Does negotiation training improve negotiators’ performance?

Eman ElShenawy
Suez Canal University, Ismailia, Egypt

Abstract

Purpose – This paper’s objective is to test the main effect of negotiation training-level on acquiring negotiation skills. Training level refers to the time a trainee spends in a negotiation training course receiving the standard style and methods of training. Negotiation skills are manifested through trainees’ performance after receiving training.

Design/methodology/approach – Six meta-analyses were conducted over 57 lab experiments from 36 studies. The six meta-analyses were divided into two groups each with a sub-study. The objective of study one is finding effect of training level on negotiators’ individual and joint performance. The objective of study two is contrasting the effects of three training levels on negotiators’ performance.

Findings – Study one results show that training level has an effect on individual performance that is more evident for the long training ($r = 0.76$) than for the short training ($r = 0.22$). Training level has a medium effect on joint performance ($r = 0.37$). Results of study two show an increase in negotiators’ performance the higher the training level. That performance rate ranged from point estimate $= 2.03$ after spending a day in training to point estimate $= 5.2$ after spending three weeks or more in training.

Research limitation/implications – The results indicate significant association between the time trainees spend in negotiation training programs and their negotiation performance. Level of training should be controlled for when conducting experiments during negotiation courses. Future research should focus on effects of personality traits of both trainees and trainers on negotiation training effectiveness.

Practical implications – The findings highlight the importance of investing in increasing the level of negotiation training and spending more in making it a routine practice for top executives. After all, skillful negotiators are important assets that should be maintained. They make important deals that add to the firm’s financial performance of the firm. Higher levels of negotiation training deliver more values to firms.

Originality/value – Training methods and styles followed in courses and programs of negotiation training are effective and are of value providing they last for enough time. The study highlights the importance of negotiation training, an area worthy of more research. Findings are valuable for training practitioners to pay attention to what is considered enough time of training against what is being practiced. Training can be effective in building soft skills and experience in other managerial fields if designed in the appropriate way.

Keywords Negotiating, Skills training, Performance management

Paper type Research paper

Negotiation is an essential managerial skill for success in today’s global environment. Almost all business interactions require a level of negotiation; therefore, skillful negotiators are considered valuable assets who are able to improve financial performance, customer relations and employee’s satisfaction (Ertel, 1999; Susskind and Corburn, 2000). A skillful negotiator adds to the financial performance of the firm by closing an important deal and decreases that value in the case of losing one. Business news is full of such examples of skillful versus unskillful negotiators. Skillful negotiators became essential for success in all professions such as medical, legal, and consultation (Anastakis, 2003).
Realizing the increasing importance of negotiation skills, firms invest training managers to become effective negotiators has been a major program for corporate firms. American firms invest approximately $40 to $60 billion yearly in training (Russ-Eft and Zenger, 1995). Out of that investment, firms dedicate large portion to negotiation training (Coleman and Lim, 2001; Friedman, 1992; Thompson et al., 2000), which effectiveness is debatable.

Investment in negotiation training should deliver a significant financial value for the firm through increasing the negotiation skills of its executives. According to the human capital theory, skillful, experienced and knowledgeable managers help their firms to be more productive and adaptive to business environments (Becker, 1975). This is not always the case. A Fortune 500 firm invested $350,000 on a negotiation training program for 150 senior managers, but these managers failed to renew a contract with a major client causing high financial losses (Susskind, 2004).

The literature is controversial regarding effectiveness of negotiation training, one side of negotiation researchers believe in the absolute effectiveness of negotiation training and the other side doubts that belief. That debate is anchored by the disagreement regarding transferability of negotiation skills (Mastenbroek, 1991; Nierenberg, 1984; Raiffa, 1982). Previous studies produced mixed results regarding the ability of trained negotiators to utilize and transfer negotiation skills to real life situations (Rollof et al., 2003). Negotiation training may not deliver the expected results in terms of improving negotiators performance (Movius, 2008; Susskind, 2004). On the other side, once negotiation skills are considered transferable and learnable, a belief in the absolute effectiveness of negotiation training exists, whereas the argument regarding personality and situational effect alters that belief (Movius, 2008).

The time trainees spend in negotiation training is a major factor that may add new aspects to the debate. What would be the transferability of negotiation skills relevant to the time spent in training? Friedman (1992) argues that the short periods and the few approaches of negotiation training are not enough to enhance their performance in real life negotiations. Nevertheless, some evidence shows that any level of “mutual gains” training increased skills and gains of union representatives when bargaining with management (Hunter and McKerise, 1992). Level of training is not counted for as a variable of importance in negotiation research.

