1979 (Schützenhöfer, 1981). Courses were conducted by psychologists of the Kuratorium für Verkehrssicherheit. At that time a first manual was written based on elements of group-dynamic, client centred psychotherapy and behavioural therapy (Klebel, Michalke & Schmidt, 1977). As a consequence of beginning evaluations after 70 offenders have participated (Schmidt, Michalke & Klebel, 1978) the courses were extended in their duration from four to six sessions of 2 ½ hours each. In the following years the number of courses increased and a first evaluation analysing recidivism rates was carried out by Michalke, Barglik-Chory & Brandstätter (1987). A reduction of 50% of recidivism was found compared to a randomly selected control group without course participation.

The first international driver improvement workshop was organised together with Germany (BASt) and Switzerland (bfu) in 1979 to exchange practical and scientific knowledge. Periodic supervision of the staff is an essential element since the beginning.

In the year 1992 the driving licence on probation was introduced in Austria. This new licensing system led to an enormous increase of courses as the course participation now was compulsory for offenders holding a license on probation. At the same time the number of accidents of novice drivers decreased significantly compared to experienced drivers (Bartl, Esberger, & Brandstätter, 1997 & Bartl, 2000). These modified courses were specifically tailored for young drivers. In addition to alcohol offenders now also a course model was developed for other than alcohol offenders in co-operation with driving teachers. Since that time three types of courses were offered for three groups of offenders: novices with alcohol offences, novices with other than alcohol offences and experienced drivers with alcohol abuse in traffic (Bartl, 1995).

In 1997 the number of driver rehabilitation courses increased again as they became compulsory for every driver, not only novice drivers, in case of a license suspension due to an blood alcohol concentration of 0.12% and more. Before that the licensing authority was free to decide whether to order a course directly or based on an individual traffic psychological assessment with a recommendation to participate in a

course. Now the authority has to order a course for every driver with more than .12% blood alcohol concentration. But the authority still is free to order a course for individuals with less than .12% if it seems to be indicated (e.g. 2nd offence, etc.).

Nowadays driver rehabilitation courses are an essential and well established part of the licensing system, obviously based on a high acceptance of this measure by the decision-keepers. The most recent evaluation by Schützenhöfer & Krainz (1999) underlines the positive acceptance. Again a reduction of recidivism of 50% compared to a control group without treatment was found. At present five organisations of psychologist are accredited by the ministry of transport to conduct these courses.

In the nineties certain long term rehabilitation courses for high risk drivers with repeated offences were conducted on an experimental basis. Based on these experiences the Kuratorium für Verkehrssicherheit elaborated an internal manual. These programmes were running over 20 hours in single sessions over a six month period (Bartl, 1996, 1998). Primarily due to the high costs of this specific course they could not have been established yet.

Legal system for novice drivers

The legal system for novice drivers concerning the course participation is clearly laid down in the licensing law since 1992: In Austria the driving license can be obtained at the age of 18 years. A new regulation which entered into force 1 March 1999 gives applicants the opportunity to obtain a driving license already at the age of 17 years. In this case the driver education can start at the age of 16 years in form of accompanied driving. Generally the license is issued without age limit.

As early as 1 January 1992 the driving license on probation for all novice drivers, regardless of age, was introduced (§ 4 Führerscheingesetz – driving licence law). The law prescribes a probation period of two years. During this period holders of a driving license on probation have to observe a .01% BAC-limit (blood alcohol concentration). Apart from that the legal BAC-limit for all other drivers was lowered from .08% to .05% with 6 January 1998. Offences against the .01% BAC-limit as well as offences against specific traffic rules (listed below) lead to an obligatory participation in a psychological driver improvement course and to an extension of the two years probation period for an additional year.

A new license is not specifically marked. Only the date issue indicates whether it is a license on probation or not. In case of extension of the probation period for one more year the license gets marked with a stamp. Initially the probation period could be extended three times at most. Since 11 November 1997 the number of extensions is unlimited. Also the order to undergo a driver improvement course is unlimited. Additionally, from the 4th offence on the license is withdrawn at any of the following offences:

- offence against the .01% BAC-limit
- causing an injury or fatality
- exceeding the speed limit by more than 20 km/h in urban areas and more than 40 km/h in rural areas.
- hit and run accident
- overtaking where not permitted
- driving the wrong direction on one-way roads and motorways

- violating giving right of way
- violating red and amber traffic lights

As mentioned earlier there are different types of courses for novice drivers prescribed in the law: Alcohol-offenders have to attend the so-called "A-courses" (A stands for Alkohol), offenders against the other regulations have to participate in "V-courses" (V stands for Verkehrsauffällige – the German term for other than alcohol offenders).

Legal system for experienced drivers

For experienced drivers until Nov. 1997 either the authority directly could order an offender to participate in a course or the authority could order the participant to undergo a traffic psychological assessment. The direct order was not so often used by the authorities. More frequently offenders were sent to the psychological assessment and if the psychologist recommended in his/hers expertise a course participation, then the authority orders the course referring to the psychological expertise. This psychological assessment which results in an individual expertise is part of the official expertise by the medical officer of the licensing authority. The order to participate in a course was based on § 73 Abs. 2a KFG – Kraftfahrzeuggesetz (driving law). In this law it was defined that "accompanying measures (retraining or similar)"; original German: "Begleitende Massnahmen (Nachschulung und dergleichen)" can be ordered when the offenders applies for the reissuing of his license.

In Nov. 1997 driver licensing related provisions were separated from the KFG (driving law) and newly established as the driving licence law (FSG- Führerscheinggesetz). The contents of §73 Abs. 2a KFG, mentioned above, was shifted to § 24 Abs. 3 FSG and extended to: "accompanying measures (retraining or Driver Improvement with or without an additional observation drive, attitude and behaviour training or advanced training seminar); original German: "Begleitende Massnahme (Nachschulung oder Driver Improvement mit oder ohne Fahrprobe, Einstellungs- und Verhaltenstraining oder Aufbau-seminar)".

Nowadays the following three circumstances lead to a course participation for experienced drivers (probation licence for novices see above):

- All drivers having a blood alcohol concentration of .12% or more have to participate.
- All drivers having a blood alcohol concentration of .8% or more but less than .12% the second time within two years have to participate.
- A course participation can be ordered by the licensing authority for all drivers who have a blood alcohol concentration of .08% (only based on individual expertise).

Further sanctions depending on the driver's BAC (blood alcohol concentration) are precisely defined for first time offenders (within five years after the last offence) if there was no accident:

- BAC .05% - .079%: fine (218 - 3,634 Euro)
- BAC .08% - .119%: fine (581 – 3,634 Euro), licence withdrawal at least 1 month
- BAC .12% - .159%: fine (872 - 4,360 Euro), licence withdrawal at least 3 months, driver rehabilitation course
- BAC .16% and more or refusal: fine (1,163 – 5,814 Euro), licence withdrawal at least 4 months, driver rehabilitation course, traffic psychological assessment, diagnosis by medical officer of licensing authority.

If there was an accident or if it is not the first offence within five years after the last offence the sanctions are individually determined by the authority. In case of personal injury the offender is not sanctioned referring to this administrative law but to criminal law, which means the sanctions are determined by a judge. But practically in some cases sanctions by the court are less severe than sanctions based on the administrative law.

Legal system for the course setting

Contents and goals of rehabilitation courses are described in § 29a driver regulation. The number of sessions over how many weeks etc. are defined (see annex). Furthermore it is outlined that the offences and the reason for the offences of the participant have to be analysed. Coming from these findings individual and general problems of traffic have to be discussed and the relationship to individuals' behaviour shall be reflected. Risk awareness shall be improved and negative attitudes shall be changed. For drunk drivers additionally knowledge concerning the impairment of alcohol shall be improved, drinking habits shall be changed and appropriate strategies to prevent drink driving shall be set up individually.

The ministry only accredits Institutes to conduct rehabilitation courses which have appropriate staff and locations. Supervision of staff is compulsory. A manual has to be written and scientific evaluation must be carried out. A nation wide uniform performance of the courses has to be guaranteed by the course provider.

Trainers must have had finalised academic studies in psychology, have to have at least 3 years of experience as a psychologist, including 160 hours theoretical education in traffic psychology and 120 hours practise in traffic psychology, (e.g. psychological assessment), at least 160 hours experience in psychotherapeutic intervention and specific education in rehabilitation courses (20 hours theory, two courses as a co-trainer plus conducting three courses under supervision).

Target group

The main characteristic of the target group is that they do not participate voluntarily. It is often the case that they resist the entire idea of the treatment. Referring to figures from the Kuratorium für Verkehrssicherheit of the year 2000 about 90% of participants are male regardless of type of course. The mean age is 20.5 years in groups for novice drivers and 41 years in groups for experienced drivers with drink driving offences. The most frequent offence which leads to an course for other than alcohol offences is exceeding the speed limit. In the mid-nineties the mean blood alcohol concentration for young course participants was .142% and for older course participants .15% (Bartl, 1995).

Programme design

A General frame for the course design is outlined in the law. The courses primarily focus on self-reflection and not on learning and teaching. The course certificate is issued for the participation regardless of performance of the client. Clients have to be excluded if they disturb the course, appear impaired or come too late after the session has started. At the beginning of the course a breahterlizer test is common.

Qualification of staff

Referring to the law (see above) trainers have to be psychologist in the sense of the psychologist law and have to have a minimum of further education concerning traffic psychology and psychotherapeutic intervention. Periodic supervision and further education is mandatory.

Quality system

The supervision and education of the staff is generally described in the law (see above). Some of the five course providers which are accredited by the ministry have set up internal additional guidelines concerning the staff, the number of maximum and minimum courses per trainer etc.

Current developments

At present there is a call for expert evidence on a new draft regulation of the ministry of transport. The general goal is a more strict arrangement of the course system. In order to avoid commercial competition in this field the price of the courses will be fixed by the state. (The price for the psychological assessment is already fixed with 363 Euro which must be compensated by the offender). The underlying idea is that these specific courses which in fact exclusively are compulsory shall no longer be a matter of free market as high quality is most important. A permanent co-ordination group will be installed to proof quality of courses and to pre-discuss essential topics which then shall be decided by the minister. The different types of courses established more or less randomly over the last years will be harmonised. Every course will then have 15 hours which will be divided into 4 sessions over 4 to 6 weeks in order to not only make use of the sessions for supporting offenders to change attitude but also to make use of the time between the sessions in their real life. Weekend courses will then no longer be tolerated. Also the qualification criteria of the staff will become more demanding.

Acceptance and evaluations

After the driving licence on probation had been introduced in 1992 an opinion poll was carried out (Bartl, Klemenjak & Zuzan, 1993). 59% of the representative sample of Austrians completely agreed and further 28% rather agreed that the rehabilitation courses for novice drivers appear to be effective. In the subgroup of holders of a license on probation 51% completely agreed and 35% rather agreed. In an other opinion poll conducted by the Fessel-GfK Institute in the year 2000 48% of a representative sample of Austrians favoured rehabilitation courses for offenders. In a ranking of 8 proposed safety measures the courses were placed second behind daytime running light (53%). In 1994 in a poll 1400 police officers were asked among other safety concerns how efficient they personally estimate driver rehabilitation courses. 16% stated them as very effective, 30% as rather effective, 15% were neutral, 27% meant courses are rather not effective and 12% answered they are not effective in their opinion. In general it can be concluded, that rehabilitation courses are established among experts as well as in the population and there is no public debate on their effectiveness in the media.

In two evaluation studies (Michalke, Barglik-Chory & Brandstätter, 1987; Schützenhöfer, & Krainz, 1999) it was found that the recidivism rate is 50% lower for course participants compared to randomly selected control groups. Posch (2000) found positive changes in attitudes after the course participation. Also see literature chapter and Annex.

Client trainer relationship

When analysing what makes driver rehabilitation courses effective the relationship between client and trainer appear to be one of the essential effective factors. Analysing the effectiveness of psychotherapy Grawe (1994) found that not the psychotherapeutic method applied in the therapy is correlated with the success of the therapy but the person' characteristics conducting the therapy. Also Tschuschke & Czongalik (1990) concluded after having analysed several studies that the success of a psychotherapy presupposes a positive and stable client-therapist relationship.

Obviously, these findings can be transferred to driver rehabilitation courses. Christ (2000) found indications that the number of repeated offences after the course participation is significantly higher, when no client-trainer relationship could have been set up and the client remained "offensively" quiet during the course. He correlated the descriptions of participants by the trainers with the number of repeated offences. Posch (2000) found that a positive change in attitude is significantly higher among people with a lower resistance against the course. And the more positive clients trust the trainer the more optimistic they feel at the end of the course concerning how to cope their problems in the future. In contrast to these positive indications, Mathey et al. (1997) vice versa found that after having participated in courses where no relationship between the trainer and the clients could have been set up (teacher changed every session and there were 20 participants per course) the recidivism rate was the same as for the control group without treatment. Conclusively, these different findings underline the importance of a positive client-trainer relationship in these specific courses for offenders.

Similar theory: a criteria for positive relationship

Scientific proof concerning correlation between criteria of client-trainer relationship and recidivism rates is poor. Based on Eckert & Biermann-Ratjen (1990) who were searching for criteria in the client-therapist relationship which prove effectiveness it can be assumed: One aspect of a positive trainer-client relationship seems to be that the trainer and the client have the same believes ("personal theories") on what makes the course effective. For the trainers therefore it seems to be a major challenge getting clients positively interested in the idea of the treatment so that they are convinced to have the chance to benefit from it. This of course presupposes that the trainer is convinced about the effectiveness of what he/she is doing.

Eckert & Biermann-Ratjen (1990) emphasised in their publication how important it is that the psychotherapist reaches the client. The psychotherapist meets the client with a good response when his "theory" (of the treatment) is understandable and acceptable for the client so that the client can take the idea of the theory over and can find himself in this theory. According to these conclusions Christ (2000) found that the recidivism rate after having participated in a driver rehabilitation course is lower if the trainers idea of what is effective was corresponding with the clients ideas. In this example some of the evaluated trainers favoured the idea, that he/she can achieve a more safety-minded attitude in his/hers clients if he/she focuses on clients personality in general: lifestyle, habits and abilities. And in these cases were obviously also the clients were convinced about this idea so that they could really work on this topic (personality in general) in the course, the recidivism rate was significantly lower. This shall not be understood in that way, that focussing on

personality is always a successful method. Here, this method fitted to the deficits of this clients. In groups with clients with other deficits perhaps other methods fit better. But it is an adequate example for the positive effect of a conformity between the trainer and the client as a basis for a positive relationship which leads to a lower recidivism rate. In these cases the trainers' "theories" (personal attitudes or beliefs on how to change clients' attitudes) were understandable and acceptable for the clients so that they could take them over and could hence work on the reflection of personality in general.

Empathy, congruence, acceptance

The aspect of Empathy also is an essential challenge for the trainers. They must be able to put themselves into the shoes of the client. Empathy, Congruence and acceptance of the person of the client are the classic criteria for psychotherapists for the psychotherapeutic process. Those criteria can be transferred to driver rehabilitation courses with slight deviations, e.g. the trainer shall accept the entire person of the client but does not have to accept his behaviour (drunk driving, speeding...). The goal of the treatment does not necessarily have to be set by the client as it is done in psychotherapy but the goal is clearly defined by the main customer – the authority - which orders the client to participate.

Relationship is a precondition for effectiveness

The professional client-trainer relationship is not a method or technique. It is a precondition to meet the clients with a good response. The best pedagogical, psychological and psychotherapeutic interventions are ineffective if the client-trainer relationship is negative and the client resists, is aggressively, offensively passive or pretends and acts in regard to social desirability. The relationship is a precondition and in this chapter it shall be discussed how to set it up and what mistakes shall be avoided. Generally valid guidelines can not be given as every situation is different, every client is different and every trainer is different. And the trainer shall not pretend but be a congruent person. Consequently, the relationship which trainers offer to their clients deviate a little within the scope of the characteristics of a professional relationship.

Relationship to offenders is different

How to set up a professional relationship, indeed is subject of the basic education of a pedagogist, psychologist, psychotherapist. And in rehabilitation courses trainers are operating who have different education. There is a wide range from teaching over psychological methods up to certain different psychotherapeutic methods (Behavioural, psychoanalytic...). But the scope in driver rehabilitation courses with different clients (not voluntarily participating and mostly not suffering from anything what should be changed) is somehow specific. Offenders in driver rehabilitation courses are neither therapy-patients nor pupils. Therefore in this chapter, corresponding aspects of the client-trainer relationship for this specific group shall be discussed – apart from the wide range of methods applied, regardless if the trainer is a behavioural or an analytic etc. oriented professional. As said before, the best method can be without effect if the relationship to the trainer is negative.

When analysing the optimal trainer-client relationship for driver rehabilitation courses the main differences between clients of rehabilitation courses and clients of usual psychotherapy have to be considered.

Clients of driver rehabilitation courses generally:

1. do not participate voluntarily
2. are not concerned in their individual problems.

Most of them do not suffer from anything and consequently they do not have the wish to change their attitudes and behaviour. They often don't see any personal problems. This contrast to the authority's postulate about the client (the authority wants him to change) leads to resistance. Not only to usual resistance like in every therapy. They often resist the entire idea of the treatment. A trainer must be prepared to detect resistance and to cope with it. He/she then shall neither be too authoritarian nor too amicable. Like walking along a thin red line the trainer must find the appropriate intensity for his/hers interventions on a scale between to poles from e.g. very authoritarian to very amicable. It is important to consider, that in contrast to normal human relationships it is not automatically favourable that clients in these courses have to be happy and give their applause at the end or invite the trainer for a beer after the course. The relationship in this course must be more neutral and open so that also inconvenient confrontation is possible. Positive relationship does not primarily mean happy relationship.

