Enhancing investigative interview skills with brief educational videos

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Acknowledgements:

We are grateful to have received a grant from the International Investigative Interviewing Research Group (<u>https://iiirg.org/</u>) to develop the educational videos. They are freely available on YouTube: Asking the right questions at the right time (<u>https://youtu.be/11FknA5VAGg</u>) and Building rapport with your interviewee (<u>https://youtu.be/9JY-W4kbPo8</u>).

We would also like to thank our research confederates who acted as witnesses; Emmanuella Fadire, Gabriela Krgo, and Viktoria Hoi. Thanks also to our research assistants who helped code the data; Alice Weare, Daniel Sutherland, and Layla Baldock.

For supplementary material including instructions for confederate witnesses please contact the lead author.

Abstract

Purpose

Gathering detailed and reliable information from victims, witnesses, and suspects is essential for effective criminal investigations. However, research has demonstrated that skills such as appropriate questioning procedures and techniques to build rapport frequently show no improvement following training (Akca et al., 2021). The goal of the current research is to test the benefits of two brief educational videos developed to present a clear and concise summary of the key psychological evidence-base underpinning these two core skills.

Methodology

A mixed design with n = 44 participants was used where *education* was manipulated within participants (initial pre-education interview vs. post-education interview) and *practice* was manipulated between participants (practice interview vs. no practice interview).

Findings

Our findings indicate significant improvements in both questioning and rapport building competencies compared to baseline performance. Importantly, these improvements were not attributable to simple practice effects.

Implications

We propose that brief educational videos can enhance investigative interview training by aiding course trainers who may not be experts in accessing or interpreting scientific research. These resources also promote standardisation in training and reducing variability in how evidence-based competencies are taught.

Value

Our research provides an efficient solution to help bridge the gap between the science of 'what works' in investigative interviewing and real-world practice by creating educational videos that explain the psychology behind key skills, making them easier to understand and apply. Brief educational videos offer a valuable resource that can be easily integrated into existing investigative interviewing training programmes, thus supporting the goal of translating research into best practice.

Keywords: investigative interview, question types, rapport, training, education, training resources, best practice

Introduction

Gaining accurate and detailed information from victims, witnesses, and suspects via effective investigative interviewing skills is crucial for successful criminal investigations (Fisher, 1995; Tudor-Owen & Scott, 2015). The responsibility lies with the interviewer to optimise both the quality and quantity of the information elicited. However, investigative interviewing is a complex skill to master (Dando et al., 2008), and requires a nuanced understanding of the cognitive, social, and environmental factors that influence the accuracy and completeness of accounts. Insufficient training and knowledge in this area can undermine the effectiveness of interviews, resulting in testimony that is incomplete at best and unreliable or biased at worst. This underscores the critical importance of equipping investigators with the skills necessary to conduct interviews that meet the highest standards of credibility and reliability. Since the development of the Cognitive Interview (Fisher & Geiselman, 1992), significant progress has been made in generating an evidence-base to support appropriate and effective investigative interviews. Basic but essential competencies that can be applied in any investigative setting include interpersonal skills to facilitate building rapport with an interviewee, and a knowledge of how to use appropriate question types in a structured manner to elicit information about key topic areas. Many additional skills build upon these basics, such as the use of retrieval facilitation techniques, and specialist skills to support vulnerable interviewees, those from a different culture, or with particular learning and/or physical needs (Hope & Gabbert, 2019, Tudor-Owen & Scott, 2015). The goal is always to draw upon scientifically informed knowledge of what works to support the interviewee in giving their best evidence.

Researchers have often focused on the best ways in which to train and maintain investigative interviewing skills. Griffiths and Milne (2006) assessed the effectiveness of a 3-week suspect interview training course that was developed to transfer theory into practice. They analysed the audiotapes of 60 interviews conducted by 15 experienced interviewers before and after the training and found that training improved some simple skills, such as delivering legal rights to suspects. However, performance in relatively complex skills, such as appropriate questioning, sequence of questioning, and topic structure, was not found to improve. More recently, a systematic review of 30 investigative interviewing training courses found a wide variation in terms of the type, length, and content, with varying impact on subsequent

interviewing performance (Akca et al., 2021). Again, it was found that more complex skills, such as appropriate questioning procedures and techniques to build rapport, were the ones most frequently found to show no improvement following training.

