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Scaffolded Video Reflection: The Effectiveness of Video Recordings as a Reflection Tool for Integrative and Distributive Negotiation Skills Development

Keywords: skills development, negotiation skills, scaffolding, video reflection, self-awareness

Master thesis

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Abstract

This study aimed to investigate how scaffolded video reflection influences students' integrative and distributive negotiation skills by analysing its effects on joint outcome, strategy perception and self-awareness. Students' perceptions of the usability of scaffolded video reflection for reaching their learning objectives were also investigated. An experimental design was conducted at a Dutch university, investigating a sample of 16 negotiation students. Students participated in two negotiation rounds and completed reflection exercises after each negotiation round. The students in the experimental group used video recordings of their negotiation to support them during the reflection exercises. Students in the control group completed the reflection exercises without watching back their negotiation. Effects were measured by calculating the integrative quotient (IQ) from the first negotiation and comparing these joint outcomes to the IQ from the second negotiation. Furthermore, estimated ratios of strategy usage were compared. The intervention's effect on self-awareness of verbal and non-verbal behaviour was investigated by analysing student responses in the reflection exercises. In addition, students completed a questionnaire to explore how they perceived the usability of the intervention for reaching their learning objectives. A Repeated Measures ANOVA test showed no significant effect for students' IQ scores. A Fisher's exact test showed significant changes in students' strategy perceptions in the experimental condition. Students in the experimental condition were found to have increased self-awareness of verbal and non-verbal behaviour. This study contributes to an understanding of how current challenges in negotiation training can be addressed by offering valuable insights in scaffolded video reflection and its effects on recognition of strategy use and self-awareness of both verbal and non-verbal behaviour. Future research should cover a larger sample size and repeated measures over a longer period of time to be able to better determine the effects of scaffolded video reflection.

Keywords: skills development, negotiation skills, scaffolding, video reflection, self-awareness

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1. Introduction

In the past decade, more and more pressure has been put on educational institutions to teach students transferable skills in addition to their subject of study (Blickley et al., 2013; Bridgstock, 2011; Mello & Voelkel, 2017). This pressure stems from the work field, as employers indicate that graduates do not possess the transferable skills required to function in the workplace (Succi & Canovi, 2020). Negotiation skills are one of many transferable skills that are necessary in preparing students for their careers after graduating (Mello & Wattret, 2021). The construct of negotiation can be defined as "a process where two (or more) parties with differences which they need to resolve are trying to reach an agreement through exploring for options and exchanging offers" (Fells, 2010, p. 3). One can use an integrative negotiation strategy in which the interests of all involved parties are considered, or one can use a distributive negotiation strategy in which the negotiator is concerned with their own interests only (Chapman, 2017).

Research on negotiation skills mostly focuses on the act of the negotiation itself, whereas research on the process of developing negotiation skills is scarce (Chapman et al., 2017). Nevertheless, it is important to understand how negotiation skills can be developed as people use these skills daily in both their professional (Hannay, 2009), as well as in their personal lives (Roloff et al., 2003). An important factor in skills development is reflective practice (Burke et al., 2007). Roloff et al. (2003) propose methods promoting reflection, such as the use of assessment tools, debriefings of simulations, diagnostic feedback, and video recordings. For example, multiple studies have been conducted on video recordings as a reflection tool to improve teacher professional development, with an often-found positive relation between reflection with the video and improved teacher performance and/or reflection skills (Hollingsworth & Clarke, 2017; Körkkö et al., 2019; Mueller, 2019; Schmid, 2011; Xiao & Tobin, 2018).

However, literature on video as a reflection tool in developing transferable skills like negotiation skills is lacking presence. There is some research by Williams, Farmer and Manwaring (2008) that addresses integrating video reflection into negotiation training. They note that engaging in a negotiation simulation is an all-consuming task and that having to remember various aspects of the simulation for the purpose of writing a reflection afterwards makes it an even more demanding task. They propose that watching a recording of the negotiation simulation helps students with their reflection. Furthermore, using video supports reflection on verbal, as well as non-verbal behaviour as one is able to observe their own behaviour (Paskins, McHugh, Hassell, 2014). Even though video recordings help students remember how their negotiation simulation went, watching the video recordings back does not necessarily result in reflections that foster development of students' negotiation skills. In this light, Mello et al. (2021) argue that supporting students' reflections with scaffolds ensures reflection on the process of the negotiation. When students are able to reflect on the process, they are fostering the development of the skill.

This study focuses on video recordings as a reflection tool in the development of integrative and distributive negotiation skills. By using an experimental design in which the experimental group uses scaffolded video reflection, and the control group engages in reflection without video, this study aims to investigate whether scaffolded video reflection helps students in developing their integrative and distributive negotiation skills. First, insights from previous studies are integrated to define the specific viewpoint of this study. Theory on inter alia integrative, distributive and adaptable negotiation skills, as well as reflective practice and scaffolding is used to establish the tools necessary for the intervention study. Second, the tools are put to the test by analysing changes in joint outcomes of the negotiations, perceived strategy and self-awareness. The results of this analysis explore how negotiations skills can be developed. Lastly, the current study provides valuable insights in

how scaffolded video reflection influences students' recognition of strategy use and self-awareness of verbal and non-verbal behaviour. This knowledge contributes to a better understanding of how current challenges in negotiation training can be addressed.

2. Theoretical Framework

2.1 Negotiation

Negotiations can be described as dynamic processes in which negotiators try to find agreements for their conflicting goals (Lewicki, Saunders, & Minton, 1999). Negotiators can use different strategies to find an agreement (Raiffa, 1982). These strategies, namely distributive oriented, integrative oriented and adaptable strategies, can be taught and improved with training (Manwaring, 2006; Makhdom and Ghazali, 2013; Taylor et al., 2008; Wheeler, 2006). Recently, educational institutions have been pressured by the work field to upskill students' negotiation skills as graduates are lacking these skills (Succi & Canovi, 2020). Negotiation skills are found to be important as people use these skills daily in their work, and to advance in their professional lives (Hannay, 2009). Therefore, it is necessary to learn more about how negotiation skills can be developed. However, the development of negotiation skills is a topic in research that is not addressed much, as most research is on the act of the negotiation itself (Chapman et al., 2017). In the following sections of this Theoretical Framework, the different negotiation strategies are explained, as well as a common measure used in negotiation research, and how negotiation skills can be developed.

2.2 Distributive Negotiation Skills

Negotiations strategies can be characterised as distributive or integrative oriented (Raiffa, 1982; Walton and McKersie, 1965). A distributive approach during a negotiation can be described as win-lose: one party tries to take it all, leaving little for the other party. This type of negotiation is often used when there is no long-term interest or relationship between the parties (Chapman, 2017). The distributive approach is also referred to as competitive

(Alavoline, 2014; Miles & Clenney, 2012; Van Kleef et al., 2006). This approach includes behaviours such as making extreme demands, threatening and persuading the opponent (Barry and Friedman, 1998). With a less cooperative attitude, the distributive negotiator claims value through the exploitation of his opponent (Kern et al., 2005). The less cooperative negotiator does not consider the success of his opponent and is focused only on his own success (Shapiro et al., 1992). In a similar vein, it can be said that the distributive negotiator is not willing to compromise on his objectives. One can use a distributive strategy when there is no need to maintain a relationship with the other party (Lewicki et al., 2015).

Another key behaviour of a distributive negotiator is the lack of a collective feeling for joint maximisation (De Dreu, Giacomantonio and Mannetti, 2010). Harinck and De Dreu (2004) describe that negotiators that display this kind of behaviour show no kindness or compassion to their opponent. Value is created through going for one's own goals, irrespective of the feelings of the opponent (Dan-Mallam, Dulzalani & Awang, 2018). The above-mentioned behaviours indicate that the distributive negotiator is a competitive negotiator that claims value at the expense of their opponent.

2.3 Integrative Negotiation Skills

In contrast to the distributive approach, the integrative approach is characterised by a problem-solving strategy in which the involved parties are looking to build and maintain their relationship over time (Chapman, 2017). The objective of an integrative negotiator is joint maximisation, also called a win-win agreement (Dan-Mallam, Dulzalani & Awang, 2018). The integrative negotiator aims for an agreement that will satisfy the needs of both parties. It is through working together and sharing information about interests so that value can be created (Weingart et al., 1990). There are various situations in which this type of collaboration is of advantage. For example, in long-term relationships between negotiators when the involved parties will continue to interact in the future (Lewicki et al., 2015).

Examples of such long-term relationships are business partners or colleagues. Another situation in which negotiators utilise integrative approaches is when the negotiation involves complex issues. Through collaboration, negotiators can pool knowledge and resources in order to identify solutions that are beneficial to both parties (Lewicki et al., 2015).

Key behaviours in the integrative approach are exploring mutual interests, having a transparent approach, i.e., willing to share information rather than withholding it, and joint problem solving (Fulmer and Barry, 2004). These behaviours can be recognised in, for example, asking open-ended questions (Weingart et al., 1996) and active listening (Pruitt and Carnevale, 1993). Furthermore, when sharing information, the integrative negotiator is honest and does not make deceptive statements (De Dreu et al., 1998). He or she makes integrative offers, i.e., considering the other party's view, and pointing out mutual interests (Weingart et al., 2004). Integrative negotiators try to move forward in the negotiation through collaboration and relationship building behaviour such as showing empathy and using humour (Giebels et al., 1998). It is evident that the integrative approach aims for different outcomes and requires different competencies of the negotiator than the distributive approach.