The trainers' interventions always have to be client centred. It must be considered which intervention in which intensity meets the needs of the client. This implies a permanent reflection process by the trainer. As it is established in psychotherapy, the intervention shall not be influenced by personal feelings of the trainer but by the result of a reflection process on what does the client need (client centred not trainer centred). Consequently, the trainer of a group with clients who do not participate voluntarily and do not believe that they have any personal problems to solve, can not behave spontaneously or emotionally but "professional". The client pays – the trainer gets paid for performing professional.

More than only client-trainer relationship

In France and partly in Austria there are two trainers leading the course (one psychologist and one driving teacher). Consequently, a positive relationship between the two trainers are relevant for the success of the course. Chatenet & Assailly (2001) analysed this subject and found indications for problems in the different personal theories which psychologist and which driving teachers have about the idea of what is effective for the clients in these courses in France. The criteria of a programme's success are diverse: For the psychologist, self-reflection on "we are not innocent of what happens to us", a consciousness about "I am the other for the others" and the acknowledgement of a possible change are criteria for success. For driving teachers it is more important that clients have learnt something, have a body language-smile, shake hands and that the management of the programme is good. Only one third of the psychologist and only half of the driving teachers stated that there is no discomfort in the co-animation praxis.

Furthermore in groups the relationship between the members and between subgroups have to be considered. And especially in courses with a clear goal, which is defined by the main customer (the authority defines the reduction of repeated offences as the goal) the trainer shall take advantage of those members of the group who support or accelerate by their behaviour the process towards the course goal. The advantage of making use of the inner group relationships and group dynamic processes is, that not every interpersonal tension in a group must be focussed on the

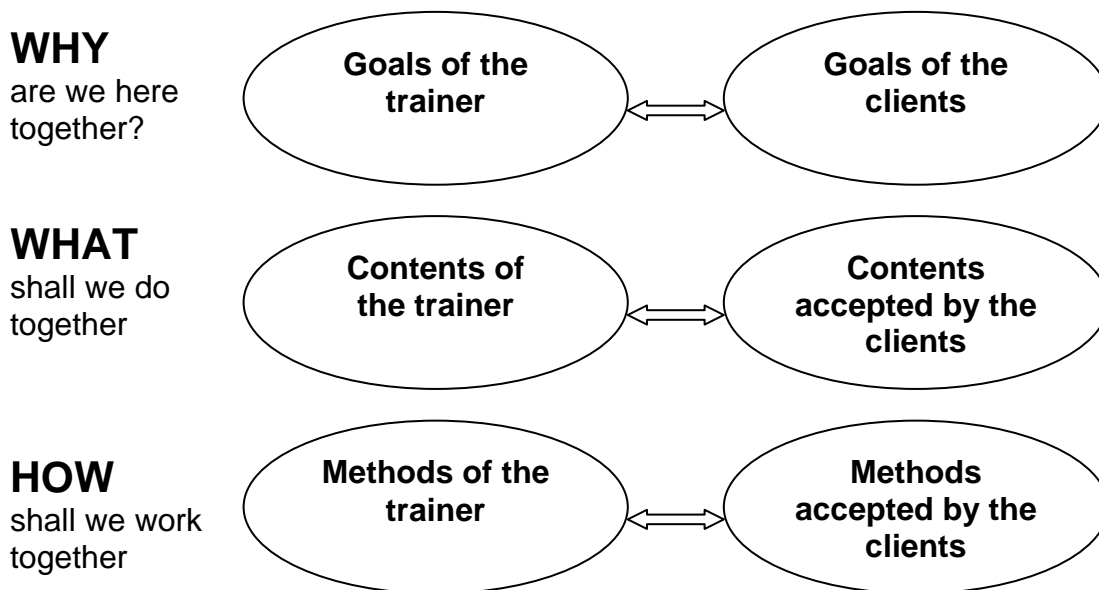
trainer. Furthermore, convincing processes by other group members can then be easier induced.

Socialisation process

Lack in social responsibility often appears to be a reason for offending. Some offenders speed up because they want to dominate others. Others e.g. drive drunk not because they are addicts but simply do not want to obey social agreements about what amount of risk is socially accepted and therefore laid down in the law. The group courses themselves - apart from the defined goals – can give support to improve socialisation of the offenders. If the relationship in a group is trustful in a climate of value-free acceptance, clients are more open for new experiences. So, for example a person can experience that he does not always must be strong to be accepted, but he is also accepted with his weaknesses. This can reduce social fear and might lead to a more relaxed driving style without competition.

As a conclusion a professional client-trainer relationship appears to be set up when clients and trainers have found an agreement in the following three aspects:

Basis for a positive relationship: Agreement between clients and trainer



The idea presented above describes important factors for an optimal relationship as a basis for the trainers to apply their methods. In practise usually it is highly demanding to set up this consonance between the two parties with different expectations. Spoerer, Ruby & Martl, (2001) give us an idea about how different expectations are: Clients e.g. rather expect being in the role of a passive consuming - because paying - client like in school. In contrast trainers rather wish clients being active and interested. Frustration therefore must be inherent unless the trainer does nothing about it. The authors recommend that trainers shall not attribute this general problematic to certain individuals and classify them as the difficult clients.

To illustrate these theoretical deductions and to clearly see the link to praxis, in the following the main key issues for professional relationship are listed and then examples of critical group situations and solutions from practitioners follow:

Key issues for professional client-trainer relationship:

- The client-trainer relationship (however it looks) shall be set up at the beginning, otherwise the course has not really started or has started without this essential effective factor, which shall be experience by the client as the most stable factor in order to facilitate personal changes.
- Keeping the same distance to all clients of the group.
- Being empathetic enough but confronting where necessary.
- Not only talking about topics but also to affect clients emotionally.
- Not only finding general problem solutions but trying to understand the clients' life to help him to find his/her individual solutions which can be integrated in his/hers everyday life.
- Making use of positive input from clients.
- Assist clients when they want to talk openly and break taboos (inferiority feelings, loneliness, sexuality...).
- Giving attention to clients' disturbance as much as possible but then coming to an end so that the course can continue. (disturbance only has limited priority)
- Being present and as the leader of the group but avoidance of self-admiration and showmanship.
- Being consequent concerning frame conditions of the course (e.g. zero alcohol limit otherwise the client is excluded, starting time of course...)
- Being flexible concerning different groups with different problems instead of simply executing a programme.
- Avoidance of one way communication. And also clients shall communicate with one another.

In the following typical critical situations for setting up a positive client-trainer relationship are described. These examples of experienced course leaders (names are added) are not a best practice report but can give an idea of important aspects of the client-trainer relationship and show possible ways how to deal with such critical situation. But it is not said that the solutions described are the only solutions possible. It especially has to be considered that every situation is different e.g. depending on what has happened just before.

Practical examples given by various trainers:

emotional critics

Some participants in the course are really angry about their conviction. So they have a lot of criticisms on behalf of the judicial system, the course itself and the traffic rules. Sometimes their criticisms are very general and superficial, sometimes they have a more specific purpose. Examples of these criticisms are ...

general criticism:

- "the judges are only severe for the ordinary people, not for the real criminals"
- "traffic laws are made only for gaining money"
- "the police themselves do not observe traffic rules"

specific:

- "the priority rules are completely stupid"
- "they do everything to drive ordinary people of their cars"
- "there is one police officer who is really stalking me. He is looking for every little thing I could do wrong"

In other situations the anger is directed to the group leader:

- "leading a course, is that what you call working?"
- "do you really think that you can change me?"

It is very important to know that behind these criticisms there are various feelings of anger, fear, frustration, insecurity... Reacting on the content of the critics itself is the same as ignoring these feelings and can only worsen them or give the participant the feeling that he is not accepted as a person. A professional group leader reflects about these underlying feelings and sends in one way or another the message that he understands them and that he would like to talk about these feelings. This can be done directly or by asking specific questions. (Ludo Kluppels, Belgium)

Under influence in the course:

One of the responsibilities of the trainer is to prevent the presence of participants in the course who are under influence of alcohol or other drugs. One of the most effective ways in order to detect the use of alcohol by these participants is, while checking their identity-documents at the beginning of the course (participants do have to identify themselves), having a few words in close distance with them. If then a smell of alcohol is perceived the trainer will directly separate the participant for a small conversation. It is important not to ask the participant whether he has been drinking or not (mostly a person will deny such a question), but only to confirm the fact that the person in question has been drinking, by which reason he is disqualified for any further participation in the course. Mostly it appears that a participant has been drinking the night before the course and wasn't aware of being still under influence. A second very important step is to consult your back-up trainer to confirm the scent of alcohol. This implicates that the back-up trainer too has a conversation with such a participant; it also gives the first trainer the opportunity to go back to his course. Sometimes the back-up trainer is not able to confirm this scent of alcohol; in such cases it is, because of the doubtful situation and in regarding to the far-reaching legal consequences, better to let the participant continue the course. (Rob Mérelle, the Netherlands)

Under influence, 'how do you mean ?'

Often there is some confusion about the definition of being under influence of alcohol. Some will relate being under influence to the presence of any alcohol in the blood, some will explain it as being drunk, other will explain it as a quantity alcohol above a certain BAC. It once happened that a participant during the lunch-break in a fast food-restaurant also consumed a little can of beer. So when after lunch he returned in the course room for the afternoon-programme, the trainer noticed by the scent of alcohol that he had been drinking and the person in question was disqualified for further participation. This event brought in the group a firm discussion about what is being under influence. Most of the participants appeared to believe that under influence meant being drunk. Therefore the participant in question thought that he was permitted to drink one can of beer. This short example confirms why it is so important to explain at the beginning of the course and in a very clearly way what is allowed and what not. (Rob Mérelle, the Netherlands)

Resistance-behaviour:

Behaviour is what people show; the way they act or perform. It is what others can observe, can see or notice. Behaviour tells us something about the things people experience, it tells us something about their emotions, the way they feel inside. So, in one course there was a participant, a director of a construction company, who showed during practically every module forms of resistance behaviour. The trainer did forsake to intervene in this behaviour but let it happen during the course. After a while the trainer got so frustrated that, if the participant wouldn't change his behaviour, he would be excluded from the course. From this moment the participant didn't show any obstructive behaviour anymore but didn't have any adequate part in the course either. At the end of the programme, while having an individual evaluation, the trainer tried to get more information about the reason behind this obstructive behaviour. Then the participant told that during the last past months he experienced a lot of stress and pressure in his job in such a way that he got physical sick; he felt very tired, had sings of hypertension and had eruption on his skin. The participant told that he was forced to work for about 90 hours a week and explained that because of the course he obtained more stress in his work.

So this situation teaches us the importance of finding out what is behind dysfunctional behaviour. It is the responsibility for the trainer to intervene in an empathic way to provoke a situation in which a participant is able to express his inner feelings and thoughts. This also gives the opportunity to help the participant as well as the trainer to build up professional relationship and to work together in a constructive way. (Rob Mérelle, the Netherlands)

The first hour - one way to establish a positive relationship:

The first hour of a course will be decisive for establishing a positive relationship between trainer and clients. Clients might be anxious and insecure: What am I expected to do? How shall I behave among all these alcohol addicts? will this psychologist force me to strip my very soul?

The German system of rehabilitation for drivers who's license has been suspended sets a medical-psychological assessment before being admitted to a course at all. For most clients, this has been a frightful experience. Often they feel deeply hurt, misunderstood, humiliated or misjudged. They do not understand the system they are submitted to. Having to absolve a course, to them is just a prolongation of their sufferings, just a mean trick to draw more money out of them.

The first hour of a course should be devoted to work up this emotional situation and to create a positive perspective. To this object, the following items have proved to be helpful:

- A friendly, personal welcome for each client, small talk before the official start.
- Emphasise the common background of all participants ("You are in this course because...then you had to...").
- Give room to complaints about the clients' experiences with the procedure so far and to articulate their fear of what might be next ("All of you had to go through a medical-psychological assessment. What was that like for you?")
- Listen empathetic, no corrections, no criticism, just deepening questions, summarising of client's statement (active listening)
- Encourage the group to exchange their experiences ("How about the others?")

- Answer questions or confirm that this (important) question will be one of the objects of the course.
- Give basic information about the criteria of the medical-psychological assessment (after a phase of just active listening), if necessary.
- Explain carefully the status of the rehabilitation course within the system, stressing positive aspects (as German speaking people put it. "This course is the light at the end of a tunnel").
- Explain carefully what will be done during the course (object, methods, organisation, rules) – always giving room to questions.
- Work out possible positive results for participants ("Apart from getting your drivers' license back: Can you imagine a positive result for yourself from participating in this course?").
- Encourage laughter.
- First feed-back ("Now that we've talked a little: How do you feel right now?").
- Praise the group ("now that I've got to know you, my impression is that you are going to be one of the groups that it's fun to work with – if it is so. I'm positive that we'll get along well with each other.") (Angelika Schildmeier, Germany)

What might be behind a simple looking question?

A typical question which clients often ask the trainer is: What's about you, don't you also drink alcohol? Don't you also drive too fast or anyway, do you have a licence? There are two basic possibilities to react: Either the trainer answers how it is, just like in a normal human relationship, regardless whether the answer is the truth or not and soon this possibly inconvenient topic is through, or he reacts more professional. First, this question must be detected as a possibly key question of the group to get into closer touch with the leader of the course. An appropriate statement of client centred trainer then could be: I will answer your question, but first, wouldn't it be interesting to see what is behind your question? What becomes clearer for you, after I have answered your question? After an empathetic group-discussion led with patience the client(s) can experience that he is e.g. searching for the relationship between the trainer and his group – is he/she different from them and what's about the hierarchy? Sometimes clients ask this question after they have been talking very openly about their personal weaknesses and now they want to see to whom they have just been so open. Others perhaps want to see, if the leader of the group can be seen as a model. But also an attack against the trainer and against coming to close can be the motivation. If the trainer takes the chance to make use of this ordinary looking question in an empathetic way, he/she has the challenge to support the setting up of a positive client-trainer relationship. (Gregor Bartl, Austria)

Silence is golden?

What to do with clients who pass the course over in silence. Is silence consent with or resistance against the trainer? One possible solution is to keep the same distance to all participants. Because the more the trainer gets closer to one or some of the participants the more he loses others. Sometimes clients keep passive because they feel an alliance between the trainer and certain other group members. Consequently, they feel excluded. they might be confused about, who actually is their group leader – is it the trainer himself/herself? Or is it a small subgroup consisting of the trainer and certain others leading the discussion? They then might feel that there is no place for them in this group and they get even more passive because the dialogue does not concern them. One strategy to avoid this lack of relationship is to as often as possible invite all participants to join the discussion and on the other hand

to limit participants who speak too much - even when it sometimes is so cosy when one person is speaking and all the others can lean back and listen. Inviting all participants does not mean to directly address questions specifically to quiet participants, but to formulate topics where everybody in the group shall give a personal statement on it. Then clients can easier find out how intensive they want to join the dialogue. (Gregor Bartl, Austria)

Feedback survey

Objective of the feedback survey

As mentioned in the introduction the effectiveness of courses has already been analysed on a quantitative statistical basis with the external criteria of recidivism rates. Thus, the efficiency of rehabilitation courses for offenders is evident, at least for those course types which have been evaluated. Still open, however, is the question about which single elements of rehabilitation courses contribute more or less to the effectiveness of the entire course. As a design for a statistical analysis with control condition to evaluate single course elements is rather impossible, in the Andrea-project it is made use of standardised feedback to gain some knowledge about this open question.

The main purpose of the feedback survey is to get an insight about the single effective factors of the entire course programmes. Courses in general have been partly described in literature but it is the first time that details of sessions and modules (course units) have been subject of analysis. In the following the detailed goals of this feedback survey shall be listed and described:

- **Description of modules applied in courses:**

Single course units – named modules in this study – shall be described in their contents and classified concerning the method applied and concerning how they are expected to contribute to the main course goal which is to change behaviour by changing attitude. This information must be collected from the course leaders. The result is a catalogue of modules providing information about what is done (contents) how it is done (method) and why it is done (intended sub-goal). This catalogue shall be of advantage for every course provider to compare and check with his/her programme. It shall give an understanding of what is done in the courses and which plans of the course leaders are behind their interventions.

- **Evaluation by clients and course leaders:**

As courses directly or indirectly are mandatory it is of interest to see how these programmes are accepted by the clients. Therefore feedback about how interesting and how helpful the single modules were seen by the clients must be collected. But here it is important to notice that results of this feedback-study are not necessarily correlated with success of the courses concerning changed behaviour. Positive feedback can also be correlated with having no influence on attitude change and vice versa. Feedback is collected from the clients and from the course leaders. It is mentioned again, that a reduction in recidivism and a positive change in attitude as a general result of rehabilitation courses has been proven sufficiently and is described in the literature chapter of this report. This feedback study is not an evaluation about

the effectiveness on recidivism of the single course modules. Such an evaluation design would hardly be impossible to carry out.