Effective questioning is widely recognised as one of the most challenging skills in investigative interviewing (Akca et al., 2021; Akca et al., 2022; St Yves et al., 2014). Even trained professionals report that they struggle to ask appropriate questions consistently during interviews, often due to a lack of familiarity with using open-ended questions to obtain the level of detail required in criminal investigations, coupled with the complexity of formulating questions while simultaneously comparing interviewees' responses with prior case knowledge (Griffiths et al., 2011; Wright & Powell, 2006). Akca et al. (2021) acknowledge that these aspects make effective questioning a cognitively demanding task and discuss this with reference to recent research that shows that a high cognitive load during interviews predicts poorer performance (Hanway et al., 2021).

Regarding rapport, a key challenge here is that despite all international best practice interview guidelines emphasising the critical role of rapport in eliciting quality information (Achieving Best Evidence, Ministry of Justice, 2022; Army Field Manual, 2006; College of Policing, 2022; Cognitive Interview, Fisher & Geiselman, 1992; NICHD Protocol, Lamb et al., 2007; PEACE model, CPTU, 1992), none offer clear or consistent guidance regarding the best way in which to build rapport. This is likely to be a consequence of the many ways in which rapport is defined; indeed, a recent review of papers examining the use of the term rapport in the investigative interviewing literature reported 22 different definitions (Neequaye & Mac Giolla, 2022). There are also challenges associated with applying the widely accepted idea of mutual rapport, which typically develops naturally in social settings, to a professional context (see Brouillard et al., 2024; Crough et al. 2022; Gabbert et al., 2021). Power imbalances are often present in professional interactions, and one individual is usually tasked with intentionally building rapport, often within a constrained timeframe. Due to differences in the way in which rapport is understood in professional and social contexts, Gabbert et al. (2021) introduced the concept of 'professional rapport' which refers to "an intentional use of rapport behaviours in an attempt to facilitate a positive interaction with another person that might or might not lead to establishing genuine rapport" (p. 330). In

sum, rapport in professional (cf. social) settings is not well understood and training surrounding rapport building skills is therefore inconsistent.

Against this backdrop, the goal of the current research is to test the benefits of two brief educational videos developed to present a clear and concise summary of the key psychological evidence-base underpinning the interpersonal skills of (1) asking the right questions at the right time, and (2) building rapport with your interviewee. The idea is to enhance investigative interview training by supporting course trainers who are tasked with the challenge of translating research into best practice despite not being experts in accessing and consuming relevant scientific research (Akca et al. 2021; Ericsson et al., 2024; Oxburgh & Ost, 2011). At present, training courses often provide an outline of what to do without providing an understanding of why to do it this way (Ericsson et al., 2024). For example, following a police Cognitive Interview training course, Dando et al. (2008) found that some officers expressed discomfort with using several of the mnemonics due to a fundamental misunderstanding of the principles underlying the technique (i.e., that varied retrieval methods can effectively cue memory). Fisher et al. (2014) later pointed out that "the skill of conducting an interview is to know which techniques can be implemented, given the specific conditions of the interview, and how best to implement the techniques" (p. 563). However, this is only possible following training regarding the psychological underpinnings of such techniques to ensure both understanding and successful implementation.

A further challenge to supporting evidence-based practice is limited training opportunities. Training provision of investigative interview skills, and skill maintenance, has been negatively impacted by austerity measures imposed in many countries (Police Federation, 2021). An increased pressure from governments worldwide to deliver more with fewer resources presents the police with significant difficulties. Most investigative interview training courses, which typically last less than a week (Akca et al., 2021), only dedicate a day or two to teaching how to interact with victims and witnesses of crime. Furthermore, this training often occurs in a limited environment using colleagues as interviewees. Concerns over the quality of investigative interview skills is particularly acute for frontline uniformed officers who have a relative lack of policing experience coupled with demanding and multi-faceted work priorities (Dando et al., 2008). The provision of interview training for these officers is already limited, and this situation is predicted to worsen as workloads increase and

opportunities for training decrease. Adding to this concern, the introduction of body-worn cameras for frontline officers has the potential to highlight the consequences of limited training, jeopardising the reputation and perception of policing.