2.4 Adaptable Negotiation Skills

Barry and Friedman (1998) and Lax and Sebenius (1986) argue that in practice, the majority of negotiations do not fall one hundred percent into either integrative or distributive categories. Particularly, negotiations are often characterised by a mix of distributive and integrative elements and are referred to as mixed-motive negotiations (Chapman, 2017). Therefore, using only one of the two strategies might not be as effective. Research shows that negotiation outcomes improve when negotiators use a mixed-strategy approach, i.e., using both distributive and integrative strategies (Van de Vliert et al., 1999). However, using both strategies in one negotiation can be difficult as the strategies have few similarities and tend to steer the negotiation in different directions (Heunis et al., 2023).

Olekalns and Weingart (2003) describe a negotiation as an adaptive process as the negotiation is influenced by the opponent's actions. Whether the opponent will cooperate with or go against what is said or asked, is unknown. Therefore, it is uncertain how the negotiation will unfold and whether a distributive or integrative approach is needed in response. This implies that the negotiator needs to know when, and be able to switch between distributive and integrative approaches during the negotiation (Hawes & Fleming, 2014). The ability to do so is called strategic adaptability (Martin et al., 2012). An adaptable negotiator is able to identify when a different strategic approach is necessary and can, if a change is necessary for the negotiation to move forward, swift between the two approaches. Therefore, an adaptable negotiator needs to be able to interpret cues from their counterpart and the context of the negotiation (Martin et al., 2012; Smolinski and Xiong, 2020).

2.5 Joint Outcome

In earlier research on dyadic negotiations, a common measure of the quality the agreements was joint outcome, also called joint profit (Tripp & Sondak, 1992). Joint profit is calculated by summing the individual scores of both negotiators. Tripp and Sondak (1992) argue that this measure was so often used to assess negotiation performance as it is easy to calculate and does not involve economic theories often unfamiliar to social scientists conducting negotiation research. However, a downside of using this measure is that a particular set of agreements may be considered as optimal when using joint profit as a measure for negotiation performance (Lax & Sebenius, 1987). To illustrate, when negotiators are instructed to reach a high joint profit, they might act against their own preferences in order to maximise joint profit. Even though the maximum profit might be reached, it could leave one of the negotiators with unsatisfactory results on their part.

It is therefore that Lax and Sebenius (1987) argue that negotiation performance should be measured not by joint profit, but by Pareto efficiency. Pareto efficiency is a measure for

dyadic negotiation performance that is based on Nash's (1950, 1953) argumentation that two equally skilled and rational negotiators will reach an agreement that is Pareto optimal. Such an agreement means that there is no other possible agreement that both negotiators would prefer. If one party tried to improve their results, it would detract from the other party's results. A Pareto optimal outcome reflects a balanced agreement that satisfies the needs of both parties (Raiffa, 1982).

The integrative quotient (IQ) is an operationalisation of Pareto efficiency as suggested by Lax and Sebenius (1987). Tripp and Sondak (1992) further established the IQ so that it takes into account the difficulty that comes with finding a Pareto superior agreement. As described by Fisher et al. (2011), a Pareto superior agreement leaves room for one party to improve while the other party's results do not lessen. Furthermore, a Pareto inferior agreement implies that resources are not distributed in the most efficient manner and one party could improve their results without harming the other. It is a Pareto optimal agreement that reflects the most efficient distribution of resources. Olekalns, Smith, and Walsh (1996) based their measure for integrativeness of outcomes on the work of Tripp and Sondak (1992).

The IQ was determined by calculating the performance of a negotiator on the discussed issues that allowed for trade-offs. The integrativeness of the outcomes is represented with a two-decimal score just above or under 1, with a score close to 1 being the most integrative. A score closer to 0 suggests a less favourable outcome for the participant, while a score greater than 1 suggests that the participant scored higher than the Pareto efficient outcome (Olekalns & Smith, 2000; Olekalns, Smith, and Walsh, 1996; Olekalns & Weingart, 2008). The formula that was used to calculate the IQ in the current study is presented in the method section. In the next section, the development of negotiation skills is explained.

2.6 Negotiation Skills Development

Previous research suggests that negotiation skills can be learnt and further developed (Manwaring, 2006; Makhdom and Ghazali, 2013; Taylor et al., 2008; Wheeler, 2006). However, teaching, assessing and providing feedback on negotiation skills is challenging (Nadler et al., 2023). Chapman (2017) paid attention to the complexity of developing distributive, integrative and adaptable negotiation skills. In their negotiation skills development model, they argue that the development of the three types of negotiation skills is influenced by learning activities such as formal training, work and non-work experiences, mentoring and feedback. Thompson (2021) also underlines the importance of learning through experience and receiving feedback for developing negotiation skills.

While Chapman (2017) argues that distributive negotiation skills can be developed through didactic or classroom-based learning and integrative and adaptable negotiation skills through observational learning, they underline the importance of experience-based learning. It is through experience that negotiators can develop their skills. Therefore, developmental activities such as formal training can be used to gain experience and develop both distributive and integrative, as well as adaptable negotiation skills. Gagnon (2007) found that by negotiating with a peer in a classroom setting and receiving feedback on that performance, students developed their negotiation skills. However, in this respect, Thompson (2021) stated, "Experience in the absence of feedback is largely ineffective in improving negotiation skills" (p. 9). Without feedback, a negotiator could think they negotiated well and not realise the mistakes that were made. Experience in combination with feedback provides a meaningful development activity for distributive, integrative and adaptable negotiators (Chapman, 2017; Musa et al., 2012).

It is evident that feedback plays an important role in developing negotiation skills. However, Loewenstein and Thompson (2006) state that negotiations typically miss the element of feedback. Furthermore, it is common that, if provided, the focus of the feedback

lies on the result of the negotiation, and not on the process of the negotiation. It could therefore be that students value the result of the negotiation more than the actual development of the skill (Mello & Wattret, 2021). Another problem regarding feedback is the student to staff ratio, which results in a lack of time to give feedback to students (Bailey & Garner, 2010). To address these problems there is a need to address the question of how individuals can develop the skill by 1) focusing on the process, and 2) without relying on the involvement of others.

2.7 Reflective Practice

Reflective practice is, especially in the field of education, an important factor in professional skills development (Burke et al., 2007; Marshall, 2019). Reflective practice has been found to foster teachers' professional development through enabling professional judgement and supporting the planning and implementation of future actions (Huda & Teh, 2018). Moreover, it has become a vital part of training for teachers as it helps them evaluate the way they teach (Childs & Hillier, 2022). Teachers are recommended to routinely engage in reflective practice to develop themselves professionally (Lubbe & Botha, 2020). In the field of education, not only teachers, but also students can benefit from reflective practice, as reflective practice enhances student learning (Ryan and Ryan, 2013). Through reflective practice, students gain a better understanding of their experiences (Mantzoukas, 2007).

Although some argue that reflection is merely thinking about something (Loughran, 2002), most research acknowledges that reflection is a well-defined and meaningful activity (Dewey, 1933; Schön, 1983, Paterson & Chapman, 2013). According to Hatton and Smith (1995) reflective practice leads to explicit, modified action. This is in contrast with taking routine action based on impulse, i.e., taking action without thinking about prior actions taken. According to Schön (1983), reflection on an action taken involves analysing the outcomes, identifying lessons learned and developing theories of practice. The theories are personal and

relate to what constitutes effective practice. Such a theory guides a practitioner's future actions and contributes to their professional development (Schön, 1983).

It is through reflection that students deliberately review the learning task at hand (Lew & Schmidt, 2011). Particularly, reflection of the process is what leads to the development of professional skills such as negotiation skills (Billet, 2011). As Mohamed et al. (2022) state, "Through reflective practice, we can identify the factors, the consequences of and the assumptions that underlie our actions" (p. 1). It is therefore that reflection helps students evaluate their strategy and determine if their strategy needs adjustment to reach better outcomes (van den Boom et al., 2004). Through rethinking their strengths and weaknesses, and therefore identifying their learning needs, students foster the development of professional skills (Huynh, 2022). Specifically, in light of negotiation training, reflective practice allows students to learn from their experience and plan and improve future negotiations.

In spite of the learning that comes with reflective practice, most students do not deliberately engage in reflective practice without some form of intervention (Bransford et al., 1999). Moreover, students in higher education often find it difficult to reflect on their learning process (Voelkel et al., 2018). Lin and Lehman (1999) suggest that the instructional design must specifically initiate reflection. Such a design may make use of scaffolds to let students engage in reflection and guide and support them during the process (Billet, 2011, Mello et al., 2021).

2.8 Scaffolding

In a study by Mello et al. (2021) it is stressed that students need support with their reflection task in the form of scaffolding. Greenhalgh (2002) supports this notion, by arguing that individuals with less experience of the task, for example, in this study, the students in the negotiation course, do not have the intuition to engage in reflection. In turn, Grant et al.

(2017) argue that guidance is needed to reach a certain level of reflection. Guidance in the form of scaffolding may be helpful to support students with their reflection.

The term scaffolding originates from the field of construction, where scaffolds are temporary structures on which workers stand when working on construction or renovation of a building (Gonulal & Loewen, 2018). In the field of education, the term scaffolding was introduced in the 1970s in the work of Bruner and Sherwood (1976) in which they studied mother-child interaction and used the term scaffold in relation to the moments of help the mother offered to the child. Maybin, Mercer and Stierer (1992) defined scaffolding as "help which will enable a learner to accomplish a task which they would not have been quite able to manage on their own". A scaffold is a form of support that is adapted to the student's needs, and it is aimed at a transfer of responsibility, meaning that the purpose of a scaffold is to nudge a student's thinking toward solving the problem as opposed to giving away part of the answer (Van de Pol et al., 2010).

