

ASSESSMENT OF FINNRA'S TRAFFIC INFORMATION SERVICES - SURVEY QUESTIONNAIRES AND INSTRUCTIONS

Merja Penttinen, Pirkko Rämä and Virpi Harjula
Technical Research Centre of Finland
P.O. Box 1902, FIN-02044 VTT, Finland
tel. +358 9 456 4512
fax. +358 9 464 850
Email: Merja.Penttinen@vtt.f

SUMMARY

This assessment framework was designed to provide road authorities with methods, questionnaires and instructions to investigate the satisfaction of the road users with traffic information services. The questionnaires deal with the use of existing traffic information, opinions and preferences regarding the information available, and information needs not satisfied by current systems. Assessment tools consist of three groups: (1) questionnaires for national usage, (2) questionnaires for regional (i.e. counties or large cities) usage and (3) short interviews concerning the traffic information needs.

INTRODUCTION

Finnish National Road Administration (Finnra) has within the past few years conducted several investigations on the satisfaction of their customers and constituent groups. Traffic information services have been one subject. The most recent study was "Information needs of Finnish drivers" (Penttinen et al., 1997).

It is essential to get feedback from road users when developing traffic information services. In addition, the comparison between traffic information services and other services provided by a road authority is useful in overall economic planning.

AIM OF THE PROJECT

The aim of the assessment framework is to provide road authorities with the methods, questionnaires and instructions to investigate the satisfaction of their road users with traffic information services. For the Finnra application all questions are directed to drivers since they can be considered as the main customers of Finnra. Of course, other road users can be considered, too. The questions deal with use of existing traffic information, opinions and preferences regarding the information available, as well as information needs not satisfied by current systems. Questions are directed at access, to understanding of use of and effects of the information on the users. Analyses of such questionnaires help in development of new traffic information services.

DESCRIPTION OF THE ASSESSMENT TOOLS

THREE TYPES OF QUESTIONNAIRES

Totally, 13 various questionnaires and instruction forms were developed. They consist of three groups: (1) the most extensive questionnaires suited for national usage, (2) questionnaires suited for regional (i.e. counties or larger cities) usage and (3) for short interviews concerning the traffic information needs in one special case.

QUESTIONNAIRES FOR NATIONAL STUDIES

The most extensive questionnaires are suited to *national studies* and are mainly comparable to “Information needs of Finnish drivers” (Penttinen et al., 1997). The questionnaires are suited to 30 minutes telephone interviews. Of the six questionnaires for national purposes, four focus one information domain (i.e. weather, road works, traffic conditions or information of routes) and two focus more extensively on information needs in winter-time trips or in summer-time trips.

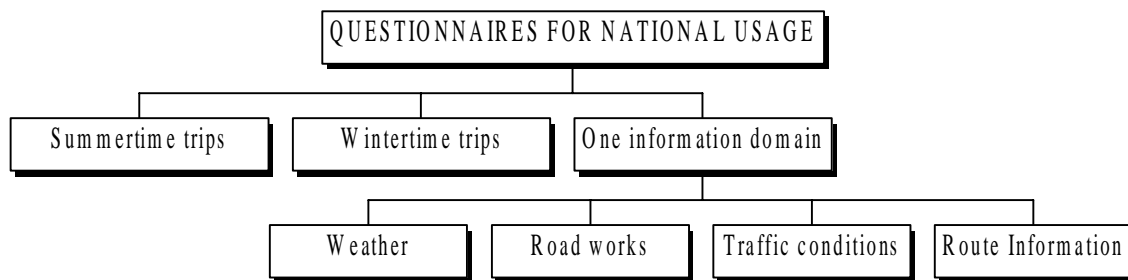


Figure 1. Six questionnaires suited for national studies.

The specific items focus on the following issues: (1) what sort of information on weather, road works, traffic conditions, incidents and routes drivers need or would like to receive, (2) what are the most preferable contents of information, (3) how should the information services be developed, (4) what are the potential influences of information, (5) what sources of information drivers have used, (6) what sources of information are most preferable in the future, (7) are drivers willing to pay for various traffic information services, (8) what sort of experiences of various information services, (e.g. RDS-traffic messages) drivers have had and (9) human factors affecting the need and usage of traffic information services. All these nation-wide studies may be repeated every fourth or fifth year.

