A flexible tool for practicing investigative interviews with children

Whitepaper about the AvBIT Labs Avatar

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Summary

This whitepaper describes the results of a pilot project to integrate interview practice using a child avatar with theoretical training. It describes the setup of the avatar-based forensic interview practice, which aims to give participants the possibility to exercise their acquired theoretical knowledge from an initial week of education. It also provides the outcomes of an analysis of the avatar tool, both from the point of view from the trainees, and also from reviewing their recorded practice interviews.

In the PROMISE 3 courses, participants received written case briefs to use in a roleplay. The one who roleplayed as the child received extensive information about what has happened the child. The interviewer received just a little initial information about the case. The case briefs covered assault, multiple cases of assault, sexual violence, and internet related crimes. The roleplays were recorded, and the participants then analysed the interviews with support of a feedback manual.

Our analysis shows promising results about the self-reported usefulness of the Avatar platform, and also points to challenges for how to use it, as well as solutions which can be addressed as part of onboarding and documentation.

Avatar based interview training – overview

AvBIT provides a web-based training environment where participants can practice their interviewing skills with child avatars. The system allows for practicing any method of interviewing, using any language. It´s up to the user's organization to establish and provide basic training on their own structure of interviewing, and even to adjust the case briefs according to the national context if necessary.

The interviewer logs into the web platform and meets an avatar in a virtual room. The avatar is controlled from another computer by another person acting as a child. The person who controls the avatar can control the avatar's behaviour, and the system changes the person's voice to sound more child-like. The person who controls the child is role playing as a child in the exercise via the avatar, based on the case brief which provides details about what has happened to the child and even suggestions on how the child should act in the interview.

NOTE: THE AVATAR IS NOT OPERATED WITH ARTIFICIAL INTELLIGENCE. A HUMAN CONTROLS THE AVATAR'S BEHAVIOUR AND SPEAKS THE AVATAR'S VOICE.

The central part of AvBIT's solution is that users, regardless of the interview model they have learned or the language they speak, can practice their interview skills on the avatars. This reduces the risk of children being exposed to inadequate interview methodology in real cases, which could cause traumatization and/or retraumatisation, or even discredit the child's testimony. The training interviews are recorded and can be analysed afterwards according to a developed feedback manual and the users' national guidelines for investigative interviewing with children. This feedback manual covers the main parts of steps in an investigative child interview. It's a tool for analysing one's own interviews and also colleagues' interviews. The feedback manual helps users to find their strengths and areas for improvement on a detailed level based on evidence-based protocols and what research shows elicits the best quality evidence from children.

Requirements

For each country involved in a training, a national coordinator is named. This person receives extra information and support to be able to support the local training process.

All participants are expected to use:

- a computer (not a tablet or a smart phone);
- an updated version of Firefox or Chrome;
- a strong internet connection;
- a headset with microphone of good quality;

Each participant should test their systems before to avoid delays due to malfunctioning or poor technology during the training. Small group meetings with AvBIT before the training starts are helpful for checking that each participant can log-in and use the platform without any technical issues, and then to follow-up as needed. An information video of the platform and its functions aids this preparation.

Training procedure

This whitepaper analyses 2 trainings which took place as part of PROMISE 3 (2020-2023). Each course was organised in roughly the same way.

The course started with a kick-off meeting, which included an introduction to the avatar-based interview training platform and materials, such as:

- Technical checks.
- Overview of the plan for training on the platform.
- Description of an ordinary training case from start to end.
- Feedback manual - use and content.
- Strategy - acting as the instructor - basic principles.
- Storage of recorded interviews - feedback manual/process.
- Demo interviews.
- Trouble shooting.
- Practical training in pairs.
- Support via a group chat.
- The theoretical part of the training took place over 5 days in the same week, provided by Linda Cordisco Steele from the National Children's Advocacy Centre.

The practical work with the Avatar began after the weeklong theoretical training.

An alternative organisation of the course is to spread the theoretical training days over several weeks, and begin the avatar practice already after the first theoretical training day. Future whitepapers could analyse this approach.

Case briefs

For the training which is analysed in this whitepaper, 4 case briefs were provided. Each case had alternative A and B, which facilitates working in pairs. The case briefs were available in English and the national languages of the participants.