The desired effect of using scaffolding is guiding a student towards solving a problem without disclosing part of the answer (Van de Pol et al., 2010) with the objective to improve learning (Fisher et al., 2013). Instead of revealing what the student should notice to solve a problem, scaffolding aims to guide a student to become aware of it themselves, therefore allowing the student to think for themselves (Barnhouse & Vinton, 2012). Experimental research undergird the effectiveness of scaffolding for learning (Fisher et al., 2013; Roll et al., 2012; Schukajlow et al., 2015). For example, Fisher et al. (2013) conducted an experimental study in which pre-schoolers engaged in a learning activity using scaffolding, didactic instruction or no instruction. It was found that the group that was supported through scaffolding obtained more knowledge than the group supported through didactic instruction and the group that received no instruction. Other experimental research also showed the

effectiveness of scaffolding in middle school students (Schukajlow et al., 2015) and university students (Roll et al., 2012).

2.9 Scaffolded Reflection

Scaffolding can be used to make students reflect on the process, and therefore develop their skills (Billet, 2011). Mello et al. (2021) agree with this notion, arguing that it may be beneficial for students to be supported by scaffolding in the form of questions for describing an activity to ensure reflection on the process and thus fostering development of the skill. To investigate this, they designed a 6-week module to develop transferable skills of higher education students while using an online reflection log in which students had to record their confidence in certain transferable skills, indicate what they learned and plan for the next week. This reflection log embodied a scaffolded reflective process and prompted students to reflect on their transferable skills development. Results of this study showed that scaffolded reflection helps students to describe an activity and prompts them to reflect on the process instead of the outcome of their efforts (Mello et al., 2021).

The results of the study of Mello et al. (2021) are in line with Coulson's and Harvey's (2013) findings that merely instructing students to reflect, for example with reflective journals, is insufficient in reflective practice for students. Reflection without some form of guidance is argued to be ineffective because effective reflection can only take place if a student possesses self-awareness, understanding of their own thinking, and an understanding of their own learning process (Coulson & Harvey, 2012). The traits necessary for effective reflection are traits that few students possess (Succi & Canovi, 2020). It is therefore that Coulson and Harvey (2013), as well as Mello et al. (2021), argue that scaffolded reflection is necessary to guide students in the reflection process that is needed to enhance learning.

To ensure reflection on the process, a well-designed reflection tool consists of four main components, namely reflecting on the action taken, planning for future action, acting,

and evaluating the applied process (Mohamed et al., 2022). Together, these components form a reflection cycle (Mohamed et al., 2022) which is a complex process that is not intuitive (Plessner et al., 2011). It is therefore that guidance is needed to complete a reflection cycle (Grant et al, 2017). For example, a reflection tool can support individuals in making the tacit explicit so that they can draw a clear picture of the action taken (Mohamed et al., 2022). Because the four components of the reflection cycle guide individuals to reflect on the process, they should be reflected in scaffolds that aim to develop skills such as negotiation skills.

In addition to scaffolding during reflection, feedback can also guide students in their reflection activities (Mello et al., 2021). Various studies acknowledge that there is a need for feedback to support students' reflection, as feedback prompts reflection (Lichtenberger-Majzikné & Fischer, 2017; Mello et al. (2021); Mohamed et al., 2022). Effective feedback answers three questions, namely: What is the goal? What is the student already doing to reach that goal? And what should the student do to keep progressing toward that goal? (Hattie & Timperley, 2007). These questions prompt students to reflect on the actions taken and to plan for future action. However, as stated before, the student to staff ratio in negotiation training poses problems to provide all students with feedback on their negotiation (Bailey & Garner, 2010). To overcome the problem of not everyone having the opportunity to receive feedback, Mello et al. (2021) propose that students will still engage with reflection when they are well-supported during the reflection process i.e., guided, or scaffolded reflection. Another way to overcome this problem is to make use of video for reflection (Roloff et al. 2013).

2.10 Scaffolded Video Reflection

To promote reflective practice, Roloff et al. (2013) propose video recordings as a reflection tool. The use of video cameras allows students to make video recordings of their negotiation, import the data to a computer and watch back their performance. Students can play back the

video recording, watch it in slow motion, and pause it to pay close attention to specific moments in which they displayed integrative or distributive negotiation behaviour. It also allows them to observe their own and their opponent's behaviour. This method of using video recordings promotes reflection (Roloff et al., 2003) and has been used successfully in various studies on improving teacher education in which they found an improvement in reflective skills and/or teacher performance (Hollingsworth & Clarke, 2017; Körkkö et al., 2019; McCaslin & Young, 2015; Mueller, 2019; Schmid, 2011; Tripp & Rich, 2012; Xiao & Tobin, 2018).

From the various studies focused on video reflection for teacher improvement, it is evident that video supports teacher reflection. Several studies found that teachers could better identify their strengths and weaknesses when they used video to facilitate reflection (Rich et al., 2007; Tripp, 2009; Wu & Kao, 2008). It was also found that video reflection helped teachers focus their analysis and see how they were teaching from a different perspective. Moreover, it was found that through using video, teachers felt accountable to make changes and remembered to implement these changes (Tripp & Rich, 2012). Furthermore, Rich et al. (2007) found that using video helped teachers to plan for future actions. Another finding relevant to the current study is that, because with video teachers could evaluate their teaching themselves, it was not necessary for another person to be there and provide them with feedback (Tripp, 2009; Brouwer, 2011). Lastly, video helps to accurately and completely recall previous events that may otherwise be forgotten (Paskins, McHugh, & Hassell, 2014). Therefore, it facilitates reflection on the process, on the action as a whole, which demonstrates its potential usefulness in negotiation education.

In the light of negotiation skills, the University of Colorado videotaped student negotiations and gave students access to the video files to self-review. It was found that having raw video data confronted students' tendencies to not acknowledge their need for

improvement and supported the teacher in helping students learn from experience (Tyler & Cukier, 2005). However, in this study, students were only required to watch back their negotiation and not prompted to actively reflect on it. Nevertheless, Tyler and Cukier (2005) do acknowledge that videotaping student negotiations may be valuable in promoting reflection and suggest further studies on it to refine teaching methods.

Williams, Farmer and Manwaring (2008) researched the effect of video reflection on the development of negotiation skills. In this study, students reviewed the recording of their negotiation and used a journal to comment on their performance. After that, the teacher reviewed the students' journals and specified time stamps from the recordings and provided the students with written feedback. The researchers found that this method improved students' negotiation skills (Williams, Farmer, & Manwaring, 2008). However, this method still requires much time from the teacher to provide the students with feedback. This method also does not instruct students on what aspects of the negotiation they need to reflect. Therefore, an understanding of how video reflection, when accompanied by scaffolding, influences the development of students' negotiation skills is needed. Thus, the current study focuses on scaffolded video reflection to guide students during their reflection process.

Circling back to current problems in negotiation skills development (lack of focus on the process and therefore the development of the skill, and lack of time to provide feedback), using scaffolded video reflection allows students to focus their reflection on the process of the negotiation, and overcomes too much reliance on the involvement of others, i.e., the teacher who is unable to provide feedback to everyone. In the current study, what needs to be scaffolded is described in the methods section under instruments. Furthermore, when students are asked not only to analyse their own behaviour, but also their opponent's, then a video reflection exercise may also produce peer feedback as a valuable by-product. As scaffolded video reflection might hold -part of- the answer to current problems in negotiation skills

development, it is necessary to address the following question: How does the use of scaffolded video reflection influence the development of students' integrative and distributive negotiation skills?

2.11 Self-awareness

A particular interesting aspect of reflective practice is that it can enhance self-awareness (Schön, 1983). Self-awareness can be categorised into internal self-awareness and external self-awareness (Eurich, 2018). Internal self-awareness refers to how we perceive our thoughts, feelings, and behaviours and impact on others, while external self-awareness refers to understanding how others perceive us (Eurich, 2018). Schön (1983) argues that, through reflection, individuals become more aware of their own thought processes and actions. By critically analysing one's own actions and behaviour, self-awareness will increase (Schön, 1983). The gained insights can then be used to adjust the behaviour for better outcomes, i.e., the individual is able to formulate points for improvement.

Becoming more self-aware through reflection is a notion often found in studies on using video reflection for improving teacher education. For example, in a study on video analysis and its effects on teaching practices, it was found that teachers became more aware of their own behaviour, as well as the students' behaviour (Tripp & Rich, 2012). Teachers indicated that they gained a new perspective from which they could analyse their own behaviour. This new perspective referred to how others -the students- perceived the teacher, i.e., external self-awareness. Because of video reflection, teachers were able to "identify issues of which they were not previously aware" (Tripp & Rich, 2012, p. 733). Furthermore, Kelting et al. (2014) found that by using video reflection, teachers became aware of their own behaviour and that of students. They noticed certain behaviours that they did not notice while they were teaching and enhanced their self-awareness.

