

# The Driving Test in an overall Perspective

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**This paper will present the background and the plan for my PhD-project and research. I am a Research fellow in *Assessment in Practical competence* at the Faculty of Education of Driving Instructors in Norway. I am in the first phase of the project.**

The Driving Education in Norway is done at driving schools, and normally in a combination of driving at home together with parents or someone else. The assessment for the driving licence is done by examiners in Norwegian Public Roads Administration. Most of them are educated driving teachers, so they know much about the learning process.

The Norwegian Public Authorities look at road safety as a national affair, and want to get a quality assurance of the driver through the Driving test. The White paper from Stortinget, St.meld nr 46 (1999-2000) contains The National Transport Plan(2002-2011), which is the strong leading document about how we shall take care of the road safety in our country. It contains a *Zero Vision* of no road accidents with death or hardly damaged in the future. This document led to a great national lift by giving the driving education another structure and a new curriculum (2005). The driving teachers had to do great changes in the education, but there were no corresponding changes done in the Driving test.

*It is my opinion that there is too little accordance between goals and working methods in the education, and the working methods and tools for assessment which is used in the driving test today.*

The Directorate of Public Roads has seen that problem, so they have financed a part of my PhD, and we have a good dialogue about my project and research.

My background is that I have a good knowledge about the praxis area. I have been coaching both students at the Faculty of Education of Driving Instructors and at the courses for the examiners, organized by The Directorate of Public Roads. In front of the research, it is my understanding that if we have a socio cultural perspective in the assessment work, it will open for new possibilities when we talk about methods and tools in the driving test. It is also my understanding at this time, that the language is a tool which can be used in the assessment work, in another way than we do today.

## **The new curriculum**

The Driving Education in Norway is based on research from the GADGET-Project. The GDE-matrix ( Peräaho, Keskinen og Hattaka 2004) says that driving is not only to handle the vehicle in traffic situations. Driving is a multi-task, and a multilevel process. There are relations between the Drivers behaviour in traffic-situations and his motives, goals for life and the environment. Learning is not an isolated phenomena, it is woven together, and in interaction with other areas in the pupil's life and world. Learning is related to the culture and social surroundings and connections. The researchers also suggested methods where the pupils at first stay in the context to gain experiences, and then mix it together with theoretical understanding afterwards. The main goal in the curriculum says that the pupil shall get a comprehensive competence. The curriculum shows the way for methods in the education, and a part of the education have to be done in an problem-oriented way, for instance .The pupil shall develop the ability to do reflections, and he shall be able to take the other ones perspective and to interact in the traffic situation. The education shall influence the knowledge, view and attitude about risk, and the will to drive in a responsible way. The pupil shall be able to see the risk so early that he can take care of the situation, and choose a safety way of driving. The pupil shall get a good quality of the driving, and the driving appreciation. During the education, the pupil shall develop his self –knowledge, and see himself as a road-user in a social system, and get a social perspective on it. The experiences shall be the basis for the dialogues and reflections during the praxis, and in the end of the lessons. The curriculum also says that the pupil ought to write a log, especially in the last part of the education. All those components and suggestions are rooted in *socio cultural theories of learning*.

Total, this is forming a great innovation in the driving education. It is a difference from earlier curriculum, which was focused on instructions, how to get good informations, and how to action in different situations.

## **The Driving test**

The model of the Driving test in Norway was created in the beginning of 1980-ies. The driving test was adjusted the curriculum at that time, and another view of learning and methods for learning than we have today. The driving test was based on the view of assessment at that age. After that time, we have had 3 periods with new curriculums, and we gradual have been moving into another paradigm in the view of learning and how to do assessment.

The driving test today is based on a view that the test has to be so very likely for everyone. The assessment is influenced by a traditional thought where we look at the driving test as an examination, where the candidate shell prove what he is able to do, and the examiner is doing a summative assessment. The fundamental thought in the practical driving test is based in positivism, where the action is assessed compared with detailed criteria. There has been a strong intention to do the assessment as objective as possible, and that the test situation shall be as likely as possible for the candidates.

In the driving test today, first of all the candidate have to pass a theoretical test, which is a multiple choice. This test has value in 3 years. So in worse case it can be 3 years between the candidate pass the theoretical test and than the Driving test. There is no connection between theory and praxis in the test.