The case briefs cover assault, multiple cases of assault, sexual violence, and internet related crimes. Each case brief provides information for both the interviewer, and the avatar controller who is roleplaying as the child. The interviewer just gets a little initial information about the case. The avatar controller gets extensive information about what has happened to the child, and how the child should act in the interview.

Pairs and groups

Participants could work in pairs or in bigger groups according to what suits the local organizations. When working in pairs, one person acted as avatar in alternative A and then as an interviewer in alternative B. When working in a bigger group, one person acted as the avatar for all trainees.

Practice interviews with the Avatar

The national coordinators distributed the case briefs to participants according to a training plan. Participants worked on the same cases during a predetermined period. Synchronizing the training tempo enabled an exchange of experiences at monthly meetings for national coordinators.

The interviewer started by reviewing the short background of the case in order to prepare their interview with the avatar/child.

The avatar controller reviewed the longer background about what has happened to the child and how the child should act in the interview.

The interview was conducted. All training sessions were recorded and stored in the platform.

Feedback manual

Afterwards, the avatar controller completed the feedback manual, using the recording as a reference. They then discussed the results with the interviewer.

The feedback manual was submitted as proof of having completed the required assignments in order to receive a certificate of completion.

Participants self-reported reflections of the value of the avatar-based training for their interview capacity

A short survey was sent to the participants from the two rounds of interview training.

We received 22 answers to the survey of two questions:

1. I completed the avatar practice...

- with one partner, who was also a trainee
- with different partners, who were also trainees
- one person acted as the avatar in all sessions

2. The avatar training has been valuable for my interview capacity.

- To a very large extent
- To a large extent
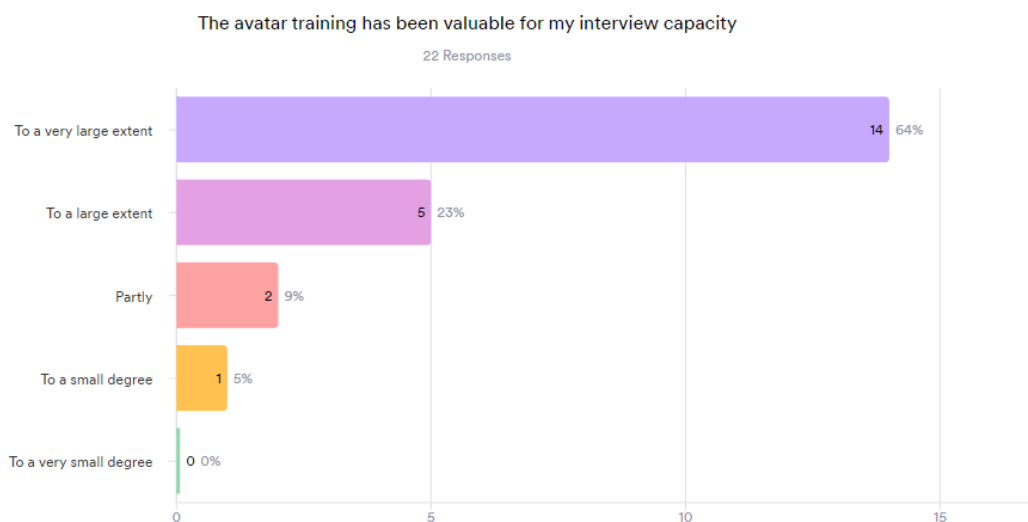- Partly
- To a small degree
- To a very small degree

The avatar training has been valuable for my interview capacity

22 Responses

Response	Count	Percentage
To a very large extent	14	64%
To a large extent	5	23%
Partly	2	9%
To a small degree	1	5%
To a very small degree	0	0%

Figure 1: Self-reported value of the avatar training for interview capacity

Differences in the self-reported value of the avatar training for interview capacity according to training setup