Conception

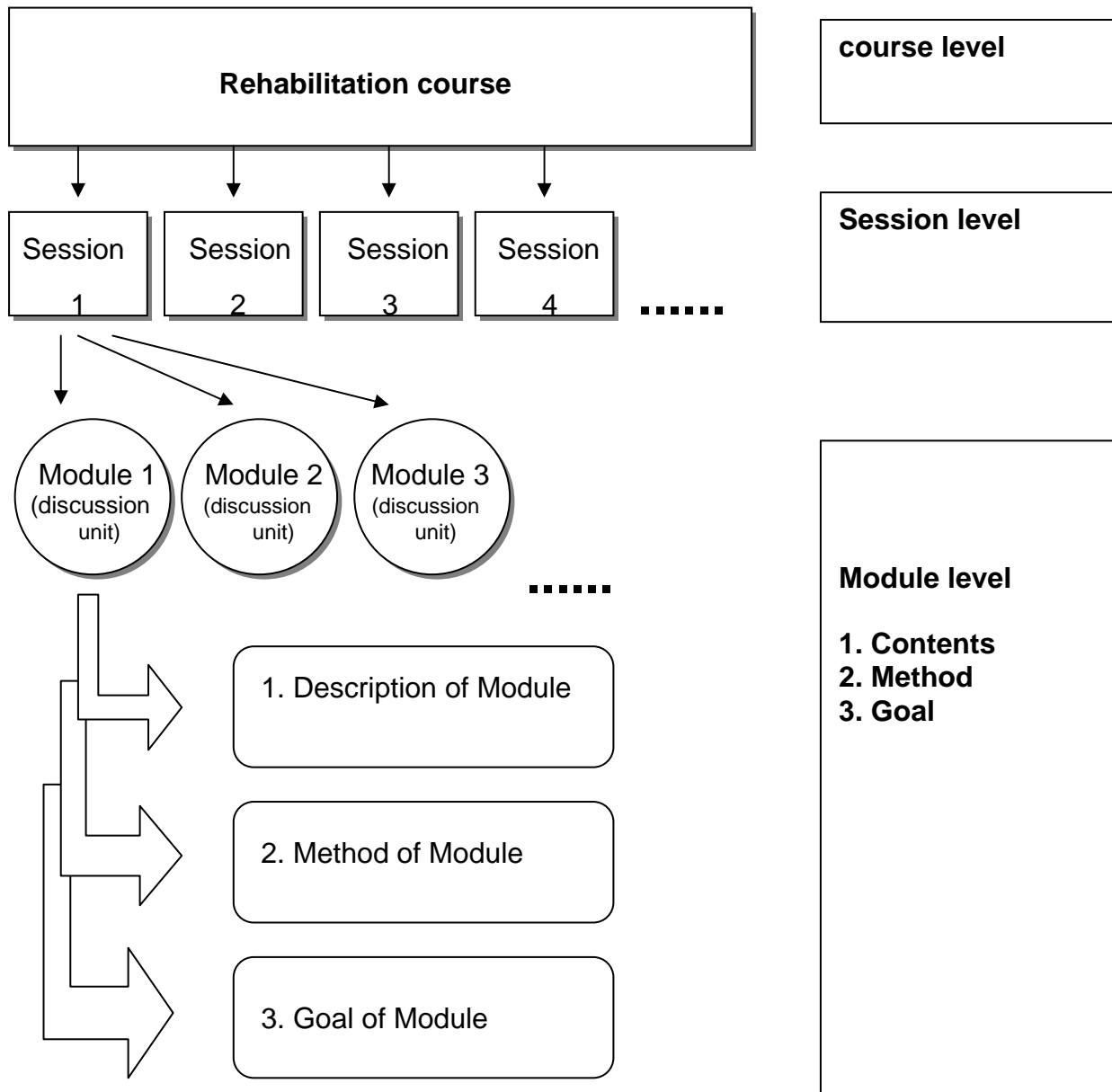
When answering the question, "what makes the courses effective?" in the Andrea project it is postulated that the following four effective-factors can be distinguished:

1. Frame conditions of the entire system (course setting, selection system, legal system behind it, surveillance,...)
2. Client trainer relationship
3. Methods applied in the courses
4. Contents of the courses (in detail per units)

However, this feedback-study focuses only on the methods applied and especially on the contents of the course modules. The theory behind it is that the courses are subdivided into course sessions and the sessions are subdivided into course modules. To make it easier for the clients to understand in the questionnaires of the feedback study these modules are labelled "discussion units". Since every course session can be different, the psychologist/teacher had to enter his/her modules into the feedback forms before handing them out to the clients.

To carry out this feedback survey, first a theory had to be established to classify the methods and sub-goals of the programme units (modules) applied. The Idea of the Andrea feedback study is to gain knowledge on the module level. The subdivision of the courses which is the theoretical basis is illustrated and explained below:

Theoretical basis for the "Andrea"- feedback-study



explanation of levels:

Course level

The effectiveness of courses has already been analysed. It is not the task of "Andrea" to analyse them again.

Session level

Courses consist of a certain number of sessions. It is almost impossible to analyse the effectiveness of single course sessions due to control condition problems.

Module level

Course sessions can be subdivided into modules (or discussion units) which are the smallest describable effective factors of rehabilitation courses.

It is the objective of the "Andrea"-feedback to gain knowledge about the effectiveness of single course modules.

First, modules shall be described with their contents and classified concerning the method applied and their intended goal.

Second, the effectiveness of the modules shall be evaluated by participants and by psychologists/teachers.

Influences on the module feedback e.g. due to a specific group dynamic or due to discussions before the module which can have an influence on how positive or negative the following module was experienced, could not be considered.

Definition of modules

What is a course module (respectively discussion unit)? A course module is an intervention unit in a course session which can be described by the following three aspects:

- The contents
- The method applied
- The goal

A course module is directly linked with the course goal (change behaviour). Consequently, course elements which are necessary only to establish a positive working atmosphere are in this sense not modules. Examples which are not modules are: Discussion about organisational details of the course setting, individual feedback of the feeling in the course, short personal introduction of each participant at the beginning of the course, coping with disturbance, etc. These elements are necessary to make the course running but are not defined as modules in this study.

The contents

The contents must be described individually by the psychologist/teacher briefly to give an idea what was done. In some programmes almost every module is different depending on the individuals' deficits. In other programmes every course follows a fixed order of modules regardless of the participants.

The method applied

It would be too difficult to classify psychological/psychotherapeutic intervention techniques or pedagogical strategies applied in the module. This would rather be a subject of expert discussion. Therefore, the method simply was divided into two key-dimensions: "rather presentation" or "rather discussion".

For filling in the feedback form the codes "D" for "rather discussion" and "P" for "rather presentation" were used for each module.

Certainly, the two methods – presentation and discussion – cannot always be absolutely distinguished, but it was possible to decide if the method of discussion or presentation was predominant in the module. Following definition helped to decide:

Definition:

- *rather presentation (P)*: The psychologist/teacher initiates a topic and predominately presents his/hers intentions and convictions. These modules are more schedule oriented and rather have the quality of teaching and less of self-reflection. The main characteristic is that the course trainer knows "the one and only truth" even when he let the clients elaborate this truth in a discussion.
- *rather discussion (D)*: Client-centred intervention, where participants get support from the psychologist/teacher to find their individual problem solutions. In a discussion the topic can either be initiated by the client or by the psychologist/teacher. Here the main characteristic is that only the client knows his/her "truth".

Psychologist running the courses are different in their education. Many have psychotherapeutic education and apply elements of their therapeutic orientation. Earlier evaluations of the effectiveness of the various psychotherapeutic schools have come to the conclusion that it primarily is not the therapeutic school which makes the difference in the effect of the treatment but the person of the therapist (also see chapter on client-trainer relationship). Therefore, the influence of the various therapeutic trends on feedback was not analysed in this study because:

1. The results of these psychotherapeutic evaluations are likely to be transferable to rehabilitation courses.
2. It would have been too complex in this feedback-survey.
3. The psychotherapeutic influence is only a background education of the trainer and not so relevant for differences between the courses, as the courses are not psychotherapy. The trainers make only use of psychotherapeutic elements.

The goal

The goal of rehabilitation programmes is to change individuals' behaviour in order to prevent further offences what shall result in a at least small increase in road safety. This change of behaviour shall be achieved by a change of attitude (including motives, cognitive believes, opinions). Consequently, in a first step the goals of the course modules can be subdivided into

- problem solution by increasing knowledge to change attitude (rather teaching)
- problem solution by increasing self-reflection to change attitude.

Knowledge can be increased in the three fields: traffic law, physics (driving dynamics, accident statistics...), psycho-physiology (implications of alcohol, per mile calculations, fatigue, reaction...).

Self-reflection can be increased symptom oriented or focussing on the primary source of symptoms.

Symptom oriented self-reflection can be classified as follows:

- General awareness of the symptom (alcohol / speeding...) in client's life
- more sensitivity towards danger of alcohol/speeding etc. in traffic (more sensitive subjective alcohol tolerance in traffic/ risk-awareness concerning overestimation of driving skills)
- impulse self-control

- acceptance of legal rules and social norms
- self-responsibility for behaviour in traffic (internal vs. external attribution)

Focussing on the primary source of symptoms is a wide field and covers everything which can also be subject of psychotherapy (to cope with inferiority feelings, to become happy and confident in social concerns, life events in biography...)

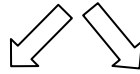
To explain the difference between symptom oriented and primary source oriented intervention the following examples are given.

Symptom oriented: How often do you drink alcohol, what are personal reasons for drinking, what is the meaning of alcohol in your social environment?

Primary source oriented: We do not talk about your problem/symptom (e.g. alcohol or speeding...) but about your everyday life. What do you miss in your sober life so that you have to compensate with alcohol, speeding, etc.?

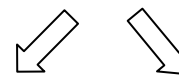
In the following overview the classifications of the module goals are summarised:

Goal of module
(codes are shown in parenthesis)



Problem solution by increasing knowledge in the field of:

Problem solution by increasing self reflection to change attitude



- **traffic law (KL)**
- **physics** (driving dynamics, accident statistics...) **(KPH)**
- **psycho-physiology** (implications of alcohol, per mile calculations, fatigue, reaction...)**(KPS)**

symptom oriented problem solution focusing on the following symptoms

focussing on the primary source of symptoms (entire personality and individual biography) **(PS)**



- General awareness of the symptom (alcohol / speeding....) in client's life **(SA)**
- more sensitivity towards subjective alcohol tolerance in traffic/ overestimation of driving skills **(SS)**
- impulse self-control **(SI)**
- acceptance of social norms legal rules and **(SN)**
- raise self-responsibility for own behaviour (more internal instead of external attribution) **(SR)**

List of codes:

The following codes were used to classify each module concerning method and goal. In the description of "symptom oriented self reflection" always one possible typical client statement to express the problematic is added to get practical understanding for what is meant.

method of module	code
rather presentation	P
rather discussion	D

goal of module (knowledge or self-reflection)	code
Problem solution by increasing knowledge in the field of traffic law	KL
Problem solution by increasing knowledge in the field of physics	KPH
Problem solution by increasing knowledge in the field of psycho-physiology	KPS
Symptom oriented problem solution by increasing self reflection to change attitude concerning <i>general awareness of the symptom in client's life</i> (problematic client statement: "I have no problem!")	SA
Symptom oriented problem solution by increasing self reflection to change attitude concerning <i>sensitivity towards alcohol/danger of speeding...</i> (problematic client statement: "It is not dangerous to drive with 5 beers/fast!")	SS
Symptom oriented problem solution by increasing self reflection to change attitude concerning <i>impulse self control</i> (problematic client statement: "I do what I want to do")	SI
Symptom oriented problem solution by increasing self reflection to change attitude concerning <i>acceptance of social norms and legal rules</i> (problematic client statement: "Only the strong survive!")	SN
Symptom oriented problem solution by increasing self reflection to change attitude towards <i>self-responsibility (internal vs. external attribution)</i> (problematic client statement: "It was just bad luck, shit happens!")	SR
Primary source oriented problem solution by increasing self reflection to change attitude (problematic client statement: "My life is ok. anyway!")	PS

Each module was described and then presented to the clients to get their feedback on how interesting and how helpful it was in the client's opinion:

Session No. 1	brief description of module (Discussion unit)	For my clients this discussion unit was generally interesting / not interesting
method/ goal		This discussion unit was helpful / not helpful for my clients intention to avoid traffic offences in the future.
D/SI	Example: Advantages and disadvantages of the driving licence in the five aspects of life (family, job, friends, hobby, leisure time)....	very interesting • • • • • not interesting at all 1 2 3 4 5 very helpful • • • • • not helpful at all

Further Examples for a filled in feedback-form are added to the annex of this report. Also the detailed instruction for course leaders can be seen there. It was the intention to offer this feedback study to course providers of EU-countries.

• **Further questions on opinions and attitudes:**

Additional to the module feedback some questions have been presented to the clients and partly to the course leaders concerning attitudes, opinions about the course in general, about self estimation as a driver and about how a course shall be conducted. Results from clients shall be compared with results from course leaders. Clients and course leaders were asked how they would run a course as follows:

I would ...	1 2 3 4	I would...
... rather urge the participants to join discussions	• • • •	... rather give a speech
... rather talk about personal matters of my clients	• • • •	... rather talk about matter of facts
... rather let the clients work out problem-solutions	• • • •	... rather present problem-solutions myself
... also talk about matters that can be unpleasant for the clients	• • • •	... avoid unpleasant matters

In addition to the comparison between trainers and clients, a comparison between the clients' opinion before the course (sub-sample) to the opinion of other clients after the course can be analysed.

Participants were asked about their general opinion on the course effectiveness by the following two questions:

Has the course contributed in one way or another that you will avoid further offences in the future? (Before version: do you think the course will...). Clients could answer with "yes", or "no, not at all" and were motivated to write comments underlying their opinion. Here it was of specific interest, if the financial and aversive aspect or the contents of the course was primarily influencing the individual's decision. Because it can be hypothesised, that clients only believe that the course was helpful for them because it is so expensive and that they therefore will never commit an offence again.

This course has contributed for me to have learned something about myself as a driver (before version:will contribute....to learn...).

strongly disagree	disagree	undecided	agree	strongly agree
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Also the self estimation as a driver was asked:

- **Please evaluate your personal driving abilities on a scale from 1=very good to 5=very poor:**

1	2	3	4	5
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Finally, the following attitudinal statements were presented to the clients and they could give their feedback again on a five scale scheme from strongly disagree to strongly agree (questions concerning alcohol were only presented to drink drivers):

- In general traffic rules are useful and necessary!
Already the consumption of small doses of alcohol can reduce my capabilities, even though I do not feel impaired!
- Alcohol is a substance that has an effect on the consciousness and should be consumed with care!
- Most people who have driven under the influence of alcohol several times should change their general habits in life. Simply saying "I will never do it again" is not enough!
- Alcohol consumption increases the danger of accidents! A traffic accident is not just bad luck!
- Accidents are left to fate: It hits you or not.
- If another driver pushes you from behind you have no other choice than driving faster than you really want to.
- I move on quicker on busy roads when overtaking a lot.
- Bad drivers often hesitate in their actions and they do not make use of their opportunities.
- Young drivers often over-estimate their abilities and thus get themselves into dangerous situations more often than experienced drivers do.

Results of Andrea feedback survey

Course providers from Austria, Belgium, France, Italy and The Netherlands applied the Andrea-feedback forms. In Switzerland the study already started but could not have been finalised in time. Data was collected between April and August 2001. In total feedback from 1,375 participants and from 60 different course leaders is included in the data. Results from the France feedback study are described separately due to the following distinctions to data from the other EU-countries:

- The majority of data (from 973 participants) was collected in France.
- The course system in France differs from the other courses (20 participants per course each, two course leaders in one course – one driving teacher and one psychologist, held on one weekends, alcohol offenders and other offenders are mixed together in the same groups, courses have a fixed module schedule).
- Due to organisational reasons in France it was not possible to get feedback from the course leaders too. Only client feedback is available.
- Data collection in France was not really anonymous, because age, duration of holding the licence, gender and the traffic offences have been asked additionally.

First, the results from France are described:

Results from France

Description of sample:

The mean age of the 973 participants was 37.4 years (median: 35; standard deviation: 13.4), it ranged from 18 to 80 years. 16% of participants were females, the difference in age between females and males was not significant. The mean period of having held a licence was 17 years (median: 15; standard deviation: 12.8), it ranged from 0 to 61 years.

Distribution of the offences which led to the course participation:

Drink/driving:	12.2%
Speeding:	34.9%
Other offences:	49.3%
Missing value:	3.6%

This offence resulted in:

No accident :	93.3%
Material damage:	3.2%
Personal injury:	1.7%
Missing value:	1.9%

Data was collected in the following towns/regions of France: Alencon, Aubenas, Auch, Barentin, blois, Bordeaux, Caen, Chartres, Creteil, Evreux, La Varenne, Laval, Montauban, Orleans, Paris, Perigueux, Poitiers, Rouen, Toulouse, Tours and Tulle. In France the average number of participants per course is 15, the maximum number is 20.

Modules:

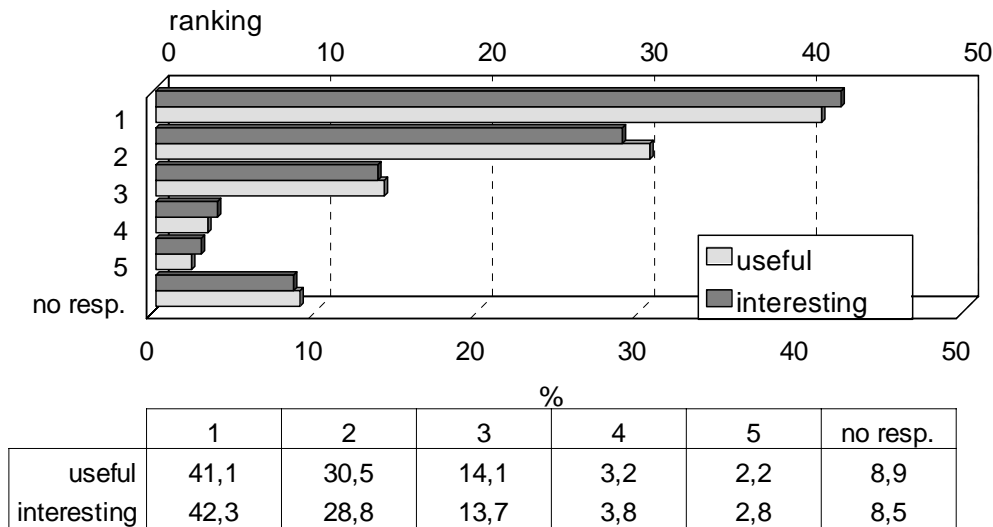
20 course modules were applied in every course following a fixed scheme (also see annex). These modules were equally distributed over Saturday morning- and afternoon-session and Sunday morning- and afternoon-session.

