European Crime Prevention Award (ECPA)

Annex I

Approved by the EUCPN Management Board in 2018

Please complete the template in English in compliance with the ECPA criteria contained in the Rules and procedures for awarding and presenting the European Crime Prevention Award (Par.2 §3).

General information

1. Please specify your country.

Estonia

2. Is this your country's ECPA entry or an additional project?

Country's ECPA entry

3. What is the title of the project?

Improving the police investigators' quality of investigative interviews via simulated interview software EIT (Empowering Interview Training)

4. Who is responsible for the project? Contact details.

Uuriv intervjueerimine OÜ

Kristjan Kask

empoweringit.oy@gmail.com

+37255544622

5. Start date of the project (dd/mm/yyyy)? Is the project still running (Yes/No)? If not, please provide the end date of the project.

16.03.2017-30.09.2021

6. Where can we find more information about the project? Please provide links to the project's website or online reports or publications (preferably in English).

Publication
https://www.frontiersin.org/articles/10.3389/fpsyg.2022.753111/full

Link to software https://eitsim.azurewebsites.net/

7. Please give a **one page** description of the project (**Max. 600 words)**

Previous research with students and some professional groups (psychologists) has demonstrated that repeated feedback in simulated investigative interviews with computerized child avatars (a software called Empowering Interview Training, EIT) improves the quality of interviews conducted with real children who have witnessed a mock event. However, it is not known whether this type of training would improve the quality of investigative interviews with actual child victims and witnesses of physical and sexual abuse.

In cooperation with the Police and Border Guard Board in Estonia along with State Prosecutor's Office, we carried out a project to assess the effectiveness of EIT among police officers who interview child victims and witnesses in physical and sexual abuse cases.

Twenty-two police investigators participated in the study. Half of them received feedback (to question types and also overall correctness of their conclusion about what happened to the avatar) during four simulated interviews whereas the other half received no feedback during four such interviews followed by another four interviews after which they also received feedback. Transcripts of the real interviews with actual child victims and witnesses both before and after the training were coded for interview quality.

Receiving feedback after EIT training increased the proportion of recommended questions, i.e. free recall ('Tell me what happened') or open questions ('what, where, who, how') compared to not receiving the feedback. In EIT training, the proportion of recommended questions were correlated with the number of correct details in avatars' answers.

In real interviews, the proportion of recommended questions increased by 23% (from 48% before EIT training to 59% post-EIT training) in the group receiving feedback during the avatar training. Overall, this study demonstrated for the first time transfer of learning from simulated interviews to actual investigative interviews.

We provided feedback after their avatar training for those police officers, who wished personal feedback as well. After the results were analysed we held an online meeting for the police officers who participated in the study as well as for prosecutors to discuss the results and the applicability of EIT in the national training curriculum of the officers who proceed cases against minors regarding physical and sexual abuse.

I. The project shall focus on prevention and/or reduction of everyday crime and fear of crime within the theme.

8. Which **crime prevention/ reduction mechanisms** were used in this project to contribute to crime prevention and/or the reduction of crime or the fear of crime? Multiple answers are possible.

☐**Establishing and maintaining normative barriers to committing criminal acts**
e.g. 'Offenders, we are watching you' campaigns
☐**Reducing recruitment** to criminal social environments and activities by eliminating or reducing the social and individual causes and processes that lead to criminality
e.g. social and financial support for disadvantaged families
☐**Deterring** potential perpetrators from committing crimes through the threat of punishment
e.g. decreasing the time between arrest and punishment
☐**Disrupting** criminal acts by stopping them before they are carried out
e.g. increasing police patrols in vulnerable areas
☒**Protecting vulnerable targets** by reducing opportunities and make it more demanding to carry out criminal acts
e.g. placing locks and cameras
☒**Reducing the harmful consequences** of criminal acts
e.g. initiatives to recover stolen goods
☐**Reducing the rewards** from criminal acts
e.g. restorative justice programmes
☐**Incapacitating** (or neutralising) perpetrators by denying them the ability (capacity) to carry out new criminal acts
e.g. imprisonment of key gang members
☐**Encouraging** desistance from crime and rehabilitating former offenders so they are able to settle back into a normal life
e.g. prison rehabilitation programs

Explain how this/these crime prevention mechanisms were used ((**Max. 300 words**)

It is important to interview child victims and witnesses in a way that it is not creating secondary traumatization among these groups. Thus, this project is reducing the harmful consequences of criminal acts by increasing the quality of investigative interviews with the vulnerable group of child victims and witnesses, i.e. guiding the body conducting proceedings to a more sensitive interviewing techniques. If a child victim or witness is interviewed once in a comprehensive way then their videorecorded testimony (or protocol of a testimony) can be used in court as an evidence and there is no need to interview the child repeatedly regarding the same crime.

