

EVALUATING THE ROAD SAFETY LIVE INITIATIVE



Rådet for
Sikker Trafik

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LEARN!

LEVERAGING EDUCATION TO
ADVANCE ROAD SAFETY NOW!



FOCUS IN MY PRESENTATION

- What is "SikkerTrafik LIVE"?
- Situation from 2014 to now...
- Our process - new evaluation set-up for LIVE
- Different steps in the new evaluation set-up for LIVE
- A few results
- Sum up



WHAT IS 'SIKKER TRAFIK LIVE'?

- Educational initiative aimed at the oldest pupils at primary and lower secondary schools (grade 8th to 10th = 13-16 years old). Free-of-charge. Operating since 1987.
- LIVE is one of the Danish Road Safety Councils most used educational activities. More than 35.000 pupils in grade 8 to 10 are subjected to the intervention, each year. (Never digital, at the schools).
- The presenters are called “ambassadors”, and their role is to tell pupils about their own accidents. Common to these ambassadors is that they have all been seriously injured in an accident, and that they themselves were (partly) to blame for the accident/injuries.
- The purpose is to provide pupils with a better understanding of the consequences of a serious road accident, to open pupils' eyes to the fact that they may actually become involved in an accident themselves and to motivate them to make safer choices in traffic.
- Structure of visits: 90 minutes: Introduction, Life before the accident, The Accident, Life after the accident, Break, Questions, Evaluation, Rounding off (repeat main points).

SITUATION FROM LATE 2013 TO NOW....

Late 2013: I started working at Danish Road Safety Council:

- External evaluation of our partnership with the philanthropic foundation TrygFonden stated:
 - Better structures needed
 - Too much tacit knowledge
- I work as a sort internal consultant in the organisation; in own insights/docu department

Status for LIVE evaluation in late 2013:

- Had some objectives/KPIs for the intervention (annually only output: Number of visits/pupils)
- Had since its start in 1987 been evaluated by external consultants, but for instance no baseline measurement

= New evaluation set-up needed

OUR PROCESS - NEW EVALUATION SET-UP FOR LIVE



Step a – Formulating Outcomes and Objectives *(step 2 in the manual)*

- ☐ Formulate the outcomes, objectives and output objectives for your activity
- ☐ Conduct the baseline measurement for your activity



Step b – Achieving Change *(step 3 in the manual)*

- ☐ Prepare your theory of change one-pager



Step c – Design *(step 4 in the manual)*

- ☐ Finalise your evaluation plan



Step d – Evaluation *(step 8 in the manual)*

- ☐ Execute your evaluation plan



STEP A – FORMULATING OUTCOMES AND OBJECTIVES (STEP 2 IN THE MANUAL)



Step a – Formulating Outcomes and Objectives (step 2 in the manual)

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Process: Discussing what is the most important to focus on and have as objectives, so we know what LIVE should achieve and what to evaluate

First, we looked at our national goals:

- Goals set out for traffic safety and mobility education in the curricula for schools (<https://emu.dk/grundskole/faerdselslaere/laeseplan-og-vejledning>):
 - It is mandatory to teach (and it has been so since 1940!)

Efter 9. klassetrin

Kompetence-område	Kompetence-mål	Faser	Færdigheds- og vidensområder og -mål		Færdigheds- og vidensområder og -mål			
Trafikal adfærd	Eleven kan færdes sikkert og ansvarfuldt i trafikken.	1. 2. 3.	Færdselsregler	Egen sikkerhed	Ansvar		Konsekvensberegning	
			Eleven kan færdes i trafikken ifølge færdselsregler og under hensyntagen til medtrafikanter.	Eleven har viden om færdselsregler med andre trafikanter.	Eleven kan færdes ansvarfuldt i trafikken.	Eleven har viden om ansvar i trafikken.	Eleven kan vurdere mulige konsekvenser ved adfærd i trafikken.	Eleven har viden om mulige konsekvenser ved adfærd i trafikken.

