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# AN EXPLORATIVE STUDY OF THE USAGE OF NEGOTIATION STYLES IN HIGHER EDUCATION

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## **Abstract**

*In everyday life, we usually negotiate intuitively with each other. However, especially through important negotiations, e.g., business negotiations, an optimal outcome is desirable. By preparing the negotiation and training how to negotiate in various conflicts, the negotiation knowledge can be improved and thus negotiators can be more successful in negotiations. 112 Students in higher education were supported in a course and an electronic negotiation training. To examine how students learned negotiation styles, a study was conducted to determine the bias between what they learned and how they applied in electronic negotiations. As a result, the students confirmed that they learned negotiation styles, however, most of them could not identify their own and their counterpart's styles. Thus, a more individualised training in the course and in the electronic training according to the negotiation styles and negotiation strategies has to be adapted.*

**Keywords:** Negotiation, Negotiation Styles, TKI, Higher Education, Explorative Study

## **1.0 Introduction**

Individuals face multiple problems or conflicts on a daily basis that need to be solved interactively (Reb 2010; Cantor and Harlow 1994), e.g. through negotiation (Kelman 1996; Reb 2010). For negotiations a preparation and a training are essential to improve the negotiation outcome (Raiffa et al. 2002; Lewicki et al. 2010b). Even for advanced negotiators, training can help to increase their negotiation efficiency (Loewenstein and Thompson 2014). ElShenawy (2010) investigated that even a short training programme increases the performance of the participants. Moreover, an extensive training programme leads to a high training effect.

A study of Thompson (1990) revealed that a large number of negotiators failed to recognise compatible interests with the counterpart and thus achieved a suboptimal outcome. Moreover, negotiators with experience in a negotiation style from previous negotiation tend to maintain this style, regardless of whether a change in negotiation style would lead to a more successful outcome (Thompson 1990). Raising awareness of the

existence of different negotiation styles and various negotiation strategies, as well as providing knowledge about the counterpart's style and strategies, could have a positive effect on negotiation outcomes (Peleckis 2014; Thompson 2022; Lewicki et al. 2010a; Miller 2014).

Thus, a study was conducted to investigate whether, and if so, how individuals can apply knowledge about negotiation styles from negotiation preparation and negotiation training in a human-to-human-negotiation. The negotiations of the study were applied electronically in the Negotiation Support System (NSS) Negoisst (Schoop 2010, 2021). In electronic negotiations, communication and information systems are applied to support negotiations, such as NSSs, with the aim to reduce transaction costs and to improve the quality of negotiation outcomes (Bichler et al. 2003; Kersten and Lai 2007; Schoop et al. 2003).

For this purpose, participants of the conducted study are students attending a course on negotiation. During this course and before conducting the study, students already learned basics about negotiation, such as negotiation process, negotiation styles, personal traits, and their effects on negotiation styles. As part of the course, students attended several face-to-face exercises to negotiate with each other in diverse situations. For an optimal negotiation outcome trust and understanding the counterpart are essential. Empathising with the counterpart's situation with comprehensive understanding of the counterpart's points of view and beliefs enables them to actively influence their counterpart (Fisher et al. 2011).

Based on their personality, individuals possess personal conflict styles to handle conflictual situations (Thomas and Kilmann 1976), such as negotiations. One model to identify those conflict styles is the Thomas-Kilmann Conflict Mode Instrument (TKI), which were considered in this study. TKI can be applied to teach students to use personal conflict styles and to interpret their counterpart's intention in a negotiation (Shell 2001).

### **Goals of the present study**

The main purpose of this study was to investigate the behaviour of individuals with negotiation knowledge in negotiations. More specifically, the goals were to:

- 1) Study the correlation between students' conflict style and their used negotiation styles in a human-to-human-negotiation,
- 2) Investigate whether students can recognise their counterpart's negotiation style, and
- 3) Examine how students apply negotiation styles learned in a course in a negotiation.

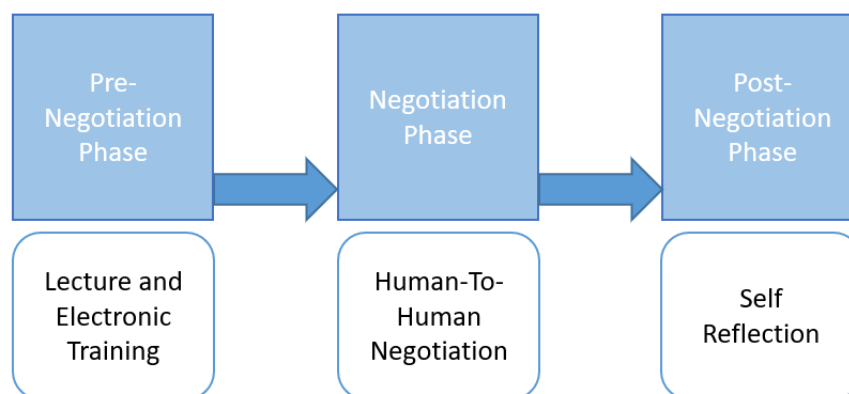
## 2.0 Theoretical Background

The following section presents theoretical foundations of negotiations and TKI.

### 2.1 Negotiations

Negotiations are communication and decision-making processes between at least two parties. By exchanging arguments (such as offers and requests), the parties want to achieve a consensus while solving a conflict (Schoop 2010; Kersten and Lai 2007; Kelman 1996). This study focusses on the decision-making processes of negotiations.

Negotiations can be categorised into three phases – the pre-negotiation phase, the phase of the actual negotiation, and the post-negotiation phase (Figure 1). The phases are interconnected to each other and are not distinct (Gulliver 1988).



