

# A Virtual Platform to Train Cross-National Police Teams in Team Collaboration and Police-Interviewing

**Emma Jaspaert**  
**Geert Vervaeke**

Katholieke Universiteit Leuven, Belgium<sup>1</sup>

**Diogo Rato**  
**Rui Prada**

**Ana Paiva**

IST Technical University of Lisboa, Portugal



## Abstract

Although transnational police collaboration has become increasingly important to effectively fight those crimes that cross borders, training in the necessary skills to achieve good cross-national collaboration and investigation is currently lacking. Indeed, organising trainings with police trainees from different countries is very expensive, time-consuming, and logistically challenging. Therefore, the European Commission is funding the Horizon2020-project 'LAW-TRAIN', in which a virtual training platform is being developed which allows police officers (and judicial authorities) from different countries to train together from their respective locations in the preparation for, and the conduct of, a police interview with a virtual suspect within the context of a transnational investigation. The current contribution will describe the goals and features of this training, the actual training trajectory, and the innovative role of the virtual trainer in achieving a standardized and automated training for police officers all across Europe and beyond.

**Keywords:** transnational police collaboration; investigative interviewing; PEACE; virtual platform; virtual trainer

## Introduction

With the globalization came many benefits, but it also created new opportunities for criminal groups to expand their activities to a transnational level (UNODC, 2012; Vermeulen, 2002; White House, 2011). Although it is of utmost importance that actions are undertaken to effectively combat this type of crimes, the transnational element characterising such crimes makes its in-

vestigation, prosecution, and punishment much more complex (UNODC, 2012). To be successful, international police cooperation is crucial, but not easily achieved (Reichel, 2008; UNODC, 2012; Vermeulen, De Bondt & Ryckman, 2012).

Police training in conducting transnational investigations and interviews is challenging. Of course, police officers are usually extensively trained in interviewing within their home country, but these kind of trainings

<sup>1</sup> Corresponding author's email: emma.jaspaert@kuleuven.be

tend to focus on basic interviewing competencies rather than team collaboration and the investigation of complex international crimes. Arranging such trainings with people from different countries is often very difficult to organise, time consuming, and expensive. Furthermore, effective training requires follow-up training in the field (Cyr et al., 2012; Lamb, 2016; Lamb et al., 2002), which is almost impossible to realise when it concerns a cross-national team of trainees. However, with the past and current societal evolutions, training police to fight transnational crime together is imperative.

Therefore, the Horizon2020-project "LAW-TRAIN"<sup>2</sup> aims at developing a virtual training platform that allows police officers (and judicial authorities) from different countries to train together in the preparation for, and the conduct of, a police interview with a virtual suspect within the context of a transnational investigation. More specifically, LAW-TRAIN intends to train a Joint Investigation Team in conducting suspect interviews within the context of a transnational investigation in drug trafficking. In the present contribution, we will focus on the goals of the training platform, the different elements in the training, the training trajectory, and the way in which feedback is provided to trainees.

### Goals of the LAW-TRAIN training

Cross-national investigation in the context of Joint Investigation Teams (JITs), and the interviewing of suspects within these investigations, presents a number of specific challenges, such as establishing a good and fluent collaboration among participants from different countries having different languages and (professional) cultures, and identifying a shared strategy and method of interviewing to reach the goals set forth for the interview (Block, 2008; Kapplinghaus, n.d.). Acquiring the necessary skills and accumulating the necessary experience to perform this sort of multi-national investigations and interviews, in a demanding context in terms of the protection of legal rights and admissibility of evidence, is imperative. For these reasons, LAW-TRAIN sets out two major goals in its training. The first goal is to train transnational team collaboration and decision-making skills (including team coordination). The second goal is to train interviewing competencies.