Especially in negotiation training, students might benefit from enhanced self-awareness as certain behaviours might result in using a negotiation strategy that is counterproductive (Saarni, 2014). For example, a difficult negotiation can lead to thoughts of anger or hopelessness. These thoughts shape one's behaviour and communication and might negatively influence the negotiation, as each utterance and non-verbal cue from a negotiator influences the conversation and triggers a response from the counterpart (Saarni, 2014). Furthermore, Kopelman, Rosette, and Thompson (2006) argued that the display of negative emotions negatively impacts negotiations as it leads to negotiators not coming to an agreement and harm done to their professional relationship. Because emotional states are communicated intentionally, but also unintentionally, through verbal en non-verbal behaviour, awareness of one's thought processes and actions, one's behaviour, might lead to more effective negotiations (Saarni, 2014).

Without being aware of one's thought processes and actions, it is possible that a negotiator unwillingly displays certain behaviours (Saarni, 2014). For example, feelings of anger are communicated verbally through (passive-) aggressive or sarcastic expressions, faster and fragmented speech or a change of tone (Shaver et al., 1987), and non-verbally through facial expressions such as frowning, or body language such as crossing arms (Ekman & Friesen, 1969). Feelings of uncertainty are communicated verbally through a frequent use of filler words such as "um" (Beck, 1976), and non-verbally through gestures such as fidgeting with hands (Ekman & Friesen, 1975). A possible result is that the counterpart uses these cues to their advantage, changes their strategy and maximises their own result. For example, when one negotiator is using filler words frequently and is fidgeting with their hands, the counterpart can interpret these cues as their opponent being uncertain. The counterpart might then switch to a more distributive strategy to claim more value (Dan-Mallam, Dulzalani & Awang, 2018). It is therefore that a negotiator might benefit from self-

awareness: to become aware of one's behaviour and learn how to control it during a negotiation to reach better outcomes. A self-aware negotiator could even willingly display certain emotions to influence their counterpart (Kopelman, Rosette, and Thompson, 2006).

Becoming more self-aware is an objective that can be reached through reflective practice (Schön, 1983). However, reflecting on a negotiation through reflection methods that do not use video may be suboptimal, as one does not have the opportunity to become aware of one's non-verbal behaviour. Furthermore, it is difficult to remember every detail from the negotiation. The use of video supports a more accurate recall and allows for reflection on verbal, as well as non-verbal behaviour (Paskins, McHugh, & Hassell, 2014). This line of reasoning is supported by various studies on teacher education, where video reflection resulted in the teacher having gained insights in their behaviour and thus enhanced self-awareness of the teacher (Brouwer, 2011; Fadde & Rich, 2010; Kelting et al., 2014; Tripp & Rich, 2012). However, an understanding of how video reflection can enhance a negotiator's self-awareness to become a more skilled negotiator has not yet been provided. Therefore, the following question will be addressed: How does the use of scaffolded video reflection influence students' self-awareness?

2.12 User Perception and Technology Acceptance

The degree to which a person believes that the use of a particular technology -in the current study, scaffolded video reflection- enhances their ability to achieve a goal is known as perceived usefulness (Davis et al., 1989). The user's perception of the usability of the technology influences the intended use of the technology, and whether the technology will be accepted (Al-Adaileh et al., 2024). Technology acceptance happens when users start using the technology after acknowledging its benefits (Davis et al., 1989). The intended use of the technology is what is referred to with a forecast of technology adoption (Venkatesh et al.,

2003). A widely used model that aims to forecast technology adoption is the Unified Theory of Acceptance and Use of Technology (UTAUT) created by Venkatesh et al. (2003).

The UTAUT model has its foundations in a total of eight previous models' constructs (Chang, 2012). These constructs served as a base for the UTAUT model and were comprised into four main constructs, namely performance expectancy, effort expectancy, social influence, and facilitating variables (Venkatesh et al., 2003). The first construct, performance expectancy, aims to measure a person's level of confidence that using the technology helps them to obtain the technology's benefits (Venkatesh et al., 2003). Venkatesh et al. (2003) refer to effort expectancy as the extent to which a person uses the technology. Furthermore, the social influence refers to what relevant people think about using the technology, and how that influences how the user perceives the usability of the technology. Lastly, the facilitating variables refer to the resources and accessible assistance needed to use the technology, and how that influences the user's perception of the usability of the technology (Venkatesh et al., 2003).

As much as it is important to research whether scaffolded video reflection actually has a positive influence on the development of students' integrative and distributive skills, and how it influences students' self-awareness, one cannot ignore the need to research students' perceptions of the usability of scaffolded video reflection. After all, it is the students who would engage in this learning activity if it turned out to have a positive influence on their negotiation skills. It is therefore necessary to address the following research question: What are students' perceptions of the usability of scaffolded video reflection with respect to integrative and distributive skills development?

3. Method

3.1 Research Design

To examine the effect of scaffolded video reflection on students' integrative and distributive negotiation skills, their self-awareness, and students' perceptions of the usability of scaffolded video reflection with respect to integrative and distributive skills development, an experimental design was used. In the experiment, the development of students' integrative and distributive skills was the dependent variable, and scaffolded video reflection the independent variable (See Table 1). The experimental group engaged in scaffolded video reflection, while the control group engaged in scaffolded reflection without video.

Table 1

Research Design

	Negotiation 1	Intervention	Negotiation 2
Experimental group	*RO*	*X*	*O*
Control group	*RO*		*O*

Note. The R indicates the random assignment of the participants. The O indicates the measurements, and the X indicates the intervention.

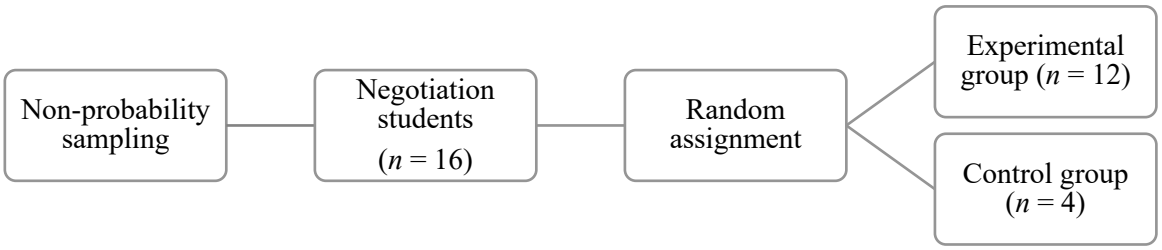
3.2 Participants

The sample included 16 students of a negotiation course at a Dutch university. The sampling procedure can be found in Figure 1. Students that had been in the negotiation course for several months were approached to take part in this study. The reason for this selection was that these students were not complete novices, nor too advanced in negotiation at the time of data collection. Because this study took place in the context of developing negotiation skills, it was necessary that students had had some training to gain knowledge on the subject to be able to reflect on their negotiation. Because of the specific focus of this study, students of a negotiation skills training were needed, indicating that a non-probability sampling method

was used. The sample of students was appropriate in relation to the study purpose, as this study is focused on developing negotiation skills. The students were randomly assigned to either the experimental or the control group to ensure external validity. During the briefing, the cases, each with a unique code, were handed out randomly. Students then had to find their negotiation partner by matching the codes. For example, a student with code Room1_SideA had negotiation partner Room1_SideB.

Figure 1

Sampling Procedure



The students ranged in age from 19 to 32 years (M = 21.94, SD = 3.05). The sample included five female students and 11 male students from undergraduate and graduate programmes, ranging from technical to business programmes. Students also had varying nationalities but were mostly European.

3.3 Instrumentation

3.3.1 Multi-issue Cases

For the negotiation activities, two similar multi-issue and scorable cases were used so that the results of the two activities could be compared. The cases were written in collaboration with a former negotiation teacher and current negotiation researcher. The first case followed a similar structure as used in previous work from Giebels et al. (1998) and Thompson (1990). The second case was adapted from Heunis et al. (2023). Furthermore, the cases were multi-issue with different points for different issues, so that the cases allowed for both integrative and distributive approaches, and for measuring both negotiation activities in terms of

performance based on comparing the attained outcomes. In each case, students had to settle on five issues. The first case can be summarised as a supplier-buyer negotiation in which students had to agree on issues such as price, currency and trade law. The highest outcome in theory for the first case was 3450. The second case was about two managers from the same organisation that had to settle on how their project budget would be spent. The highest outcome in theory for the second case was 1560.

Students were instructed to reach an agreement within fifteen minutes and to agree on the set of options that maximised their score. Leaving any of the issues not agreed upon resulted in no agreement at all and zero points for both parties. For both negotiations, the joint outcome was calculated not by the joint outcome, i.e., summing both students' total scores, but by using the integrative quotient, as the objective was to improve joint gain.

3.3.2 Reflection Exercises

For the reflection activities, guiding questions, i.e., scaffolds, were formulated to support students in their thinking when they reflected on their negotiation activities (See appendices A and B for the reflection exercises for the video condition, and appendices C and D for the reflection exercises for the no video condition). The scaffolds were developed in accordance with students' learning objective of adaptability. Moreover, the questions were formulated in accordance with the four main components of reflective practice that Mohamed et al. (2022) proposed. Additionally, the feedback points that Chapman (2017) proposed were also reflected in the questions. This was done to ensure that the students reflected on the process. The questions helped students reflect on the action taken, i.e., the first negotiation activity. For example, students had to rank statements about their negotiation from strongly disagree to strongly agree. A few examples of those statements are: *'I was able to find trade-offs that benefitted both parties'*, *'I was able to persuade the other negotiator to make most of the*

concessions' and *'I was able to prevent the other negotiator from exploiting my weaknesses'*. Moreover, these statements reflect both integrative as well as distributive behaviour.