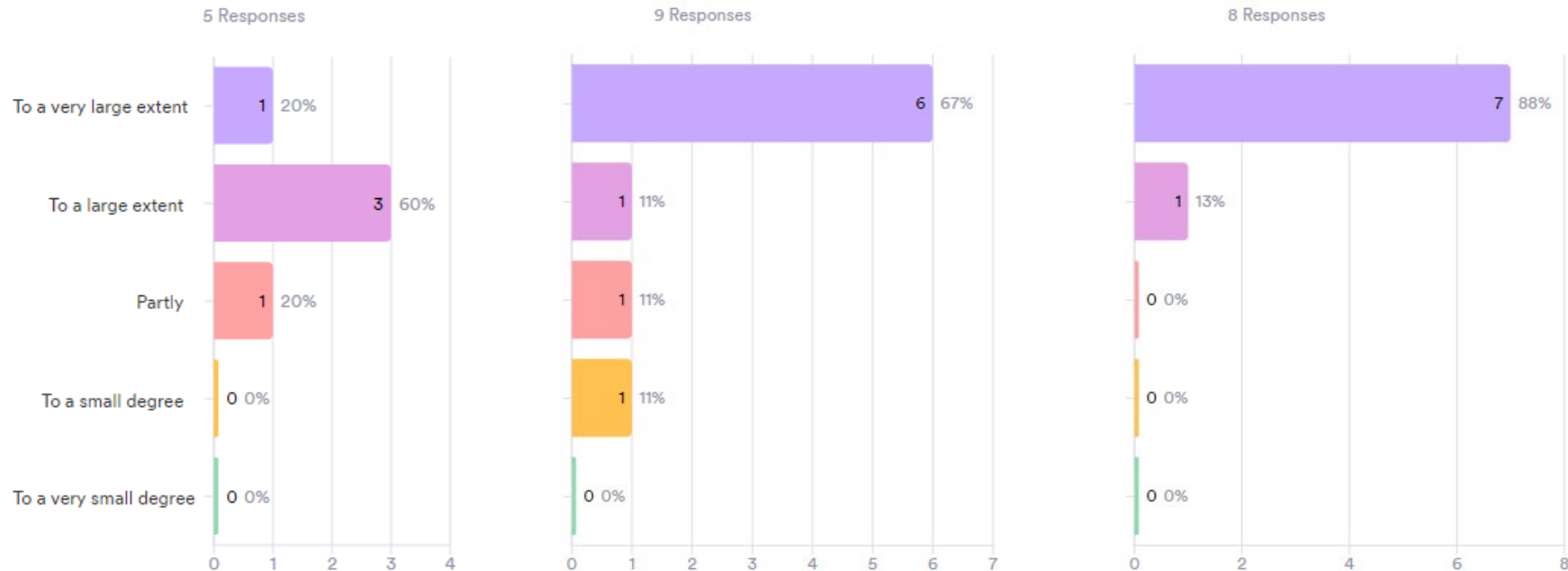| Conducted their training with one partner, who was also a trainee	Conducted their training with different partners who also were trainees	Conducted their training with one person who acted as the avatar in all sessions of the avatar training

Figure 2: Differences in the self-reported value of the avatar training for interview capacity according to training setup

We caution against concluding that either setting is the most effective way of training, as there are additional factors that we did not control for at this time. These variables include the amount of previous experience with investigative interviews of children, the dynamic of the group of participants from the same country, and if the training was part of a formal national process to establish this way of working. In particular, one country who responded to this survey had one person who acted as the avatar in all session. As the figures show, the participants were positive to that setting. This country also had what we observed as an effective and engaging organization of their trainings as a group, and their practice fed into national, formal processes to establish this way of working. We cannot rule out that these elements led to increased self-reported value of the Avatar training for their interview capacities.

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Collecting information from recorded training sessions

All interview practices have been done in the participants native language, which creates a limitation regarding our ability to analyse each interview. 112 interviews have been analysed from 3 perspectives:

- How much the interviewer versus the avatar talked during the interview.
- Identifying "challenges" in using the avatar and completing the assignments.
- Identifying "solutions" in using the avatar and completing the assignments.

Speaking time

We analysed the 112 interviews along following parameters:

- Total speaking time of the interview
- Speaking time of the interviewer and avatar
- % of total time that the interviewer speaks
- % of total time that is silent in the interview
- % of the first 10 minutes that the interviewer speaks
- Estimating the visible interaction between the interviewer and avatar

The aim was to see if it is possible to observe changes of interview profile in a quantitative way through the amount of time the interviewer and avatar was talking in the interview. However, there are many individual parts that affect the interview profile, so it is hard to make any conclusions for the moment.

We noted there was often quite a lot of time that the interviewer was talking during the first ten minutes. One may reflect on the child's ability to fully understand the setup and instructions when listening for such a long time. There are unique requirements that affects the content this part of the interview. But it could be of importance to optimize this part in the best interest of the child.