A lot of work has been done to get the driving test standardized. There are formed routes at the traffic-stations, whish is drawn on a special paper, and it is signed where the examiner shall tell the candidate where he have to drive, and what message the examiner shall give at

that place. A computer picks out the route. The practical test lasts totally 80 minutes, where the candidate is driving in the route for 60 minutes.

The examiner use *observation* in the assessment. The examiners are not allowed to ask questions about how the candidate is thinking in the situations, either during the test, or afterwards. The examiner writes marks for mistakes on the standard paper, and he also can give a plus for something which is done very well. There are 3 different marks for the negatives, and only one for positive. The candidate can talk about how he is thinking, but the examiner shall not emphasize it, and he has no place to do notice about it on the paper. For me, it seems rare to stay together in the context, and not be in dialogue about the traffic situations at that moment. On the other hand, they can talk about some “neutral” themes. This kind of dialogue is meant to calm the candidate, and the candidate can also choose not to have a talk. When the test is finished, the examiner makes a decision, without influence of what opinion, understanding and self-assessment the candidate has. The examiner shall be able to do an overview assessment. There is no difference if the candidate is conscious about that he has done a mistake, or not. The examiner can only guess how the candidate was thinking in the traffic situations.

## **Assessment and a didactic perspective**

When we talk about assessments and judgements in the educational system, there have been great changes In West. The size can be illustrated by that writers call it “The new Paradigm in assessment.”(Korp 2003). When we talk about the view of different ways to do assessments, the era after 1960 can be divided into 4 phases (Imsen 2006). In the first phase it was important to get a good *fairness*, and the evaluators should be able to do the test in just the same way, and the pupils should be assessed with a great part of likeness. In the next phase, there became a debate about marks in the school system. The third phase had focus on doing evaluations of the schools, not the pupils. In the last years, there has been emphasize on doing assessments during the whole process of learning, and that the pupil are doing self-assessments. There has been an interest in ways to do assessment which include the subject understanding of human being and their own reality. This is connected with a socio cultural view who says that knowledge is created in interaction between people. This is named meta-cognitive forms of assessment (Valdermo &Eilertsen 2004).

In the Driving test we have today, the thinking is in accordance with the first era for assessments at 1960, where fairness and to get a great similarity between every tests are important. The model for the Driving test has been created on a behaviourist view about to measure skills, count mistakes and defects, and to try to find just the same situations to do judgements in, while a socio cultural view of assessment has focus on the quality of the pupils being in learning activities during the process. Than the assessment is an integrated part of the learning process, and not an appendix.

It is important to get an intern agreement in every curriculum, and the assessment have to be done so that there are harmony between goals, contents, working methods and organization (Imsen 2006). We ought to have a conscious attitude in the choice of model of assessment, which is in harmony when we talk about educational movements and fundamental view. It is necessary to use a didactic thinking in the work of evaluations, so that it can be a relation between the evaluation and the other elements in the system.

If we have a didactic perspective in the working of assessment, is it possible to get a more nuanced picture of the strong point and weakness, and to see how different parts of the learning process have been.

Through the assessment, we also send signals out to the trade (Driving schools), the pupils and the culture where we are living, and influence the training and the learning process. A didactic model where only the goals and the contents in the education are in focus, have a narrow didactic opinion about learning, and very often this model include a corresponding narrow model for assessment. In such a narrow and closed system, a considerable part of the training and assessment will not be made visible enough. (Hiim& Hippe 1998). We can say that the Driving-test today has such a narrow assessment form, because it is characterized of a summative evaluation, where only a part of the goals are evaluated.

## **Socio cultural theories of learning**

In socio cultural theories of learning, the central thought is that the pupil is learning in the *context*, in a social interaction with other persons. (Vygotsky 1986). There is a relation between the learner and the culture where the learning takes place, in different levels. A pupil is staying on his own *level of actual development*, and he always has a possibility to learn and develop in the *zone of proximal development*, before he reach *the Level of potential development*. (Wretsch 1993). Through dialogues and interaction it will become a construction of understanding and meaning. The socio cultural has a view with great respect for human being, and a great belief that everyone can be learning new things, but the learning have to be fit the right level for the pupil (Bråten 1996). The learner needs to get a scaffolding, to be supported from the surroundings, so that he can be able to *reflect* about the discoveries and the experiences, and than he can see the connection. (Bruner 1999). The language considers absolutely important and a necessary tool in the learning process. The learner has to be in *dialogue* with the surroundings.