After grade 9: The pupils should know they are the most vulnerable in traffic, what the risk factors are, and how to avoid their own and other's risk behaviour



STEP A – FORMULATING OUTCOMES AND OBJECTIVES (STEP 2 IN THE MANUAL)



Step a – Formulating Outcomes and Objectives (*step 2 in the manual*)

- ☐ Formulate the outcomes, objectives and output objectives for your activity
- ☐ Conduct the baseline measurement for your activity

Second, after observing several LIVE visits and reviewing behavioural models, the 5 E-model and the Didactive Relations model, we formulated what knowledge, reflection, attitude and (intended) behaviour we wanted the LIVE visits to achieve (outcome objectives):

KNOWLEDGE - PUPILS (examples)

- Knowledge of at least 2 collision/injury factors (speed, alcohol, seat belt, inattention)
- Knows that they themselves are part of the most vulnerable age group in traffic
- Knowledge of how to say no to others (action instructions)

REFLECTION - PUPILS

- Reflect on what could have prevented the collision the injured person was in
- Reflect on own abilities and behaviour in traffic
- Decide on own future behaviour in traffic

RELEVANCE - PUPILS

- Can relate the story to their own life

ATTITUDE - PUPILS

- Drink driving is unacceptable
- Not always wearing a seat belt/helmet is unacceptable
- Being inattentive/ distracted in traffic is unacceptable
- Speeding is unacceptable

BEHAVIOUR – PUPILS

- Less risky driving:
 - Reduces their speed/adheres to the speed limit
 - Does not drive under the influence of alcohol or drugs
 - Uses the seat belt
 - Pays attention in traffic
 - Wears a helmet (moped and motorcycle)

STEP A – FORMULATING OUTCOMES AND OBJECTIVES (STEP 2 IN THE MANUAL)



Step a – Formulating Outcomes and Objectives (step 2 in the manual)

- ☐ Formulate the outcomes, objectives and output objectives for your activity
- ☐ Conduct the baseline measurement for your activity

Thirdly, we made a baseline measurement:

- Before (and post-activity) measurement:
 - Quantitative survey questionnaire to pupils *before* they had experienced a LIVE visit
 - Survey answers from pupils from all over the country
 - Testing if our questions (and objectives) worked – where they formulated in a way the pupils could understand and answer
 - Focusing on:

KNOWLEDGE - PUPILS

- Knowledge of at least 2 collision/injury factors (speed, alcohol, seat belt, inattention)
- Knows that they themselves are part of the most vulnerable age group in traffic

ATTITUDE - PUPILS

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STEP A – FORMULATING OUTCOMES AND OBJECTIVES (STEP 2 IN THE MANUAL)



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EXAMPLE 4: OBJECTIVES AND OUTPUT OBJECTIVES
FROM THE "ROAD SAFETY LIVE" INITIATIVE

Selected KPIs for TrygFonden (report on performance once a year):

- Outcome objectives/KPIs – post activity/just after a LIVE visit:
 - Knowledge objective: a minimum of 85 % of the pupils who have had a visit by the LIVE initiative should **know what age group is most vulnerable/exposed in traffic**.
 - Attitude objective: at least 95 % of the pupils who have had a visit by the LIVE initiative should feel that **the visit was good or very good**.
- Output objective/KPI :
 - Reach: a **minimum of 25,000 pupils** in grade 8, 9 and 10 (equal to approximately 19% of the target population) should receive a visit from the LIVE initiative in every school year.
 - LIVE should visit **at least 30 % of the students in the five most affected municipalities**.
- Outcome objectives/KPIs – 6-12 months following the LIVE visit:
 - Behavioral objective: at least 80 % of the pupils say they now – due to the visit - **take better care of themselves in traffic** (self-reported).
 - Knowledge objective: at least 80 % of the pupils should still **know that they belong to the age group that is most vulnerable in traffic**.
- Monitoring: Number and types of accidents for the age group
- Report on other outcome objectives we have (knowledge, reflection, attitude, behaviour etc.)

"SMARTER" objectives/KPIs:

Specific,
Measurable,
Achievable,
Realistic/Relevant,
Time-bound,
Evaluated, and
Revisable.

STEP B – ACHIEVING CHANGE (STEP 3 IN THE MANUAL)



Step b – Achieving Change (step 3 in the manual)



Prepare your theory of change one-pager


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ACHIEVING
CHANGE

By now you have decided whether the activity's outcome is related to actual behaviour or intentions to engage in the behaviour, and whether the outcome will be knowledge, skills, attitudes or (intended) behaviour. Define what you seek to modify and how you will modify it.