In sum, as an organisation that values and seeks to implement evidence-based practice, the police need to be informed about, and better supported by, the latest research in investigative methods, including interviewing. We propose that this is possible if academics and practitioners with relevant expertise support each other to develop and deliver training resources. The current research presents an efficient solution to support course trainers in their work in the form of two educational videos that summarise the key psychological evidence base in an engaging manner that can be easily incorporated into existing investigative interview training courses without requiring the course trainer to be an expert themselves. This research was endorsed and supported by the International Investigative Interviewing Research Group (https://iiirg.org/) who are a network of academics, practitioners, trainers, organisations, and student researchers who seek to progress the field of investigative interviewing worldwide and ensure all improvements are underpinned by a robust evidence base.

Method

Participants and Design

A total of 49 participants volunteered to take part in the research for an opportunity to learn some investigative interviewing skills. Five participants did not complete the study and were therefore withdrawn. The remaining 44 participants included 42 females (95.5%) and 2 males (4.5%) with an average age of 23.9 years (range = 19-36 years; *SD* = 4.6 years). These participants, all Psychology students who were yet to encounter course material related to the topic of investigative interviewing, took the role of trainee investigative interviewers and completed two or three interviews. All participants completed an initial pre-education interview, 18 (40.9%) participants completed an additional practice pre-education interview, and all participants completed a post-education interview. Eight female confederates were trained to take the role of witnesses to a crime. The confederate witnesses had an average age of 21.5 years (range = 19-25 years, *SD* = 2.1 years). A mixed design was used where *education* was manipulated within participants (initial preeducation interview vs. post-education interview) and *practice* was manipulated between participants (practice interview vs. no practice interview). This design was deemed appropriate to examine the effects of the brief educational videos on investigative interview performance over and above any improvements in performance that are simply due to repeated exposure to the task. Participants were randomly allocated to the practice interview or no practice interview condition.

Materials

Instructions for confederate witnesses

In preparation for each interview, the witnesses viewed a mock crime video (as many times as they liked) so that they had material to draw from when talking about what happened, who was involved, who did what, and any other details they might be asked about. To ensure consistency of performance between the confederate witnesses, they all received guidance about how to start and end the interviews, and how to answer various question types that might be asked. They were told to only answer the questions they were asked rather than being overly cooperative. The confederate witnesses were also in charge of recording the interviews and monitoring time.

Mock crime videos

Several *mock crime videos* (e.g., a bank robbery, and an aggressive act on public transport) were used as material for the confederate witnesses to refer to during their interviews. All were approximately two minutes long and featured at least five people. The videos were randomly assigned to the confederate witnesses.

Brief educational videos

Two educational videos were created, each of which concisely summarise the scientific evidence behind a particular skill required for effective investigative interviewing and include demonstrations of mock interviews showcasing what to do (and what not to do) to illustrate good and bad practice. *Asking the right questions at the right time* (23 minutes) introduces trainee interviewers to different question types and explains the type of response that each question is likely to elicit from an interviewee (and why). The video also outlines how to organise the interview by identifying key topic areas of interest, and how to use a hierarchy of open to closed questions to elicit information about each topic area in turn. *Building rapport with your interviewee* (17 minutes) introduces trainee interviewers to verbal and non-verbal techniques and behaviours that research has found to be effective in facilitating a positive interaction via personalising an interview, presenting an approachable demeanour, and paying attention (see Gabbert et al., 2021). The video explains why these techniques work and provides demonstrations on how to use them effectively. The videos were embedded into Qualtrics which allowed us to present participants with 10 relatively easy multiple-choice questions immediately after viewing to ensure they had paid attention. The average score for asking the right questions at the right time was 9.8 (range = 8-10, SD = 0.6), and the average score for building rapport with your interviewee was 8.3 (6-10, SD = 1.3 years).