**Figure 1.** Negotiation Phases (Gulliver 1988)

The pre-negotiation phase considers information about past negotiations, such as the relationship and conflicts with the counterpart, and known information about the counterpart, such as expectations and dislikes (Gulliver 1988). In addition, this phase includes the preparation for the negotiation, as learning negotiation techniques, defining

the negotiation frame, such as reservation and aspiration level, and considering the negotiation style, strategies and tactics that will be used during the negotiation. The selection of the negotiation style and strategies depends on the counterpart's position, and on past and future negotiations with the counterpart (Lewicki et al. 2010b). Thus, the conducted course and the electronic training can be categorised in the pre-negotiation phase.

The negotiation phase comprises the actual negotiation between the involved parties, with all information and offer exchanges as well as the end of the negotiation (Gulliver 1988), which in this investigation comprises a human-to-human negotiation.

The post-negotiation phase, as the last phase of the negotiation, considers the outcome and the social consequences of the negotiation; thus the evaluation and documentation of results and lessons-learned (Gulliver 1988). The post-negotiation phase was conducted by the students themselves and not guided by the study.

By assisting negotiators during the three negotiation phases, NSSs can be utilised (Kersten and Lai 2007). Such a System is the NSS Negoisst (Schoop 2021; Schoop et al. 2003) which includes among others a training component with a tactical negotiation trainer (TNT). A TNT is a trainer with whom an individual can learn to negotiate (Melzer et al. 2012).

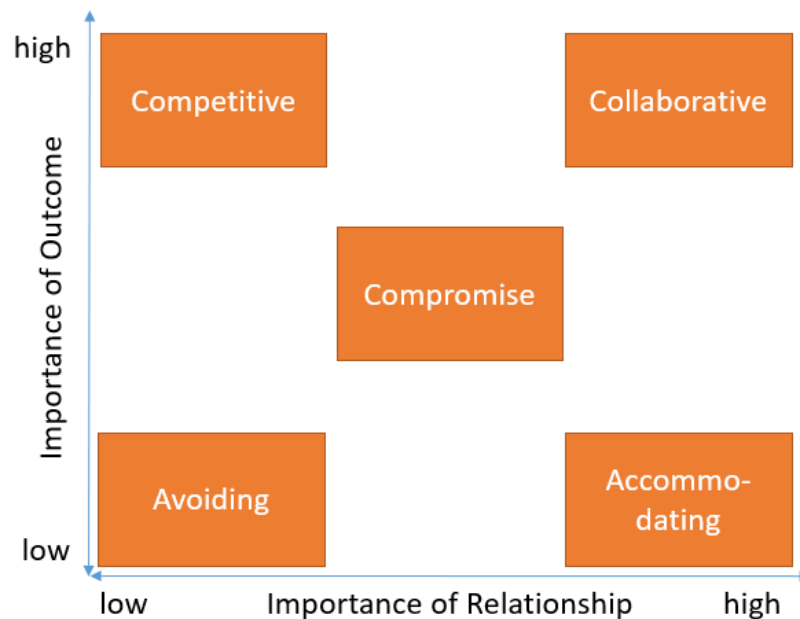
## **2.2 Negotiation Styles**

During the pre-negotiation phase, the context, negotiation styles and strategies for the upcoming negotiation have to be defined (Lewicki et al. 2010b). There are two orientations in a negotiation – integrative and distributive – to reach an agreement and resolve a conflict. Thus, negotiation styles, strategies and tactics are affected by these orientations (Vetschera et al. 2011).

Integrative bargaining focus on similarities, such as increasing the joint outcome by addressing needs and interests, exchange information and ideas and commit to achieve an agreement that meets all parties' needs (Lewicki et al. 2010a; Goldman 2003).

Whereas distributive bargaining focuses on the discovery and the influence of the counterpart's resistance point to maximise the own profit (Lewicki et al. 2010a; Goldman 2003).

Negotiation styles vary according to the type of relationship and the importance of the outcome (Ganesan 1993) and can be combined during a negotiation (Lewicki et al. 2010b). Lewicki et al. (2010b) defined accommodating, collaborative, compromise, avoiding and competitive as five negotiation styles that differ based on the importance of the relationship and the importance of the outcome for a negotiator. The relationship between the dimensions and the corresponding style is illustrated in Figure 2.



**Figure 2.** Negotiation Styles (Lewicki et al. 2010b)

Negotiation strategies and negotiation tactics are often used as similarities; indeed, they vary according to their abstraction level. Strategies consider the plan of the negotiation according to the selection and re-evaluation of the priorities and the used negotiation styles. Whereas negotiation tactics are the techniques to apply the selected negotiation strategy (Goldman 2003; Lewicki et al. 2010a).

Since this study focuses on conflict styles and negotiation styles, strategies and tactics will not be discussed further.

### 2.3 TKI

TKI is a model to rate and evaluate how an individual conduct oneself in conflict situations between parties with diverse concerns. The model describes two dimensions – assertiveness and cooperativeness – how an individual can behave in such situations.

Assertiveness describes to which extent an individual concerns its own behaviour. Cooperativeness considers to which extent an individual wants to satisfy the counterpart's concern (Thomas and Kilmann 1976, 2008).

Figure 3 depicts the five conflict styles of TKI and their relation to assertiveness and cooperativeness (Thomas and Kilmann 1976, 2008).