Challenges and Solutions in using the avatar

The identified challenges and solutions in using the avatar and completing the assignments are listed below. These were gathered by observing the recordings of the avatar-based practice interviews. The meaning of "challenges" should be understood in terms of behaviour that could be observed in the recordings. A main goal in solving these challenges is to make the experience as life-like as possible for the person practicing their interview skills.

Following parameters could be noticed in the interviews and they are followed by a suggestion of solution how they can and need to be improved.

- **Challenge**: Mouth of the avatar is not moving or moving without talking.
- **Solution**: Avatar controller needs a well-trained behaviour of controlling the program so that they press the "speak-button"(Z-key on the keyboard) automatically when they start speaking. Onboarding now includes instructions on how to test this independently, including a monologue where you talk about anything while recording the session, and then look at the recording to review your performance.

- **Challenge**: Extremely bad internet connection – local internet problems – sound problems and lagging of the sound.
- **Solution**: If participants notice tendency of bad internet connection and low stability, testing of alternative place/connection and equipment for training should be considered.

- **Challenge**: To bright voice of the avatar.
- **Solution**: Avatar controller[1] needs to test the level of pitch shift before the interview to find the optimal level of pitch shift of the avatar voice. Could be tested in the model of the initial monologue training.

- **Challenge**: Unclear sound, no headset.
- **Solution**: We strongly advise to use a headset, and in all cases to test the sound before starting to ensure proper quality.

- **Challenge**: Interviewer face not visible, sitting with to bright background.
- **Solution**: Interviewer should always avoid having a window behind to them to avoid bad video quality.

- **Challenge**: Echo from participants can be heard in the recording.
- **Solution**: Using a headset avoids echo from the computer's microphone.

- **Challenge**: Sounds of scratching because of bad position of the mic.
- **Solution**: Use a headset with a boom, or secure the mic in the right position beside the mouth without touching the cheek.

- **Challenge**: Disturbing sounds from rooms beside.
- **Solution**: Choose a quiet room if possible.

- **Challenge**: Dynamic in the avatar behaviour could be increased.
- **Solution**: Avatar controller needs to be more familiar with the platform, and additional individual practice before training sessions.

- **Challenge**: "Clicking-sounds" are heard from the computer, integrated mic in computer picking up keyboard sounds.
- **Solution**: Use a headset to avoid that the computer's microphone picks up on keyboard sounds.

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[1] Avatar controller = the one who controls the avatar, role playing as the child

- **Challenge**: The avatar emotions look unnatural and are distracting.
- **Solution**: This happens when the emotions are changed too often, and/or changed just before that the child should start talking. Do not "overwork" to change avatar emotions - we suggest choosing 4-5 typical emotions but don't change to often. Focus on the roleplay and handle the speak-button but have minor focus on emotions.

- **Challenge**: The tempo/intensity the avatar controller talks is not synchronized in the tempo that the child talks.
- **Solution**: The avatar controller should try to follow the tempo of the avatar mouth.

- **Challenge**: The avatar is used without changing voice to sound more child-like.
- **Solution**: Make a short recording before the practice interview to confirm you have the correct settings. This recording quality check should include both interviewer and avatar.

Summary of central improvements for future use of the avatar in trainings

- Use the sound "mmm.." more and take breaks from pressing the "speak-button" (Z-key on the keyboard)
- The avatar controller should try to synchronize the tempo and intensity of the child profile.
- Additional individual training/testing using the avatar –receiving feedback from both the recordings and colleagues.
- Describe how we do it now – including a demo of how to make and check the test recording – during the kick-off and introductory training.

Overall reflections

As presented earlier, one country chose to work as one group, where one person handled the avatar all the time, and they met at the same location throughout the training. The other countries worked in pairs, and often met only virtually. From this, we could notice some differences in the use of the avatar and the results.

Regarding the quality of the avatar handling as observed in the recordings, the group that worked with one avatar controller had a very stable training situation. They used the system in one place. The handling of the avatar was very good because one person became very experienced in doing role play with the avatar. This group also introduced joint training sessions together with a prosecutor and a psychologist. They described these joint sessions as very positive. The multidisciplinary approach sessions gave them input from many perspectives that could be valuable in a crime investigation.