Procedure

Participants with no prior interview expertise were invited to learn basic investigative interviewing skills as part of an extra-curricular learning opportunity and consented for their data to be used as part of this research.

To assess baseline performance, participants were invited to interview a cooperative confederate witness about a hypothetical mock crime via an online Zoom call. They were informed in advance that their task was to gather as much information as possible from their witness, in approximately 10 minutes, about what happened, who was involved, and who did what. They were also told in advance that the witness would record the interview and that they should have their camera on for the duration. Interviews started with the witness saying, "Hi, I've just witnessed a crime, I understand you're going to interview me about what I've seen. I'll try to tell you everything I can remember. I'm afraid I've only got 10 minutes" and ended after ~10 minutes with the witness saying, "I'm sorry I have to go in a minute, do you have a last question for me?". The 10-minute duration allowed for a variety of questions and rapport behaviours to be used, while also ensuring uniformity across all interviews and conditions, making the results more comparable.

The following day, participants received an email asking them to select a time to conduct a second interview. Participants were randomly allocated to a condition whereby half received a link to a Qualtrics survey to watch the two educational videos on *Asking the right questions*

at the right time and Building rapport with your interviewee (no practice interview condition). They were advised that they could watch the videos as many times as they liked in preparation for their next interview. The remaining participants did not receive this link, and so conducted their second interview with no information about these two key skills (practice interview condition. These interviews followed the same format as the first (10 minutes to gather as much information as possible from their witness) except that the crime that had been witnessed was different.

The following day, participants who had not yet watched the educational videos received an email asking them to select a time to conduct a third interview. They now also received the link to the Qualtrics survey to watch the two educational videos and complete the 10 multiple-choice questions about the content. Again, they were invited to watch the videos as many times as they liked in preparation for their final interview, which followed the same format as the previous interviews (10 minutes to gather as much information as possible from their witness) except that the crime that had been witnessed was different.

Following each of the interviews, the video recording was downloaded from Zoom, labelled, and uploaded to a secure shared folder. Following the post-education interview, participants were debriefed. Due to this being an extra-curricular learning activity, all participants were given feedback about their performance, and subsequently received a lecture about investigative interviewing, but this did not form part of the research.

Coding

The downloaded video recordings were used for coding purposes, which related to participants' initial pre-education interview vs. post-education interview performance in the use of five question types and three types of rapport.

Participants' use of different question types

For the coding of the different question types, videos were auto transcribed using Otter AI software (<u>https://otter.ai/</u>) in the first instance and manually edited where needed subsequently. The transcribed interviews were then coded in relation to the type of question asked; (1) *open prompts* were defined as any question that encouraged interviewees to provide a free narrative, often starting with the words 'Tell', 'Explain' or 'Describe' (e.g., "Tell me what happened"); (2) *focused prompts* were defined as questions that probe for more

information, often starting with the words 'Who', 'What', 'Where', 'When' and 'How" '(e.g., "You mentioned one of the men was carrying a bag, what did it look like?"); (3) *closed questions* were defined as questions that generally elicit one-word answers, including yes/no questions and option-posing questions, often used to clarify things (e.g., "Did that happen before or after X?"); (4) *Inappropriate questions* included leading questions (which imply the interviewer's expectations or suggest information the interviewee hasn't provided, e.g., "Was the car black?" assumes there was a car and suggests its colour), and multiple questions (where several questions are asked simultaneously which makes it unclear to the interviewee which question they should respond to); and (5) questions were coded as *other* if they echoed what witnesses had previously said, or did not relate directly to the crime (e.g., "Are you okay?"). The total number of each question type (open prompts, focused prompts, closed questions, inappropriate questions, and other questions) was then calculated for the purpose of statistical analysis.

The coders were trained to identify different question types and calibration checks were in place to ensure consistency between coders. To assess the inter-rater reliability of the coding process, an intraclass correlation coefficient (ICC) was calculated using a two-way mixed-effects model with absolute agreement. Four of the ICCs for single measures were statistically significant and demonstrated excellent or perfect agreement between the three coders (ICCs ranged from 0.97 to 1.00). However, the ICC for (5) 'other' questions was not statistically significant, indicating moderate agreement (ICC = 0.50). This result may be attributable to the limited number of questions in this category.