More examples of scaffolding to ensure reflection on the process in the reflection exercise are: *'Indicate (if applicable, multiple instances) when you changed your integrative or distributive strategy (from integrative to distributive, or from distributive to integrative)'* and '*Why did you change your strategy at that point/those points? If you did not change your strategy, please also explain why'*. Students were also asked to indicate whether their opponent changed their strategy and to explain why they thought their opponent changed their strategy.

Furthermore, in both reflection activities, students were asked to give an estimated ratio of their use of integrative and distributive strategies. For example, a student might indicate that they used an integrative strategy 65% of the time and a distributive strategy 35% of the time in one negotiation. This scaffold was incorporated to raise students' awareness on the strategies and to have them reflect on how frequently they used those strategies. The ratio shows students' perceptions of their strategy use and if and how it changed after the reflection intervention.

Lastly, to plan for future action -the second negotiation activity- students were asked what they would do differently in their next negotiation based on their reflection. This question also allows for answers related to the student's own behaviour. After the reflection exercise, students engaged in the second negotiation activity, after which a second reflection exercise had to be completed. In the second reflection exercise, the students were asked whether they were able to apply what they indicated they wanted to do differently in the first reflection activity. This last scaffold reflected the last component for a well-designed reflection activity, namely evaluating the applied process (Mohamed et al., 2022).

3.3.3 Questionnaire

After the second reflection activity, students received a questionnaire which mapped students' experiences of the intervention and students' perceptions on the usability of using video as a reflection tool for negotiation skills development (See appendices E and F). Close-ended questions, rather statements, based on the UTAUT-model (Williams et al., 2015) with a 5-point scale were used. With students' perception on the usability, the following is meant: do students think this method will help them in developing their negotiation skills? It is about how effective the students think the intervention can be if it would be implemented in the curriculum. The indicators for the perceived usability are performance expectancy, effort expectancy and acceptance of technology.

Furthermore, for students in the control group without video usage, the statements that students had to rank were adjusted accordingly. For example, *'Using video reflection enhances my effectiveness in learning'* in the video condition, was adjusted to *'Using the reflection exercise enhances my effectiveness in learning'* in the no video condition. Therefore, the researcher gathered evaluations of the video reflection exercise, as well as the reflection exercise without video.

3.4 Procedure

In the experimental design, the video condition included 12 participants and the control condition included four participants. The participants were randomly assigned to either the experimental or the control group. First, the students were briefed on the procedure. It was explained that they would engage in two negotiation activities in dyads that take about 15 minutes each to complete, an individual reflection activity that takes about 30 minutes to complete in between the two negotiation activities, and a second individual reflection activity after the second negotiation activity that takes about 10 minutes to complete.

Both groups engaged in the same multi-issue negotiation activity in dyads, in this case the pre-test. After, the experimental group engaged in the video reflection activity, and the

control group engaged in a reflection exercise without video. This difference between experimental and control groups was decided upon to be able to examine the effect of video as a reflection tool. Furthermore, students also indicated an estimated ratio of their use of integrative and distributive strategies. After the reflection activity, both groups engaged in the second multi-issue negotiation activity in dyads, which served the purpose of a post-test. After the post-test, students engaged in a shorter reflection activity where both groups reflected without video and indicated whether they were able to apply what they wanted to do differently as indicated in the first reflection activity and gave an estimated ratio of their use of integrative and distributive strategies.

Lastly, students were asked to complete a questionnaire containing close-ended questions about their experiences with (video) reflection after negotiating and their perceptions of the usability of such an intervention for their integrative and distributive negotiation skills development. The questionnaire took about five minutes to complete.

The negotiation activities of both the experimental and control groups were recorded using MS Teams. However, the students only watched back their first negotiation activity and reflected on it, as the second reflection activity was aimed at finding out if students were able to apply what they indicated they wanted to do differently in the first reflection activity, and at finding out the estimated ratio of their use of integrative and distributive strategies. To answer these questions, the students did not need to watch back the second negotiation activity. The reason for recording both negotiation activities of both the experimental and control groups is that the researchers have access to the recordings in case student responses are ambiguous.

Because this study uses human test objects, permission from the ethical committee from the researcher's faculty was requested and granted. Special attention was paid to ensure safe handling of the data. Moreover, participants were asked to give informed consent.

3.5 Analysis

To analyse the joint outcomes, students' scores were converted to IQ scores using Excel. The formula to calculate the individual IQ scores was:

Individual IQ score = $\frac{Participant\ score - BATNA}{Pareto\ outcome - BATNA}$

In this formula, the participant score is the performance score of a participant on the items in the negotiation that allowed for trade-offs to be made (Olekalns & Smith, 2000; Olekalns, Smith, and Walsh, 1996; Olekalns & Weingart, 2008). The BATNA refers to Best Alternative To a Negotiated Agreement, and is a given score that the participant receives when the negotiation fails (Olekalns & Weingart, 2008). In the current study, the BATNA was zero. Furthermore, the Pareto outcome was calculated by adding up the scores from the case issues that ensured the best possible joint outcome. To calculate the dyadic IQ scores, the two IQ scores from two negotiation partners were added up and then divided by two. These IQ scores were then imported into IBM SPSS Statistics version 26. Further explanation of the statistical analysis of the IQ scores is described in the results section.

Secondly, to analyse the estimated ratios, the data was transformed to a dichotomous level. The student either changed their strategy after the intervention or the student did not change their strategy. If the sample size were bigger, a Chi Square test would have been performed. In this study, the choice fell on Fisher's Exact test, as that test is more suitable for smaller sample sizes (Sprent, 2011). The responses for the research question on students' self-awareness were organised in one document to allow for comparison. Lastly, the data from the questionnaire was imported into IBM SPSS Statistics version 26 to conduct descriptive statistics.

4. Results

4.1 The Influence of Scaffolded Video Reflection on Students' Integrative and Distributive Negotiation Skills and Joint Outcome

4.1.1 Comparing Joint Outcomes

Students' integrative and distributive skills were measured by the joint outcomes from the first and second negotiations. Both the negotiations were completed by 16 students. For each negotiation, the joint outcome was calculated in terms of the integrative quotient (IQ). Table 2 shows the descriptive statistics of the IQ scores.

Table 2

Descriptive Statistics of the Integrative Quotient

	Experimental group		Control group	
	n	*M (SD)*	*n*	*M (SD)*
Negotiation 1	12	.97 (.11)	4	.86 (.12)
Negotiation 2	12	.94 (.11)	4	.63 (.30)

The IQ scores in the first negotiation ranged from .77 to 1.20, while the IQ scores in the second negotiation ranged from .42 to 1.03. To examine the impact of the intervention on the IQ scores in the second negotiation, i.e., to determine whether there were significant changes in students' IQ scores, the data were analysed. First, the data were tested for normality by means of the Shapiro-Wilk test. The results indicated non-normal distributions of the data ($p \leq 0.05$). Furthermore, histograms revealed outliers, and the number of participants was low. Conducting a Repeated Measures ANOVA with multiple violations of the test's assumptions would be unfavourable. Instead, a non-parametric test should be used. A Friedman test is the non-parametric equivalent of a Repeated Measures ANOVA and could have been conducted to examine the differences in students' scores between the first and the second negotiation (Gravetter & Wallnau, 2016). However, this non-parametric test involves

ranking of the data, and there were not enough data points in the current study to conduct this test. Therefore, still a Repeated Measures ANOVA was conducted. The results showed no significant difference in neither the experimental group ($F(1,5) = .355$, $p > .05$), nor the control group ($F(1) = .559$, $p > .05$).