<sup>2</sup> This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Grant Agreement No. 653587

### Training transnational team collaboration skills

The difference between transnational and national investigation and interviewing lies in the much more complex collaboration between police officers from different countries. Most police trainings focus predominantly on the actual execution of the police interview itself, but forget about the collaborative preparation that precedes it. Good and effective team collaboration is nevertheless crucial for conducting successful suspect interviews (Vanderhallen, 2007; Vanderhallen, Vervaeke & Holmberg, 2011).

The transnational element in a Joint Investigation Team makes effective team collaboration more difficult. These teams often consist of team members with different cultural backgrounds (e.g., different nationalities, languages, organizations, professions, habits), who might have different investigation and interviewing practices or styles, and different legal systems and legal requirements. They often have not met before, and therefore were not yet able to establish mutual trust between each other (Peñarroja et al., 2015; Pinjani & Palvia, 2013). In that sense, transnational Joint Investigation Teams of police and judiciary can be categorized as 'ad hoc teams'. Whereas traditional teams are characterized by relatively permanent memberships, ongoing and long-term tasks, routinized reporting relationships within the organisation, close proximity of team members, and good acquaintance between team members (Finholt, Sproull & Kiesler, 1990), ad hoc teams are put together for a particular purpose for a particular (short-term) time frame, consist of members who would otherwise not work together and that will dissolve once the task has been completed (Finholt et al., 1990).

### Training police interviewing competencies

The interviewing itself does not really differ between transnational or national contexts. Interviews in both contexts should follow the same procedures and safeguard the same rights of the suspect. However, actual interviewing practices and trainings might differ between (and even within) countries (Walsh et al., 2015). It is possible that different techniques are being taught and used, or that similar techniques are applied differently. Therefore, a big advantage of LAW-TRAIN is the ability to train police officers from different countries in the same 'standardized' interviewing methodology. Within LAW-TRAIN, the choice was made to train police officers using the PEACE-method. This is a method within investigative interviewing that is embedded within the inquisitorial system, which is the predomi-

nant system in most of continental Europe. The goal of investigative interviewing is not to obtain a confession, but to gather as much truthful information as possible.

It is clear that even experienced police officers can benefit from continuous training in using and applying the correct interviewing method (e.g., Clarke, Milne & Bull, 2011; Walsh & Bull, 2010a; Walsh & Bull, 2010b). Research on actual practices still shows that many police officers do not follow the best practices in investigative interviewing and still treat confessions as their primary goal (Ponsaers, Mulkers & Stoop, 2001; Vanderhallen, 2007; Walsh & Bull, 2010a; Walsh & Bull, 2010b). By creating standardized feedback to train the interviewing competencies of trainees from different countries, based on the PEACE-method, the opportunity will be provided to commence the harmonization of police practices throughout Europe.

### Different elements within the LAW-TRAIN virtual training

The training within the LAW-TRAIN virtual platform comprises of four different phases. However, before going in detail into these different phases, it is important to first briefly discuss the different elements within the training.

#### Actors within the training

There are four different actors present during the training: the human trainer, the virtual trainer, the trainees, and the virtual suspect. Each of these actors has a distinct role within the training.

*The human trainer* is the person who is responsible for the recruitment of the trainees, the setting up of the training trajectory, and for ensuring the correct procedure during the training trajectory. This will usually be the person who is in charge of national police trainings. Trainees from each country will be under the supervision of their human trainer. Thus, since LAW-TRAIN concerns transnational collaboration, different human trainers will take part in the training. The human trainers will not provide feedback to their trainees during the training trajectory. They will observe the training and will give feedback to their own trainees after the completion of the training.

The *virtual trainer* is a virtual character that will give systematic and standardized feedback to the trainees

at certain stages throughout the training trajectory. He will also assist trainees and human trainers when they are having technical difficulties. Although the virtual trainer will be able to intervene during the different phases of the training trajectory, he will predominantly provide feedback in the final stages of the training. His feedback will focus on the assessment of the team collaboration and decision-making and how each individual trainee has performed within the team, and on the interviewing skills of each trainee.