Observers' ratings of rapport

For assessments of rapport, the videotaped interviews were viewed by independent raters (n = 5) blind to when the interview had taken place (pre- or post-education videos). They were asked to consider the extent to which a set of 10 words/phrases described how they felt best described the interviewer, the witness, and the interaction between the interviewer and witness. These words/phrases were inspired by existing measures of rapport that had been used in investigative contexts by previous researchers, as reviewed in a recent systematic review by Gabbert and colleagues (2021).

For ratings relating to interviewer and witness rapport, the same 10 words/phrases were used: 1) affable/friendly, 2) similar to the witness/interviewer, 3) easy to talk to, 4)

approachable, 5) trustworthy, 6) attentive, 7) interested, 8) cooperative, 9) respectful, and 10) empathic (interviewer/witness understood the witness's/interviewer's perspective). A different set of 10 words/phrases were then used for ratings of the interaction between the interviewer and witness: 1) well-coordinated, 2) cooperative, 3) harmonious/comfortable, 4) engrossing/interesting, 5) mutually attentive, 6) involving, 7) friendly/pleasant, 8) personalised (taking an interest in one-another), 9) reciprocal (mutually engaged), and 10) honest/genuine. Raters indicated their level of agreement with each of the words/phrases via 7-point Likert scales ranging from 1 'Not at all' to 7 'Totally'.

The independent coders had an initial meeting to clarify the meaning of the descriptive words used to rate the interviewer, witness and interaction, address key issues in the coding process and to ensure consistency between coders. Consistent with the coding for question types, ICCs were calculated to assess the inter-rater reliability of the coding process. All ICCs for single measures were statistically significant and demonstrated fair to excellent agreement between the five coders (ICCs ranged from 0.53 to 0.94).

Results

Participant's use of different question types

Five 2x2 mixed ANOVAs were performed to examine the influence of education (initial preeducation interview vs. post-education interview) and practice (practice interview vs. no practice interview) on participants' use of different question types (Bonferroni corrected alpha value = .010). See Tables 1 and 2 for descriptives and summary of mixed ANOVA results.

---Tables 1 & 2 about here---

The analyses revealed significant main effects for education with respect to four of the five question types (all with large effect sizes; Pallant, 2020). There were significant *increases* in the number of open prompts (M = 1.5, SD = 1.3 vs. M = 3.0, SD = 1.8) and other questions (M = 0.6, SD = 0.7 vs. M = 2.2, SD = 1.7) during the post-education interviews compared to the pre-education interviews, F(1, 42) = 17.2, p < .001, $\eta_p^2 = .29$ and F(1, 42) = 33.5, p < .001, $\eta_p^2 = .44$ respectively. Furthermore, there were significant *decreases* in the number of closed questions (M = 6.5, SD = 4.7 vs. M = 4.2, SD = 4.9) and inappropriate questions (M = 3.7, SD = 2.6 vs. M = 2.0, SD = 1.5) during the post-education interviews compared to the pre-

education interviews, F(1, 42) = 10.3, p = .003, $\eta_p^2 = .20$ and F(1, 42) = 33.5, p < .001, $\eta_p^2 = .44$ respectively. No other main effects or interaction effects were significant.

Although practice was not found to significantly influence participants' use of different question types, five additional dependent t-tests were performed to explore whether there were any significant differences across the initial and practice pre-education interviews (Bonferroni corrected alpha value = .010). See Table 3 for descriptives.