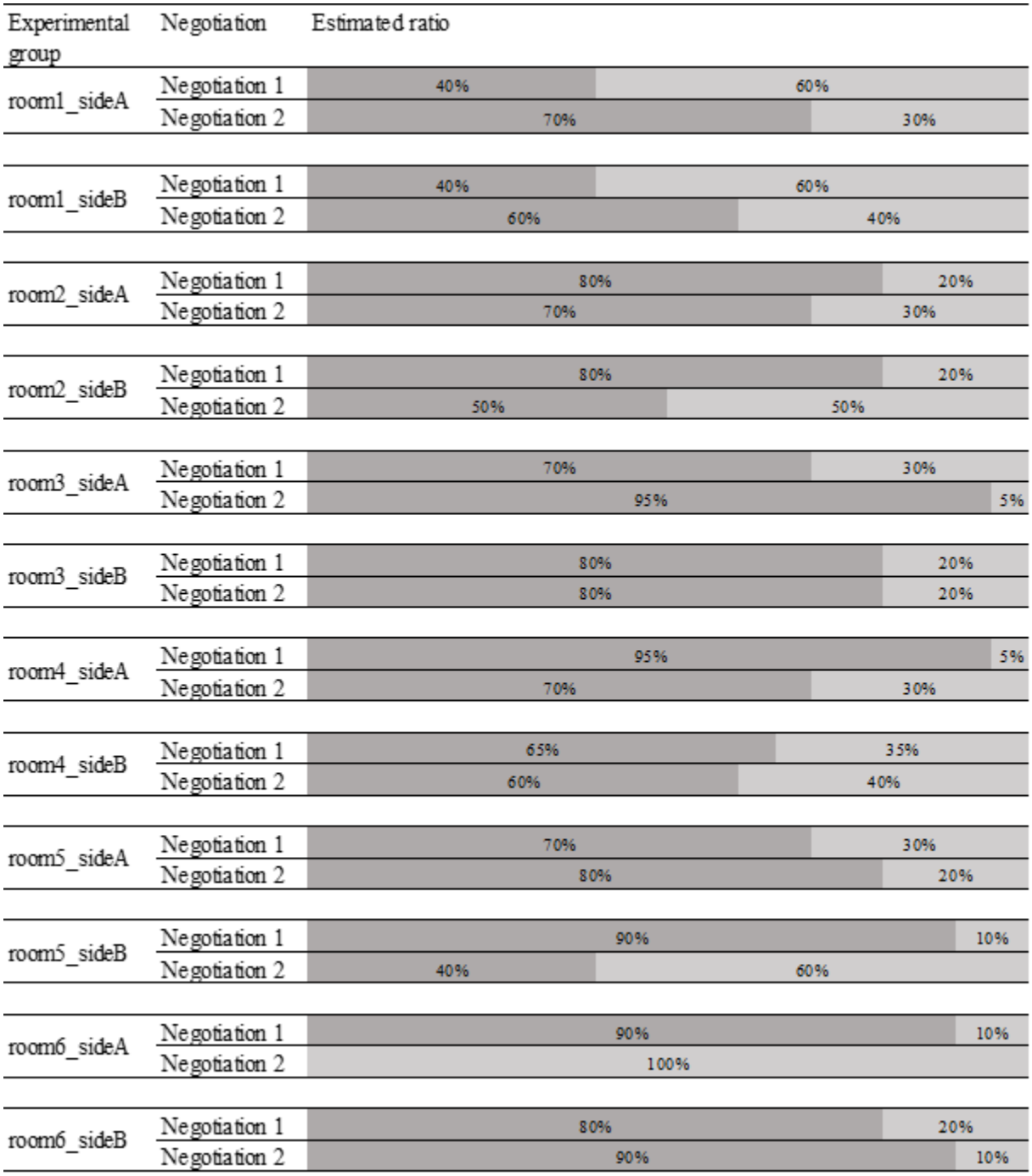
4.1.2 Estimated Ratios

In the experimental group, eleven out of twelve students indicated a change in their strategy use after the intervention. In contrast, in the control group, only one student indicated a change in their strategy use. The Fisher's Exact test was performed to investigate whether these results were significant. It was found that in the experimental group, significantly more ($p = .027$) students indicated a change in their strategy use than in the control group. Students' strategy usage in negotiation 1 and negotiation 2 are visualised for the experimental and the control group, in Figure 2 and Figure 3, respectively.

Five students in the experimental group changed to a more integrative approach, while six students changed to a more distributive approach. One student indicated no strategy change after the intervention. Furthermore, five students indicated a ratio that was more balanced after the intervention, another five students indicated a ratio that was less balanced after the intervention, and two students indicated the same ratio as in the pre-test. In contrast, in the control group, there were no students that changed to a more integrative approach in the post-test, one student that changed to a more distributive approach, and three students that indicated no strategy change at all. Moreover, the one student who did change their strategy, indicated a more balanced ratio in the post-test.

Figure 2

Students' Estimated Ratios of Strategy Use in the Experimental Group



Note. The dark grey indicates an integrative negotiation approach, and the light grey indicates a distributive negotiation approach.

Figure 3

Students' Estimated Ratios of Strategy Use in the Control Group

Control group	Negotiation	Estimated ratio	
room7_sideA	Negotiation 1	90%	10%
	Negotiation 2	70%	30%
room7_sideB	Negotiation 1	80%	20%
	Negotiation 2	80%	20%
room8_sideA	Negotiation 1	80%	20%
	Negotiation 2	80%	20%
room8_sideB	Negotiation 1	100%	
	Negotiation 2	100%	

Note. The dark grey indicates an integrative negotiation approach, and the light grey indicates a distributive negotiation approach.

4.2 The Influence of Scaffolded Video Reflection on Students' Self-awareness

The first reflection exercise contained a question on what students wanted to do differently in the next negotiation. The question was stated as follows: *'After this reflection exercise you will negotiate again. Based on your reflection, what would you do differently in your next negotiation?'* It was an open question, meaning that students were not limited by certain answer options and that they needed to formulate an answer in their own words. The question was the same for both the video as well as the no video condition.

In the video condition, students indicated that there were points of improvement to focus on in the next negotiation. These points for improvement were about their own behaviour. There were students that would want to display more integrative behaviours in a next negotiation. For example, one student said: *'I should be more sympathetic and say more appreciation to build a better relationship'*. Another student said: *'I want to look more into understanding their problems better'*. There were also students that would want to display

more distributive behaviours in a next negotiation. For example, one student said: *'I want to be more assertive'*. Another student said: *'I would change from integrative to distributive sooner to have more time to focus on my personal benefits'*.

Furthermore, in the video condition, students made comments on their verbal and non-verbal behaviour. Comments on verbal behaviour were for example: *'Say 'umm' less'* and *'Speak more clearly'*. One student said: *'I would definitely watch out more for the words I am using because even though I am interested in the relationship, I said 'profitable' way too many times'*. Another student commented that they would want to *'talk with more confidence'*. As for comments on non-verbal behaviour, one student said: *'Touch my face less'*. Another student commented that in a next negotiation, they would want to *'smile more'*.

In the no video condition, students indicated that they would want to display more distributive behaviour in a next negotiation. For example, one student said: *'I would maybe focus more on my interests, but I would not change my strategy much if the counterparty is collaborative'*. Another student said: *'Persuade them to anchor higher'*. There were no students that indicated that they wanted to display more integrative behaviour. There were also no students that commented on their verbal or non-verbal behaviour. One student indicated that they would not change anything in a next negotiation by answering *'Nothing really'*.

After the second negotiation, the students engaged in another reflection exercise containing two follow-up questions to the one previously discussed. The first question was: *'Look back at what you stated in the reflection exercise from the first negotiation on what you would do differently next time and indicate whether you think you were able to apply what you wanted to do differently.'* To answer this question, students had to rank the following statement from strongly disagree to strongly agree: *'I was able to apply what I wanted to do*

differently.' The second follow-up question was: *'Please explain why you were or were not able to apply what you wanted to do differently.'*

In the video condition, all but one student answered that they were able to apply what they wanted to do differently in a next negotiation. Students' explanations showed that they actively tried to work on their points for improvement in the second negotiation. For example, one student said: *'I proposed a package deal from the beginning so that there was more time to negotiate all the variables.'*. Another student stated: *'I was a bit more cautious with my limits'*. In addition, students explanations indicated that, although having worked on their points for improvement, they were still critical about their behaviours. For example, one student said: *'I think I stood my ground better. Still, I forgot to use the debating techniques'*. Moreover, some students even planned for future negotiations, stating what they could do in future negotiations. For example, one student said: *'I did not say appreciation and show much interest in my opponent. I still need to improve this quality'*.

In the no video condition, all students indicated that they were not able to apply what they wanted to do differently in a next negotiation. Students' explanations did not show that they actively worked on their points for improvement, if they had any. However, some students still reflected on their behaviour. For example, one student said: *'I did not have such strong arguments to persuade my counterparty'*. Lastly, in the no video condition, there were no students that planned for future negotiations.

4.3 Students' Perceptions of the Usability of Scaffolded Video Reflection

The results regarding students' perceptions of the usability of scaffolded video reflection are categorised under the following: performance expectancy, effort expectancy and acceptance of technology towards using the technology to meet their learning goals. To check the reliability of the questionnaire, a reliability analysis was performed. The overall reliability of the questionnaire can be classified as good with Cronbach's $\alpha = .843$. The internal

consistency of the first scale, performance expectancy, can be classified as excellent, with Cronbach's α = .950. The internal consistency of the remaining two scales, effort expectancy and acceptance of technology, can both be classified as good, with Cronbach's α = .841 and Cronbach's α = .839, respectively.

Table 3

Means and standard deviations of scores for performance expectancy, effort expectancy and acceptance of technology

Group	Performance expectancy	Effort expectancy	Acceptance of technology
Experimental group	3.63 (.08)	3.87 (.11)	3.71 (.26)
Control group	3.31 (.24)		3.56 (.13)

Note. The items ranged from 1 strongly disagree to 5 strongly agree.

The results as presented in Table 4 show that students in both the experimental and the control group on average have a performance expectancy that is moderate to high. An independent samples t-test showed no significant difference between the experimental and the control group ($t(14) = .372$, $p > .05$). Secondly, the results regarding effort expectancy show that students in the experimental group have an effort expectancy that is moderate to high. Three out of 12 students indicated that learning how to use video reflection might not be easy. Thirdly, the results regarding the acceptance of technology are also moderate to high for both the experimental, as well as the control group. Students in the experimental group reported slightly higher scores than students in the control group. An independent samples t-test showed no significant difference between the experimental and the control group ($t(14) = .454$, $p > .05$). Due to violations of the test's assumptions, such as the small sample size, a Wilcoxon Rank Sum test would be preferable (Ford, 2023). However, the control group had too little data points to allow for ranking of the data.

5. Discussion

5.1 The Influence of Scaffolded Video Reflection on Students' Integrative and Distributive Negotiation Skills and Joint Outcome

5.1.1 Comparing Joint Outcomes

The purpose of comparing the joint outcomes of the first negotiation to the joint outcomes of the second negotiation was to find out if the students had improved their scores after the intervention and to analyse if there was a difference between the experimental and control group regarding the joint outcomes. Such research with repeated measures and comparing the outcome scores is common in negotiation research and is seen in, for example, studies by Olekalns and Smith (2000), Olekalns, Smith, and Walsh (1996), and Olekalns and Weingart (2008). Significantly improved scores on the second negotiation in the experimental group compared to the control group would have indicated that the intervention had an effect on the students' negotiation skills. However, in the current study, no significant effect was found to indicate that the intervention had an influence on students IQ scores. The lack of a significant difference between the first and second negotiation may be due to having an insufficient sample size, resulting in low statistical power.