Each participant stated his/her individual feedback on a five scale ranking concerning how useful and how interesting it was for him/her. 1 was best, 5 was worst.

The mean value for all modules concerning "useful" was 1.68 and for "interesting" it was 1.71. This difference between "useful" and "interesting" was statistically not significant (U-test). The distribution of the rankings was not normally deviated but tended to have a peak at the positive end, what is illustrated in the diagram below showing frequencies:

feedback for all modules

total data file (France)



feedback from 973 clients for 20 modules each

Method of modules:

Concerning the method applied, 8 of these 20 modules (40%) were classified by the course providers as "presentation" modules and 12 of them (60%) as "discussion" modules. The feedback ranking from the clients concerning being useful and being interesting was statistically not different for the "presentation"- and the "discussion"-modules (Wilcoxon, $p=.77$).

Goals of modules:

The client-feedback of the course modules concerning how useful for the future and how interesting they were, have been analysed connected with the classification of the goals of the modules. The table below lists how many of the 20 modules applied were classified per goal each and then the mean values and standard deviations of clients' feedback between 1 to 5 module goal classification are shown:

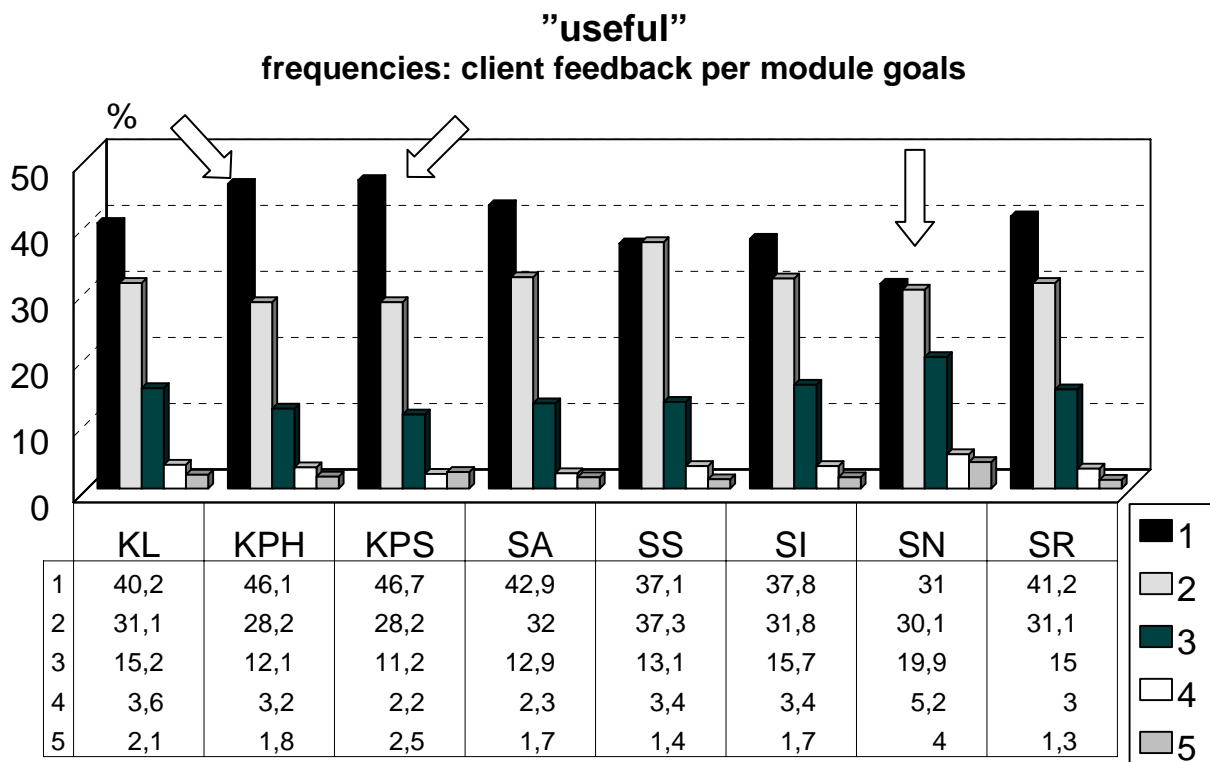
classification of module goal	number of modules	"useful" mean/std.dev.	"interesting" mean/std.dev.
KL (knowledge in law)	1	1.72 / 1.06	1.80 / 1.22
KPH (knowledge in physics)	3	1.61 / 1.03	1.66 / 1.24
KPS (knowledge in psycho-physiology)	4	1.58 / 1.04	1.61 / 1.14
SA (general awareness)	4	1.63 / 1.00	1.69 / 1.07
SS (sensitivity towards danger)	1	1.72 / 1.00	1.64 / 1.01
SI (impulse self control)	3	1.70 / 1.06	1.71 / 1.15
SN (social norms and rules)	3	1.92 / 1.21	1.88 / 1.22
SR (internal vs. external attribution)	1	1.67 / 1.01	1.77 / 1.23
PS (primary source orientated)	0	0	0

The pearson chi2 cross tabs show significant differences ($p=.000$) between the client feedback on the module goals. The adjusted residuals indicate that the four modules

classified as KPS (knowledge in psycho-physiology) and the three modules classified as KPH (knowledge in physics) were evaluated most useful. Modules with these two goals most frequently were ranked as very useful (rank 1) by the clients and vice versa the other ranks (2-5) were ticked significantly less frequent.

In contrast the three modules classified as SN (self-reflection to change attitude concerning the acceptance of social norms and legal rules) were ranked as significantly less useful. The ranking 1 was found significantly less frequent and the rankings 2-5 significantly more frequent.

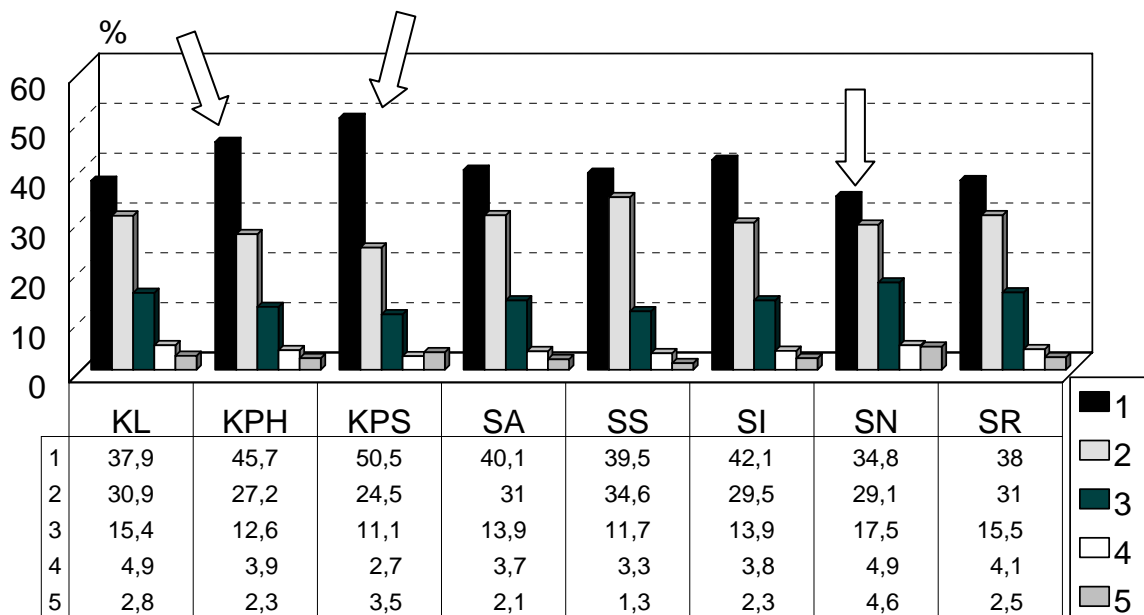
The four modules classified as SA (general awareness of the symptom) were ranked tendentially positive as the ranks 3,4 and 5 were ticked significantly less frequent. SI and SS modules were only partly ranked as less useful. All frequencies per module-goal classification are highlighted in the diagram below:



Concerning the feedback on how interesting the modules were evaluated by the clients, again KPS and KPH were found significantly most interesting. And also SN was evaluated as significantly less interesting.

The following three module goals were partly evaluated as less interesting as the rank 1 "very interesting" was ticked significantly less: KL (knowledge in law), SR (internal versus external attribution) and SA (general awareness of the symptom). All frequencies are illustrated below:

”interesting”
frequencies: client feedback per module goals



Was the course generally helpful

As a the first question clients have been asked about the entire course: "Do you think this course can help you in any way to avoid committing further offences in the future?"

following answers were given:

yes:	68.6%
no:	20.0%
no response:	11.4%

Then clients were asked to give a comment on why they are thinking so. These comments have been categorised (see table below). The following statements were added by the clients to their general answer divided by saying "yes", the course was helpful and "no" it was not:

type of comment:	if "yes"	if "no"	for total sample
1. General opinion about the interest of training, of prevention, it's always good to learn...	12.6%	14.9%	11.8%
2. External road system : better knowledge and understanding about rules, risks, framework of transport and mobility.	24.0%	11.8%	20.0%
3. Internal road system : it can improve my behaviour, I understand better my own responsibility.	25.8%	32.3%	24.7%
4. Accident and the other : the "others" are			

responsible for accidents.	7.3%	2.6%	5.7%
5. Financial cost : the program is only to make money.	2.8%	5.6%	3.1%
6. Internal accident : accident and me, my dangerous habits, the risk of my offences	6.9%	1.5%	5.2%
no response	20.4%	31.3%	29.4%

Self evaluation of driving skills

When clients were asked to evaluate their own driving skills ranking on a scale from 1 (very good) to 5 (very poor) the mean value was 2.43 and the standard deviation was .92.

There was a significant difference between participants who stated "yes", the course contributed in one way or another that they will avoid further offences in the future compared to those who answered this question with "no". Clients who stated that the course was not helpful estimated their driving skills better (Mean: 2,28; std. dev.: .97) than those who stated, yes the course was helpful (Mean: 2.5; std. dev.: .86). The Difference was significant (U-test, $p=.000$).

Learn about myself in the course

The clients also had to answer the question, if the course contributed that they have learned something about them as a driver on a scale from 1 (strongly disagree) to 5 (strongly agree). The mean value was 3.68 and the standard deviation was 1.03.

And again there was a significant difference between participants who stated "yes", the course contributed in one way or another that they will avoid further offences in the future compared to those who answered this question with "no". Clients who stated that the course was not helpful also answered to a lower extend that they have learned something about them as a driver (Mean: 2.93; std. dev.: 1.04) than those who stated, yes the course was helpful (Mean: 3.97; std. dev.: .80). The Difference was significant (U-test, $p=.000$).

How to lead a course:

Clients were asked on a four scale ranking scheme how to lead a course, if they were the course leader and what they would rather prefer if they want to be a good leader. the results are shown in the diagram below:

I would ...	1	2	3	4	I would...
... rather urge the participants to join discussions					... rather give a speech
... rather talk about personal matters of my clients					... rather talk about matter of facts
... rather let the clients work out problem-solutions					... rather present problem-solutions myself
... also talk about matters that can be unpleasant for the clients					... avoid unpleasant matters

Following these results, obviously clients rather want to discuss, want to discuss about matter of facts and not so much about personal matters, want to find their own problem solutions, and are partly willing to discuss also about matters that can be unpleasant for them.

Further differences between participants who answered "yes", the course contributed that I will avoid further offences in the future compared to those who answered this statement with "no", were not found statistically significant.

Attitude questions

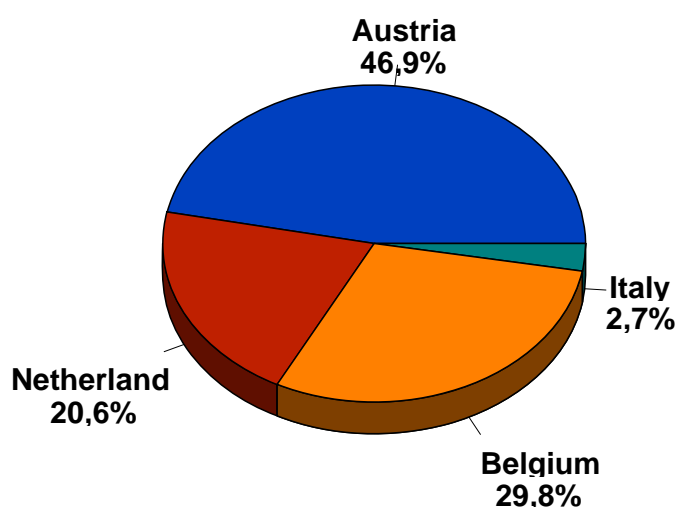
The following seven attitudinal questions were presented to the clients at the end of the course asking them to state their opinion on a five scale ranking from 1 (strongly disagree) to 5 (strongly agree). Results are listed below:

statement	mean	std.dev.
• In general traffic rules are useful and necessary!	4.32	.94
• Accidents are left to fate: It hits you or not.	2.36	1.20
• If another driver pushes you from behind you have no other choice than driving faster than you really want to.	1.90	.96
• I move on quicker on busy roads when overtaking a lot.	2.07	.97
• Bad drivers often hesitate in their actions and they do not make use of their opportunities.	3.67	1.53
• Young drivers often over-estimate their abilities and thus get themselves into dangerous situations more often than experienced drivers do.	3.75	1.15
• Already the consumption of small doses of alcohol can reduce my capabilities, even though I do not feel impaired!	4.09	1.06

When dividing into these clients who stated "yes" the course was helpful for the future and those clients who answered this question with "no", two attitudinal statements were ranked significantly different (U-test): Participants of the "yes"- subgroup agreed to a higher extend with the statement that traffic rules are useful ($p=.001$) and they less agreed with the statement that they can move on quicker when overtaking a lot ($p=.017$) compared to clients of the "no"-subgroup.

Results from certain EU countries:

Data from Austria, Belgium, Italy and the Netherlands are included in this analysis:



Data from 402 clients of 45 courses, conducted by 25 different trainers were available. 89% of the trainers were psychologists, 11% were social workers. The group size was in average about 9 clients per group. In order to get more valid data questionnaires were anonymous. Consequently, descriptive information about clients is not available.

24.4% of these clients were asked all questions, except the feedback on the modules before the course, 75% were asked only after the course. It was more or less randomly decided by the course leader whether to use the before/after or only the after questionnaire.

Modules:

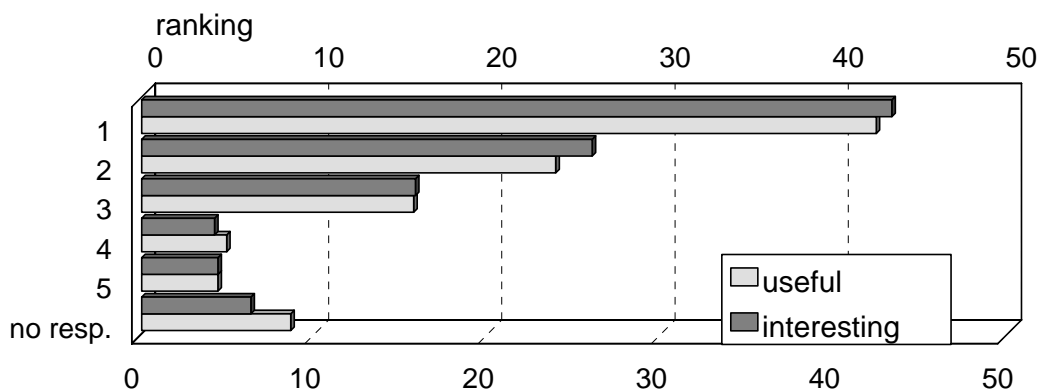
The number of modules varied from course to course and from session to session. It varied from one to a maximum of six modules per session. With variations, data for about 440 modules were available which were evaluated concerning being "interesting" and "useful" by 402 clients in 45 courses. Client feedback on modules was collected 5,757 times for about 630 modules. But only 70% of the collected data was valid which is about 4,000 times client feedback. In average 14 modules were applied per course.

Each participant stated his/her individual feedback on a five scale ranking concerning how useful and how interesting it was for him/her. "1" was best, "5" was worst.