---Table 3 about here---

These analyses revealed that there were no significant differences between the initial and practice pre-education interviews for any of the question types (three with small effect sizes; Cohen, 1988): open prompts, t(17) = 1.3, p = .218, Cohen's d = -0.32; focused prompts, t(17) = -0.9, p = .359, Cohen's d = 0.17; and other questions, t(17) = 0.5, p = .607, Cohen's d = -0.17. However, there were two non-significant, but noteworthy, differences for closed and inappropriate questions (both with medium effect sizes; Cohen 1988): closed questions, t(17) = 1.9, p = .071, Cohen's d = -0.50; inappropriate questions, t(17) = 1.9, p = .069, Cohen's d = -0.51. In both instances, there was a *decrease* in the number of questions asked during the practice pre-education interviews compared to the initial pre-education interviews (closed questions: M = 4.9, SD = 5.4 vs. M = 7.5, SD = 5.0; inappropriate questions: M = 2.8, SD = 2.4 vs. M = 3.9, SD = 2.1).

Observers' ratings of rapport

Consistent with the previous section, three 2x2 mixed ANOVAs were performed to examine the influence of education and practice on observers' ratings of rapport (Bonferroni corrected alpha value = .017). See Tables 4 and 5 for descriptives and summary of mixed ANOVA results.

The analyses revealed significant main effects for education with respect to two of the three ratings of rapport (both with large effect sizes; Pallant, 2020). There were significant *increases* in interviewer rapport (M = 4.0, SD = 1.0 vs. M = 5.1, SD = 0.9) and interaction rapport (M = 3.8, SD = 0.9 vs. M = 5.0, SD = 0.9) during the post-education interviews compared to the pre-education interviews, F(1, 42) = 38.7, p < .001, $\eta_p^2 = .48$ and F(1, 42) = 38.7

39.4, p < .001, $\eta_p^2 = .48$ respectively. No other main effects or interaction effects were significant.

Although practice was not found to significantly influence observers' ratings of rapport, three additional dependent t-tests were performed to explore whether there were any significant differences across the initial and practice pre-education interviews (Bonferroni corrected alpha value = .017). See Table 3 for descriptives.

---Table 6 about here---

These analyses revealed that there were no significant differences between the initial and practice pre-education interviews for any of the ratings of rapport (two with small effect sizes; Cohen, 1988): interviewer rapport, t(17) = -1.2, p = .253, Cohen's d = 0.20; and witness rapport, t(17) = -1.9, p = .080, Cohen's d = 0.16. However, there was one non-significant, but noteworthy, difference for ratings of the interaction between the interviewer and witness (with a medium effect size; Cohen, 1988): interaction rapport, t(17) = -2.3, p = .033, Cohen's d = 0.49. In this instance, there was an increase in ratings of rapport during the practice preeducation interviews compared to the initial pre-education interviews (M = 4.2, SD = 1.2 vs. M = 3.7, SD = 0.9).

Discussion

The purpose of the current research was to evaluate the effectiveness of two brief educational videos in enhancing investigative interviewing skills. These videos provided a concise and accessible summary of the key psychological principles underlying two critical interpersonal competencies: (1) asking appropriate questions at the right time and (2) establishing rapport with your interviewee. Our results show that participants significantly improved their investigative interview skills compared to their initial (baseline) performance, even though they did not receive any additional training. Crucially, these improvements cannot be explained by mere repetition or practice alone. This suggests that the educational videos had a distinct positive impact on their performance, beyond any gains that might have occurred simply from practicing the task.

Previous research has supported the benefits of investigative interview training, with a general improvement in practice observed immediately following training and in follow-up

tests (see Akca et al., 2021, for a review). However, the specific competencies of appropriate questioning techniques and use of behaviours to build rapport often fail to improve (Akca et al., 2021; Griffiths & Milne, 2006; Wright & Powell, 2006). As such, we focused our attention on these two skills by explaining the underpinning psychological rationale behind why they work; for example, *why* are open questions effective in eliciting accurate information, and *why* are particular verbal and non-verbal behaviours effective when trying to build rapport? In addition, the videos included demonstrations of mock interviews showcasing what to do (and what not to do) to illustrate good and bad practice.

Regarding question types, analyses revealed that the use of open-ended prompts significantly increased in interviews conducted after participants viewed the educational videos. Additionally, the frequency of 'other' questions, such as inquiries unrelated to investigative details, like asking the witness how they were, also significantly increased. These types of questions are beneficial because they help the interviewer establish a connection with, and demonstrate an interest in, the witness; and likely reflect participants applying the rapport-building techniques demonstrated in the educational video. While closed questions are appropriate when using a hierarchy of open to closed questions, it is not best practice to overly-use them. As such, it is notable that their use decreased following exposure to the video on effective questioning techniques. Similarly, there was a reduction in the use of inappropriate questions in post-education interviews.