In the Driving education there is a context learning situation, where there are good possibilities to get learning trough happening and to gain experiences. Learning in the practical area mixed together with reflections and theory, was central in John Dewey`s theories. (Dewey 1997). His view of learning was pragmatic, and he placed emphasis on developing knowledge by doing activities and being in interaction (Dysthe 2001). Dewey is famous for the notion *Learning by Doing and Reflections*, and he meant that it was important that the learner both was involved in actions and that he understood what consequences different actions could give. In the learning process, there are reflections going on in 3 different levels, dependent on where in the learning process the pupil is staying (Schön 2002). The amateur needs to reflect *about* the action together with other persons. On the next level, Schön says that *a reflection over reflection about handling* is going on. Than the learner is reflecting over his own learning process and how he is learning, it is also called meta-learning (Moxnes 2000). After some time, he will get an internalization, where the knowledge is absorbed in the *inside level*, and than he is able to do reflections alone. Now the pupil is on the highest level, and this is the level where the expert is staying. The expert is able to do reflections *in the action*, who means that reflections are taking place at the same time as the action is done. Schön also named this *The reflective practitioner*. The language and different ways to communicate are important tools in this process. It will be essential to do a research about how an examiner during the Driving test can be in dialogue with the candidate in aim to get a better quality in the work of assessment. It will be interesting to try out and do research about how the candidate also can do some reflections during the driving test.

## **Project and Research**

The approach will be an Action research. This approach is the choice because the researcher has a good knowledge about the praxis area. If the researcher has experiences and competence

in the research area, it is ethical correct that the researcher participate the process, if it is an agreement about it (Postholm 2007). The process in the research will be systematized and focused by different questions in research, as an expression for my understanding and assumption at this time. Because that the approach is interactive, it can be necessary to change the questions a bit, or new questions can be raised, (Hammersley & Atkinson 2004).

### **Goals in the research**

There is a main goal to get an empiricism which can influence the road safety work in a positive way. It is a goal to develop a form of assessment where the understanding and the reflective level done by the candidate, is a part of the totally assessment in the driving test. To operational the new curriculum in the driving education can also be positive influenced. It is a goal to make an interesting and knowledge about didactic thinking in assessment work in the environment of examiners and driving teachers, and that the research will create an innovation and a debate about the form of assessment in the driving test.

### **The main research question:**

*How can the Driving test be done so that the assessment will be in harmony with the Educational perspective and the Intentions in the existing Curriculum for the Driver education in Norway?*

Questions in the research at this time are:

- How can the reflections over and during actions, done by the candidate, be a part of the assessment in the driving test?
- How can the perception and understanding of risk be a part of the assessment in the driving test?
- How can the self-assessment be a part of the assessment in the driving test?
- How can the learning process be an element of the assessment in the driving test?
- How can theoretical knowledge and practical action be a part of the totally assessment in the driving test?
- How can tools for working be developed so that the *totality assessment* will get a quality assurance in the driving test.
- How will the assessment in this way influence the requirements for competence for the examiners?

### **Design and methods**

If we want to change and develop the Driving test, it will be essential to try it out in a project with some candidates, to get experience data and knowledge. In that way we can do quality assurance based on the research in the project, before we do changes all over the country. An Action research aims to try out alternative concepts instead of the existing, special when the existing is not good enough (Tiller 2004, Rönnerman 2004). The source of the Action research comes from research in the working life. Action research is often used when the researcher has a sociocultural perspective on learning and research, and the fundamental idea is that the working knowledge is important, and it is forming the basis for theories. Action research is different from traditional research in Science by that the researcher ought to have a good knowledge and experience from the praxis area. The researcher will be an active participant in the development together with the persons who perform the action. Action research is quite common in England and USA, and mostly used in research inside school and

education. Teachers are doing research in their own praxis, in order to be more reflected practitioners, and to be more aware of how they realize the curriculum in praxis (Jarvis 2002, Kernan in McNiff 2002). As the Researcher, I will be in a dialogue with the active examiners in the praxis-area. It is essential to do teamwork between the researcher and the examiners who shall participate actively in the project.