This paper investigates the effect of training level on post-training transfer of negotiation skills. Negotiation training level refers to the time spent receiving training. This means more exposure to elevated methods of negotiation training. This means negotiators’ performance improves after spending time in the negotiation courses. Therefore, the major assumption of this paper is that the longer the time trainees spend in negotiation training, the better the negotiation training transfer.

This leads to the following research question: Is there a direct association between length of negotiation training and performance of trainees? The following sections provide a brief literature review, methods and results of two meta-analytic studies, and end with some insights for future research and practice of negotiations.

**Negotiation training**

Negotiation training courses and programs are designed to teach trainees how to avoid irrationalities and behavioral biases and behave in a manner that maximizes outcome of all negotiation situations (Lewicki, 1997). The major objective of negotiation training
is to transfer negotiation skills to trainees. The literature refers to transfer as learning and acquiring negotiation skills (Nadler et al., 2003). More specifically, after training negotiators should gain “the ability to apply a concept, schema or skill learned in one situation to a relevant but different problem” (Rollof et al., 2003, p. 825). When this happens, negotiation training is considered effective.

Training literature supports that training transfer depend on three main factors: quality of training methods, motivation, and characteristics of trainees, and organizational environment (Salas and Cannon-Bowers, 2001). Training methods should be capable of teaching trainees the new skills they need, trainees must be motivated and able to learn and acquire the skills, and organizations should provide climate that encourages applying new skills and concepts in work (Yamnill and McLean, 2001). Quality of methods largely affects negotiation-training transfer (Patton, 2000). Negotiation researchers agree on what methods work better in training, however the other two factors did not gain enough attention. The other two factors are beyond the scope of this paper.

Training methods
Methods used in training differentiate negotiation training into three main types: didactic-analogical, experiential, and reflective[1] (Rollof et al., 2003). Negotiation courses taught in universities and programs offered other agencies utilize the three types (Susskind and Corburn, 2000). All provide a mix of the three types with more share for experiential, to provide students with a set of comprehensive techniques to perform well in different types of real life negotiations after the training (Lewicki, 1997; Polzer and Neale, 1995).

Negotiation training methods are structured the same across programs and courses in the USA; they utilize a scientifically developed group of role-play exercises simulated from real deals that are followed by a short debrief and a lecture (Susskind and Corburn, 2000). The difficulty of these simulations ranges from simple one issue deal to more complex multi issues deals at the end of the program. The quality of these methods are known to researchers and practitioners of negotiations. However, there effectiveness is questionable.

Training effectiveness
There is no clear confirmation in research regarding negotiation training effectiveness. Weissbein (2000) argues that training cannot create psychological traits, rather it can enhance the positive effects of these traits by providing negotiators with enough techniques to cleverly deal with surprising or stressful negotiation situations. Friedman (1992) argues that the short periods trainees spend in training programs and the few approaches of training are not enough to enhance effectiveness in real life negotiations that are widely heterogeneous. Other researchers are in the favorable side. Negotiators can be effectively trained to gather information regarding opponents, plan an agenda of actions (Peterson and Lucas, 2001), and decrease biases of decision-making (e.g. Bazerman and Neale, 1982). There is not enough evidence to end this debate. This is due to lack of investigation of the appropriate length of time that reflects level of exposure to training. Results of a survey of negotiation trainers show that all disagreed on the ideal length of negotiation training programs (Friedman, 1992). Effectiveness of negotiation training in transferring negotiation skills is still not
clear. The nature of negotiation skills may be an underlined factor in the debate. An exploration of the nature of negotiation skills follows.

**Negotiation skills**

The behavioral decision theory has a specific view of negotiation skills. The theory defines negotiation as a joint decision-making process between two or more parties (Brett *et al.*, 1999; Carroll *et al.*, 1988; Weingart *et al.*, 1999). Skillful negotiators are the highly performing ones. Negotiators’ performance is measured by their outcome that is pertinent to their behavior[2] during the negotiating process (Galinsky *et al.*, 2002; Neale and Bazerman, 1992; Thompson, 1990). The theory assumes bounded rationality of negotiators; they will make impulsive decisions and fall for many biases if they are not skillful (e.g. Neale and Bazerman, 1985).