Questions concerning driving experience		
Weather and road conditiond <ul style="list-style-type: none"> •General Importance •Importance of specific information •Possible effects •Development needs 	Traffic conditions <ul style="list-style-type: none"> •General Importance •Importance of specific information •Possible effects •Development needs 	Route information <ul style="list-style-type: none"> •General Importance •Importance of specific information •Possible effects •Development needs
Information source		
<ul style="list-style-type: none"> •Sources of information that drivers have used •Sources of information that are most preferable in the future 		
Questions concerning drivers' socioeconomic background		

Figure 2. The national questionnaires for wintertime-made trips. The arrows indicate the interview proceeding.

QUESTIONNAIRES FOR REGIONAL STUDIED

The second group of questionnaires are designed for the *regional* usage. A total of four questionnaires were developed. The questionnaires focus either on weather, road works, traffic conditions or information of routes. These questionnaires are to be used by regional road administrations. In Finland, for example, there are nine regional road administrations. Studies may be repeated every second or third year or whenever it is desired because of a special need in a region.



Figure 3. Four questionnaires suited for regional studies.

The questionnaires are designed for 15 minutes telephone interviews. All the questionnaires for regional purpose focus on one information (i.e. weather, road works, traffic conditions or information of routes) and the sources providing drivers with information in question.

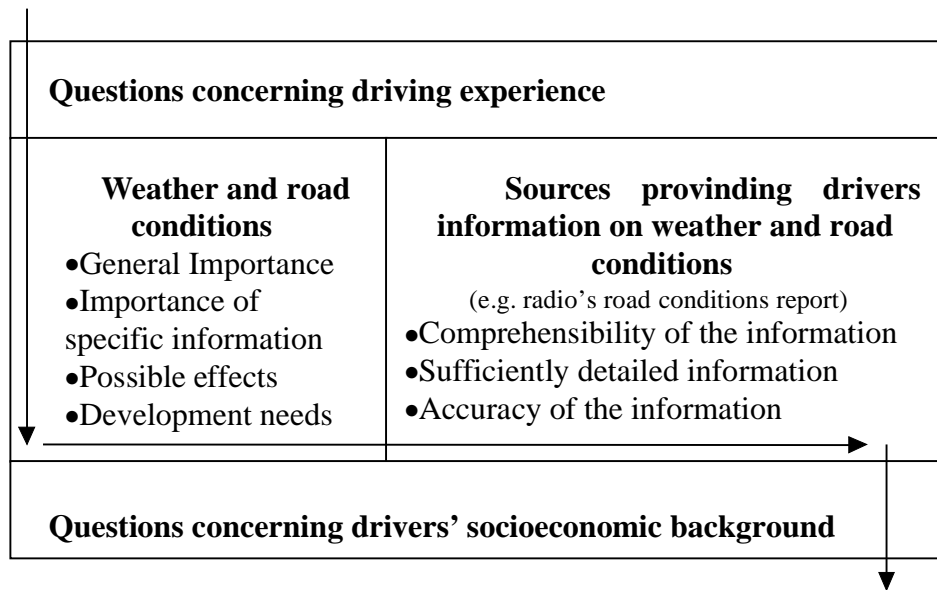


Figure 4. The regional weather questionnaire. The arrow indicates the interview proceeding.

The specific items considering the specific source of information (e.g. radio's road condition report) ask about the following issues: (1) familiarity with the service, (2) channel (radio, television) the information is received, (3) is the driver choosing the channel because of the service, (4) frequency of using the service, (5) usefulness of the information (service), (6) comprehensibility of the information, (7) correctness of the information, (8) is the information sufficiently detailed, (9) opinions about the broadcast time and (10) development ideas.

QUESTIONNAIRES FOR SHORT INTERVIEWS

The third group of questionnaires are designed for *short interviews*. Two of those are aimed to investigate the needs and usage of traffic information for a special trip and may be used in the service areas during special weeks of winter time (sport vacation trips) and summer time (summer vacation trips). One special questionnaire was developed to investigate the satisfaction of drivers with service-te ephone.

CONCLUSION

This methodology will be used in Finland to provide multi-level information on the need to develop the traffic information services in Finland. The methodology can be easily modified to be used in other countries.

ACKNOWLEDGEMENT

Appreciation is extended to Finnish National Road Administration (Finnra) for support of this study. The authors wish to thank Dr. David Zaidel for his helpful suggestions on an earlier draft of this paper.

REFERENCES

Penttinen, M., Luoma, J., Rämä P. Information needs of Finnish drivers. 4th World Congress on Intelligent Transport Systems, 21-24 October 1997. ICC Berlin, GB. Proceedings ITS, Vertis, Ertico. Berlin (1997), 7 p.