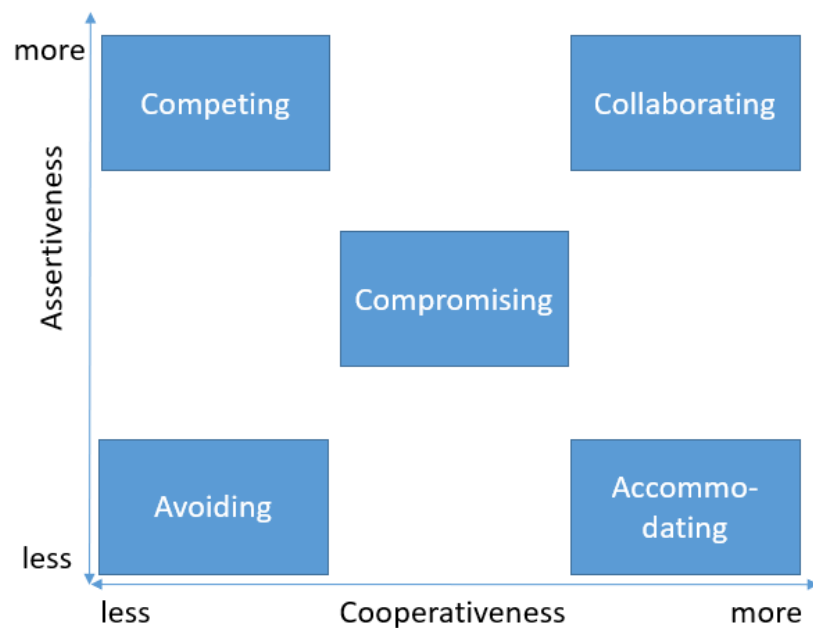


Figure 3. TKI conflict types (Thomas und Kilmann 1974, 2008)

A negotiator with a *competing* conflict style only wants to achieve its own concern by using power to win its position no matter what and how it could affect the relationship to the counterpart (Thomas and Kilmann 1976, 2008).

The conflict style *accommodating* is contrary to competing. The concern of the counterpart and the relationship to the counterpart have a high priority for the negotiator, i.e. the negotiator is yielding to the counterpart's view (Thomas and Kilmann 1976, 2008).

A negotiator who does neither concern its interests nor the interests of the counterpart behaves as *avoiding* by diplomatically sidestepping the negotiation or postponing an issue (Thomas and Kilmann 1976, 2008).

A negotiator is *compromising* if the negotiation outcome satisfies both parties partially by splitting the difference or exchanging concessions (Thomas and Kilmann 1976, 2008).

*Collaborating* as a conflict style can be defined as an extension of compromising, i.e. both parties are working together to find a fully satisfying solution for both by identifying the others interests and concerns (Thomas and Kilmann 1976, 2008).

## 2.4 TKI in Negotiations

Ganesan (1993) states that the TKI conflict mode were referred as negotiation styles in the research of conflict resolution. Thus, the previous defined negotiation styles were mapped with the TKI's conflict styles. Table 1 depicts an overview of the negotiation styles, the corresponding TKI conflict style, the outcome type, and the identified synonyms used by participants in the surveys.

A negotiator who withdraws from an active negotiation is avoiding. The outcome of the negotiator itself and its counterpart remain behind the achievable outcome (lose-lose).

If a negotiator is only interested in its own concern and not at all in the relationship with the counterpart, the negotiator behaves in a competitive manner by aiming to achieve a high own outcome, whilst the counterpart will achieve a poor outcome (win-lose).

Contrary to competitive, a negotiator who sacrifices own outcome to build a relationship is characterised as accommodating (lose-win).

Collaborative and compromising are related orientations. Negotiators are collaborative if they achieve a solution that suits both needs fully (win-win). While negotiators are compromising, if the achieved solution suits both sides partially, i.e., both parties give up some points to achieve a settlement (split the difference).

TKI Conflict Style	Negotiation Style	Outcome of ...		Synonym
		Negotiator	Counterpart	
Avoiding	Avoiding	Lose	Lose	
Competing	Competitive	Win	Lose	Distributive
Accommodating	Accommodating	Lose	Win	
Compromising	Compromise	Split the Difference		Trading Issues
Collaborating	Collaborative	Win	Win	Integrative, Cooperative, Expand the Pie, Logroll

**Table 1.** Overview of Mapped TKI Conflict Styles and Negotiation Styles  
(Lewicki et al. 2010b; Thomas and Kilmann 1976, 2008)



### 3.0 Conducting the study

The study is based on the methodology of Kelley et al. (2003). Several surveys and negotiations were conducted to determine the participant's level of knowledge about negotiation styles and the skills to apply these styles.

Before the study was conducted, the participants already learned negotiation basics during a term-long course, such as their personal conflict style, negotiation styles and conflicts in negotiations. The aim of the course was to build fundamental knowledge in negotiations and already train the participants with small exercises to negotiate in various situations. Figure 4 depicts the chronological sequence of the study as part of the course. The study was conducted electronically between November 11<sup>th</sup> to December 8<sup>th</sup> 2021 and included

- three surveys: Survey 1, Survey 2, Survey 3,
- an electronic negotiation training with several bilateral human-to-machine negotiations, and
- a bilateral human-to-human negotiation, so called simulation.

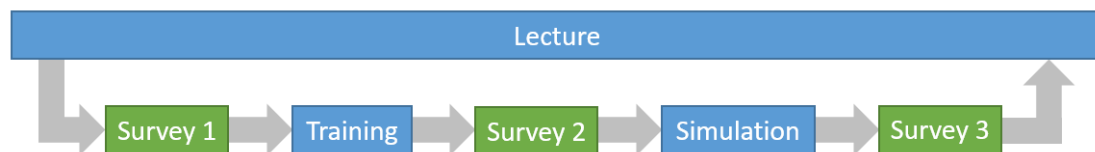


Figure 4. Chronological Sequence of the Study

The surveys were conducted with a covering letter containing all necessary information and a uniform questionnaire layout for all surveys. The survey questions were closed in all those cases that contained a given range for possible responses. The answers to the closed questions were given on a seven-point Likert scale. In the remaining cases, especially for the questions on the used negotiation styles, open questions were asked to encourage participants to provide unbiased statements.

Survey 1 collected general information about the participants, such as their personal conflict style and their level of knowledge in negotiation and negotiation styles.