Skillful negotiators are able to minimize irrationality, avoid decision biases and judgmental mistakes (Bazerman, 1994; Bazerman *et al.*, 1985) and achieve the desired goal of any negotiated task (Brett *et al.*, 1999; Clyman and Tripp, 2000) keeping their performance at high levels. Sales empirical literature consistently shows association among the ability to adapt to the situation, learn and change strategy during negotiation, understand customers and high performance of salespeople (Park and Holloway, 2003). A question remains regarding whether transferring negotiation skills is contingent to the received level of training.

The debate regarding negotiation effectiveness continues to include the effect of length of training programs on trainees’ performance. It is not clear whether short programs are of less or equal post-training transfer compared to long programs. Some empirical studies show that enhanced negotiators’ performance is due to long periods of training (Northcraft *et al.*, 1994; Polzer and Neale, 1995). Others support that short negotiation training helps to transfer negotiation skills across situations. Results of a mail survey to more than 1,000 physicians and health care professionals show that a short negotiation-training program, one to eight hours, provided trainees with the necessary skills to negotiate successfully with behavioral patients (Runkle *et al.*, 2000).

Researchers might agree on which training types are more effective, but they disagree on the training level that is enough to transfer negotiation skills. Results of a survey of negotiation trainers show that all supported simulations as the most effective training method but disagreed on the ideal length of programs (Friedman, 1992).

The relationship between length of training programs and negotiation performance is not investigated in research. The following meta-analyses are conducted to investigate levels of training that are adequate to improve post-training performance of negotiators.

**Methods**

To investigate the study assumption in a manner that maximizes generalizability, all possible negotiation studies until 2005 were included, after that date there were almost no more studies of negotiation that could be included in the meta-analyses. There were 33 eligible empirical studies. They were divided into different groups based on length of time-spent receiving negotiation training. For a list of the studies included in the sample, please refer to Table I.