The mean value for all modules concerning "useful" was 1.96 and for "interesting" it was 1.94. This difference between "useful" and "interesting" was statistically not significant (U-test). The distribution of the rankings was not normally deviated but tended to have a peak at the positive end, what is illustrated in the diagram below showing frequencies:

CLIENT - feedback for all modules

total data (A, B, I, NL)



	%					
	1	2	3	4	5	no resp.
useful	42,4	23,9	15,7	4,9	4,4	8,6
interesting	43,3	26	15,8	4,2	4,4	6,3

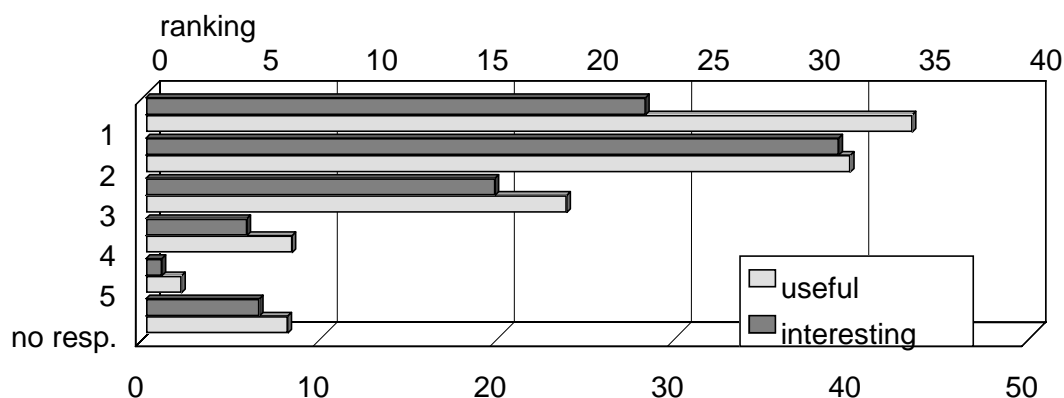
n= 4,340 times feedback from 402 clients

Also the 25 different trainers who conducted the 45 courses were asked to state their module feedback on how useful and interesting they believed that each module were for their clients.

The mean value of the trainer-feedback for all modules concerning "useful" was 1.87 and for "interesting" it was 1.91. This difference between "useful" and "interesting" was statistically not significant (U-test). And again, the distribution of the rankings was not normally deviated but tended to have a peak at the positive end, what is illustrated in the diagram below showing frequencies:

TRAINER - feedback for all modules

total data (A, B, I, NL)



	%					
	1	2	3	4	5	no resp.
useful	34,6	31,8	19	6,6	1,6	6,4
interesting	28,2	39,1	19,7	5,7	0,9	6,4

n= 547 times feedback from 25 trainers

Method of modules:

Concerning the method applied, 36% of the modules were classified by the course providers as "presentation" modules and 64% as "discussion" modules. The feedback ranking from the clients as well as from the trainers concerning being useful was statistically not different between the "presentation"- and the "discussion"-modules (Wilcoxon, $p=.10$ and $p=.41$). But clients as well as trainers evaluated presentation modules significantly more interesting:

which method was evaluated as more "interesting"

	presentation	discussion	sign.
mean clients	1.89	1.96	$p=.001$
mean trainer	1.82	1.98	$p=.022$

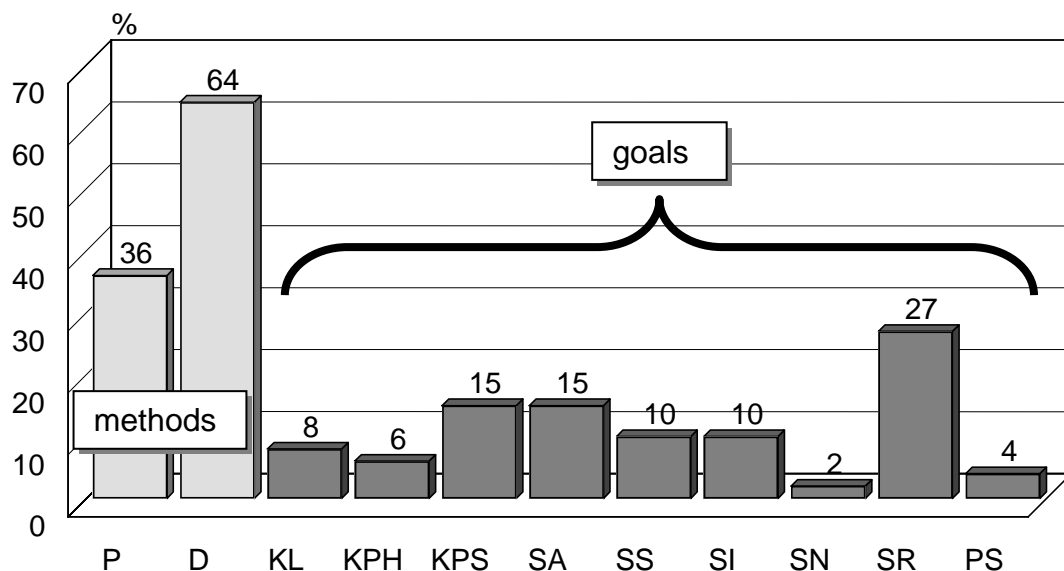
Goal of modules:

27% of the modules applied were classified by the trainers as SR-modules (self-reflection to change attitude towards self responsibility of clients: internal versus

external attribution). Followed by 15% of modules classified as KPS (knowledge in psycho-physiology) and also 15% as SA (general awareness of the symptom in clients life). These and further percentages are illustrated below together with the distribution between the two methods, "discussion" and "presentation":

Distribution of modules

per method and per goal



The client-feedback as well as the trainer-feedback of the course modules concerning how useful for the future and how interesting they were, have been analysed connected with the classification of the goals of the modules.

The pearson chi2 cross tabs show significant differences ($p=.000$) within the client feedback on the module goals. The adjusted residuals indicate that the 15% of modules classified as KPS (knowledge in psycho-physics) and the 10% of modules classified as SS (self-reflection to change attitude concerning sensitivity towards the danger of alcohol or speeding) were evaluated most useful. Modules with these two goals most frequently were ranked as very useful (rank 1) by the clients and vice versa certain of the other rankings (2-5) were ticked significantly less frequent.

In contrast the only 2% (94 times feedback) of modules classified as SN (self-reflection to change attitude concerning the acceptance of social norms and legal rules) were ranked as significantly less useful by the clients. The ranking 1 was found significantly less frequent and the ranking 3 significantly more frequent.

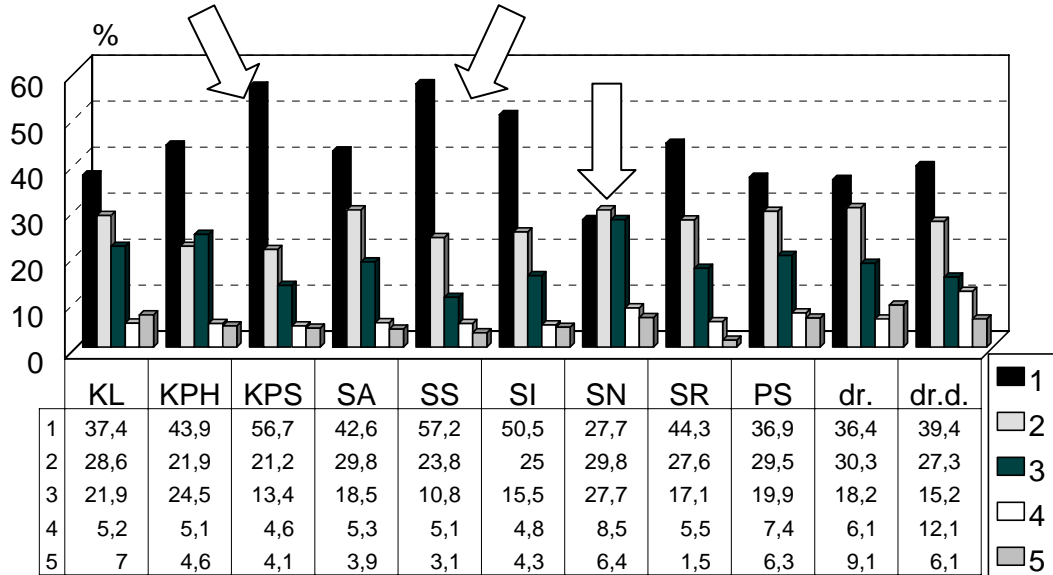
The 8% KL modules (knowledge in law) were ranked significantly less useful as the rank 3 was ticked significantly more frequent by the clients.

A low number of courses (35 times client feedback) included a half an hour feedback drive with a driving teacher plus one session group discussion were the driving teacher was also member of the group (courses for novice drivers with other than alcohol offences in Austria). The feedback drive and the following group discussion were evaluated on an average by the clients concerning useful and interesting. All

frequencies per module-goal classification concerning "useful" are highlighted in the diagram below:

"useful"

frequencies: client feedback per module goal

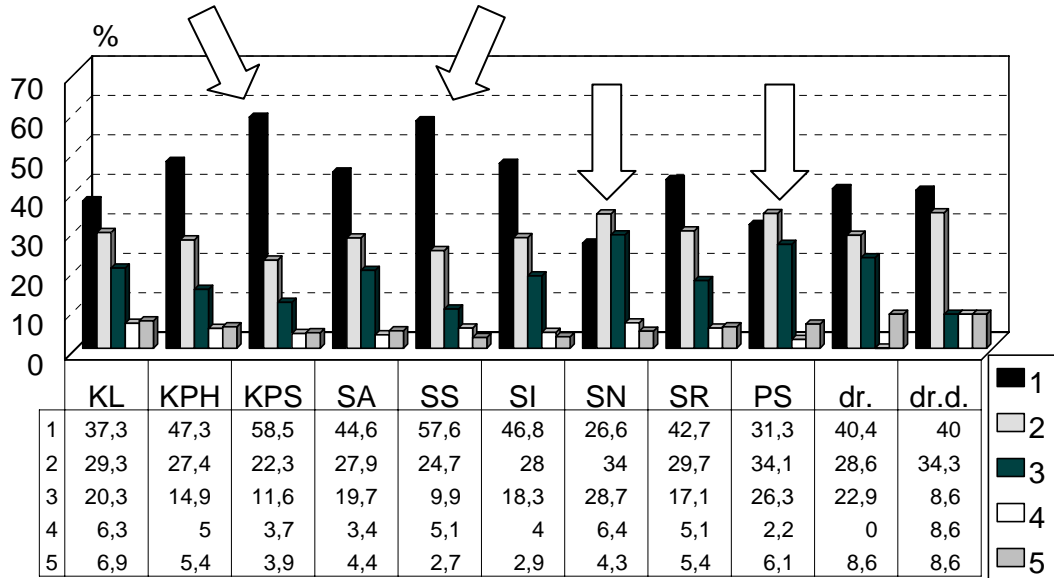


dr. = feedback drive in traffic / dr.d. = group discussion about the feedback drive

KPS- and SS-modules were also evaluated significantly more interesting by the clients. And again SN-modules were evaluated significantly less interesting. KL-modules showed a significant lower ranking in 1 (very interesting). But also the 4% (179 times feedback) of PS-modules (primary source oriented problem solution) were ticked significantly less frequent as very good and significantly more frequent ranked with 3. See diagram below:

"interesting"

frequencies: client feedback per module goal

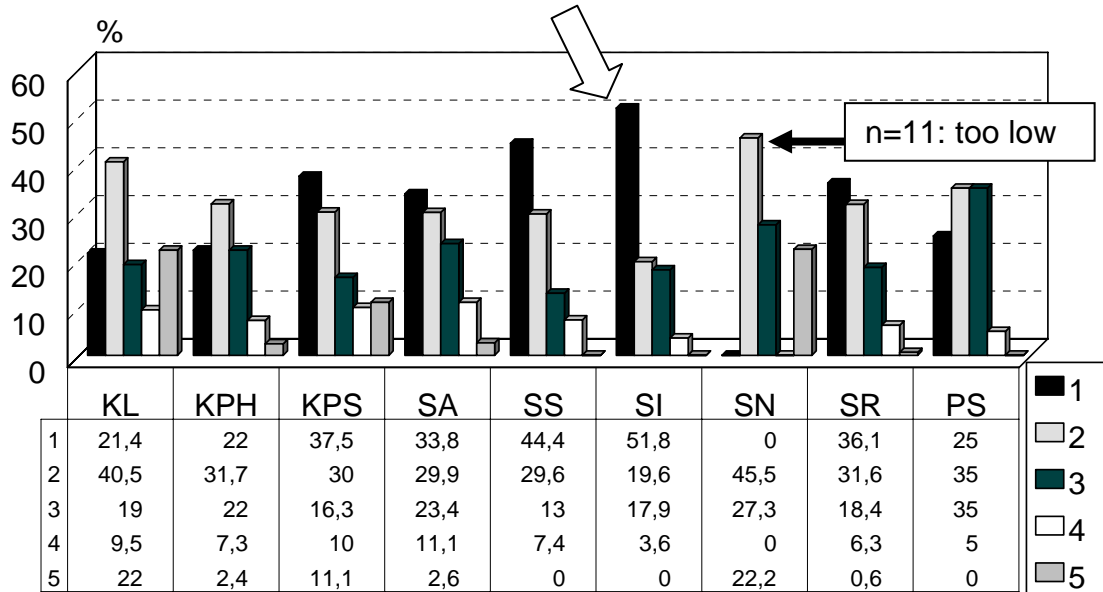


dr. = feedback drive in traffic / dr.d. = group discussion about the feedback drive

Within the feedback from the 25 trainers for the modules of the 45 courses also statistically significant differences were analysed (chi2, p=.008). But only the adjusted residual for the ranking of very good for SI-modules (impulse self control) indicate that this rank was significantly more frequently ticked by the trainers. Consequently, the trainers evaluated all module goals equally useful, only the SI-modules were evaluated more useful (see below). But generally here the small number of cases (56 times feedback) has to be considered, especially for the SN modules where n is only 11 times feedback:

"useful"

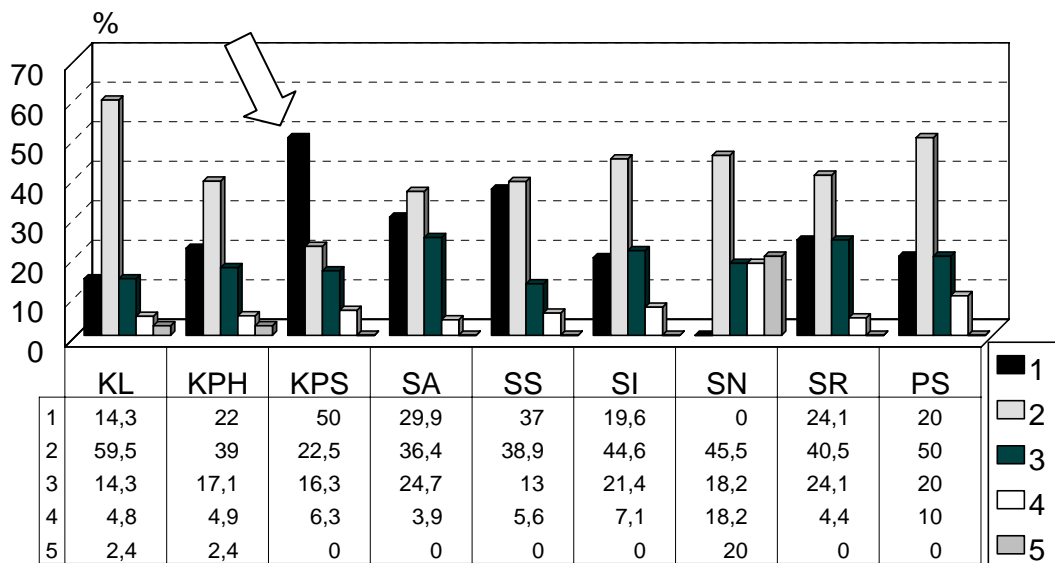
frequencies: TRAINER feedback per module goal



The trainer feedback concerning how interesting the different modules were for their clients was also significantly different (χ^2 , $p=.000$). Like the clients did, also the trainers evaluated KPS-modules as more interesting (but not more useful) for their clients. "1" was ticked significantly more frequent, "2" significantly less frequent. KL-modules were ticked significantly more frequent "2". Further differences between the module goals illustrated below were statistically not significant:

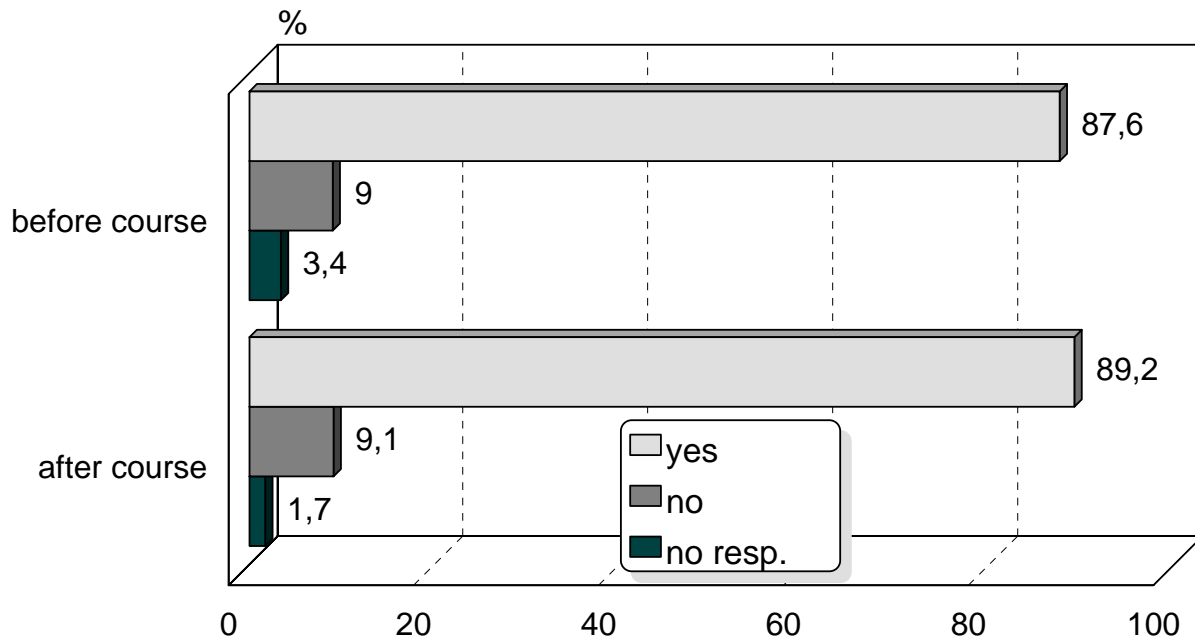
"interesting"

frequencies: TRAINER feedback per module goal



Was the course generally helpful

In the first question clients have been asked about the entire course: "Do you think this course can help you in any way to avoid committing other offences in the future?" 89.2% of the sub-group which has been asked this question after the course and 87.6% of those who have been asked before the course has started, answered this question with "yes" and 9% of both groups answered "no" as illustrated below:



The various comments which were added by the clients could have been summarised in the following four classifications:

Cost: Statements which make clear that the course was primarily helpful because it was so cost intensive or there was at least any other aversive comment, for example: "I will never make this senseless course again", or simply "too expensive".