This centralized approach to training is very positive to achieve stability, but is challenging in terms of time and flexibility. Organizations should consider having alternatives to be able to adjust the training setup according to their unique local settings.

In the analysis we noticed that the interviews and the use of the system differed a bit, which affected the results. We compared what % of time the interviewer talked during the first 10 minutes, and compared this an average calculated from the three countries with the most conducted interviews. One country got 68%, a second country got 71% and a third country got

72%.[2] A reflection on this is that it is important to consider how much information it is possible for a child of different ages and abilities to understand in a relatively short time.

At this time, our analysis shows that the Avatar platform is perceived as equally useful to trainees regardless of how each country decides to arrange their practice sessions. We also observe potential additional benefits for countries which arrange additional teambuilding and capacity building activities on the side-lines of their avatar practice, or who use the avatar as part of formal national training and capacity building activities. For the ongoing technical development, the biggest value was the observation of how users interact with the online platform during a practice interview, which illustrated challenges that can be improved in relatively easy ways to increase the quality of the interview training in future sessions.

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[2] This is the percentage of all talking during the first 10 minutes of the interview.

Annex 1: Summary of survey

14 persons, (64%) of 22 participants responded on the question about the value of the avatar training for their interview capacity: To a very large extent.

- 1 persons, (5%) of the persons that responded – "to a very large extent" in effect of interview capacity – conducted their training with one partner, who was also a trainee

- 6 persons, (27%) of the persons that responded – "to a very large extent" in effect of interview capacity – conducted their training with different partners who also were trainees

- 7 persons, (32%) of the persons that responded – "to a very large extent" in effect of interview capacity – conducted their training with – one person acted as the avatar in all sessions of the avatar training

5 persons, (23%) of 22 participants responded on the question about the value of the avatar training for their interview capacity: To a large extent.

- 3 persons, (14%) of the persons that responded – "to a large extent" in effect of interview capacity – conducted their training with one partner, who was also a trainee

- 1 persons, (5%) of the persons that responded – "to a large extent" in effect of interview capacity – conducted their training with different partners who also were trainees

- 1 persons, (5%) of the persons that responded – "to a large extent" in effect of interview capacity – conducted their training with – one person acted as the avatar in all sessions of the avatar training

2 persons (9 %) of 22 participants responded on the question about the value of the avatar training for their interview capacity: Partly

- 1 persons, (5%) of the persons that responded – "partly" in effect of interview capacity – conducted their training with one partner, who was also a trainee

- 1 persons, (5%) of the persons that responded – "partly" in effect of interview capacity – conducted their training with different partners who also were trainees

1 person (5%) of 22 participants responded on the question about the value of the avatar training for their interview capacity: To a small degree

- 1 persons, (5%) of the persons that responded – "to a small degree" in effect of interview capacity – conducted their training with different partners who also were trainees

Annex 2: Table of figures

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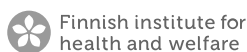**Implementing the Barnahus Quality Standards throughout Europe**

PROMISE is supporting Europe to adopt the Barnahus model as a standard practice for providing child victims and witnesses of violence rapid access to justice and care. We undertake this work to fulfil the PROMISE vision: a Europe where the human rights of children to protection from violence, support and to be heard are fulfilled.

A Barnahus provides multi-disciplinary and interagency collaboration to ensure that child victims and witnesses of violence benefit from a child-friendly, professional and effective response in a safe environment which prevents (re)traumatisation. With the formal support from national authorities, PROMISE provides opportunities to translate national commitment into action and engage internationally in the process. In addition, regular networking and strategic communications continually activate our growing network of professionals and stakeholders who are committed to introducing and expanding Barnahus services nationally.

The first PROMISE project (2015-2017) set European standards and engaged a broad network of professionals. The second PROMISE project (2017-2019) promoted national level progress towards meeting the standards and formalised the PROMISE Barnahus Network. The current project (2020-2022) is expand these activities to include University training, case management tools, with a view to establishing a European Competence Centre for Barnahus and laying the groundwork for an accreditation system for Barnhaus.

PROMISE is managed by the Children at Risk Unit at the Council of the Baltic Sea States Secretariat in close collaboration with Child Circle.

Access the PROMISE tools and learn more at www.barnahus.eu