The electronic negotiation training followed survey 1. Both, the electronic training and the simulation, were conducted in the NSS Negoisst (Schoop 2010, 2021). During the training, participants had to conclude at least three negotiations with the TNT within eight days. Further, the participants had the possibility to repeat every negotiation multiple times.

After the participants concluded their electronic training on an individual period during these eight days, Survey 2 was conducted. Among others, the participants were asked to name the used negotiation styles in the training – by defining their own negotiation style and the TNT’s negotiation style – and their intended negotiation style in the simulation.

The simulation was scheduled on five days in which the participants had to conclude their negotiation – either with a reject or an accept of the negotiated offer. The topic of negotiation was an integrative case study.

After the conclusion of the simulation, the participants were asked in survey 3 to state the used negotiation style in the simulation by defining their own style and the counterpart’s style.

To achieve meaningful survey results, only those participants were considered, who and their counterpart completed all surveys, the electronic training, and the simulation. In total 112 students (58 male, 54 female) attended the study successfully with an average age of 24.47 years. The participants were enrolled in information systems, business communication and management.

## **4.0 Results**

This section represents the results of the study by including the surveys and the outcome of the negotiations.

Participants were asked to state their negotiation skills and how the electronic training had influenced their skills. The replies were given on a seven-point Likert scale from 1 (strongly disagree) to 7 (strongly agree). The aim of this measurement was to control whether the participants were already familiar with negotiation (Question 1-3 in Table 2) and whether the electronic training had increased their knowledge level (Question 4-9 in Table 2).

In accordance with the negotiation basics learned in the course, most of the participants are familiar with various negotiation styles (Mean 4.97; SD 0.925). However, they tend to be insecure about the intended usage of negotiation styles (Mean 4.97; SD 1.346).

The participants stated that the training helped them to improve their skills and be more prepared how to use negotiation styles.

	N	Min	Max	Mean (SD)
I am familiar with various negotiation styles.	112	2	7	4.97 (0.925)
I am insecure which negotiation styles I should choose in a negotiation.	112	1	7	4.25 (1.346)
I am aware of negotiation styles, but I never used specific strategies with intention.	112	1	7	4.97 (1.485)
I know how to use my negotiation knowledge for my advantage in negotiations.	112	2	7	5.10 (0.930)
The training helps me to understand negotiation processes better.	112	2	7	5.62 (0.979)
The training helps me to understand negotiation styles better.	112	2	7	5.22 (1.264)
The training helps me to improve my negotiation skills.	112	1	7	5.23 (1.280)
I learned how to negotiate while doing the training.	112	2	7	4.72 (1.261)
I learned how to use negotiation styles in negotiations.	112	1	7	4.73 (1.139)

**Table 2. Participant's Knowledge Level of Negotiation Styles**

#### 4.1 Used Negotiation Styles

Thomas and Kilmann (1976, 2008) defined five different conflict styles. However, an individual can have more than one of these conflict styles combined as their personal conflict style. According to Table 3 the participants in the simulation applied eleven different negotiation styles with varying frequency of use. The most used negotiation styles were *compromising* (31 participants), *collaborative* (29 participants), and *compromising & competitive* (23 participants). These styles were followed by the negotiation styles *competitive* (10 participants) and *accommodating* (9 participants). The remaining negotiation styles were applied by three or less participants.

Overall, five negotiations (10 participants of 112 participants) were concluded with a reject statement. Except one participant, who negotiate with a *collaborative & then compromising* style, the remaining participants with a rejected negotiation applied a *competitive* negotiation style.

Negotiation Style	N	Conclusion Statement of the Negotiation for N Participants	
		Reject	Accept
Accommodating	1	0	1
Accommodating & Avoiding	1	0	1
Accommodating & Compromising	9	0	9
Avoiding & Competitive	3	3	0
Collaborative	29	0	29
Collaborative & then Compromising	1	1	0
Competitive	10	6	4
Competitive & Collaborative	2	0	2
Compromising	31	0	31
Compromising & Collaborative	2	0	2
Compromising & Competitive	23	0	23
Total	112	10	102

**Table 3. Used Negotiation Styles and Conclusion Statement of the Negotiation**

Overall, 66 participants utilised *compromising* as part of their negotiation style; followed by 38 participants with *competitive* and 34 participants with *collaborative* as part of their negotiation style. Eleven participants utilised *accommodating* and four participants applied *avoiding* as part of their negotiation style.

In the third survey, the participants were asked to state their used negotiation styles during the simulation. Overall, nine participants did not state any negotiation style, i.e., either they could not determine their negotiation style, or they did not apply a negotiation style intentionally. The negotiation style of those nine participants were identified as *accommodating & avoiding* (1 participant), *avoiding & competitive* (1 participant), *compromising* (2 participants), *compromising & collaborative* (1 participant), *compromising & competitive* (3 participants), and *competitive* (1 participant).

Fifteen of 112 participants correctly identified the negotiation style. Five of 66 participants with *compromising* as part of their negotiation style state their style correctly. While two of ten participants who negotiated exclusively with the *competitive* negotiation style stated their style correctly. Eight of 29 participants who negotiated exclusively with this style correctly identified the negotiation style *collaborative*. Whereas no participant with *accommodating* or *avoiding* as part of their negotiation style identified their style correctly.

Considering the negotiation styles of all participants, 61 participants identified at least one negotiation style correctly. Nine of them stated three different negotiation styles,

49 participants stated one negotiation style, and the remaining participants mentioned two different negotiation styles as their negotiation style.

#### 4.2 Correlation Between Negotiation Style and Conflict Style

To examine whether the participants negotiated according to their individual conflict styles, the correlation between the participant’s conflict style and their used negotiation style will be described in the following.