It will be a great value to get knowledge about the process, and about the reflections the examiners are doing during the process about how they think about using other methods in the Driving test. I can also get knowledge about how are the candidates' experiences of doing the Driving test in this way. The Examiners have knowledge from their practical area, and they can see the connections in the local places. The researcher has the knowledge about doing the research systematically and about methods in research, and can attach theory into the discoveries. The researcher has taken the initiative and the research will be dynamic, because the participant will be involved in the developing process. The researcher and participants will be in dialogue about what kind of changes are possible to try out in real situations in the Driving test, and how it can be fitted the Driving test at their different workplaces. It will be a change effect, where both the researcher and the participants have a potential to learn from each other. (Jordan & Handerson 1995, Postholm 2007) The process can be described by the *Circle of development* (Engstrøm 2001).

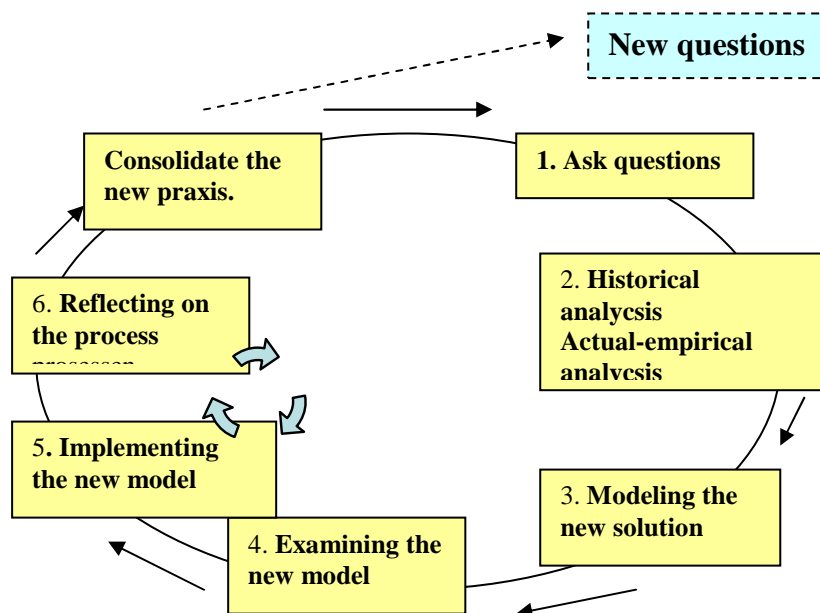


Fig.1. Sequence of epistemic actions in an expansive learning cycle (Engstrøm 2001).

Figure 1 show that the process in an Action research starts with asking questions about the existing praxis, mixed with historical analysis. Because this is a research in my PhD, I had to do some planes before I involve the examiners, which is the first phase in the circle. I have asked questions about how we are doing the Driving test, after the curriculum has been changed. There is a framework for the research managed by myself, and by the text in the announcement for my fellowship.

The plan is to involve 10 examiners in the project at 3 or 4 different traffic stations in Norway for about one year. How many candidates we need in the project, depend upon what researcher and examiners find requisited. It is essential to get a co-operation agreement with the Directorate of Public Roads. It seems to be a solution that we have to make an agreement with some driving-schools, so that they ask and inform their pupils about the Driving-test in the project. This is because of the strong rules we have in Norway about the official

administration. If not, there may be complaints because the Driving test is done in another way than described in the *Directions for the Driving test*.

At the next steps in the model, the work must be set up so that it will be a good teamwork between the participants and the researcher. In this step, the focus will be to define the challenges and to see possibilities. It will be done analyses of the existing driving test, and brainstorming about how we can try out the ideas in the project. The ideas have to be discussed, and I have to assess if they are inside the frame for what we are allowed to do. Some good ideas can be discovered, but not tried out, because of the official administration. The discuss lead to some ideas the examiners are going to try out in step 5. It will be a process where we try out a few new things in a period, and than do reflections about the experiences, create improvements, and try it out again, like circles which contain plan, action, observe and reflections. (McNiff 2002). It will be valuable to make visible the reflections done by the examiners, and I will do data collections during the whole process. It also will be done research about the experiences the candidates have of the new working method which is tried out. The researcher will link theoretical understanding to what is happening during the process and afterwards, and try to bring the praxis to a level of meta (Postholm 2007). This will be the basis for the dissertation.

The last step in the model, Consolidate the new praxis, is a part of the goal, but it has to be a formal decision by Directorate of Public Roads. It may be a result of my research and the studies.