II. The project shall have been evaluated and have achieved most or all of its objectives. For more information on evaluation, click here

9. What were the reasons for setting up the project? Was this context analysed before the project was initiated and in what way (How, and by whom? Which data were used?)? In what way did this analysis inform the set-up of the project? (**Max. 150 words**)

It is known from previous research (Kask, K., 2012, Dynamics in using different question types in Estonian police interviews of children. Applied Cognitive Psychology, 26, 324−329) that Estonian investigators tend to use relatively less free recall questions and a large proportion of closed questions. Thus, when EIT was created, we asked EIT creation team to collaborate in translating and adapting the software into Estonian language, and to conduct a pilot study among Estonian investigators to examine whether EIT could be effective in increasing the quality of forensic interviews with children and if yes, then possibly to be used as a part of adult training in training investigators who investigate crimes conducted against children in sexual and physical abuse cases.

10. What were the objective(s) of the project? Please, if applicable, distinguish between main and secondary objectives. (**Max. 150 words**)

Our aim in conducting a study in the project was to examine whether avatar training coupled with feedback would transfer into investigative interviews with children in actual criminal cases of child sexual and physical abuse conducted by Estonian police officers.

We tested the following two main hypotheses:

We expected that receiving feedback during the avatar training would result in the interviewers using a higher proportion of recommended questions in the avatar training compared to the group that did not receive feedback.

We expected the improvements from receiving feedback during avatar training to transfer into actual investigative interviews with children so that interviews conducted after (vs. before) the training coupled with feedback would have a higher proportion of recommended questions.

11. Has there been a process evaluation?[1] Who conducted the evaluation (internally or externally?) and what were the main results? Which indicators were used to measure the process? Did you make changes accordingly? (**max. 300 words**)

We have conducted a process evaluation in terms of how our study design would be fulfilled to test the hypotheses we set. For the transcripts of real

---

[1] **Process evaluation:** Also called *implementation evaluation*, or *monitoring*, this process documents **how the activities were implemented** in order to determine any deviations from the original planning. It facilitates finding explanations for when the results of the intervention are not as expected.

interviews, the original analytical plan was to first test whether the interviews improved in Feedback group after Avatar training with feedback but not in No Feedback/Feedback group after Avatar training without feedback and whether the second interviews were of better quality in Feedback group. However, due to the fact that some investigators stopped in participating in our study, and not all the investigators did not provide a transcript of a real investigative interview with a real child before or after EIT training, we decided to simplify the analytical plan to increase the statistical power (by comparing all interviews that were conducted before Avatar training with feedback with all interviews that were conducted after Avatar training with feedback).

12. Has there been an outcome[2] or impact[3] evaluation? Who conducted the evaluation (internally or externally?), which data and evaluation method were used and what were the main results? Which indicators were used to measure the impact? (**Max. 300 words**)

We have conducted an outcome evaluation using quantitative statistical methods. The outcome evaluation had two main findings. First, receiving feedback after EIT training increased the proportion of recommended questions, i.e. free recall ('Tell me what happened') or open questions ('what, where, who, how') compared to not receiving the feedback. In EIT training, the proportion of recommended questions were correlated with the number of correct details in avatars' answers. Second, in real interviews, the proportion of recommended questions increased by 23% (from 48% before EIT training to 59% post-EIT training). In addition, in the interviews conducted after avatar training with feedback significantly more broad invitations (82% increase), less suggestive (71% decrease), and less unspecific suggestive questions (86% decrease) were used. Also, child responses were significantly less likely to be unintelligible (62% decrease) or be yes/no responses (58% decrease).

III. The project shall, as far as possible, be innovative, involving new methods or new approaches.

13. How is the project innovative in its methods and/or approaches? (**Max. 150 words**)

---

[2] **Outcome evaluation:** Measures the **direct effect** (i.e., extent of the changes) **of the intervention on the target group, population, or geographic area**. The information produced by the outcome evaluation determines at what level the **objectives were achieved**.

[3] **Impact evaluation:** Measures **long-term effects** of the intervention on the target group, as well as **indirect effects** on the broader community. The information produced by the impact evaluation determines at what level the **ultimate goals** of the intervention were achieved.