The studies followed one design. All are experiments that used simulations of dyadic negotiations. All have been conducted in negotiation courses offered for college
<table>
<thead>
<tr>
<th>Study ID</th>
<th>Publication type</th>
<th>$R$</th>
<th>$N$</th>
<th>Impasse</th>
<th>Method</th>
<th>Goal of negotiation</th>
<th>Training method</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Original training studies</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Berger et al. (2003) (cond. 1)</td>
<td>Conference paper</td>
<td>0.01</td>
<td>16</td>
<td>0</td>
<td>Post/TRT</td>
<td>Buying a new car</td>
<td>1 hr integrative didactic training and course</td>
</tr>
<tr>
<td>Gist et al. (1990)</td>
<td>PPSYC</td>
<td>0.37</td>
<td>68</td>
<td>0</td>
<td>Post/TRT</td>
<td>Reach targeted salary of $50,000</td>
<td>7 hrs lecture/simulations</td>
</tr>
<tr>
<td>Gist et al. (1991) (cond. 1)</td>
<td>PPSYC</td>
<td>0.06</td>
<td>35</td>
<td>0</td>
<td>Post/TRT</td>
<td>Reach targeted salary of $50,000</td>
<td>4 hrs lecture/simulations</td>
</tr>
<tr>
<td>Gist et al. (1991) (cond. 2)</td>
<td>PPSYC</td>
<td>-0.03</td>
<td>44</td>
<td>0</td>
<td>Post/TRT</td>
<td>Reach targeted salary of $50,000</td>
<td>4 hrs lecture/simulations</td>
</tr>
<tr>
<td>Stevens et al. (1993) (Women)</td>
<td>JAP</td>
<td>0.01</td>
<td>24</td>
<td>0</td>
<td>Post/TRT</td>
<td>Reach targeted salary of $50,000</td>
<td>4 hrs lecture/simulations</td>
</tr>
<tr>
<td>Stevens et al. (1993) (Men)</td>
<td>JAP</td>
<td>0.23</td>
<td>36</td>
<td>0</td>
<td>Post/TRT</td>
<td>Reach targeted salary of $50,000</td>
<td>4 hrs lecture/simulations</td>
</tr>
<tr>
<td>Northcraft et al. (1994) (cond. 1)</td>
<td>HP</td>
<td>0.65</td>
<td>25</td>
<td>0</td>
<td>Post/TRT</td>
<td>Market contracts</td>
<td>1 hr lecture</td>
</tr>
<tr>
<td>Northcraft et al. (1994) (cond. 2)</td>
<td>HP</td>
<td>0.53</td>
<td>23</td>
<td>0</td>
<td>Post/TRT</td>
<td>Market contracts</td>
<td>1 hr lecture</td>
</tr>
<tr>
<td>Northcraft et al. (1994) (cond. 3)</td>
<td>HP</td>
<td>0.34</td>
<td>26</td>
<td>0</td>
<td>Post/TRT</td>
<td>Market contracts</td>
<td>1 hr lecture</td>
</tr>
<tr>
<td>Stevens and Gist (1997)</td>
<td>PPSYC</td>
<td>0.42</td>
<td>53</td>
<td>0</td>
<td>Post/TRT</td>
<td>Reach targeted salary of $50,000</td>
<td>4 hrs lectures</td>
</tr>
<tr>
<td>Gist and Stevens (1998)</td>
<td>OB&amp;HDP</td>
<td>0.02</td>
<td>121</td>
<td>0</td>
<td>Post/TRT</td>
<td>Reach targeted salary of $50,000</td>
<td>4 hrs lectures and simulation</td>
</tr>
<tr>
<td>Weissbein (2000)</td>
<td>Dissertation</td>
<td>-0.08</td>
<td>119</td>
<td>0</td>
<td>Post/TRT</td>
<td>Salary increase</td>
<td>6-8 hrs lecture, videos and role playing</td>
</tr>
<tr>
<td>Gentner et al. (2004) (exp. 1)</td>
<td>Conference paper</td>
<td>0.26</td>
<td>64</td>
<td>0.03</td>
<td>Post/TRT</td>
<td>Reach contingent</td>
<td>45-60 minutes analogical</td>
</tr>
<tr>
<td>Gentner et al. (2004) (exp. 2)</td>
<td>Conference paper</td>
<td>0.26</td>
<td>54</td>
<td>0.68</td>
<td>Post/TRT</td>
<td>Reach contingent</td>
<td>45-60 minutes analogical</td>
</tr>
<tr>
<td><strong>Follow up training</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gist et al. (1990) (cond. 1)</td>
<td>PPSYC</td>
<td>0.91</td>
<td>41</td>
<td>0</td>
<td>Post/TRT</td>
<td>Profit increase</td>
<td>2 hrs lectures</td>
</tr>
<tr>
<td>Gist et al. (1990) (cond. 2)</td>
<td>PPSYC</td>
<td>0.9</td>
<td>27</td>
<td>0</td>
<td>Post/TRT</td>
<td>Profit increase</td>
<td>2 hrs lectures</td>
</tr>
<tr>
<td>Gist et al. (1991) (cond. 1)</td>
<td>PPSYC</td>
<td>0.72</td>
<td>44</td>
<td>0</td>
<td>Post/TRT</td>
<td>Reach targeted salary of $58,000</td>
<td>2 hrs lectures</td>
</tr>
<tr>
<td>Gist et al. (1991) (cond. 2)</td>
<td>PPSYC</td>
<td>0.69</td>
<td>35</td>
<td>0</td>
<td>Post/TRT</td>
<td>Reach targeted salary of $58,000</td>
<td>2 hrs lectures</td>
</tr>
<tr>
<td>Stevens et al. (1993) (Women)</td>
<td>JAP</td>
<td>0.11</td>
<td>24</td>
<td>0</td>
<td>Post/TRT</td>
<td>Reach targeted salary of $58,000</td>
<td>2 hrs lectures</td>
</tr>
<tr>
<td>Stevens et al. (1993) (Men)</td>
<td>JAP</td>
<td>0.61</td>
<td>36</td>
<td>0</td>
<td>Post/TRT</td>
<td>Reach targeted salary of $58,000</td>
<td>2 hrs lectures</td>
</tr>
</tbody>
</table>