All participants were classified into their individual conflict style using the TKI MODE instrument, which includes 30 statement pairs to be answered. The score of an individual’s style results from the number of times the selected statements represent this particular style and are ranged between 0 (minimum value) and 12 (maximum value) (Womack 1988).

The conflict styles were additionally analysed according to their ranking. The ranking is based on a descending order of the number of statements assigned to the conflict styles. Comparing the negotiation styles used in the simulation with the participant’s TKI conflict styles the following results were conducted.

#### TKI Avoiding

As Table 4 depicts four participants applied the negotiation styles *avoiding* in the simulation. One participant utilised the negotiation style *accommodating & avoiding* with the expression of the conflict styles *avoiding* as above the average of all participants. Nonetheless, this participant achieved an agreement in the negotiation. Whereas the remaining three participants concluded their negotiations with a rejection. However, their conflict style *avoiding* is characterised as among the average of all participants. The conflict style *avoiding* was ranked three times in first place (one *accommodating & avoiding*, two *avoiding & competitive*) and once in last place.

Negotiation Styles	TKI Avoiding					
	N	Min	Max	Median	Mean	SD
Accommodating & Avoiding	1	9	9	9	9	-
Avoiding & Competitive	3	2	5	3	3.3333	1.2472
Total	112	1	10	6	5.7857	2.343

**Table 4. Identified Negotiation Style in Simulation – Avoiding**

### TKI Compromising

More than a half of the participants (66 of 112 participants) applied *compromising* as part of their negotiation style that is in mean also part of their conflict styles. As Table 5 depicts, all participants possess in mean a tendency to be *compromising*.

The conflict style *compromising* was ranked six times in first, twice in second, and once in fourth place in the negotiation style *accommodating & compromising*. In the negotiation style *collaborative & then compromising*, *compromising* was ranked in first place. The negotiation style *compromising* was ranked nineteen times in first, nine times in second, twice in third and once in fifth place. In the negotiation style *compromising & collaborative* *compromising* was ranked once in first and once in second place. While *collaborative* was ranked thirteen times in first, six times in second, three times in third and once in fifth place in the negotiation style *compromising & competitive*.

Negotiation Style	TKI Compromising					
	N	Min	Max	Median	Mean	SD
Accommodating & Compromising	9	3	12	9	9	2.4944
Collaborative & then Compromising	1	11	11	11	11	-
Compromising	31	4	12	9	8.4839	1.9489
Compromising & Collaborative	2	6	9	7.5	7.5	1.5
Compromising & Competitive	23	2	12	8	8.1739	2.2775
Total	112	2	12	8	8.3125	2.053

Table 5. Identified Negotiation Style in Simulation – Compromising

### TKI Collaborating

The conflict style *collaborating* of participants who negotiated with a *collaborative* negotiation style cannot be considered as very pronounced (see Table 6); however, their conflict style *compromising* does.

All participants with *collaborating* as negotiation style concluded the negotiation with an agreement. *Collaborating* as conflict style and negotiation style was ranked three times in first, eight times in second, nine times in third, seven times in fourth and twice in fifth place. While in the negotiation style *collaborative & then compromising* the conflict style *collaborative* was ranked once in third place; in *competitive & collaborative* once in second and once in fifth place; and in *compromising & collaborative* once in third and once in fourth place.

Negotiation Style	TKI Collaborating					
	N	Min	Max	Median	Mean	SD
Collaborative	29	1	8	5	5.2069	1.4943
Collaborative & then Compromising	1	4	4	4	4	-
Competitive & Collaborative	2	1	6	3.5	3.5	2.5
Compromising & Collaborative	2	5	7	6	6	1
Total	112	1	8	5	4.9286	1.8503

**Table 6. Identified Negotiation Style in Simulation – Collaborating**

### TKI Competing

*Competing* as a conflict style and part of the negotiation style contains the highest standard deviation in this study based on all other conflict styles and identified negotiation styles (see Table 7).

The negotiation styles *avoiding & competitive* and *competitive* tend to contain *competing* as a medium to strong conflict styles. Especially those participants with the negotiation styles including *collaborative* or *compromising* tend to negotiate *competitive* at the beginning and then change their style over time to *compromising* or *collaborative*. All participants with the negotiation style *avoiding & competitive* and six participants with the negotiation style *competitive* concluded the negotiation with a rejection.

*Avoiding & competitive* was ranked once in second, once in third, and once in fifth place. *Competing* as a conflict style and negotiation style was ranked twice in first, once in second, twice in third, twice in fourth and three times in fifth place.

While *competing* in the negotiation style *competitive & collaborative* was ranked once in first and once in fourth place; and in the negotiation style *compromising & competitive* three times in first, seven times in second, twice in third, five times in fourth and six times in fifth place.

Negotiation Style	TKI Competing					
	N	Min	Max	Median	Mean	SD
Avoiding & Competitive	3	5	12	11	9.3333	3.0912
Competitive	10	2	12	6	6.1	3.2078
Competitive & Collaborative	2	2	8	5	5	3
Compromising & Competitive	23	0	11	5	5.4783	3.215
Total	112	0	12	5	5.4821	3.6253

**Table 7. Identified Negotiation Style in Simulation – Competing**

### TKI Accommodating

The conflict style *accommodating* has a medium expression on average in this study (see Table 8). Further, those participants who utilised *accommodating* as part of their negotiation style were not characterised with the highest distinct value of the *accommodating* conflict style.

All participants with *accommodating* as negotiation style concluded the simulation with an agreement.

In the negotiation style *accommodating* the corresponding conflict style was ranked once in fourth place; in the negotiation style *accommodating & avoiding* once in third place and in *accommodating & compromising* four times in second, three times in third, once in fourth and once in fifth place.