The *trainee* is the person that will be trained with the training platform. The training is aimed at police officers who already have experience with interviewing suspects. Prior experience in transnational investigations is not required, although it is preferred. A further distinction needs to be made between active and observing trainees. Active trainees are those trainees who will actively participate throughout the complete training trajectory. The number of active trainees within one training trajectory will be limited to one or two per human trainer. Observing trainees are those trainees that will only observe the training of the active trainees (although they will also be active in the first phase of the training). Trainees can also learn a lot by observing others (Mayes et al., 2001; Silberman, 2006). They will also help in collecting information concerning the performance of the active trainees by filling out observation forms, allowing for peer feedback to the active trainees. Using these forms also helps the observing trainees to focus on the critical features in the training (Silberman, 2006). There is no limitation to the amount of observing trainees within a training trajectory.

Finally, the *virtual suspect* is the virtual character that will be interviewed by the trainees. There is the option to choose either a male or a female virtual suspect. The virtual suspect will reply to the questions asked by the interviewers. The way he replies to the questions and the information that he will share, will depend on the quality of the questioning.

#### Rooms within the training trajectory

Besides distinguishing between the actors that will take part in the training, it is also necessary to differentiate between the 'rooms' that are available. There are three different rooms that need mentioning: the videoconferencing room, the virtual interview room, and the control room.

The *videoconferencing room* is an important room within the training, since this will be the place where the trainees from different countries will meet virtually and discuss the issues that need to be settled before starting the actual interview with the virtual suspect. A videoconferencing tool has been built within the LAW-TRAIN platform, so trainees can communicate with each other and at the same time enter certain decisions made during this discussion into the system.

The *virtual interview room* is the room where the active trainees will be able to interview the virtual suspect. The virtual room can be customized by the trainees. The virtual suspect will be seated in this virtual room and the active trainees will be able to question him. The trainees will have to option to include a 'virtual lawyer' in the virtual interview room. At the moment, the virtual lawyer will be a static character that will not be able to intervene during the interview.

The last room is the *control room*. In this room, active trainees who are not interviewing the suspect and observing trainees can watch what happens inside the interview room. Active trainees will be able to chat with each other, observing trainees will not. From the control room, active trainees can easily go to the interview room when it is their turn to interview the suspect.

## The LAW-TRAIN training trajectory

The training trajectory consists of four different phases: the individual preparation phase, the joint preparation phase, the actual interview phase, and the debriefing phase. The first two phases relate to the first phase in the PEACE-method, namely 'Preparation'. These two phases also relate to the first training goal: training transnational collaboration and decision-making skills. The third phase relates to the 'EAC' in PEACE, which are the phases within the actual police interview (i.e., 'Engage and Explain', 'Account, Clarification, and Confrontation', and 'Closure'). This phase also relates to the second training goal: training interviewing competencies. Finally, the fourth phase relates to the final phase in PEACE, the 'Evaluation'.

### The individual preparation phase

In the first phase, each individual trainee will be able to thoroughly study and understand the case, before starting the preparation for the interview. All trainees

(both active and observing) get access to the case file on the platform. This case file contains police information about the suspect and his activities in a possible drug trafficking organization. They can read the documentation, make notes, assign labels to the information (e.g., evidence, relevance), and save important pieces of information in their personal library. Not every trainee will have access to the same information in the case file. Some of the information will only be accessible to trainees from a particular country, as some of the evidence has been collected nationally, prior to the formation of the JIT. This way, sharing of information in subsequent phases is stimulated.

One trainee will be assigned as 'team coordinator'. This trainee is responsible for coordinating the next phase in the training, the joint preparation phase. During the individual preparation phase, the team coordinator will therefore have the additional task to prepare the agenda for the joint meeting (in the joint preparation phase). This agenda contains some fixed agenda points: introduction of team members, discussion of the case and exchange of information, determining the goals of the interview, evaluation of legal procedures and the admissibility of evidence, and preparation of the interview. The team coordinator will also be able to add additional agenda points. It is advised that the team coordinator already prepares some of the agenda points, for example by investigating the legal procedures that have to be followed.