THEORY OF CHANGE: "ROAD SAFETY LIVE" (* = key performance indicators)

RES	TARGET GROUPS	ACTIVITIES	OUTCOMES/RESULTS/EFFECTS	IN THE LONG TERM
X WORK HOURS	GRADES 8-10 (13 to 16 year old pupils) 	SCHOOL VISIT BY LIVE AMBASSADOR <ul style="list-style-type: none"> Injured person/ LIVE ambassador tell his/her story to the pupils (90-120 min.) Teacher's guide and preparation sheets for pupils 	KNOWLEDGE - PUPILS <ul style="list-style-type: none"> Knowledge of at least 2 collision/injury factors (speed, alcohol, seat belt, inattention) Knowledge of collision/injury factors for young people (incl. mopeds) 	REDUCE THE NUMBER OF TRAFFIC COLLISIONS
		OUTPUT AT LEAST 25,000 PUPILS FROM GRADES 8-10 (including visits for at least 30% of the pupils in Grades 8 to 10 in the country's 5 most collision-affected municipalities in the school year, corresponding to a total of approx. 1700 pupils)	KNOWLEDGE - PUPILS <ul style="list-style-type: none"> Knows that they themselves are part of the most vulnerable age group in traffic* Knowledge/understanding of the consequences of their own and others' behaviour in traffic Knowledge of how to say no to others (action instructions) RELEVANCE - PUPILS <ul style="list-style-type: none"> Can relate the story to their own life REFLECTION - PUPILS <ul style="list-style-type: none"> Reflect on what could have prevented the collision the injured person was in Reflect on own abilities and behaviour in traffic Decide on own future behaviour in traffic ATTITUDE - PUPILS <ul style="list-style-type: none"> Thinks the visit was good / very good * Drink driving is unacceptable Not always wearing a seat belt/helmet is unacceptable Being inattentive/ distracted in traffic is unacceptable Speeding is unacceptable 	
X DANISH KRONEN			INTENDED BEHAVIOUR - PUPILS <ul style="list-style-type: none"> Will talk to friends/family about the visit INTENDED BEHAVIOUR - PUPILS <ul style="list-style-type: none"> Decides how they will react to others' risk behaviour BEHAVIOUR - PUPILS <p>Less risky driving:</p> <ul style="list-style-type: none"> Reduces their speed/adheres to the speed limit Does not drive under the influence of alcohol or drugs Uses the seat belt Pays attention in traffic Wears a helmet (moped and motorcycle) <p>6 to 12 months after the visit:</p> <ul style="list-style-type: none"> Believes that the LIVE visit has helped them to take better care of themselves in traffic * 	FEWER ROAD DEATHS (number and loss of living years) FEWER INJURED (lightly and seriously)

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EXAMPLE 8: A THEORY OF CHANGE ONE-PAGER FOR THE "ROAD SAFETY LIVE" INITIATIVE

STEP C & D – DESIGN (STEP 4 IN THE MANUAL) & EVALUATION (STEP 8):



Step c – Design (step 4 in the manual)



Finalise your evaluation plan

OUTCOME EVALUATION:

What do we want to know?

- Are the national goals met?
- Are our objectives (knowledge, reflection, attitude, behavior) met?
- Are the objectives/KPIs for TrygFonden met? (output objectives and outcome objectives)
- How do the different presenters perform?

= whether have succeeded in achieving the outcomes set in objectives

Data collection methods used for evaluation:

- Quantitative:
 - Mobile survey questionnaire to pupils just after the visit (primary target group)
 - Mobile follow-up survey to pupils 6-12 months after the visit
 - Mobile survey to pupils' teachers (secondary target group)
 - *Note: Remember General Data Protection Regulation (GDPR)*
- Qualitative:
 - Observation of visits
 - Interviews with pupils just after the visit
 - Interviews with pupils' teachers just after the visit
 - Follow-up interviews with LIVE presenters

When?