Negotiation Style	TKI Accommodating					
	N	Min	Max	Median	Mean	SD
Accommodating	1	4	4	4	4	-
Accommodating & Avoiding	1	6	6	6	6	-
Accommodating & Compromising	9	2	8	7	6.2222	1.9309
Total	112	0	11	6	5.4821	2.3867

**Table 8. Identified Negotiation Style in Simulation – Accommodating**

According to the use of multiple conflict styles in a negotiation style, the ranking shows that 50 participants applied their first ranked conflict style, 35 participants their second ranked conflict style, 30 participants their third ranked conflict style, 20 participants their fourth ranked conflict style and eighteen their fifth ranked conflict style as part of their negotiation style.

### 4.3 Identification of Counterpart's Negotiation Style

A further indication of whether the participants are familiar with negotiation styles is that they had to specify the negotiation styles of their counterpart. This indication was examined in the results of the negotiation training and the negotiation simulation and will be presented in the following.



## Negotiation Training

In the training, the participants negotiated with a TNT that applied the Tit-For-Tat-Strategy, i.e. imitate the strategy of the participant (Baarslag et al.). The comparison between the participant's negotiation styles and the assumed style for the TNT are shown in Table 9. No participant identified the Tit-For-Tat-Strategy. However, 28 of 112 participants identified the identical negotiation style for themselves and for the TNT. More concrete, the negotiation styles *compromising* (5 participants), *competitive* (7 Participants), *collaborative* (7 Participants), *competitive & collaborative* (5 Participants), *compromising & competitive* (2 Participants), *compromising & collaborative* (1 Participant) and *accommodating & compromising & competitive* (1 Participant), were characterised.

In total, 35 participants did not consider any negotiation style for the TNT.

Two participants, who characterised their own style as *competitive*, claimed that the TNT has no strategy at all.

*Accommodating* was claimed nine times as part of the TNT's negotiation style. Whereas eight of those participants characterised their own negotiation style partly *compromising*.

*Avoiding* as part of the TNT's negotiation style was maintained twice. Whereas the participants considered their own style as partially *compromising*.

Thirteen participants claimed the TNT's negotiation style as *compromising*; however, five participants characterised *competitive* and other five participants *compromising* as their negotiation style.

In total 20 participants assumed that the TNT's negotiation style was *competitive*, while they claimed their own negotiation styles seven times as *competitive* and eight times as *collaborative*.

*Competitive & collaborative* as the TNT's negotiation styles were maintained by thirteen participants; while five of those participants stated the same negotiation style for themselves and four participants characterised their own style as *collaborative*.

Eleven participants assumed *collaborative* as the TNT's negotiation style and seven of them as their own style.

<b>TNT's Negotiation Style</b>	<b>Participant's Negotiation Style</b>	<b>N</b>	<b>Identical</b>
Accommodating	Compromising	1	-
Accommodating & Collaborative	Accommodating & Collaborative & Compromising	1	-
Accommodating & Collaborative & Competitive	Compromising	1	-
Accommodating & Competitive	Competitive	1	-
Accommodating & Competitive & Compromising	Accommodating & Competitive & Compromising	1	1
	Accommodating & Compromising	1	-
Accommodating & Compromising	Competitive & Compromising	1	-
	Compromising	2	-
Avoiding	Compromising	1	-
Avoiding & Competitive	Competitive & Compromising	1	-
Collaborative	Collaborative	7	7
	Collaborative & Competitive	2	-
	Competitive	1	-
	Compromising	1	-
Collaborative & Competitive	Collaborative	4	-
	Collaborative & Competitive	5	5
	Collaborative & Competitive & Compromising	1	-
	Collaborative & Compromising	1	-
	Competitive	1	-
	Compromising	1	-
Collaborative & Compromising	Collaborative	1	-
	Collaborative & Competitive	1	-
	Collaborative & Compromising	1	1
	Compromising	1	-
Competitive	Accommodating & Compromising	1	-
	Collaborative	8	-
	Collaborative & Competitive	2	-
	Competitive	7	7
	Compromising	2	-
Competitive & Compromising	Accommodating & Competitive	1	-
	Competitive	1	-
	Competitive & Compromising	2	2
	Competitive & then Compromising	1	-
	Compromising	1	-
Compromising	Collaborative	1	-
	Collaborative & Competitive	1	-
	Competitive	5	-
	Compromising	5	5
Not Identified		35	-
<b>Total</b>		<b>112</b>	<b>28</b>

**Table 9. Comparison of Negotiation Styles in Training**

### **Negotiation Simulation**

During the third survey, which was conducted after the negotiation simulation, the participants were asked to assume the used negotiation style of their counterpart.

As the participants negotiated in the simulation with each other, the negotiation style was not predefined and thus identified by the researcher.

Overall, fifteen participants could not identify any negotiation style of the counterpart. Eighteen of 112 participants determined the correct identification of the counterpart's negotiation style: one as *accommodating & compromising*, nine as *collaborative*, four as *competitive*, two as *compromising* and two as *compromising & competitive*.

Counterparts with a *compromising* or *compromising & collaborative* negotiation style were characterised as *competitive* by sixteen participants and as *collaborative* by six participants.

Further details of the negotiation styles are shown in Table 10.