The findings for rapport were similarly encouraging. Independent raters, who were blinded to condition, assessed both the interviewers' rapport behaviours and the overall level of rapport between interviewers and witnesses. Ratings for these measures were significantly higher in post-education interviews compared to pre-education interviews. However, no significant differences were observed in rapport ratings relating to witnesses between preand post-education interviews. This is likely due to the witnesses being confederates who had been trained to act in a consistent manner across all interviews.

To determine whether observed improvements in interview skills were independent of practice effects, we compared initial pre-education interviews with subsequent practice pre-education interviews. No significant improvements in appropriate questioning techniques or in rapport ratings were identified from practice alone. Nonetheless, some non-significant differences with medium effect sizes were observed, including a reduction in closed and

inappropriate questions and an increase in rapport ratings during practice interviews compared to initial interviews. While these trends suggest that practice may yield modest benefits in certain areas, it is not a substitute for targeted educational interventions. In sum, this finding underscores the value of educational resources grounded in psychological evidence for developing investigative interviewing skills. While practice can offer incremental improvements, evidence-based education is recommended for comprehensive skill development in investigative interviewing.

While we tested the educational videos on investigative interview skills without supplementary training, we do not suggest that watching the videos alone is sufficient to master these complex skills. Instead, we propose that such resources can enhance investigative interview training by aiding course trainers who may not be experts in accessing or interpreting scientific research. Educational videos created by academic experts offer a more accessible alternative to journal articles and can be easily shared. These resources also promote standardisation in training, reducing variability in how evidencebased competencies are taught, and thus supporting the 'research into practice' ideal.

We acknowledge certain limitations in our study that warrant consideration. For example, our participants were female university students who voluntarily participated to enhance their understanding of investigative interviewing skills. However, we believe their level of engagement is comparable to that of police trainees, who are inherently motivated to develop such competencies. As such, we consider our sample suitable for the purpose of comparison but recognise the need for future research to determine the generalisability of our findings with police trainees of all genders.

Other methodological aspects of our study also require further exploration in future research. Notably, we did not track the number of times participants viewed the educational videos or the interval between watching the videos and conducting the post-education interviews. Both factors are likely to have influenced performance outcomes. Additionally, we are unable to comment on whether the educational videos contribute to sustained improvements in interviewing performance. Regarding this latter point, it is not our goal to promote the use of educational videos as a standalone intervention in the absence of accompanying training, and so it was not deemed to be of value to evaluate long-term benefits.

Finally, we acknowledge that the interviews were only 10 minutes in duration and conducted via online Zoom calls. It is possible that participants' use of different question types would differ in longer interviews, and longer interviews would enable the examination of participants' use of the hierarchy of open and closed questions across different topic areas. In addition, there may be additional challenges to interviewing in an online as opposed to an in-person environment (e.g., conversation flow, eye-contact, technical difficulties) that impact both questioning and rapport building (Dion Larivière et al., 2023).

In conclusion, to advance evidence-based practices in investigative interviewing it is essential for course trainers and trainees to have access to the most current research on effective investigative methods. Collaboration between academics and practitioners is critical to ensuring the successful translation of research into practice. Our research provides a solution to help bridge the gap between the science of 'what works' in investigative interviewing and real-world practice by creating educational videos that explain the psychology behind key skills, making them easier to understand and apply. Our findings demonstrate the benefits of brief educational videos as a valuable resource that can be easily integrated into existing investigative interviewing training programmes, without requiring the course trainer to be an expert themselves. Future research should continue to explore and expand upon this approach to further support scientifically-informed training and practice.