In Action research, it is often suitable to use Qualitative approaches, in order to keep a depth understanding about how the examiners and the candidates are experiencing the praxis which is tried out, and how the examiners are reflecting about the process (Silverman 2005). In order to make visible and to get a quality assurance, I will gather data by writing a log during the whole process. Writing a log can be a useful tool to keep the situation at the moment, and than write reflections about it, and try to find theory about it afterwards (Dysthe, Hertzberg, Hoel 2000). It also will be necessary that the examiners are writing a log, so they can remember and tell about what happens in the praxis-area. This will be an important basis for the discussions and the interview. When the goal is to get an empiricism of how the participant are experiencing, an interview will be a good approach. An interview can give understanding about a phenomenon, and get an insight into how the participants are thinking and feeling, and how they are arguing for their action. An interview can contribute to wide or change the researchers understanding of a phenomenon which is recognized in the research (Kvale 1997). The researcher will be in the area some times when the examiners are trying out the driving-test with reel pupil, and than get data by observations and doing interview. It also will be questionnaires for some of the pupil, to get a data with both depth and breadth. In this way, a method triangulation will be done, so that a phenomenon can be seen from different angles, in order to get a good reliability (Jensen 2002).

Implicit in Action Research, there also is a criticism of the existing. Than the researcher have to be attentive about mechanism as ignoring and opposition, and it will be important to think about when I choose the participants. Primary I want to get participants who have been interested to lift their competence, and who are interested in development work. As the researcher, my knowledge about the praxis area is to my advantage. I know some of the codes which are necessary to get a good dialogue, and to understand what is happening when I do observations.

It will be important to leave the situation when the action is finished, so that I have a distance when I shall do analysis of the data. I will emphasize to document how I have got the data and how the process has been, so that the discoveries can be traced.

As the researcher, I want to discover and describe the perspective of meaning and the understanding which represent the participants.

## References

- Askerøi, E.(2003). *Mastergradshåndboken* . 2/2003 Utdanning og arbeidsliv. Lillestrøm: Høgskolen i Akershus.
- Bjørnskau, T.(2003). *Stryk eller stå*. TØI rapport 662/2003
- Bruner, J. (1999). *Uddannelseskulturen*. Dansk oversettelse: S. Søgaard. København: Gyldendalske Boghandel, Nordisk Forlag.
- Bruner, J. ( 2002) *The Process of Education. A landmark in Educational Theory*. London: Harvard University Press, Cambridge.
- Bråten, I. (1996). *Vygotsky i pedagogikken*. Oslo: Cappelen akademiske forlag as
- Dalen, M. (2004) Intervju som forskningsmetode- *en kvalitativ tilnærming* . Oslo: Universitetsforlaget A/S
- Dalland, E. (2004). *Påliteligheten i førerprøven og sensors kompetanse*. Lillestrøm: Eksamensoppgave. Høgskolen i Akershus
- Dalland, E. (2006). *Praksis og teori hånd i hånd*. Lillestrøm: Hovedfagsoppgave. Høgskolen i Akershus
- Dewey,J. (1997) *Experience & Education*. New York: Touchstone. Rockefeller Center
- Dyste, O., Hertzberg,F., Løkensgard Hoel,T. (2005). *Skrive for å lære. Skrivning i høyere utdanning* Oslo: Abstrakt forlag as
- Dyste, O. (2005). *Ulike perspektiv på læring og læringsforskning*. Oslo: J.W. Cappelens forlag AS.
- Dyste, O. (2001). *Dialog, samspel og læring*. Oslo: Abstrakt forlag as
- Engeström,Y. (2001). *Expansive Learning at Work. Toward an Activity-theoretical Reconceptualization*. London: Institute of Education, University of London
- Goodlad,J.I. (1979). *Curriculum inquiry*. New York: McGraw-Hill.
- Grondin, J (2002) *The Cambridge Companion to Gadamer*. Cambridge: Cambridge University Press
- Gundem,B.B. (1990). *Læreplanpraksis og læreplanteori* . Oslo: Universitetsforlaget
- Halvorsen, K. (2003). *Å forske på samfunnet*. Oslo: J.W. Cappelens forlag AS.
- Hammersley,M. & Atkinson,P. (2004). *Feltmetodikk. Grunnlaget for feltarbeid og feltforskning*. Oslo: Gyldendal norske Forlag AS.
- Henriksson, W., Sundström, A., & Wiberg, M. (2004). *The Swedish driving-license test: A summary of studies from the Department of Educational Measurement*. Umeå: Umeå University. EM No. 45.Department of Educational measurement.
- Hiim, H. og Hippe, E. (2001): *Å utdanne profesjonelle yrkesutøvere. Yrkesdidaktikk og yrkeskunnskap* Oslo: Gyldendal Akademisk
- Hiim, H. og Hippe, E. (1998). *Læring gjennom opplevelse, forståelse og handling* En studiebok i didaktikk. Oslo: Universitetsforlaget.
- Holter,H., Kalleberg R.(red) (1996) *Kvalitative metoder i samfunnsforskning* Oslo: Universitetsforlaget A/S.
- Imsen, G. (2006). *Lærerens verden*. Oslo: Universitetsforlaget A/S
- Jarvis, P.(2002). *Praktikerforskeren -udvikling af teori fra praksis*. Dansk utgave. København: Alinea A/S
- Jensen, K.B (2000) *A Handbook of Media and Communication Research*. Kap.14. *The qualitative research process*. London: Routledge.
- Jordan B., Henderson A. (1995) *Interaction Analysis: Foundations and Practice*. California: Xerox Palo Alto Research Center and institute for Research on Learning, IRL Report No. IRL94-0027