Contents internal: Statements which indicate that the contents of the course had a positive influence on the client, for example simply: "more risk awareness", or "the course has touched me, now I see how dangerous it is" or participants gave concrete examples of what they positively remembered in the course.

Neutral: A neutral general statement which did not indicate a direct connection between the course contents and participants' attitudes like, "drink driving is really dangerous", or "I will try my best".

Not reached: Statements which indicate that the contents of the course did not reach the participant, for example: "nothing new for me", "I have known that all before".

All together 290 questionnaires answered after the course and 85 before the course could have been analysed concerning the question, whether the course was helpful in connection with individual statements. Only 8.5% of clients who have been asked after the course stated that the course was helpful primarily because it was so cost intensive and/or aversive compared to a percentage double of it (18%) from those clients who have been asked before the course whether they think that the course will be helpful. Vice versa 51% of clients before the course gave positive statements concerning the contents of the course compared to 75.5% after the course. this positive trend and further details are listed below:

statement	before course n=85		after course n=290	
	"yes" (n=77)	"no" (n=8)	"yes" (n=261)	"no" (n=29)
cost:	18%	--	8.5%	--
contents internal:	51%	--	75.5%	--
not reached:	5%	100%	--	69%
neutral:	9%	--	4.5%	14%
no statement:	17%	--	11.5%	17%
	100%	100%	100%	100%

Self evaluation of driving skills

When clients were asked to evaluate their own driving skills ranking on a scale from 1 (very good) to 5 (very poor) the mean value for the group of clients who have been asked this question before the course was 1.84 and the standard deviation was .82 and the mean values for the group of clients who have been asked after the course was 1.97 and the standard deviation was 1.26. This difference is not significant (U-test).

There was no significant difference between participants who stated "yes", the course contributes in one way or another that they will avoid further offences in the future compared to those who answered this question with "no" (U-test).

Learn about myself in the course

Further, the clients answered the question, if the course contributed that they have learned something about them as a driver on a scale from 1 (strongly disagree) to 5 (strongly agree): The mean value for the before group was 3.39 and the standard deviation was 1.23. and for the after group the mean value was 3.62 and the standard deviation was 1.26. This difference is statistically significant (U-test, $p=.029$). Hence, Clients asked after the course stated to a greater extend that they have learned something about them as a driver than clients who have been asked before the course, whether or not they think that they will learn something about them as a driver in this course.

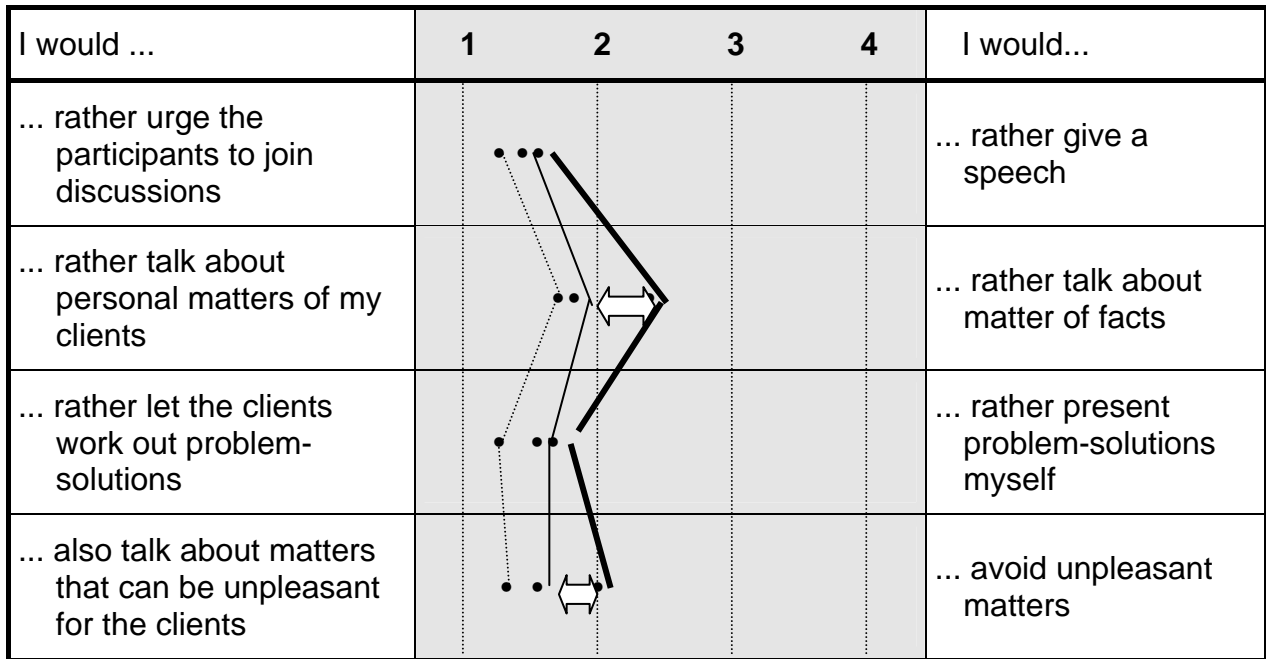
In both groups (before and after) there was a significant difference between participants who stated "yes", the course contributed in one way or another that they will avoid further offences in the future compared to those who answered this question with "no". Clients who stated that the course was not helpful also answered to a lower extend that they have learned something about them as a driver (U-test, $p=.001$):

learn something about me as a driver in the course from 1 (strongly disagree) to 5 (strongly agree):

course is helpful	before course mean / std. dev.	after course mean / std. dev.
yes	3.55 / 1.9	3.75 / 1.18
no	2.00 / .93	2.15 / 1.16

How to lead a course:

Clients as well as course leaders were asked how to lead a course, if they were the course leader and what they would rather prefer if they want to be a good leader. Again, one quarter of the clients have been asked before the course and can be compared with those clients who gave their opinion after they have experienced the course. The results which are partly statistically different before and after the course are shown in the diagram below:



statement	clients before mean/std.dev.	clients after mean/std.dev.	course leaders mean/std.dev.
discussion vs. speech	1.65 / 1.10	1.54 / .93	1.42 / .62
personal matters vs. facts	* 2.62 / 1.34	* 1.99 / 1.12	1.84 / .70
solutions by clients vs. by trainers	1.85 / 1.19	1,72 / 1.08	1.29 / .55
unpleasant vs. avoid unpleasant	* 2.08 / 1.29	* 1.66 / 1.03	1.47 / .76

*) significant: U-test, $p < .01$

Clients who have been asked before the course tended to avoid talking about personal matters in the course and preferred instead to talk about facts. But clients after the course favoured to talk about personal matters. This difference is statistically significant (U-test, $p = .000$).

Before the course clients favoured to avoid to talk about unpleasant matters. In contrast, clients ,after they have experienced the course, favoured to talk about matters which can be unpleasant for the clients. This difference is also statistically significant (U-test, $p = .006$). Further differences were only tendencies.

At least after the course the clients had about the same believes as their trainers on how to run a course: The participants shall discuss instead of giving as speech by the

trainer, it primarily shall be discussed about personal matters but also partly about facts, problem solutions shall rather be elaborated by the clients individually and not provided by the trainers and matters which can be unpleasant for the clients shall not be avoided.

Further differences between participants who answered "yes", the course contributed that I will avoid further offences in the future compared to those who answered this statement with "no", were not found statistically significant.

Attitude questions

The following attitudinal questions were presented to the clients at the end of the course asking them to state their opinion on a five scale ranking from 1 (strongly disagree) to 5 (strongly agree). The statements concerning alcohol were only presented to drink driving offenders and the other statements were only presented to those clients who committed other than alcohol offences. Only the first question about rules was presented to both. Results are listed below, separately for the group which has been asked before the course and the group which has been asked after the course:

statement	before-subgroup mean/std. dev.	after-subgroup mean/std.dev.
In general traffic rules are useful and necessary!	4.75 / .57	4.40 / .93
Already the consumption of small doses of alcohol can reduce my capabilities, even though I do not feel impaired!	4.30 / 1.05	4.07 / 1.25
Alcohol is a substance that has an effect on the consciousness and should be consumed with care!	4.62 / .70	4.20 / 1.12
Most people who have driven under the influence of alcohol several times should change their general habits in life. Simply saying "I will never do it again" is not enough!	4.32 / 1.00	4.15 / 1.22
Alcohol consumption increases the danger of accidents! A traffic accident is not just bad luck!	4.61 / .86	4.39 / 1.15
Accidents are left to fate: It hits you or not.	3.00 / 1.15	2.54 / 1.34
If another driver pushes you from behind you have no other choice than driving faster than you really want to.	2.14 / 1.35	1.94 / 1.15
I move on quicker on busy roads when overtaking a lot.	2.43 / .98	2.16 / 1.50
Bad drivers often hesitate in their actions and they do		

not make use of their opportunities.	2.71 / 1.38	3.13 / 1.24
Young drivers often over-estimate their abilities and thus get themselves into dangerous situations more often than experienced drivers do.	3.57 / .98	3.27 / 1.35

The results of the U-test show only significant differences for two items: The clients after the course agreed to a lower extent that traffic rules are useful and necessary ($p = .000$). And the clients after the course agreed to a lower extent that alcohol is a substance that has an effect on the consciousness and should be consumed with care ($p = .001$).

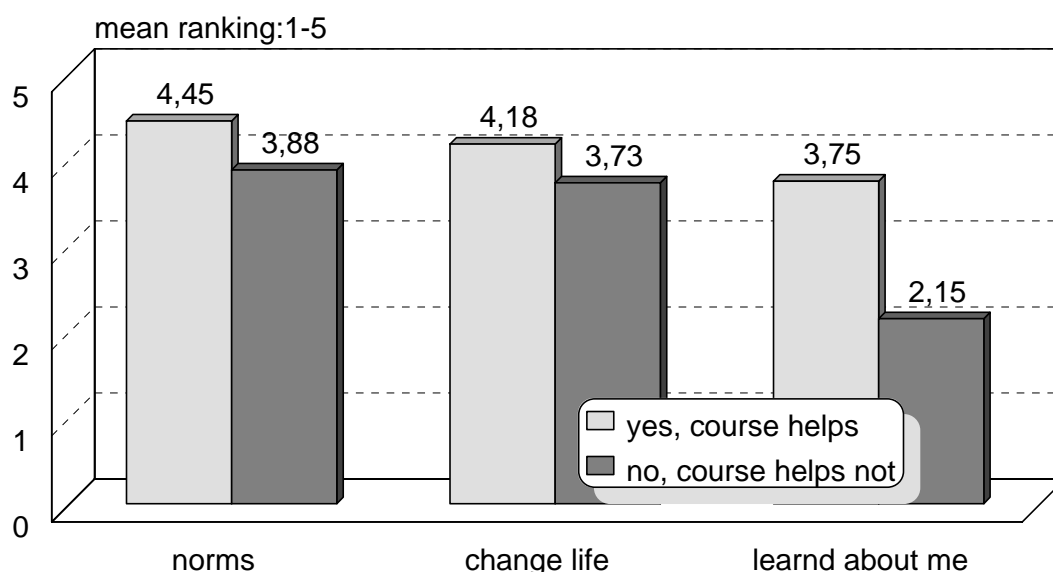
Further statistically significant differences were found in the after group (U-test): Clients who were asked after the course and also stated "yes" the course was helpful for them, agreed to a higher extent with the statement that traffic rules are useful and necessary (mean: 4.45) than those who answered "no", the course was not helpful at all (mean: 3.88), ($p = .046$). This difference was also found in the group which was asked before the course ($p = .002$).

And clients of the "yes"-group agreed stronger with the statement "most people who have driven under the influence of alcohol several times should change their general habits in life. Simply saying, I will never do it again, is not enough!" (mean: 4.18) compared to those of the "no"-group (mean: 3.72), ($p = .039$). This difference was only found in the after group.

These results are illustrated in the diagram below also showing a result which was described earlier but fits well here. It demonstrates that clients of the "yes" group stated that they could also profit more from the course concerning learning about them as a driver:

difference in attitude after course

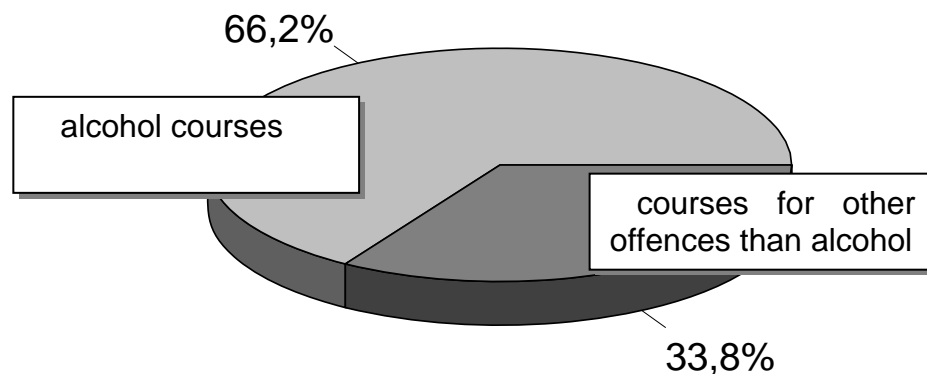
between: "course is helpful for future" (yes/no)



Differences between course types

Two thirds of the courses were courses for alcohol offenders, one third was courses for offenders who committed other than alcohol offences (speeding, accidents...) which is shown below:

per cent alcohol courses and courses for other than alcohol offenders

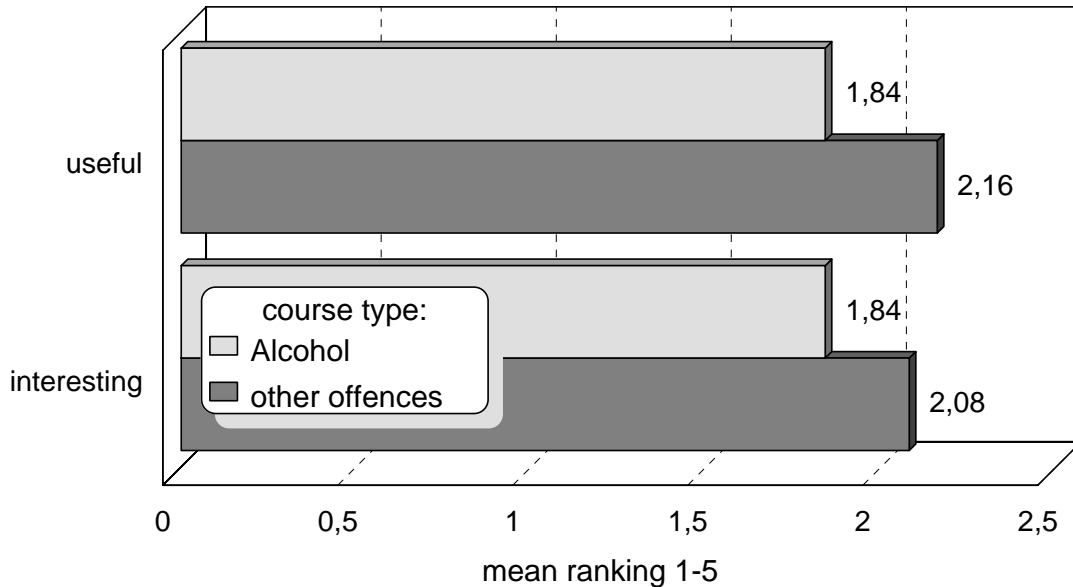


data from 45 courses for 402 clients from 25 trainers

Clients of the alcohol courses evaluated the modules of their courses as significantly more "useful" and significantly more "interesting" (both: U-test, $p=.000$) than clients of the courses for other than alcohol offences did evaluate their modules. But anyhow, the mean values of the rankings (about 2) between 1 to 5 were positive in both groups as shown in the diagram below:

Differences between course types

feedback over all modules: "useful" and "interesting"

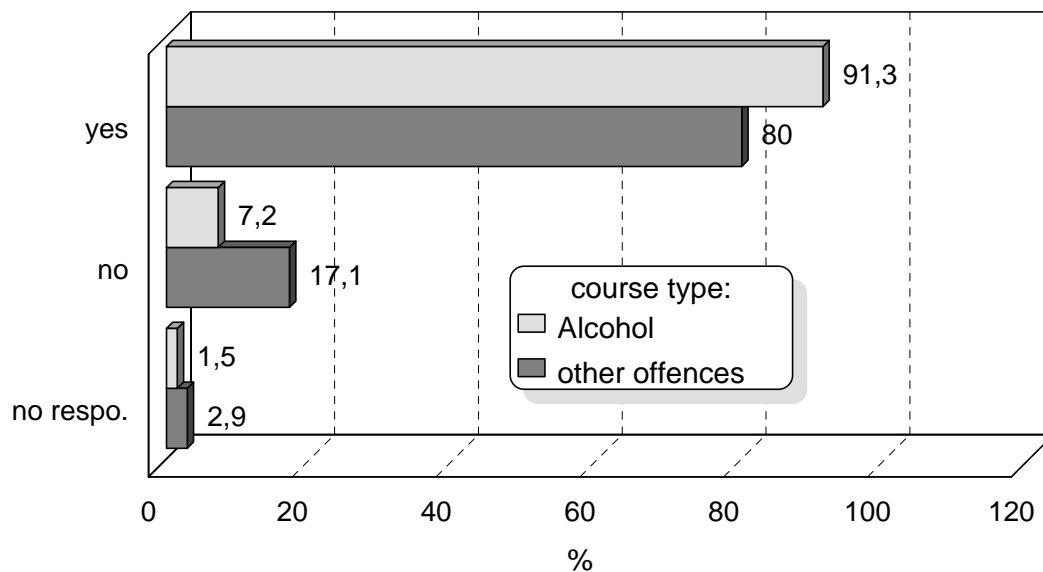


feedback responses(n=): alcohol 2,677; other 1,128

91.3%% of the clients of the alcohol courses, but only 80% of the other than alcohol courses stated that the course generally was helpful for them to avoid further offences in the future. But these differences between the two course types are statistically not significant (chi2). Details are illustrated below:

Differences between course types

course was helpful (alcohol/other offences)



alcohol courses: 66.2%; courses for other offences: 33.8%

Finally, drivers of the alcohol courses evaluated their driving abilities on a ranking scale from "very good" (1) to "very poor" (5) significantly better (mean: 1.82; std. dev.: .906) than clients of the courses for other than alcohol offences did (mean: 2.34; std. dev.: .930). This difference was significant (U-test, $p=.000$).