### The joint preparation phase

Once all trainees have completed their individual preparation, they move to the joint preparation. Here, they will all enter into a videoconference meeting, which is embedded into the LAW-TRAIN platform. All the trainees can enter the videoconference, but only the active trainees will be able to communicate with each other. During the videoconference, all the team members will be able to view the agenda prepared by the team coordinator. The team coordinator will lead the meeting and make sure that each agenda point is dealt with. For each agenda point, the team coordinator will have to insert some decisions made by the team into the system. Each of these decisions needs to be confirmed by all the active team members before it is officially logged into the system. This is a safeguard to guarantee that all the team members agree with the decisions entered. The virtual trainer will provide immediate feedback to these decisions (cfr. infra).

### The actual interview phase

Once the team is prepared, they move on to the actual interview phase. During this phase, trainees will interview a virtual suspect in the interview room. Only one or two active trainees at a time can interview the suspect. The rest of the trainees (the other active trainees and all the observing trainees) will follow the interview from the control room. The active trainees in the control room will be able to communicate with each other via chat. Observing trainees will not be able to participate in the conversations. During the interview, the system will log several elements that will allow the virtual trainer to assess the quality of the interview and to provide feedback afterwards (cfr. infra).

### The debriefing phase

When the actual interview phase has finished, the active trainees will be forwarded to the debriefing phase. In this phase, the virtual trainer will provide descriptive information, accompanied with feedback, on both the individual performance of the trainee during the preparation phases and the interview phase and on the team performance during the joint preparation and the interview. All the active trainees will be able to see the same team performance feedback, but will only be able to view their own individual feedback (not the individual feedback of other trainees).

## Innovations of LAW-TRAIN

### Focus on training team collaboration in a transnational context

LAW-TRAIN offers the opportunity to train police investigators in interviewing in a transnational context. In such a transnational context, the interview itself does not differ a lot from interviewing in a national context. The difference lies more within the more complex collaboration between team members from varying nationalities, with different habits and interview practices, and without a previously established trust between team members. Such collaborations are thus not straight-forward, yet no training program exists to prepare police investigators for these kinds of collaboration. LAW-TRAIN advances in the current state of art in police training by developing an additional, yet important, phase in the training trajectory that is specifically focused on the training of transnational collaboration (i.e., joint preparation phase). Including this phase in the training not only allows for police investigators to practice this type of collaboration, but

also for further research to learn more about ad hoc virtual transnational police teams, how they function, and which elements can differentiate between effective and less effective team collaboration.

### Ability to provide standardised and automated feedback

Interviewing practices trained in different countries can vary, even if they are based on the same fundamental principles. If a transnational team is being trained in interviewing, it is thus important that everybody receives the same feedback, and that trainees are not confused by differing or even contradicting feedback from different trainers during the training. Thus, LAW-TRAIN proved to be the ideal ground to explore the opportunities that arise from having a virtual training system. It allows to install, test, and validate standardized quantitative parameters that are able to predict positive interview performance.

Most of the current assessments of interviewing quality are based on self-reports, peer-evaluations or observation schemes. These assessments are thus all of a subjective nature and can differ depending on the person who does the assessment. It not only impedes standardization of practices and training across countries, but even within countries. Given the fact that LAW-TRAIN offers a virtual interview training platform, every action of the trainee can be extracted by the system. The system can as such 'log' all the activity of all the trainees during the training. Since there is little to no literature on how to quantify interview performance, possible parameters that might provide useful information on the quality of the interview were selected based on existing observation schemes and literature on the best practices in investigative interviewing and the PEACE-method. The system is then programmed as such that it collects the relevant information to provide results for these parameters. This allows for immediate presentation of performance parameters to the trainees. Since there are no norms and standards already available for these parameters, the feedback given to the trainees based on these parameters is mostly descriptive. However, LAW-TRAIN provides the innovative opportunity to systematically collect data through the continuous use of the LAW-TRAIN training system to further assess if, and to what degree, each of these parameters is truly able to differentiate between good and not-so-good performances, and to develop norms and standards for the quantitative parameters that have proven to be predictive for performance.