- Ongoing since 2015 (quality control)

Done by:

- Our internal insights/docu department



Step d – Evaluation (step 8 in the manual)



Execute your evaluation plan

PROCES EVALUATION:

= whether the activity is operating as planned

- 5 E-model (for more see the Manual)

- ✓ **engaging** – are the pupils motivated, can they use prior knowledge?
- ✓ **exploring** – are they pupils allowed to come up with suggestions to what could have prevented collision?
- ✓ **explaining** – are the pupils allowed to communicate their knowledge?
- ✓ **elaborating** – are the pupils allowed to reflect on own abilities and behaviour in traffic, and produce other thoughts, feelings & ideas?
- ✓ **evaluating** – are the pupils allowed to self-evaluate and ask questions and how did the presenter answer these?

Other: Did the presenter follow his/her manuscript, and did it work as intended? Time allocate alright? Where the pupils bored at some time? Did the class teacher participate in the whole visit and what did they say to the pupils before and after the visit? Had the pupils been told in advance what the visit was about and what to expect? How was the room – was there enough space for the presenter? etc.

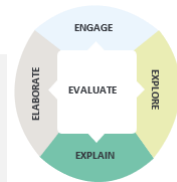
Methods: Qualitative (like outcome evaluation)

RANDOMISED CONTROLLED TRIAL (RCT) EFFECT STUDY:

- **What/why:** To evaluate whether the “Road Safety LIVE” initiative was effective
- **Done by?:** Contracted professional researchers: VIVE – The Danish Centre of Applied Social Science
- **Data collection method:** Control group and intervention group
- **See more:** In the Manual's example 24

MONITORING OF ACCIDENTS (POLICE & EMERGENCY ROOM DATA):

- Monitoring of number and types of accidents for the age group (including schools with most accidents).



A FEW RESULTS...

Selected KPIs for TrygFonden (report on performance once a year):

- Outcome objectives/KPIs – post activity/just after a LIVE visit:
 - Knowledge objective: a minimum of 85 % of the pupils who have had a visit by the LIVE initiative should know what age group is most vulnerable/exposed in traffic.
 - Result: Resultat 2019/2020: 89 %. 2018/2019: 89 %. 2017/2018: 89 %
 - Attitude objective: at least 95 % of the pupils who have had a visit by the LIVE initiative should feel that the visit was good or very good.
 - Resultat 2019/2020: 98 %. 2018/2019: 98 %. 2017/2018: 99 %
- Output objective/KPI :
 - Reach: a minimum of 25,000 pupils in grade 8, 9 and 10 (equal to approximately 19% of the target population) should receive a visit from the LIVE initiative in every school year.
 - Result: Achieved in 4 of the 5 municipalities
 - Result: School year 2019/20: 26.185. 2018/2019: 36.763. 2017/2018: 36.612
 - LIVE should visit at least 30 % of the students in the five most affected municipalities.
- Outcome objectives/KPIs – 6-12 months following the LIVE visit:
 - Behavioural objective: at least 80 % of the pupils say they now – due to the visit - take better care of themselves in traffic (self-reported).
 - Result: 2018/2019: 94 %. 2017/2018: 94 %
 - Knowledge objective: at least 80% of the pupils should still know that they belong to the age group that is most vulnerable in traffic.
 - Result: 2019/2020: 85 %. 2018/2019: 87 %. 2017/2018: 86 %

SUM UP



... evaluation should be an integral part of your activity's design – start already in step 2 😊



... make an evaluation design that fits your educational activity/material, its objectives/KPIs and resources available. Include both outcome evaluation and process evaluation if possible.



... remember to include a baseline measurement to establish the situation prior to the activity – hereby you can determine the effects of the activity afterwards.



...evaluations should not be conducted by the persons who have developed the activity due to possible bias and lack of evaluation knowledge/skills.



... use the same questions and answers in surveys/questionnaires, so you can compare e.g. baseline results with just after results and follow-up results (months after) – but also so you can benchmark with other teaching materials/activities targeted at the same target group.



...do not be afraid of bad results! If, contrary to your high hopes and expectations, the evaluation shows no effects at all – or even worse, negative effects – this is a unique opportunity to learn what went wrong and to change/adjust it.

THANK YOU

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