Further statistically significant differences between the two course types were not found.

Discussion of results

It was the objective of the Andrea-Project to analyse effective factors of driver rehabilitation programmes. In this project it is postulated that the following four effective-factors can be distinguished:

5. Frame conditions of the entire system (course setting, selection system, legal system behind it, surveillance,...)
6. Client trainer relationship
7. Methods applied in the courses
8. Contents of the courses

Following this classification the effective factors were analysed in this project by a literature analysis, a feedback study on clients and course leaders and by expert opinions in two workshops in connection with empirical and theoretical findings on human behaviour.

These programmes are only addressed to the small group of traffic violators who are responsible for a large amount of serious accidents: For example in a specific accident investigation in one state of Austria it was found that 44% of rural single driver accidents resulting in fatalities were caused by drunk drivers (Machata & Wannemacher, 1998). Hence, the safety effect for the entire traffic system is primarily limited to this small group of drivers. But these programmes can also have at least partly a general preventive effect when they are well known in the public. The key issue of driver rehabilitation programmes is to reintegrate this small group of problem drivers into the traffic system. Hence, these programmes have no major influence on "pure accidents" which occur due to human error and drivers' lack in skills but on accidents as a consequence of deliberately violations. In other words, these programmes are not primarily tailored for drivers with deficits in the two lower levels of the hierarchical model of driver behaviour but for those violators whose offences and/or accidents are primarily a result of deficits in the two higher levels – especially attitudes. (For details of the model also see chapter "Objective".) These drivers generally are categorised as not reliable in traffic and therefore often their license has been suspended. In these courses it is the aim to support a positive change of participants' personal attitudes as the basis for safer traffic behaviour. Typical clients are alcohol and speed offenders.

The idea of such driver rehabilitation courses for violators first was established in parts of the USA and then transferred to Europe, introduced first in Austria, Germany

and Switzerland in the seventies. Course programmes have been improved over the years and are now well established as a fixed part of the traffic system in these German speaking countries. In the nineties also in France, Belgium, The Netherlands and partly Italy, Portugal, England and Finland similar course programmes were developed.

Now, it becomes obvious that especially in those countries with the lowest accident rate (Sweden, Great Britain, Finland) these course programmes do not play such an important role. But this circumstance seems logic when considering cultural differences especially concerning drink driving habits and violations in traffic generally. These differences in drivers' mentality have been analysed and described in the SARTRE project (1994, 1995, 1998). Following the results of this project on social attitudes Nordic and British drivers are more safety minded and disciplined and especially drunk driving is not so wide spread but are concentrated on a small group of drivers who are more likely to be addicts. In contrast in mid European countries accidents which are the result of deliberate violations, especially drunk driving, are a bigger problem and drink drivers are less likely addicts. Consequently, driver rehabilitation programmes as a countermeasure have been introduced earlier and are nowadays more established.

Parallel to the increasing number of courses, also evaluation studies in Austria and Germany were conducted. Consequently, evaluations from the nineties and the early eighties are available. These studies analysed recidivism rates of drink drivers which can give an indirect information on accidents as the blood alcohol concentration is disproportionately connected with the accident risk (Borkenstein et al., 1974 & Krüger 1995). Such hard fact evaluation studies for other than alcohol offenders have not yet been carried out. Studies which had a control group and could control for the self selection bias have been carried out in Austria by Michalke et al. (1987) and Schützenhöfer & Krainz (1999), in Germany by Winkler et al. (1990) and Jacobshagen (1997, 1998), in England and Wales by Davies et al. (1999) and in the USA by Jones et al. (1997). These studies indicate that the recidivism rate of course participants is about 50% lower compared to individuals of control groups without a treatment.

Following these results driver rehabilitation course are effective if there are about 10 participants per trainer, alcohol offenders are not mixed together with other than alcohol offenders, the courses are running over a few weeks period (not just a weekend) so that the time between the sessions can also have an influence, course leaders are psychologically educated and can make use of group-dynamic processes and can motivate resisting clients towards self reflection instead of merely teaching and can set up a professional client trainer relationship. The contents is client centred and not following a fixed programme scheme.

These conclusions are confirmed by an evaluation study of courses which did not have these characteristics: In contrast to the positive results of the studies mentioned above, a Swiss evaluation by Mahey et al. (1997) of a different course model found no reduction in recidivism rates of course participants compared to a control group. These experimental courses in Switzerland were held in groups with 20 participants, were rather short term, focused on teaching following a fixed programme schedule and were led by experts in their field (e.g. law, medicine) but not experts in leading

problematic groups. Hence, a professional client trainer relationship could not have been set up.

Frame conditions of the entire system

Driver rehabilitation courses are a contribution to enhance road safety focussing on the small group of serious traffic offenders. But it also is a business market. And this market does not follow the principles of a free market where supply and demand sets the price and the quality. Because the customer primarily is the public represented by their authorities (licensing authority or court). Participants only become customers after having infringed the applicable law. Consequently, the demands of the public – effect on road safety – must be satisfied first. In this sense, the state is responsible for quality assurance of driver rehabilitation courses. Private institutes can be authorised to conduct courses and evaluations but at last the state must take its responsibility to guarantee high quality in this compulsory domain.

When analysing the various course descriptions of EU-countries (see detailed descriptions in the annex) and extracting best practise the following conclusions can be made concerning system requirements for courses:

Programmes must fit to national traffic system:

The key issue of driver rehabilitation courses is that they fit to the traffic system in the respective country. As mentioned earlier traffic problems, safety attitudes and national mentalities vary between EU-countries. And the course programmes must fit to the clients' deficits. The following factors must be considered to implement a programme:

Programme:

A clear description of the target group, of the goal and the methods applied must be set up including an explanation how it shall fit to the target group's deficits. The programme must be laid down in a written manual.

Staff:

The basic and specific education as well as the continuous further education of the staff must be clearly defined in order to make sure that the course leaders have the competence to reach those goals with those methods which are outlined in the programme manual for the specific target group. It must be especially trained how to motivate clients who do not participate voluntary and are not concerned about their problems. The higher the level of education the better (but it is not said that a University diploma is absolute necessary). So far there is no scientific knowledge about which education is the best. For example concerning psychotherapy there is no psychotherapeutic school which can be recommended best.

Client selection:

A standardised and transparent client selection system is necessary. Random selection must be avoided as it counteracts with the client's acceptance of the course. It would be experienced by the client as unfair which results in a decreased readiness to transfer external attribution ("it was just bad luck") into internal attribution ("it was my mistake and only I can do anything about it for my future").

It shall be avoided that participants with different deficits are mixed together in one course. Especially alcohol violators are different from others. And also the group of

alcohol offenders can not be seen as being homogenous: Addicts are different from merely drink drivers, who primarily lack in the readiness to accept the social norms and legal rules or are not sufficiently concerned about the potential danger of their behaviour. (Simply looking at the blood alcohol concentration at the offence is no valid indicator, whether the client is an addict and whether the course will be successful – also see chapter "Literature Analysis".) A standardised diagnostic procedure prior to the course seems necessary.

Police Surveillance:

If police surveillance is very low the chance to be detected and to be ordered to participate in a driver rehabilitation course is a random case and is therefore negative for the acceptance of the course. Further, the client is not so motivated to change his/her behaviour because there is almost no risk of being detected after the course. Consequently, a consequent police surveillance is a key factor for a positive effect of driver rehabilitation courses.

Public opinion:

A positive public opinion supports the successful execution of the courses wherever necessary (police, licensing authority). The more the social environment of a violator favours courses and vice versa disfavors traffic violations, the more a course participant will be ready to change behaviour.

The public shall be informed about the existence of driver rehabilitation programmes and their positive effects. In this manner rehabilitation courses can also have an general preventive effect.

Quality assurance:

It is self evident that compulsory courses must have a quality assurance system. It must be guaranteed that the goals are reached and that the staff is well educated. This shall be done by scientific evaluation and by regular audits of the courses. Course programmes must be authorised by representatives of the states.

Client trainer relationship

The importance of a positive client trainer relationship can be transferred from studies on psychotherapy (Grawe, 1994; Tschuschke & Czongalik, 1990). It was found that not the psychotherapeutic method applied in the therapy is correlated with the success of the therapy but the person's characteristics conducting the therapy. For the not voluntarily participating clients of driver rehabilitation courses Christ (2000) found indications that a positive client trainer relationship seems to be significantly correlated with a lower recidivism rate and Posch (2000) found a correlation with a more positive change in attitude. Consequently, an education for course leaders which guarantees a high social competence to run such courses with problematic clients successfully, is seen as an essential precondition.

In short, one important aspect of a positive client trainer relationship can be defined as follows: The trainer and the client should have the same beliefs ("personal theories") on what makes the course effective, based on findings of Eckert & Biermann-Ratjen (1990) for psychotherapy and underlined by indications found by Christ (2000) for driver rehabilitation courses.

And these indications fit well to the findings in the Andrea feedback study. Clients after the courses favoured to a significantly higher extent those methods which were applied by the trainers compared to clients which have been asked the same questions before the course. Clients after the course were more willing to discuss personal matters instead of simply talking about facts and were more ready to discuss also matters which can be unpleasant for them instead of avoiding to do so. This indicates, that at least in those courses which have about 10 participants per group and which are running over a few weeks period, it may be achieved that the clients have the same ideas as the trainers have on what makes the course effective. 89% of these clients also stated that the course generally was useful for them to avoid further offences in the future.

For the trainers therefore it seems to be a major challenge getting clients positively interested in the idea of the treatment so that they are convinced to have the chance to benefit from it. This of course presupposes that the trainer is convinced of the effectiveness of what he/she is doing.

Methods of courses

Driver rehabilitation courses primarily make use of the method of discussion instead of presentation. Referring to the Andrea feedback study about 60% of the course modules were classified by the course trainers as discussion and 40% as presentation. In this study "discussion" was defined as self reflection or learning something about myself (my personal truth) and "presentation" was defined as learning something about which is generally the truth. It was also classified as "presentation" if the group was motivated to elaborate the learning goal in form of a group discussion (active learning method), but anyhow there was only one general learning goal which could be elaborated, not individual learning goals.

All modules were evaluated by the clients as rather "useful" to avoid further offences in the future and as rather "interesting". The mean values on a ranking between 1 "best" and 5 "worst" was lower than 2. In the France study with participants who were not anonymous the mean value was about 1.7, in other EU-countries (A, B, NL, I) with anonymous clients the mean value was about 1.95. In France clients feedback did not differ between presentation and discussion modules. In contrast, in other EU-countries (A, B, NL, I) clients as well as trainers evaluated presentation modules significantly more interesting than discussion modules but anyhow equally useful. This can be interpreted that obviously self-reflection (discussion modules) is less convenient for both, the clients and the trainers, but it is not experienced as less useful.

These findings seem to be in contradiction with the result of another form of questionnaire in this study having regard to methods: It was found that clients as well as trainers favoured the method of discussion rather than giving a speech by the trainer. The mean value was about 1.5 on a profile ranking between 1 to 4. But here discussion stands for active learning which can be self-reflection but can also be elaboration of a learning goal in form of discussion. Further, Clients preferred to work out problem solutions by themselves and not by the trainer and they were also willing to discuss about matters which can be unpleasant for them instead of avoiding to do so. This can be interpreted as indications towards being in favour of the method of self-reflection instead of teaching (presentation of information). In the file of other EU-countries (A, B, NL, I) a before-after-comparison was possible. Clients who have

been asked after the course favoured to a significantly greater extent to talk also about unpleasant matters than clients who have been asked this question before the course (U-test, $p=.000$). Obviously during the course they experienced talking about unpleasant matters as important.

In France clients favoured to a greater extent to talk about matter of facts (mean: 2.89) instead talking about personal matters. In contrast clients of other EU-countries (A, B, NL, I) rather favoured to talk about personal matters (mean: 1.99). And again here was a significant difference in the before-after-comparison. After the course talking about personal matters was favoured significantly stronger than before the course (U-test, $p=.000$). It can be interpreted that the clients experienced during the course that talking about personal matters seems to be more important than talking about facts. At least for courses of A, B, NL and I it can be summarised that clients favour the same methods as trainers do, not before but after the course.

Further distinctions between methods applied in the courses have not been analysed because of earlier evaluations of the effectiveness of various psychotherapeutic schools. These studies have come to the conclusion that it primarily is not the therapeutic school which makes the difference in the effect of the treatment but the person of the therapist (also see chapter on client-trainer relationship). Therefore, the influence of the various therapeutic trends on feedback was not analysed in this study because these results are likely to be transferable to rehabilitation courses, it would have been too complex in this feedback-survey and the psychotherapeutic influence is only a background and not so relevant for differences between the courses.

Contents of course

The contents of course was described on the module level (discussion unit). Brief minutes of courses with descriptions of the contents of each module are included in the annex.

To evaluate the contents of the course each module was classified by the trainers concerning which concrete sub-goal was intended to be reached. The general goal of driver rehabilitation courses is to change attitude and behaviour. In this study the trainers classified each module following a catalogue of sub-goals (this catalogue was seen as comprehensive by the trainers):

The following distinctions were significant (χ^2 , $p=.000$): Clients generally evaluated modules with a contents which shall increase knowledge about psycho-physiology (alcohol in the body, human perception, drivers' reaction capacity...) as significantly more useful to avoid further offences in the future and as more interesting. In France also modules with a contents which shall increase knowledge in driving physics were evaluated significantly positive (not so in the other EU-countries).

In contrast, modules which shall increase self-reflection to change attitudes concerning acceptance of social norms and legal rules were evaluated significantly less positive. In any case the mean value was rather positive (about 2). These results were found in both data files (France and other EU-countries) and obviously reflect the conflict of clients with their major problematic: They have to participate because they have not accepted social norms and legal rules. It can be interpreted that the key issue of the courses becomes apparent: to reintegrate drivers into the traffic

system which is based on social responsibility of each individual. Here it must be made clear that positive feedback is not necessarily correlated with a positive change in attitude and behaviour and vice versa. And it is one important issue of the courses to confront offenders with their problems and this usually is less convenient/interesting than learning about psycho-physiology and driving dynamics. But it is closer to the main problem of the clients. Summarised it can be concluded that enhancing the acceptance of social norms and legal rules is important but also problematic in the driver rehabilitation course.

In contrast, those modules which were aiming at a change of attitude concerning sensitivity towards the danger of alcohol and/or speed were evaluated significantly more positive in the courses of A, B, NL, I (not France). This confirms results of Posch (2000) and Davies et al. (1999) who found that participants were more concerned about the danger of drink driving and stated that they should drink less if they want to drive safely.

In addition to the feedback survey also attitudinal questions were presented to the clients. And it is interesting to see that exactly those two attitudinal statements which in their contents fit to the two module categories discussed above (acceptance of social norms and legal rules and sensitivity towards the danger of alcohol/speed) were evaluated significantly different by the clients in the before-after-comparison (U-test, $p=.000$). The two statements were: "In general traffic rules are useful and necessary" and "Alcohol is a substance that has an effect on the consciousness and should be consumed with care". But unexpectedly the clients who were asked after the course agreed to a lower extent with these statements. This difference can be interpreted in two ways: Either such courses really lead to this negative result – but this would be in contrast to the generally lowered recidivism rates after such courses and would also be not logic. Or it is an indication that these two statements have changed their meaning for the clients. Before they have not thought about these attitudes and now they are more concerned which leads to a different evaluation. (Before-after-comparison was not possible in France.)