In what follows, we will further elaborate on the way information on the performance of the trainees is extracted by the system and is presented to the trainees by the virtual trainer.

### The Virtual Trainer of LAW-TRAIN

To ensure that the training of all trainees in LAW-TRAIN follows the same methodology – and as such receive a uniform, standardized training – a Virtual Trainer (VT) was developed. The VT is a central part of LAW-TRAIN and, as an Intelligent Pedagogical Agent, aims at improving the training by providing suggestions as well as details on the given feedback (Soliman & Guetl, 2010).

The Virtual Trainer is built over the classical architecture of an Intelligent Tutoring System (ITS), which are computer systems with intelligence aimed at providing tutoring and training of a specific topic, usually without the intervention of a human tutor (Freedman, Ali & McRoy, 2000). In the context of serious games, researchers found that in ITS it is important to trace the user's activities and necessary to measure performance based on learning goals instead of the game completion (Baalsrud et al., 2014; Serrano-Laguna et al., 2014; Shoukry, Göbel & Steinmetz, 2014). Taking these findings into account, we designed the Virtual Trainer to monitor all the trainees' actions by logging their interactions with all the actors of the training in the platform. The VT then provides live feedback to the trainee as soon as the actions are registered or a detailed debriefing report at the end, grouped according to the two training goals.

To provide feedback both on the team collaboration skills and the interviewing competencies, the Virtual Trainer must log and analyze the training session from an individual trainee's point of view and from a team perspective. The need of the VT's supervision on these two levels is emphasized by previous work that shows the effectiveness of ITS in improving individual learning (Tchounikine, Rummel & McLaren, 2010), and its potential for collaborative learning has also been highlighted (Walker, Rummel & Koedinger, 2009).

#### The role of the Virtual Trainer

The Virtual Trainer is one of LAW-TRAIN's actors. It is a virtual entity that "exists" on the platform and is continuously supervising all the trainees' actions based on

their interactions on the platform. The feedback and explanations given are personalized for each trainee. This customization allows for different levels of guidance that can be adjusted to the expertise of each police officer. However, despite adapting its feedback to the user, the introduction of the Virtual Trainer in LAW-TRAIN creates an opportunity to provide standardized feedback to all trainees across multiple countries and police agencies.

The goal of the Virtual Trainer is not to grade or judge the trainees' performance. Its role in the platform is mainly to assist the trainees during the training trajectory and to give feedback about their performance in order to support the review process between trainee and human trainer afterwards. During the training itself, the VT identifies mistakes that might compromise or even nullify the entire information gathering process and allows the trainee to immediately fix these mistakes. In the debriefing phase, the VT helps inspect the training session and highlights relevant areas of the session to increase the efficiency of the review process.

Endowing the Virtual Trainer with these intelligent capabilities creates an autonomous agent that tutors a trainee in a long and complex training trajectory, a task that is not easily done by a Human Trainer. But the addition of this virtual entity doesn't mean the human trainer is removed from the process. In the review process of the training session, the role of the VT is to create an environment that not only helps the self-evaluation of the trainee but also promotes the joint inspection and discussion of the training with the Human Trainer, therefore combining the VT's capabilities with the expertise of a police officer.

In conclusion, the Virtual Trainer's role is to supervise the performance of each trainee, identify critical mistakes when necessary and provide the tools to analyze the training session, adapting the feedback to each platform's user.

#### Interventions

The Virtual Trainer needs to adapt its feedback throughout the training sessions. Therefore, three distinct types of interventions are defined, based on the different phases of the training session and the type of feedback: Active Intervention, Debriefing Reports, and Interface Help.