5.1.2 Estimated Ratios

As the joint outcome measure previously described does not necessarily reflect students' negotiation approach but rather their performance, the measure of estimated ratios was incorporated in the intervention study. The purpose of having the students estimate the ratio of their integrative and distributive strategy use in both negotiations was to raise the student's awareness of the two strategies and to prompt them to reflect on their strategy use. A comparison of the ratios from the first negotiation and the ratios from the second negotiation was made to find out if students' strategy use changed after the intervention. The results showed that in the experimental group, significantly more students perceived a change in their

strategy use after the intervention than students in the control group. This is an indication that the intervention had an influence: students actively reflected on their strategy use and changed their strategy after the intervention. These findings suggest that the video recordings support students in reviewing their strategy use. This is in line with previous research by Nadler and Thompson (2006) in which they demonstrated that video analysis helped students review strategic choices of other negotiators. However, the results of the current study suggest that watching back the recording of one's own negotiation, rather than others' negotiation, helps students to recognise their own strategic choices and prompts them to reflect on it.

5.2 The Influence of Scaffolded Video Reflection on Students' Self-awareness

For the sub-question 'How does the use of scaffolded video reflection influence students' self-awareness', the results indicated that students in both the experimental, as well as in the control group were able to formulate points for improvement with regard to their strategy use, i.e., displaying integrative or distributive behaviour, or a mixture. The ability to formulate points for improvement stems from a gained insight in one's own thought processes and actions, i.e., self-awareness (Schön, 1983). The results showed that students in the video condition were able to formulate points for improvement regarding their strategy use. There were students that wanted to display more integrative behaviour and students that wanted to display more distributive behaviour in a next negotiation. In the no video condition, all but one student formulated at least one point for improvement regarding their strategy use. There were some students that indicated they wanted to display more distributive behaviour.

As students in both the experimental and the control group were able to formulate points for improvement regarding their strategy use, these results suggest that video recordings do not influence students' ability to formulate points for improvement during their reflection. An explanation for this finding may be that students are well enough supported by scaffolded reflection without using video recordings to formulate points for improvement.

Support for this notion can be found in previous research by Mello et al. (2021), who highlight that scaffolding supports students during reflection. Furthermore, the work of Mohamed et al. (2022) highlighted the benefits of scaffolding for effective reflection that plans for future action, e.g., formulating points for improvement.

Superior results are seen for students' self-awareness of verbal and non-verbal behaviour. In the video condition, students commented on their verbal and non-verbal behaviour. Students commented that they should be more careful with their word-choices and gestures. In contrast, in the no video condition, not one student commented on their verbal or non-verbal behaviour. These findings suggest that watching back the video recording of the negotiation enhances students self-awareness of verbal and non-verbal behaviour and prompts them to reflect on it. Similar conclusions were reached in previous research by Brouwer (2011), Fadde and Rich (2010), Kelting et al. (2014), and Tripp and Rich (2012), who all have demonstrated enhanced self-awareness as a result of video reflection. The results of the current study found support for the notion made by Paskins, McHugh and Hassell (2014) that video recordings support reflection on verbal and non-verbal behaviour.

Another interesting finding was that students in the video condition reported how they had worked on their points for improvement in the second negotiation and what they still wanted to work on in the future. In contrast, no similar comments were made by students in the no video condition. These findings suggest that students in the video condition may be further in the reflection cycle, as they made a start on evaluating their objective and made suggestions for future actions outside of this intervention study (Mohamed et al., 2022). It could be that the degree of self-awareness plays a role in the completion of a reflection cycle. However, it should be noted that the previous statement is a speculation that should be investigated further in future research.

In summary, students' responses suggest that scaffolded video reflection can attribute to students becoming more self-aware about their behaviour, both verbal and non-verbal, during a negotiation.

5.3 Students' Perceptions of the Usability of Scaffolded Video Reflection

The goal of the second research question was to map students' perceptions of the usability of scaffolded video reflection. The results showed that students perceived scaffolded video reflection as a tool that can help them accomplish their learning goal regarding applying integrative and distributive negotiation strategies. Furthermore, most students indicated that using scaffolded video reflection would be a tool that is easy to use. Students also perceived learning with scaffolded video reflection as a fun learning experience that makes learning more interesting. These findings are in line with other studies that have indicated a positive user attitude towards video usage for reflection purposes (McCaslin & Young, 2015; Xiao & Tobin, 2018). Furthermore, after the intervention study, some students mentioned that the exercises were useful for practicing time management in negotiations. This is because students were under a time constraint during the intervention study. It was not the intention to practice time management with this intervention study, but it is a positive by-product of the video reflection exercises.

5.4 Limitations and Future Research

The current study is subject to limitations that one should consider when interpreting the results. The first limitation in the current study is the number of participants in the control group. Due to practical reasons, only four students participated in the control group. Similarly, it would be favourable to also have more participants in the experimental group. Due to the small sample size, the data were not normally distributed, which resulted in having to use non-parametric tests that hold less statistical power than parametric tests (Aandahl, 2022). In future studies, a larger number of participants is desired to be able to draw more

definitive conclusions about the effects of the intervention on students' negotiation skills. Proposing incentives for students may help future researchers to achieve a larger sample size (Felsen et al., 2010).

Secondly, the first and second negotiations were conducted in a short timeframe, specifically in one training session. To be able to measure the impact of the intervention more accurately, it is recommended to include the intervention in more training sessions of the negotiation course and practice it regularly, and to measure the effects over a longer period of time, e.g., an academic year. Specifically, it would be interesting to collect several repeated measures to determine if and when the intervention leads to better results, i.e., higher joint outcomes, changes in perceived strategy use, and self-awareness. Moreover, it is important that future studies still incorporate a control group in longitudinal studies, as a control group is essential in determining whether the observed differences were due to the usage of scaffolded video reflection, or scaffolded reflection alone (Simkus, 2023a).

5.5 Theoretical and Practical Implications

Both theoretical and practical implications for the understanding and application of scaffolded video reflection in negotiation training can be deduced from this study's results. Various previous studies have demonstrated the benefits of video recordings for supporting reflections (Hollingsworth & Clarke, 2017; Körkkö et al., 2019; McCaslin & Young, 2015; Mueller, 2019; Schmid, 2011; Tripp & Rich, 2012; Xiao & Tobin, 2018). These studies found improvements in teachers' reflective skills and performance. The theoretical contribution of the current study lies in its exploration of using video recordings to support reflection in developing transferable skills, specifically negotiation skills. The results of the current study provide support for earlier research by Williams, Farmer and Manwaring (2008) and Tyler and Cukier (2005) who demonstrated the potential of using video recordings to help students of negotiation with their reflection. Although the current study did not find significant results

regarding students' joint outcomes, it did find significant results regarding students' perceived strategy usage.

Specifically, the results showed that after the intervention, students in the experimental group perceived a change in their strategy use. A comparison with the students in the control group showed that in the experimental group, significantly more students perceived this change in strategy use. This finding shows that students actively reflected on their strategy use and made changes after the intervention, thus indicating that the intervention had an influence. This finding is in accordance with findings reported by Nadler and Thompson (2006) who demonstrated that reviewing strategic choices of other negotiators can be supported through video analysis. However, the current study found that students can also reflect on their own negotiation and review their strategy, rather than others' strategic choices, through scaffolded video reflection.

Moreover, the results showed that, in the experimental group, students became self-aware of their behaviour after engaging in scaffolded video reflection. In contrast, students in the control group did not comment on their verbal or non-verbal behaviour at all. This is consistent with previous findings (Brouwer, 2011; Fadde & Rich, 2010; Kelting et al., 2014; Tripp & Rich, 2012). However, the current study provides valuable insights into what type of behaviour negotiation students become more aware of when they are able to watch back their own negotiation. A number of students commented on their word-choices and gestures, indicating that they reflect on both their verbal, as well as their non-verbal behaviour as a result of engaging with scaffolded video reflection.

The current study of scaffolded video reflection and its effects on students' integrative and distributive negotiation skills has practical implications for negotiation training programmes. Previous research shed light on the potential of using video recordings for supporting teacher reflection (Hollingsworth & Clarke, 2017; Körkkö et al., 2019; McCaslin

& Young, 2015; Mueller, 2019; Schmid, 2011; Tripp & Rich, 2012; Xiao & Tobin, 2018). Building on the existing literature, in the light of negotiation training, the current study demonstrated that scaffolded video reflection can lead to recognising one's strategy use and change the strategy use after having reflected on it. Moreover, Tripp and Rich (2012), and Kelting et al. (2014) highlighted the effects of using video recordings for enhancing self-awareness. The current study also demonstrated that scaffolded video reflection can lead to self-awareness of verbal and non-verbal behaviour. Therefore, professionals in negotiation training could consider including scaffolded video reflection in the curriculum as an accessible means to support students in developing their integrative and distributive negotiation skills.

Furthermore, students' perceptions of the usability of scaffolded video reflection indicated that students see scaffolded video reflection as a useful tool for accomplishing their learning goal. This positive user attitude was also observed in other studies by McCaslin and Young (2015) and Xiao and Tobin (2018), both of which demonstrated the positive user attitude for video reflection exercises. Thus, incorporating scaffolded video reflection in the curriculum would likely be positively received by students.