- Korp, H.(2003). *Kunskapsbedömning. –hur, vad och varför*. Stockholm: Myndigheten för skolutveckling.
- Kruuse,E. (2007) *Kvalitative forskningsmetoder i psykologi og beslægtede fag*.Danmark: Dansk psykologisk forlag.
- Kuratorium für verkehrssicherheit (1999). *Guarding automobile Drivers through Guidance Education and Technology. GADGET*. Vienna: EU-prosjekt, Transport RTD programme of the 4th framework programme.
- Kvale, S. (1997/2006). *Det kvalitative forskningsintervju*. Oslo: Ad notam Gyldendal AS.
- Lie, Ragnar (2003): *Alt har sin tid* Statens vegvesen, Østfold.
- McNiff,J. (2002). *Action Research.Principles and Practice*. London: Routledge Falmer.
- Mjelde,L. og Høstmark Tarrou.(1992) *Arbeidsdeling i en brytningstid*. Gyldendal 1992.
- Moe, D. (2001): *Kjøreprosessen*. SINTEF. Eget forlag
- Moe, D. (2001): *Menneske, risiko og bilkjøring*. SINTEF. Eget forlag
- Moxnes, P.(1981/2000): *Læring og ressursutvikling i arbeidsmiljøet*. Oslo: Forlaget Paul Moxnes.
- Nielsen,K., Kvale, S. (2003) *Praktikkens læringslandskab – at lære gennem arbejde* København: Akademisk Forlag
- Peräaho, Keskinen , Hattaka(2004). *Førerkompetanse i et hierarkisk perspektiv; konsekvenser for føreropplæringen*. Oslo: Norsk utgave Statens vegvesen
- Postholm, M.B.(2005): *Kvalitativ metode. En innføring med fokus på fenomenologi, etnografi og kaususstudier*. Oslo: Universitetsforlaget
- Postholm, M.B.(2007). *Forsk med! Lærere og forskere i læringsarbeid*.
- Rismark, M. ,Sølvberg, A., Sitter, S., Stenøien, J.,(2004) *Play mobil*. Trondheim: VOX-rapport,
- Rönnerman(red.) (2004) *Aktionsforskning i praktiken – Erfarenheter och reflektioner* . Lund: Studentlitteratur.
- Säljö, Roger (2001). *Lærende i praksis. Et sosiokulturelt perspektiv*. Oslo: J.W. Cappelens forlag as
- Säljö, Roger (2006). *Læring og kulturelle redskaper. Om læreprosesser og den kollektive hukommelsen*. Oslo: J.W. Cappelens forlag as
- Schön, D. (1983/ 2002). *The Reflective Practitioner. How Professionals Think in Action*. New York. Basic Books
- Schön, D. (2001). *Den reflekterende praktiker. Hvordan profesjonelle tenker, når de arbejder*. Dansk oversettelse. Århus: Forlaget Klim
- Silverman, D. (2005) *Doing Qualitative Research*. London: SAGE Publications
- Stenlund, T. (2006). *Modellprovning. Empirisk pövning av teoretiska modeller för beskrivning av kursplan för förarutbildning*. Umeå: Umeå universitet, BVM nr 21,2006.
- Stenlund, T., Henriksson,W., Wahl, C., Holmberg, B. (2007). Umeå universitet, BVM nr 21,2006,*Begreppet komplettering i ett examinationsperspektiv. Et försök med det praktiska körkortspövet*. Umeå: Umeå universitet, BVM nr 27,2007,
- Stensmo, C. (1998). *Pedagogisk filosofi*. Bergen: Fagbokforlaget
- Strauss,A.,Corbin,J. (1996). *Basics of Qualitative Reasearch. Techniques and Procedures for Developing Grounded Theory*.
- Sundström, A.(2003). *Den svenska förarprovningens resultat. Sambandet mellan kunskapsprovet och körprovet, provens struktur samt körkortsutbildningens betydelse*. Umeå: Umeå universitet: Enheten för pedagogiska mätningar. PM No. 183.
- Sundström, A.(2004). *Övningskörning privat och på trafikskola. En enkätstudie om körkortsutbildningens betydelse för provresultatet..* Umeå: Umeå universitet: Enheten för pedagogiska mätningar. PM No. 190.