The first type of intervention, *Active Intervention*, is associated with the reactive feedback of the Virtual Trainer. During the training session, the VT identifies errors or mistakes caused by the trainee's actions and displays either a critical error or a warning message. The first message type, critical error, is used when the trainee's action will render the information gathered in the interview inadmissible in court, by for example not presenting the suspect's rights before asking investigative questions. The second message type, warnings, is used when the trainee's actions might lead to critical errors in the future. To process the trainee's actions and generate the proper feedback, the Virtual Trainer uses a rule-based approach. The rules used are inspired by the best practices according to the PEACE-method and they are tested every time the trainee performs a new action in the platform. For instance, when a trainee asks an aggressive question to the interviewee, the Virtual Trainer presents a warning. To do so, the VT handles the question and verifies that the aggressive questions rule is triggered. Then, the VT generates a warning that is displayed to the trainee. Upon asking multiple aggressive questions, the same rule is triggered, but the VT intensifies its intervention by displaying a critical error due to the persistent aggressive stance of the interviewer.

The second type of intervention is the *Debriefing Reports*. As the name states, they are presented in the last stage of the training trajectory. In LAW-TRAIN's platform, the trainee and human trainer have several tools and charts to help them review their performance. However, inspecting the whole training session might be a complex procedure. The VT intervenes in the Debriefing Reports by highlighting the trainee's actions that might be relevant to review more closely (with the human trainer). The Debriefing Reports are grouped by Training Phase and they allow the inspection of the training from different perspectives, such as the interviewing style, the topic coverage or compliance to the PEACE method. By identifying these areas worth reviewing, the VT can facilitate systematic inspection of all the actions performed by the trainee and is able to suggest 'working points' that might require further inspection. To identify these areas, the Virtual Trainer relies on a set of patterns that are often associated with questionable practices. For instance, in the PEACE method, it is advised not to change topics too quickly during the first phases of the interview. By using a graph to display the question topic distribution during the interview, the VT looks for sequences of questions with multiple topics associated and highlights them for review.

The last intervention is the *Interface Help*. This type of intervention provides further information about the methodology that is trained. The Virtual Trainer focuses on exploring the theoretical background underlying each chart in the Debriefing Reports and how it should be used. This authored help is integrated into the platform and can be consulted at any moment without leaving LAW-TRAIN, creating a seamless flow of interaction, therefore improving the learning trajectory of the trainees.

## Conclusion

Although the LAW-TRAIN virtual training tool will need further development to become a marketable product, its advantages are already clear. From the perspective of the police, this training tool will allow for continuous training in transnational collaboration and interviewing, an area in which training opportunities are currently scarce. The ease with which international training groups can be formed and the much lower cost and logistics it will require to train these teams, will improve future transnational collaboration in order to more effectively fight transnational crime. From the perspective of the European Union, LAW-TRAIN can facilitate the standardized training of interviewing practices across borders, which will help the European Union move towards a European Security Model. From a research perspective, collecting data through the LAW-TRAIN platform can reshape our knowledge and expertise on team collaboration and police interviewing tremendously. Being able to collect and automatically analyse multiple interviews will provide an abundance of information on interviewing practices (and how they differ between countries) and will allow us to analyse the descriptive information to determine more quantitative norms and standards to assess interview quality. Furthermore, LAW-TRAIN also provides the opportunity to learn more about effective team collaboration, communication and decision-making within the context of law enforcement. Research in that field has until now been scarce, yet good team collaboration is crucial to be well prepared to conduct a police interview, and a good preparation has proven to be an important predictor for a good interview. In sum, the more data that will be collected with LAW-TRAIN, the more researchers will be able to advance in the field of police collaboration and police interviewing.