In conclusion, the use of scaffolded video reflection demonstrated students' recognition of their strategy use. Scaffolded video reflection raised students' awareness of their use of integrative and distributive negotiation strategies and prompted the students to reflect on their strategy use. Moreover, the current study showed that scaffolded video reflection can lead to self-awareness of verbal and non-verbal behaviour. Students also responded positively to using scaffolded video reflection to accomplish their learning goals. However, regarding the joint outcomes, no significant effect was found. It is important to consider the small sample size of the current study, which limited the researcher in finding significant results for the joint outcomes. To gain an understanding of how scaffolded video

reflection influences joint outcomes, future research should focus on realising a larger sample size and preferably, more repeated measures. Still, the current study offers valuable insights in the effects of using scaffolded video reflection on recognition of strategy use and self-awareness of verbal and non-verbal behaviour. These insights provide an understanding of how scaffolded video reflection can be used to address the current challenges in negotiation training. Lastly, the current study also emphasises the importance of conducting further research on scaffolded video reflection and its effects on students' integrative and distributive negotiation skills.

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Appendix A

Reflection Exercise 1 Video Condition

Reflection Exercise

Instructions
Watch back your negotiation and fill in the reflection form. You can pause the video and watch certain moments again if needed. You have 30 minutes for this task.

1. **I was able to find trade-offs that benefitted both parties.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

2. **I was able to exchange concessions.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

3. I **was able to look for an agreement that maximised both negotiators' interests.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

4. **I was able to establish a high level of rapport with the other negotiator.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

5. **I was able to persuade the other negotiator to make most of the concessions.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

6. **I was able to convince the other negotiator to agree with me.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

7. **I was able to gain the upper hand against the other negotiator.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

8. **I was able to prevent the other negotiator from exploiting my weaknesses.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

9. **Indicate (if applicable multiple instances) when <u>you</u> changed your integrative or distributive strategy (from integrative to distributive, or from distributive to integrative).**

   Time stamp(s) (e.g., 08:31): …….

10. **Why did you change your strategy at that point/those points? If you did not change your strategy, please explain why.**

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11. **Indicate (if applicable multiple instances) when <u>your opponent</u> changed their integrative or distributive strategy (from integrative to distributive, or from distributive to integrative).**

    Time stamp(s): …….

12. **Why do you think your opponent changed strategy at that point/those points? If your opponent did not change strategy, please explain why you think he or she did not change strategy.**

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13. **After this reflection exercise you will negotiate again. Based on your reflection, what would you do differently in your next negotiation?**

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14. **Indicate your ratio of using integrative and distributive behaviour during the negotiation.**

(They should together add up to 100%)

Integrative: ……../100% Distributive: ……../100%

Appendix B

Reflection Exercise 2 Video Condition

Reflection Exercise

Instructions

This time do not watch back your negotiation when you fill in the reflection form. You have 10 minutes for this task.

1. **I was able to find trade-offs that benefitted both parties.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

2. **I was able to exchange concessions.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

3. I **was able to look for an agreement that maximised both negotiators' interests.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

4. **I was able to establish a high level of rapport with the other negotiator.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

5. **I was able to persuade the other negotiator to make most of the concessions.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

6. **I was able to convince the other negotiator to agree with me.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

7. **I was able to gain the upper hand against the other negotiator.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

8. **I was able to prevent the other negotiator from exploiting my weaknesses.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

9. **Look back at what you stated in the reflection exercise from the first negotiation on what you would do differently next time and indicate whether you think you were able to apply what you wanted to do differently.**

   I was able to apply what I wanted to do differently.

   O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

10. **Please explain why you <u>were</u> or <u>were not</u> able to apply what you wanted to do differently.**

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11. **Indicate your ratio of using integrative and distributive behaviour during the negotiation.**

    (They should together add up to 100%)

    Integrative: ……../100% Distributive: ……../100%

Appendix C

Reflection Exercise 1 No Video Condition

Reflection Exercise

Instructions
Please fill in the reflection form. You have 30 minutes for this task.

1. **I was able to find trade-offs that benefitted both parties.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

2. **I was able to exchange concessions.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

3. I **was able to look for an agreement that maximised both negotiators' interests.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

4. **I was able to establish a high level of rapport with the other negotiator.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

5. **I was able to persuade the other negotiator to make most of the concessions.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

6. **I was able to convince the other negotiator to agree with me.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

7. **I was able to gain the upper hand against the other negotiator.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

8. **I was able to prevent the other negotiator from exploiting my weaknesses.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

9. **Indicate (if applicable multiple instances) when <u>you</u> changed your integrative or distributive strategy (from integrative to distributive, or from distributive to integrative).**

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10. **Why did you change your strategy at that point/those points? If you did not change your strategy, please explain why.**

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11. **Indicate (if applicable multiple instances) when <u>your opponent</u> changed strategy (from integrative to distributive, or from distributive to integrative)**

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12. **Why do you think your opponent changed strategy at that point/those points? If your opponent did not change strategy, please explain why you think he or she did not change strategy.**

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13. **After this reflection exercise you will negotiate again. Based on your reflection, what would you do differently in your next negotiation?**

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14. **Indicate your ratio of using integrative and distributive behaviour during the negotiation.**

(They should together add up to 100%)

Integrative: ……../100% Distributive: ……../100%

Appendix D

Reflection Exercise 2 No Video Condition

Reflection Exercise

Instructions

Please fill in the reflection form. You have 10 minutes for this task.

1. **I was able to find trade-offs that benefitted both parties.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

2. **I was able to exchange concessions.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

3. I **was able to look for an agreement that maximised both negotiators' interests.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

4. **I was able to establish a high level of rapport with the other negotiator.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

5. **I was able to persuade the other negotiator to make most of the concessions.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

6. **I was able to convince the other negotiator to agree with me.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

7. **I was able to gain the upper hand against the other negotiator.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

8. **I was able to prevent the other negotiator from exploiting my weaknesses.**

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree O n/a

9. **Look back at what you stated in the reflection exercise on what you would do differently next time and indicate whether you think you were able to apply what you wanted to do differently.**

   I was able to apply what I wanted to do differently.

   O Strongly disagree O Disagree O Undecided O Agree O Strongly agree

10. **Please explain why you <u>were</u> or <u>were not</u> able to apply what you wanted to do differently.**

    ……

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    ……

11. **Indicate your ratio of using integrative and distributive behaviour during the negotiation.**

    (They should together add up to 100%)

    Integrative: ……../100% Distributive: ……../100%

Appendix E

Questionnaire Video Condition

Questionnaire

Instructions
Please fill in the questions below. You have 5 minutes for this task.
The learning goal refers to applying integrative and distributive strategies.

1. **Using video reflection improves my learning goal.**

   O Strongly disagree O Disagree O Undecided O Agree O Strongly agree

2. **Using video reflection allows me to accomplish my learning goal more quickly.**

   O Strongly disagree O Disagree O Undecided O Agree O Strongly agree

3. **Using video reflection increases my chances of achieving my learning goal.**

   O Strongly disagree O Disagree O Undecided O Agree O Strongly agree

4. **Using video reflection enhances my effectiveness in learning.**

   O Strongly disagree O Disagree O Undecided O Agree O Strongly agree

5. **Learning how to use video reflection is easy for me.**

   O Strongly disagree O Disagree O Undecided O Agree O Strongly agree

6. **My interaction with video reflection is clear and understandable.**

   O Strongly disagree O Disagree O Undecided O Agree O Strongly agree

7. **It is easy for me to become skilful at using video reflection.**

   O Strongly disagree O Disagree O Undecided O Agree O Strongly agree

8. **I find video reflection easy to use.**

   O Strongly disagree O Disagree O Undecided O Agree O Strongly agree

9. **Using video reflection is a good idea.**

   O Strongly disagree O Disagree O Undecided O Agree O Strongly agree

10. **Video reflection makes learning more interesting.**

    O Strongly disagree O Disagree O Undecided O Agree O Strongly agree

11. Learning with video reflection is fun.

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree

12. I like working with video reflection.

O Strongly disagree O Disagree O Undecided O Agree O Strongly agree

13. Is there anything else you would like to add?

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Appendix F

Questionnaire No Video Condition

Questionnaire

Instructions
Please fill in the questions below. You have 5 minutes for this task.
The learning goal refers to applying integrative and distributive strategies.

14. **Using the reflection exercise improves my learning goal.**

    O Strongly disagree O Disagree O Undecided O Agree O Strongly agree

15. **Using the reflection exercise allows me to accomplish my learning goal more quickly.**

    O Strongly disagree O Disagree O Undecided O Agree O Strongly agree

16. **Using the reflection exercise increases my chances of achieving my learning goal.**

    O Strongly disagree O Disagree O Undecided O Agree O Strongly agree

17. **Using the reflection exercise enhances my effectiveness in learning.**

    O Strongly disagree O Disagree O Undecided O Agree O Strongly agree

18. **Using the reflection exercise is a good idea.**

    O Strongly disagree O Disagree O Undecided O Agree O Strongly agree

19. **the reflection exercise makes learning more interesting.**

    O Strongly disagree O Disagree O Undecided O Agree O Strongly agree

20. **Learning with the reflection exercise is fun.**

    O Strongly disagree O Disagree O Undecided O Agree O Strongly agree

21. **I like working with the reflection exercise**

    O Strongly disagree O Disagree O Undecided O Agree O Strongly agree

22. **Is there anything else you would like to add?**

    ……

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