Also the trainers gave their feedback on the module categories (not in France): Apart from two exemptions the trainers evaluated all module categories about equally useful and interesting for their clients. Only modules which were aiming at self reflection to increase impulse self control were evaluated as significantly more useful for the clients. And as the clients did, also the trainers evaluated modules on knowledge about psycho-physiology as significantly more interesting (but not more useful).

Summarising the feedback results it can be concluded that a "good" course shall have the following contents: Information about psycho-physiology and driving dynamics shall be briefly presented and discussed, perhaps rather at the beginning of the course, not only to provide this kind of information but also to positively activate and motivate clients so that they are interested in the course. Information about traffic law shall be presented even shorter.

Also rather at the beginning of the course self reflection concerning the awareness of the personal problem in the client's life shall be reflected (he has a problem and this shall be internally attributed). Highly important seems to be the confrontation with their attitudes concerning social norms and legal traffic rules, even when this aspect

is not so favoured by the clients. (But clients agree, that it is important also to talk about unpleasant matters instead of avoiding them - see above). Finally, the chance shall be taken to change their attitude concerning sensitivity towards the danger of alcohol or speed in traffic.

Modules with primary source oriented contents (primarily focussing on the entire life of the client regardless of traffic) were only rarely applied in the courses analysed and the little results did neither indicate a positive nor a negative interpretation. Consequently, a recommendation is not possible.

Generally the clients evaluated the courses as helpful to avoid further offences in the future. In France 68.8% and in other EU-countries 89.2% answered this question with yes. Only 2.8% in France and 8.5% in other EU-countries (anonymous) wrote individual statements after the course that in their opinion the course was only helpful because it was so cost intensive and aversive. In the sub-group which has been asked before the course 18% wrote statements in this sense. Obviously, this prejudice could be partly positively changed during the course. The majority of statements were positive about the course contents and became even more positive after the course compared to the statements of the before sub-group. Further, clients who answered this question with "no" can be characterised as "stable course resister". They stated to a significant lower amount that they have learned something about themselves as drivers, agreed significantly lower to the two statements that social norms and legal rules are necessary and that a drink driver should change something in his life, because simply saying I will never do it again is not enough (U-test, $p < .05$). Participants who are negative about the course are an important minority which can be identified and described. In future further analysis of this group and development of methods about how to better reach them should be emphasised.

Summarised it can be concluded that the clients' feedback on rehabilitation courses is generally rather positive although they do not participate voluntarily. These results are underlined by evaluation studies which indicate a significant reduction of recidivism rates after the courses compared to control groups. Hence, driver rehabilitation courses can be seen as an appropriate method to support the reintegration of violators into the traffic system.

Recommendations

Specific types of driver rehabilitation courses have proven to change attitudes and behaviour of traffic violators positively. The following precondition must be fulfilled:

- 1. The programme must fit to the specific deficits of the target group. At least the major distinctions between alcohol and other than alcohol offenders and between novice and experienced drivers are recommended.**
- 2. The staff must be educated sufficiently to set up a professional working relationship with problematic and resisting clients who are not concerned about their problems.**
- 3. The methods applied shall rather be personal self reflection instead of teaching. Tailored interventions are better than a fixed programme scheme.**

4. The course sessions shall run over weeks in order to make also use of the time between the sessions, because change in attitude and behaviour needs time.

5. The group size shall be about ten participants.

6. A transparent and objective client selection system is as important as a consequent police surveillance to make the order to participate more acceptable for the clients and to avoid that it is attributed just as bad luck.

7. Quality assurance primarily is the responsibility of the state as the main customer is the public. Programmes shall be approved by an official institute which proves the contents of the programme and if the following preconditions are fulfilled:

- The programme must be laid down in a written manual.
- Basic, specific and further education of staff must be defined.
- Programme evaluations must be carried out.

References:

Baer, J.R. (1993) FiaZ-Delikte. Eine Befragung der Täterschaft. Strassenverkehrs- und Schifffahrtsamt des Kantons St. Gallen.

Bartl, G, Klemejak, W. & Zuzan, W.D. (1993). Meinungsbefragung zum Führerschein auf Probe. Kuratorium für Verkehrssicherheit, Wien.

Bartl, G. (1995) Aktueller Überblick über die Kursmodell zur Kraftfahrerrehabilitation. Mitteilungen der Österreichischen Sanitätsverwaltung, 96,4.

Bartl, G. (1996) Langzeitrehabilitation für hochgradig verkehrsauffällige Kraftfahrer. Zeitschrift für Verkehrsrecht 41.Jg., Heft 9/September 1996, S. 284-287.

Bartl, G., Esberger, R. & Brandstätter, Ch. (1997) Unfallbilanz nach fünf Jahren Führerschein auf Probe. Zeitschrift für Verkehrsrecht, 42,9.

Bartl, G. (1998) Interventionsmöglichkeiten bei Langzeitrehabilitation., Bundesanstalt für Strassenwesen (Hrsg.): Driver Improvement. 6. Internationaler Workshop. Referate des Workshops 1997. Berichte der Bundesanstalt für Straßenwesen, Mensch und Sicherheit Heft M 93, Bergisch Gladbach, Juni 1998, S. 324-327.

Bartl, G. (Ed) (2000) DAN-Report – Results of EU-project description and analysis of post licensing measures for novice drivers. Kuratorium für Verkehrssicherheit, Wien.

Birnbaum, D.; Biehl, B.; Sage, E. & Scheffel, B. (in press) Evaluation des Nachschulungskurses "Mainz 77" (TÜV Süd).

- Bode, H. J. & Winkler, W.** (2000): Fahrerlaubnis. Eignung, Entzug, Wiedererteilung. Deutscher Anwaltverlag, Bonn.
- Borkenstein, R.F.; Crowther, R.F.; Shumate, R.P.; Ziel, W.B. & Zylman, R.** (1974) The role of Drinking Driver in Traffic Accidents (The Grand Rapids Study). Department of Police Administration, Indiana University, second edition prepared especially for Blutalkohol (re-edited by R.F. Borkenstein). Blutalkohol, Vol. II.
- Brandstätter, Ch & Christ, R.** (1998) Evaluation der Nachschulung in Österreich. In: Driver Improvement 6. Internationaler Workshop. Berichte der Bundesanstalt für Straßenwesen, Heft M 93.
- Chatenet, F. & Assailly, J-P.** (2001) French study of driver improvement programmes. Paper presented at the 7th intern. Driver Improvement Congress. 8 – 10 Oct. 2001, Salzburg/Austria.
- Christ, R.; Panosch, E. & Bukasa, B.** (2000) Driver selection & Driver improvement in Austria. Proceedings of the International Conference on Traffic and Transport Psychology (ICTTP), 4-7 Sep 2000, bfu, Bern.
- Christ, R.** (2000) Driver improvement courses for novice drivers in Austria. What determines the effect? Recherche Transports Sécurité, No. 67 Avril-Juin.
- Christ, R.** (2001) Das universelle Kursmodell? – Ergebnisse österreichischer Evaluationsstudien zu unterschiedlichen Kursmodellen. paper presented at 7th International Congress "Driver Improvement". 8 – 10 Oct. 2001, Salzburg.
- Davies, G.P.; Harland, D.G. & Broughton, J.** (1999) Drink/driver rehabilitation courses in England and Wales. Transport Research Laboratory, Crowthorne, UK, TRL Report 426.
- Echterhoff, W.** (1998) Legalbewährung von alkoholauffälligen Kraftfahrerinnen und Kraftfahrern fünf Jahre nach Abschluss der Verkehrstherapie IVT_HÖ – Qualitätskontrolle einer Langzeitrehabilitation in Nordrhein-Westfalen. ZVS 44, 113-116.
- Eckert, J. & Biermann-Ratjen, E.-M.** (1990) Ein heimlicher Wirkfaktor: die "Theorie" des Therapeuten. In: Tschuschke, V. & Czogalik, D. (Hrsg.) (1990) Psychotherapie – Welche Effekte verändern? Zur Frage der Wirkmechanismen therapeutischer Prozesse. Springer, Berlin Heidelberg New York.
- Grawe, K.** (1994) Psychotherapie im Wandel. Hogrefe, Göttingen.
- Hellwig, H.-J. & Schacht, M.** (2001) Auszüge des Vortrags "Wirkung von Verkehrstherapie". In Die PRO.NON Mitgliederzeitschrift PRO.SPECT, 01,2001, 11-24.
- Hernetkoski, K. Keskinen, E. and Salo, I.** Trends in negligent driving. A submitted article manuscript. University of Turku, Finland.

- Höcher, G.** (1992) Langzeitrehabilitation alkoholauffälliger Kraftfahrer. Individualpsychologische Verkehrstherapie (IVT-Hö). Blutalkohol, 29, 265-275.
- Höcher, G.** (1994) Alkoholauffällige Kraftfahrer nach Abschluß einer Langzeitrehabilitation Modell IVT-Hö. Blutalkohol, 31, 201-221.
- Höcher, G.** (1998) BUNDESANSTALT FÜR STRAßENWESEN (Hrsg.): Driver Improvement. 6. Internationaler Workshop. Referate des Workshops 1997. Berichte der Bundesanstalt für Straßenwesen, Mensch und Sicherheit Heft M 93, Bergisch Gladbach, Juni 1998, S. 239-244.
- Jacobshagen, W.** (1997) Nachschulungskurse für alkoholauffällige Fahranfänger (NAFA) – Kurspraxis, Wirksamkeit und Akzeptanz. Köln: Verlag TÜV Rheinland.
- Jacobshagen, W.** (1998) Nachschulungskurs für alkoholauffällige Fahranfänger nach dem Modell NAFA in Deutschland: Klientel, Kursdurchführung, Wirksamkeit und Akzeptanz. In: Driver Improvement 6. Internationaler Workshop. Berichte der Bundesanstalt für Straßenwesen, Heft M 93.
- Keskinen, E.** (1996) Why young drivers have more accidents? Reports from the First Interdisciplinary Conference of Young Drivers, 12-14 December 1994 in Cologne, Berichte der Bundesanstalt für Strassenwesen: Mensch und Sicherheit, Heft M 52, Bergisch Gladbach.
- Keskinen, E. & Baughan, B.** How to make an evaluation of effects of advanced driving course. Manuscript for ADVANCED-project. University of Turku Finland, TRL England.
- Klebel, E.; Michalke, H. & Schmidt, L.** (1977) Problemorientiertes Training für alkoholauffällige Kraftfahrer. Vorläufige interne Handanweisung für die Trainer. Kuratorium für Verkehrssicherheit, Wien.
- Krüger, H.-P.** (Hrsg.) (1995) Das Unfallrisiko unter Alkohol. Analyse, Konsequenzen, Maßnahmen. Fischer, Stuttgart.
- Machata, K. & Wannemacher, E.** (1998) Wie hoch liegt die Alkoholquote wirklich? Detailanalyse von Verkehrsunfällen mit Todesfolgen im Land Niederösterreich. In: Bartl, G. & Kaba, A. (Hrsg.) Alkohol im Strassenverkehr. Kleine Fachbuchreihe, Kuratorium für Verkehrssicherheit, Bd. 34.
- Mahey, M.C.; Fahrenkrug, H. & Schmid, H.** (1997) Wiederholt angetrunkene Fahrzeuglenker im Strafvollzug im Kanton Zürich – Abschlußbericht. Lausanne: Schweizerische Fachstelle für Alkohol- und andere Drogenprobleme.
- Maurer, N. & Rudolph, C.** (2000): Die Rehabilitation alkoholauffälliger Kraftfahrer. Ein Programm für die ambulante Suchthilfe. Beltz Verlag, Weinheim und Basel.

- Michalke, H.; Barglik-Chory, Ch. & Brandstätter, Ch.** (1987) Effizienzkontrolle von Gruppentrainingsmaßnahmen für alkoholauffällige Kraftfahrer - Driver Improvement. Institut für Verkehrspsychologie, Kuratorium für Verkehrssicherheit, Wien.
- Müller, D.** (2001): "Chancen und Grenzen des erzieherischen Verkehrsunterrichts nach § 10 JGG – ein Fallbeispiel aus Görlitz."
- Nickel, W. R.** (1992): Kriterien zur Beurteilung von Programmen zur Rehabilitation auffälliger Kraftfahrer. Blutalkohol 29.
- Peräaho, Hatakka, Keskinen, Katila and Laapotti.** Effects of follow-up of drivers traffic penalties. Report to ministry of transport and communications. University of Turku, department of psychology.
- Posch, C.** (2000) Veränderungen von Einstellungen und Befindlichkeit alkoholauffälliger Kraftfahrer im Laufe von Driver Improvement Kursen. Diplomarbeit. Leopold-Franzens-Universität, Innsbruck.
- Jones, R.K.; Lacey, J.H.; Berning, A.; Fell, J.C.** (1997) An Assessment of Sanctions for DWI Offenders. In Mercier-Guyon (Ed) Proceedings of 14th International Conference on Alcohol, Drugs and Traffic Safety, CERMT, Annecy/France, 63-72.
- SARTRE 1** (1994) European drivers and traffic safety. Principal results. Presses des Ponts et Chaussées, Paris.
- SARTRE 1** (1995) European drivers and traffic safety. In-depth analysis. Pradigma, Paris.
- SARTRE 2** (1998) The attitude and behaviour of European car drivers to road safety. Part 1, Report on principal results. SWOV, Institute for Road Safety Research, The Netherlands, Leischendam.
- SARTRE 2** (1998) The attitude and behaviour of European car drivers to road safety. Part 2, Report on in-depth analysis. SWOV, Institute for Road Safety Research, The Netherlands, Leischendam.
- Schmid, H.; Mahey, M.C. & Fahrenkrug, H.** (1997) Wiederholt angetrunkene Fahrzeuglenker im Strafvollzug im Kanton Zürich – Modellversuch zur Verminderung ihrer Rückfallhäufigkeit. In: Driver Improvement 6. Internationaler Workshop. Berichte der Bundesanstalt für Straßenwesen, Heft M 93.
- Schmidt, L.; Michalke, H. & Klebel, E.** (1978) Driver Improvement – Inhaftierte Verkehrsstraftäter als Zielgruppe für ein problemorientiertes Trainingsprogramm. Kuratorium für Verkehrssicherheit, Wien.
- Schützenhöfer, A. & Schmidt, L.** (1977) Driver Improvement - Verbesserung des Verkehrsverhaltens auffälliger Fahrer. Erste Erfahrungen und theoretische Grundlagen, Kuratorium für Verkehrssicherheit, Wien.

- Schützenhöfer, A.** (1981) Einstellungs- und Verhaltenstraining für alkoholauffällige Kraftfahrer – Modell Graz. Kuratorium für Verkehrssicherheit, Graz.
- Schützenhöfer, A. & Krainz, D.** (1999) Auswirkungen von Driver Improvement-Maßnahmen auf die Legalbewährung. Zeitschrift für Verkehrsrecht. Vol 4, 138-143.
- Siegrist, S.** (1999) GADGET WP3-report, Edited by Stefan Siegrist, bfu, Switzerland.
- Sohn, J.-M. & Meyer-Grankcko, F.** (s.a.) Different forms of development in long-term therapy with DUI offenders. Alcohol, Drugs und Traffic Safety – T 92, Volume I, 317-321.
- Spoerer, E., Ruby, M. & Siegrist, S.** (Hg.) (1994): Nachschulung und Rehabilitation verkehrsauffälliger Kraftfahrer. Rot-Gelb-Grün-Verlag, Braunschweig.
- Spoerer, E.; Ruby, M. & Martl, J.** (2001) Es gibt keine problematischen Kursteilnehmer – nur problematische Kursleiter! Paper presented at the 7th intern. Driver Improvement Congress. 8 – 10 Oct. 2001, Salzburg/Austria.
- Stephan, E.** (1984) Die Rückfallwahrscheinlichkeit bei alkoholauffälligen Kraftfahrern in der Bundesrepublik Deutschland – Die Bewährung in den ersten 5 Jahren nach Wiedererteilung der Fahrerlaubnis. Zeitschrift für Verkehrssicherheit, 30, 28-22.
- Tschuschke, V. & Czogalik, D.** (Hrsg.) (1990) Psychotherapie – Welche Effekte verändern? Zur Frage der Wirkmechanismen therapeutischer Prozesse. Springer, Berlin Heidelberg New York.
- Utzelmann, Berghaus & Kroj** (Ed.) (1993): Mensch – Fahrzeug – Umwelt, Band 29.
- Ward, N.** (2001) What we do not know about cannabis, could it hurt us. Behavioural Research in Road Safety: Tenth Seminar. Proceedings. 3.5. April 2000. Department of the Environment, and the regions: London England.
- Weber, I. & Christ, R.** (1994) Optimierung der Verkehrsüberwachung. Befragung der Exekutive. Kuratorium für Verkehrssicherheit, Wien.
- Winkler, W.; Jacobshagen, W. & Nickel, W. R.** (1988) Wirksamkeit von Kursen für wiederholt alkoholauffällige Kraftfahrer. Unfall- und Sicherheitsforschung Straßenverkehr. Bundesanstalt für Straßenwesen, Heft 64.
- Winkler, W.; Jacobshagen, W. & Nickel, W. R.** (1990) Zur Langzeitwirkung von Kursen für wiederholt alkoholauffällige Kraftfahrer. Untersuchungen nach 60 Monaten Bewährungszeit. Blutalkohol, 27, 1990, S 154-74.
- Wolmar, R.** (1993) Langzeitrehabilitation nach dem individualpsychologischen Rehabilitationsmodell für auffällige Kraftfahrer I.R.A.K.L. Unfall- und Sicherheitsforschung Straßenverkehr, H 39, 114-116.