## References

- Baalsrud Hauge, J., Berta, R., Fiucci, G., Fernandez Manjon, B., Padrón-Nápoles, C., Westra, W. & Nadolski, R. (2014) Implications of learning analytics for serious game design. In: *Advanced Learning Technologies (ICALT), 2014 IEEE 14th International Conference on Advanced Learning Technologies*. pp. 230-232.  
Available from: doi:10.1109/ICALT.2014.73
- Block, L. (2008) Combating organized crime in Europe: practicalities of police cooperation. *Policing*. 2 (1), 74-81.  
Available from: doi:10.1093/police/pan009
- Clarke, C., Milne, R. & Bull, R. (2011) Interviewing suspects of crime: the impact of PEACE training, supervision and the presence of a legal advisor. *Journal of Investigative Psychology and Offender Profiling*. 8, 149-162.  
Available from: doi:10.1002/jip.144
- Cyr, M., Dion, J., McDuff, P. & Trotier-Sylvain, K. (2012) Transfer of skills in the context of non-suggestive investigative interviews: impact of structured interview protocol and feedback. *Applied Cognitive Psychology*. 26, 516-524.  
Available from: doi:10.1002/acp.2822
- Finholt, T., Sproull, L. & Kiesler, S. (2011) Communication and performance in ad hoc task groups. In: Galegher, J., Kraut, R. E., & Egido, C. (eds.) *Intellectual Teamwork: Social and Technological Foundations of Cooperative Work*. New York, Psychology Press, 291-325.
- Freedman, R., Ali, S. & McRoy, S. (2000) Links: what is an intelligent tutoring system? *Intelligence*. 11 (3), 15-16.  
Available from: doi:10.1145/350752.350756
- Kapplinghaus, J. (n.d.) *Joint Investigation Teams: Basic Ideas, Relevant Legal Instruments and First Experiences in Europe*. Visiting Experts' Paper from the 134<sup>th</sup> International Training Course.  
Available from: [http://www.unafei.or.jp/english/pdf/RS\\_No73/No73\\_07VE\\_Kapplinghaus2.pdf](http://www.unafei.or.jp/english/pdf/RS_No73/No73_07VE_Kapplinghaus2.pdf) [Accessed: 21st June 2017]
- Lamb, M. E. (2016) Difficulties translating research on forensic interview practices to practitioners: finding water, leading horses, but can we get them to drink? *American Psychologist*. 71 (8), 710-718.  
Available from: doi:10.1037/amp0000039
- Lamb, M., Sternberg, K. J., Orbach, Y., Hershkowitz, I., Horowitz, D. & Esplin, P. (2002) The effects of intensive training and ongoing supervision on the quality of investigative interviews with alleged sex abuse victims. *Applied Developmental Science*. 6 (3), 114-125.  
Available from: doi:10.1207/s1532480xads0603\_2
- Mayes, T., Dineen, F., McKendree, J. & Lee, J. (2001) Learning from watching others learn. In: Steeples, C. & Jones, C. (eds.) *Networked Learning: Perspectives and Issues*. London, Springer, pp. 213-227.
- Peñarroja, V., Orengo, V., Zornoza, A., Sánchez, J. & Ripoll, P. (2015) How team feedback and team trust influence information processing and learning in virtual teams: a moderated mediation model. *Computers in Human Behavior*. 48, 9-16.  
Available from: doi:10.1016/j.chb.2015.01.034
- Pinjani, P. & Palvia, P. (2013) Trust and knowledge sharing in diverse global virtual teams. *Information & Management*. 50 (4), 144-153.  
Available from: doi:10.1016/j.im.2012.10.002
- Ponsaers, P., Mulkers, J. & Stoop, R. (2001) *De Ondervraging: Analyse van een Politietechniek* [The interview: analysis of a police technique]. Antwerp, Maklu.
- Reichel, P. L. (2008) *Cross-National Collaboration to Combat Human Trafficking Learning from the Experience of Others*. U.S. Department of Justice.  
Available from: <https://www.ncjrs.gov/pdffiles1/nij/grants/223286.pdf> [Accessed: 8th July 2017]
- Serrano-Laguna, Á., Torrente, J., Moreno-Ger, P. & Fernández-Manjón, B. (2014) Application of learning analytics in educational videogames. *Entertainment Computing*. 5 (4), 313-322.  
Available from: doi:10.1016/j.entcom.2014.02.003
- Shoukry, L., Göbel, S. & Steinmetz, R. (2014). Learning analytics and serious games: trends and considerations. In: *Proceedings of the 2014 ACM International Workshop on Serious Games*. 21-26.  
Available from: doi:10.1145/2656719.2656729
- Silberman, M. L. (2006) *Active Training: A Handbook of Techniques, Designs, Case Examples, and Tips*. 3rd ed. San Francisco, Pfeiffer.
- Soliman, M. & Guetl, C. (2010) Intelligent pedagogical agents in immersive virtual learning environments: a review. In: *MIPRO, 2010 Proceedings of the 33rd International Convention*. 827-832.  
Available from: <http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5533534>