The project is innovative as it introduced the topic of training interviewers by using avatars portraying children in a specific EIT software. Usually, the investigators' interviewing skills are trained by using role plays, i.e. an actor or another police officer is portraying the child victim the investigator has to interview (based on their previous knowledge and experiences how a child would answer). In EIT, the software launches child avatar's answer by using algorithms which are based on the scientific research how correctly children have answered certain types of questions. As an important factor in increasing the quality of the interviews is continuous feedback then investigators can be trained with EIT in their own pace and time as it works via web browser which means that the interviewer can be in one location and the EIT operator in another location (which makes this type of training is more sustainable).

IV. **The project shall be based on cooperation between partners, where possible.**

14. Which partners or stakeholders were involved in the project and what was their involvement? (**Max. 200 words**)

Police and Border Guard Board in Estonia found an official to coordinate the project (contributed by the workload) with the police officers by sharing them the information about the study, making connections with the police officers and the research group, and organising coding of the transcripts of the real interviews. The official from Police and Border Guard Board anonymized the transcripts for the research purposes. The study was also coordinated with the State Prosecutor's Office as some transcripts were still in proceeding then in each case, a prosecutor leading the case, had to approve coding the interview. Tallinn University contributed by the workload of Dr Kask supervising the project and supervising the work of research assistants.

V. **The project shall be capable of replication in other Member States.**

15. How and by whom is the project funded? (**Max. 150 words**)

This project (conducting the scientific study) was funded by Abo Akademi University in Finland and New York University in Shanghai (research assistants were paid salaries from the project). Police and Border Guard Board contributed by providing the workload of an official the coordinate the study and to anonymise the transcripts of real child interviews for data protection purposes and Tallinn University contributed by the workload of Dr Kask coordinating the study.

16. What were the costs of the project in terms of finances, material and human resources? (**Max. 150 words**)

Three main costs of the project were programming and maintaining the software (currently the maintenance of the website is about 22,000 EUR per year), translation and adaptation of EIT into the Estonian language (5,000 EUR

in total) and salaries of the research assistants to conduct the study (13,000 EUR in total).

17. Has a cost-benefit analysis[4] been carried out? If so, describe the analysis, including how and by whom it was carried out and list the main findings of the analysis. (**Max. 150 words**)

No

18. Are there adjustments to be made to the project to ensure a successful replication in another Member State?

Using of EIT software can be implemented in other linguistic and cultural environments than Estonia although the outcome evaluation would be necessary. Currently the avatar answers are recorded as videoclips. If the content of the answers are translated and new videoclips in other languages are made, then it would be possible to create other language versions in EIT than Estonian. The current EIT version is already been translated to English, Lithuanian, Italian as well as Icelandic, Japanese and Chinese. Also, as the proportion of contactless sexual crimes against children is increasing, the scenarios should be renewed time after time to be in accordance with how the real crimes are taking place.

19. How is the project relevant for other Member States? Please explain the European dimension of your project.

UN Convention on the Rights of the Child states that the child has right to be protected from all forms of violence. The EU member states commit in protecting the children from violence and abuse (such as the EU strategy for a more effective fight against child sexual abuse). The EU strategy cites the Council of Europe estimation that in Europe, one in five children fall victim to some form of sexual violence. In many cases, the perpetrator(s) may be someone the child already knows. The strategy emphasizes that the professionals who proceed cases in these cases should be provided the best available training to effectively proceed the cases as well as being child-friendly and not to traumatize the children again. In this project we found scientific proof that EIT software helps to increase the quality of investigative interviews conducted with the victims and witnesses of sexually abused children. Thus, the software could be an additional component in investigators' training to guarantee that their skills are developed and maintained over time.

---

[4] **Cost-benefit analysis**: A type of economic evaluation that compares the direct and indirect cost of the resources employed in the intervention, with the equivalent economic value of the benefits.

Please provide a short general description of the project (abstract for inclusion in the conference booklet – **max. 150 words**).

Previous research has demonstrated that repeated feedback in simulated investigative interviews with computerized child avatars (a software called Empowering Interview Training) improves the quality of interviews conducted with real children. It is not known whether this type of training would improve the quality of investigative interviews with actual child victims and witnesses. 22 police officers from Estonia participated in a study where half of them received feedback during four simulated interviews whereas the other half received no feedback during four such interviews followed by another four interviews after which they also received feedback. Transcripts of the real interviews with actual child victims and witnesses before and after the training were coded. In avatar training, the proportion of recommended questions were correlated with the number of correct details in avatars' answers. In real interviews, the proportion of recommended questions increased by 23% comparing interviews before EIT training to post-EIT training.