- Sundström, A. (2004). *Självvärdering som metod för att mäta måluppfyllelse via prov*  
Umeå universitet, BVM nr 3,2004.
- Sundström, A.,Wiberg, M.(2005). *Den svenska förarprovningens resultat. Sambandet mellan kunskapsprovet och körprovet för underkända och godkända provtagare*  
Umeå: Umeå universitet, BVM nr 13,2005.
- Sundström, A.(2007).*Utvärdering av instrument för upplevd teoretisk och praktisk kompetens Et forsøk med ny förarprovsmodell*. Umeå universitet, BVM nr 26,2007.
- Svensson P-G, Starrin B (1996) kvalitativa studier I teori och praktik. Lund: Studentlitteratur.
- Tiller, T. (red.) (2004). *Aksjonsforskning. I skole og utdanning*. Kriatiaansand:  
Høyskoleforlaget
- Valdermo,O., Eilertsen,T. (2004). *En læringsbevisst skole* Kristiansand: Høyskoleforlaget
- Vygotsky, L. (red.Kozulin ,A) (1986). *Thought and Language*. London: Cambridge, Mass.  
The MIT Press
- Westhagen, H. et al (2004). *Prosjektarbeid. Utviklings- og endringskompetanse*. Oslo:  
Gyldendal Norsk Forlag AS
- Wiberg, M. (2006). *Klassisk og moderen testteori. Analys av det teoretiska och det praktiska körkortsprovet*. Umeå: Umeå universitet, BVM nr 5,2006
- Wittek, L. (2004): *Læring i og mellom mennesker – en innføring i sosiokulturelle perspektiver*. Cappelen akademiske forlag. Oslo.
- Wretsch, J.V.(1993): *Voices of the Mind. A Sociocultural Approach to Mediated Action*.  
Harvard University Press. Cambridge, Massachusetts.
- Øzerk, K.Z. (1999) *Opplæringsteori og læreplanforståelse- en lærebok i pedagogikk*. Vallset:  
Oplandske bokforlag

## **Dokuments from the Government office and The Directorate of Public Roads**

- Samferdselsdepartementet: St.meld.nr.46 (1999-2000) *Nasjonal transportplan 2002-2011*,  
Samferdselsdepartementet: St.meld.nr. 20 (2000-2001)
- Samferdselsdepartementet (2007) *Vegtrafikklovgivningen*  
Oslo: Cappelen akademiske forlag
- Samferdselsdepartementet, Politidirektoratet og trygg trafikk (2002)  
Nasjonal handlingsplan for trafikksikkerhet på veg, 2002-2011  
Oslo
- Vegdirektoratet(1994): *Normalplan for føraropplæring, førerkortklasse B* Statens vegvesen  
(1994)
- Vegdirektoratet (2000): *Retningslinjer for gjennomføring av praktisk førerprøve klasse B*  
Statens vegvesen (2000)
- Vegdirektoratet(2004): *Læreplan, førerkortklasse B og BE Håndbok 252* (12.04. 2004)