<b>Styles Identified by Researcher</b>	<b>Style Identified by Counterpart</b>	<b>N</b>	<b>Identical</b>
Accommodating & Avoiding	Competitive & then Collaborative	1	-
Avoiding & Competitive	Competitive	2	-
Accommodating & Compromising	Accommodating & Compromising	1	1
	Avoiding & Competitive & Compromising	1	-
	Collaborative	2	-
	Collaborative & Competitive	1	-
	Collaborative & Compromising	1	-
	Compromising	1	-
Collaborative	Accommodating & Collaborative & Compromising	1	-
	Accommodating & Compromising	1	-
	Collaborative	9	9
	Collaborative & Compromising	2	-
	Collaborative & Competitive & Compromising	1	-
	Competitive	5	-
	Competitive & Compromising	2	-
	Competitive & then Collaborative	2	-
	Compromising	3	-
Collaborative & Competitive	Collaborative	1	-
Collaborative & Compromising	Collaborative	2	-
	Collaborative & Competitive	5	-
	Collaborative & Compromising	2	2
	Collaborative & then Competitive	1	-
	Competitive	8	-
	Competitive & Compromising	1	-
	Compromising	3	-
Collaborative & then Compromising	Competitive	1	-
Competitive	Avoiding & Competitive	1	-
	Collaborative & Competitive	1	-
	Collaborative & Compromising	1	-
	Competitive	4	4
	Competitive & then Compromising	1	-
Compromising	Accommodating & Competitive	1	-
	Accommodating & Compromising	1	-
	Collaborative	4	-
	Collaborative & Competitive	2	-
	Collaborative & Compromising	4	-
	Competitive	8	-
	Competitive & Compromising	4	-
	Competitive & then Collaborative	2	-
	Competitive & then Compromising	1	-
	Compromising	2	2
Not Identified		15	-
<b>Total</b>		<b>112</b>	<b>18</b>

**Table 10 Comparison of Negotiation Styles in Simulation**

## 5.0 Discussion

By addressing the defined goals, the evaluation of the results of the present study will be represented and limitations will be outlined.

### 5.1 Conflict Styles in Negotiation

The first goal was to examine the correlation between conflict style of a student and their used negotiation styles in human-to-human-negotiations. According to the different conflict styles some participants negotiated according to and others against their styles.

The conflict style *compromising* was identified with a mean value of 8.3125 (SD 2.0530) over all participants. The mean value of the conflict style *compromising* utilised, as part of their negotiation style is higher than the overall mean value of *compromising*. Thus, these participants negotiated according to their conflict style.

For the remaining four conflict styles the participants possess a medium expression of the considered conflict style according to their mean value – *avoiding* with 5.7857 (SD 2.3430); *collaborating* with 4.9286 (SD 1.8503); *competing* with 5.4821 (SD 3.6253); and *accommodating* with 5.4821 (SD 2.3867).

The high standard deviations of the conflict styles can be explained by applying the pairwise comparison of TKI Mode Instrument and the comparison of all participants at once. Thus, only considering the standard deviations of the same used conflict styles, the SDs are mostly smaller than the SD overall participants (see Table 4 - 8).

The conflict style *competing* scores the highest SD (3.6253) by far. The expression of the *competitive* conflict style of participants applied *competitive* as negotiation style is above the average expression of all participants and thus confirms that *competitive* participants only concern about their own outcome.

The conflict style *avoiding* receives a mean value of 5.7857 (SD 2.3430) and thus is considered as the second highest expression in this study. However, only four participants applied this style in the negotiation – one participant with a high expression, the remaining three with medium to low expression. Thus, all other participants who had a high expression of avoiding as their conflict style, applied different styles in the negotiation. Since avoiding is usually implemented by withdrawing from the negotiation and

thus the negotiation goals are not achieved (Lewicki et al. 2010b), the participants learned to use other styles.

The third highest expression (mean 5.4821; SD 3.6253) scores the conflict style *competing* with the highest SD in total. The participants with the negotiation style *avoiding & competitive* received the highest mean value 9.3333 (SD 3.9012) and concluded with a reject statement. Further six of ten participants, who applied *competitive* as their negotiation style with a mean value of 6.1 (SD 3.2078), concluded with a rejected negotiation. Thus, a strong expression of the conflict style *competing* tends to fail the negotiation outcome in this conducted study.

The conflict style *accommodating* (mean 5.4821; SD 2.3867) represents the fourth highest expression. Only eleven participants used *accommodating* as part of their negotiation style. None of the conflict styles of those participants were characterised as accommodating, rather they contain a medium degree of expression. Contrary to those participants with a strong expression of accommodating who did not applied accommodating as their negotiation style and thus learned to change their negotiation style to achieve a higher outcome for themselves in the case study.

The least expression scores the conflict style *collaborating* (mean 4.9286; SD 1.8503) with a low to medium range of expression. Those participants applied *collaborative* as part of their negotiation style scores in average a slit higher expression as the overall participants. Further, only three of 34 participants applied *collaborative* as their number one conflict style. Thus, participants with a medium expression are able to apply a negotiation style contrary to their conflict style to possibly achieve a win-win outcome. Since the participants possess a subjective perception how they want to handle situations, i.e., some participants characterise themselves differently to the result of the TKI conflict styles and thus negotiated contrary to what was expected. Further, the subjective perception of the participants and the objective evidence can vary in some cases.

## 5.2 Identification of Counterpart's Behaviour

The second goal was to investigate whether students can recognise the negotiation style of their counterpart. If negotiators are able to understand the counterpart's behaviour, they could influence their counterpart (Fisher et al. 2011) and thus reach their goals during the negotiation.

The participants were asked twice to state the counterpart's negotiation style – first in the training and second in the simulation.

In the training, none of the participants identified the accurate negotiation strategy of the TNT – the Tit-for-Tat strategy. However, as Tit-for-Tat means to imitate the counterpart (Baarslag et al.), 28 of 112 participants identified the same negotiation style for themselves and the TNT and thus, identified the negotiation style of their counterpart. 44 of 112 participants perceive part of the TNT's negotiation style as *competitive*; only a half of them characterised themselves as part *competitive*. The remaining 22 participants considered their negotiation style as part of *collaborative*, *compromising* or *accommodating*, potentially with the intention to negotiate accordingly. However, they misled their own negotiation styles, or they misinterpreted the counterpart's style.