- Tchounikine, P., Rummel, N. & McLaren, B. M. (2010) Computer supported collaborative learning and intelligent tutoring systems. In: *Advances in Intelligent Tutoring Systems*. 308, 447-463.  
Available from: doi:10.1007/978-3-642-14363-2\_22
- UNODC (2012) *Manual on Mutual Legal Assistance and Extradition*. New York, United Nations.
- Vanderhallen, M. (2007) *De Werkalliantie in Het Politieverhoor* [The working alliance during a suspect interview]. Leuven, KU Leuven.
- Vanderhallen, M., Vervaeke, G. & Holmberg, U. (2011) Witness and suspect perceptions of working alliance and interviewing style. *Journal of Investigative Psychology and Offender Profiling*. 8 (2), 110-130.  
Available from: doi:10.1002/jip.138
- Vermeulen, G. (2002) New developments in EU criminal policy regarding cross-border crime. In: van Duyne, P. C., von Lampe, K., & Passas, N. (eds.) *Upperworld and Underworld in Cross-Border Crime*. Nijmegen, Wolf Legal Publishers, pp. 115-140.  
Available from: [http://cross-border-crime.net/freecopies/CCC\\_freecopy\\_2002a\\_UpperworldAndUnderworld.pdf](http://cross-border-crime.net/freecopies/CCC_freecopy_2002a_UpperworldAndUnderworld.pdf) [Accessed: 18th June 2017]
- Walker, E., Rummel, N. & Koedinger, K. R. (2009) Integrating collaboration and intelligent tutoring data in the evaluation of a reciprocal peer tutoring environment. *Research and Practice in Technology Enhanced Learning*. 4 (3), 221-251.  
Available from: doi:10.1142/S179320680900074X
- Walsh, D. & Bull, R. (2010a) What really is effective in interviews with suspects? A study comparing interviewing skills against interviewing outcomes. *Legal and Criminological Psychology*. 15, 305-321.  
Available from: doi:10.1348/135532509X463356
- Walsh, D. & Bull, R. (2010b) Interviewing suspects of fraud: an in-depth analysis of interviewing skills. *The Journal of Psychiatry & Law*. 38, 99-135.  
Available from: doi:10.1177/009318531003800106
- Walsh, D., Oxburgh, G. E., Redlich, A. D. & Myklebust, T. (2015) *International Developments and Practices in Investigative Interviewing and Interrogation. Volume 2: Suspects*. London, Routledge, Taylor & Francis.
- White House (2011) *Strategy to Combat Transnational Organized Crime: Addressing Converging Threats to National Security*.  
Available from: [https://www.whitehouse.gov/sites/default/files/Strategy\\_to\\_Combat\\_Transnational\\_Organized\\_Crime\\_July\\_2011.pdf](https://www.whitehouse.gov/sites/default/files/Strategy_to_Combat_Transnational_Organized_Crime_July_2011.pdf)
- Vermeulen, G., De Bondt, W. & Ryckman, C. (2012) *Rethinking International Cooperation in Criminal Matters in the EU: Moving Beyond Actors, Bringing Logic Back, Footed in Reality*. IRCP research series, volume 42. Antwerp, Maklu.