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	Initial pre-education interview (n = 44)		Post-education interviev (n = 44)	
	М	SD	М	SD
Open prompts	1.52	1.25	2.95	1.78
Practice interview	1.38	1.17	2.92	1.90
No practice interview	1.72	1.36	3.00	1.65
Focused prompts	5.50	3.52	5.39	4.63
Practice interview	6.15	3.84	6.08	5.05
No practice interview	4.56	2.83	4.39	3.85
Closed questions	6.50	4.67	4.18	4.93
Practice interview	5.81	4.38	4.15	4.32
No practice interview	7.50	5.02	4.22	5.85
Inappropriate questions	3.73	2.57	2.00	1.49
Practice interview	3.58	2.89	2.08	1.62
No practice interview	3.94	2.10	1.89	1.32
Other questions	0.61	0.72	2.18	1.67
Practice interview	0.73	0.78	2.08	1.47
No practice interview	0.44	0.62	2.33	1.97

Descriptives for participants' use of different question types during initial pre- and posteducation interviews, overall and separated by practice manipulation

	F	df	p	η_p^2
Open prompts				
Practice	0.15	1, 42	.703	.00
Education	17.19	1, 42	< .001	.29
Practice × Education	.039	1, 42	.536	.01
Focused prompts				
Practice	2.79	1, 42	.102	.06
Education	0.03	1, 42	.875	.00
Practice × Education	0.00	1, 42	.954	.00
Closed questions				
Practice	0.49	1, 42	.490	.01
Education	10.31	1, 42	.003	.20
Practice × Education	1.12	1, 42	.296	.03
Inappropriate questions				
Practice	0.03	1, 42	.857	.00
Education	17.68	1, 42	< .001	.30
Practice × Education	0.43	1, 42	.515	.01
Other questions				
Practice	0.00	1, 42	.958	.00
Education	33.48	1, 42	< .001	.44
Practice × Education	0.94	1, 42	.337	.02

Summary of fixed ANOVA results for the influence of practice and education on participants' use of different question types

	Initial pre-education interview (n = 18)		Practice pre-education interview (n = 18)	
	М	SD	М	SD
Open prompts	1.72	1.36	1.33	1.09
Focused prompts	4.56	2.83	5.11	3.55
Closed questions	7.50	5.02	4.89	5.35
Inappropriate questions	3.94	2.10	2.78	2.44
Other questions	0.44	0.62	0.33	0.69

Descriptives for participants' use of different question types during initial pre-education and practice pre-education interview

<i>, , , ,</i>	<i>/</i> / /			
	Initial pre-education interview (<i>n</i> = 44)		Post-education interview (n = 44)	
	М	SD	М	SD
Interviewer rapport	3.99	0.98	5.12	0.94
Practice interview	3.96	0.97	5.19	0.93
No practice interview	4.03	1.01	5.02	0.97
Witness rapport	4.92	0.66	5.22	0.73
Practice interview	4.97	0.74	5.11	0.70
No practice interview	4.85	0.54	5.37	0.77
Interaction rapport	3.77	0.94	5.02	0.93
Practice interview	3.83	0.97	5.09	0.91
No practice interview	3.69	0.90	4.91	0.97

Descriptives for observers' ratings of rapport during initial pre- and post-education interviews, overall and separated by practice manipulation

	F	df	p	η_p^2
Interviewer rapport				
Practice	0.03	1, 42	.856	.00
Education	38.74	1, 42	< .001	.48
Practice × Education	0.40	1, 42	.529	.01
Witness rapport				
Practice	0.20	1, 42	.656	.01
Education	4.87	1, 42	.033	.10
Practice × Education	1.64	1, 42	.207	.04
Interaction rapport				
Practice	0.62	1, 42	.437	.01
Education	39.37	1, 42	< .001	.48
Practice × Education	0.01	1, 42	.910	.00

Summary of mixed ANOVA results for the influence of practice and education on observers' ratings of rapport

	Initial pre-education interview (<i>n</i> = 18)		Practice pre-education interview (n = 18)	
	М	SD	М	SD
Interviewer rapport	4.03	1.01	4.24	1.11
Witness rapport	4.85	0.54	5.23	0.53
Interaction rapport	3.69	0.90	4.22	1.22

Descriptives for observers' ratings of rapport during initial pre-education and practice preeducation interview