The same appears on the remaining negotiation style:

- 30 participants perceive the TNT's style and 23 of them their own style as *collaborative*.
- 28 participants stated the TNT's style as *compromising*, whereas sixteen characterised themselves as compromising.
- *Accommodating* was stated nine times as the TNT's style and three of those stated themselves as accommodating.
- Two participants perceive the TNT's style as *avoiding*, whereas none of them reported themselves as avoiding.

In total 32 participants reported themselves as *collaborative*, which is fractional more than they stated the TNT (30 participants). In the remaining negotiation styles, more participants attributed the negotiation styles to the TNT than to themselves.

Since only 28 of 112 participants could identify the TNT's negotiation style, the participants have to be trained in a more dedicated way. Identifying the counterpart's negotiation style and to be able to estimate how the own styles is perceived by the counterpart can help to respond appropriately on the counterpart's style (Salacuse 1999).

Additionally, the results of the simulation underline the necessity to improve the training on how to identify the negotiation styles of the counterpart. The participants who

characterised the negotiation style in the simulation correctly is less than in the training (18 of 112 participants).

### **5.3 Intentional Usage of Negotiation Styles**

The third goal was to examine how students apply learned negotiation styles from the course in the negotiation simulation and will be stated in the following.

More than a half of the participant applied *compromising* as part of their negotiation style (66 of 112 participants), thus, they tried to split the difference to achieve an agreement. Except one of those participants, with a competitive counterpart, the remaining participants concluded the negotiation with an agreement.

Those participants who could not achieve a collaborative negotiation, tried to resolve differences through compromising. The aim is to teach negotiators to develop a collaborative style whenever possible, even under time pressure.

Only eleven of 112 participants utilised *accommodating* as part of their negotiation style. In contrast to the content of the case study, which enhances a long-term relationship, the participants in the study negotiated once with their negotiation partner without the intention for repetition. As Ganesan (1993) already claimed that in a short-term relationship the negotiators mostly concern about the outcome of the current negotiation, our study underlined this result. Only up to 10 % of the participants consider the relationship as most important in their negotiation.

Even fewer participants applied avoiding as part of their style. Both styles – *accommodating* and *avoiding* – have a higher expression as conflict style than their actual usage in the negotiation indicated. Those participants applied different styles to achieve a better outcome for themselves.

In line with previous findings integrative styles are more efficient than competitive styles (Butler 1994), at least one of the negotiators in every failed negotiation in this study applied a *competitive* style. These participants also tend to have a strong expression on the conflict style competitive. It is therefore indicated that a strong expression of the conflict style competitive tend to fail the negotiation. The impact on explicit training on responding to a competitive negotiation style of the counterpart should be investigated in further research to increase accepted negotiation outcome.

Chapter 4.0 demonstrates that the students learned various negotiation styles and are familiar with them. However, the actual usage of these styles seems to be quite more



difficult. Only a small group of participants are secure about the usage of negotiation styles during negotiations and even less participants are using negotiation styles with an intention (Table 2).

Further training must therefore close the gap between the knowledge about negotiation styles and the application of specific styles depending on the concrete situation.

The analysed negotiation style in this study included five general orientations. In order to negotiate according to these orientations, participants need to use more specific negotiation strategies, which should be explained in more detail in the course and training. The course is conducted the same way for years and various students have already learned how to negotiate. However, the course needs to be adapted to teach more specific negotiation strategies in addition to negotiation styles, and how to theoretically apply them during a negotiation.

The electronic training should enable participants to try out various styles in diverse situations without flaws of reasoning. NSSs can support targeted training by using, among others, TNTs with individual negotiation styles and guided tours to support training. A neutral instance, such as a TNT, is immune against distraction and flaws of reasoning (Greenwald et al. 2003).

In this study the TNT only negotiated with one strategy – Tit-for-Tat. For a more specific training of negotiation strategies, the TNT's strategies have to be adapted.

#### **5.4 Limitations**

Since the study contains some limitations, they will be explained in the following.

First, in the surveys the participants were asked to state their negotiation styles in a free text field without predefined negotiation styles. However, some participants only describe how they proceeded the negotiation which had to be transmitted to the five negotiation styles. In addition, some participants did not mention any negotiation style, which could indicate that they are either unfamiliar with negotiation styles or did not apply a negotiation style intentionally.

Second, if a participant considered more than one negotiation style and did not specifically mention an order, the styles were sorted alphabetically. Further, the ratio of usage of the named styles were not further differentiated. According to Preuss and van der Wijst (2017) negotiation styles can vary between the negotiation phases. Further studies need to examine how negotiation styles change over time.

Due to limited time of the negotiation which has to be concluded within five days some participants could have felt under time pressure and thus have been more inclined to compromise than to try to reach a collaborative outcome.

Finally, the students were externally motivated by receiving extra points for their participation.

## **6.0 Conclusion**

Before conducting the study, students learned negotiation knowledge in a term-long course and applied it during the study in an electronic training. Although students felt well prepared by applying the course and training, the study revealed that only a small group of students can intentionally use negotiation styles in a negotiation and even less can identify the used negotiation styles of their counterpart. Thus, a dedicated training is required to increase knowledge on negotiation styles and, in the next step, on negotiation strategies to improve outcomes and reduce rejected negotiations.

The training should be adapted in two ways – in the course and in the electronic training. The course should include a mapping between negotiation styles and concrete negotiation strategies and how to react to negotiation strategies to achieve own negotiation goals. The electronic training should include the negotiator's individual conflict styles to increase an individual training according to the strength and weaknesses.

Further to support training that is independent of the knowledge level of the counterpart, a TNT should be adapted with various negotiation strategies and a flexible use of the negotiation strategies as a counterpart. The TNT should be able to adapt the negotiation style and strategy individually to the knowledge level of the negotiator and thus, increase the training success of the students.

As future research, it has to be investigated to what extent individual training influences the use of learned negotiation styles and the correct identification of the negotiation partner's styles in a negotiation in order to increase an optimal negotiation outcome.

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