(continued)
<table>
<thead>
<tr>
<th>Study ID</th>
<th>Publication type</th>
<th>$R$</th>
<th>$N$</th>
<th>Impasse</th>
<th>Method</th>
<th>Goal of negotiation</th>
<th>Training method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stevens and Gist (1997)</td>
<td>PPYS C</td>
<td>0.34</td>
<td>53</td>
<td>0</td>
<td>Post/TRT</td>
<td>Reach targeted salary of $58,000</td>
<td>2 hrs lectures</td>
</tr>
<tr>
<td>Gist and Stevens (1998)</td>
<td>OB&amp;HDP</td>
<td>0.2</td>
<td>121</td>
<td>0</td>
<td>Post/TRT</td>
<td>Reach targeted salary of $50,000</td>
<td>4 hrs lectures and simulations</td>
</tr>
<tr>
<td>Gentner et al. (2004)</td>
<td>Conference paper</td>
<td>NA</td>
<td>124</td>
<td>0.54</td>
<td>Post/TRT</td>
<td>Reach contingent contract</td>
<td>45-60 minutes didactic</td>
</tr>
<tr>
<td>Gentner et al. (2004)</td>
<td>Conference paper</td>
<td>NA</td>
<td>106</td>
<td>0.68</td>
<td>Post/ TRT-CNT</td>
<td>Reach contingent contract</td>
<td>45-60 minutes didactic</td>
</tr>
<tr>
<td>Gentner et al. (2004)</td>
<td>JEP</td>
<td>0.35</td>
<td>80</td>
<td></td>
<td>Post/ TRT-CNT</td>
<td>1-issue beginning salary negotiation</td>
<td>Analogue encoding</td>
</tr>
<tr>
<td>Weingart et al. (1996)</td>
<td>JP&amp;SP</td>
<td>0.37</td>
<td>90</td>
<td>0</td>
<td>Multi-issue business agreement</td>
<td>Short didact/lec</td>
<td></td>
</tr>
<tr>
<td>Thompson and Loewenstein (2004)</td>
<td>Conference paper</td>
<td>0.3</td>
<td>141</td>
<td>0.49</td>
<td>Post/ TRT-CNT</td>
<td>Multi-issue business agreement</td>
<td>Analogue encoding, two types</td>
</tr>
<tr>
<td>Loewenstein et al. (2003)</td>
<td>AM Ler &amp; Edu</td>
<td>0.17</td>
<td>118</td>
<td>0.66</td>
<td>Post/ TRT-CNT</td>
<td>Contingency contract</td>
<td>Analogue encoding</td>
</tr>
<tr>
<td>Nadler et al. (2003)</td>
<td>MS</td>
<td>0.63</td>
<td>122</td>
<td>0.05</td>
<td>Pre/Post TRT</td>
<td>Multi-issue business agreement</td>
<td>All types of training to four groups</td>
</tr>
<tr>
<td>Bazerman and Neale (1982)</td>
<td>JAP</td>
<td>0.21</td>
<td>40</td>
<td>0</td>
<td>Post/ TRT-CNT</td>
<td>Buying a new car</td>
<td>20 min didactic</td>
</tr>
<tr>
<td>Berger et al. (2003)</td>
<td>Conference paper</td>
<td>0.11</td>
<td>7</td>
<td>0</td>
<td>Multi-issue business agreement</td>
<td>1 hr integrative didactic training</td>
<td></td>
</tr>
<tr>
<td>Second half or end of class</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polzer and Neale (1995)</td>
<td>HP</td>
<td>0.23</td>
<td>0</td>
<td></td>
<td>Multi-issue business agreement</td>
<td>1 hr integrative didactic training</td>
<td></td>
</tr>
<tr>
<td>Greenhalg et al. (1985)</td>
<td>AMJ</td>
<td>NA</td>
<td>0</td>
<td></td>
<td>Multi-issue business agreement</td>
<td>1 hr integrative didactic training</td>
<td></td>
</tr>
<tr>
<td>Muringhan et al. (1999)</td>
<td>IJCM</td>
<td>NA</td>
<td>0</td>
<td></td>
<td>Multi-issue business agreement</td>
<td>1 hr integrative didactic training</td>
<td></td>
</tr>
<tr>
<td>Thompson et al. (2000)</td>
<td>OB&amp;HDP</td>
<td>0.26</td>
<td>0</td>
<td></td>
<td>Multi-issue business agreement</td>
<td>1 hr integrative didactic training</td>
<td></td>
</tr>
</tbody>
</table>

(continued)
<table>
<thead>
<tr>
<th>Study ID</th>
<th>Publication type</th>
<th>$R$</th>
<th>$N$</th>
<th>Impasse</th>
<th>Method</th>
<th>Goal of negotiation</th>
<th>Training method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thompson et al. (1995) (exp. 2)</td>
<td>JESP</td>
<td>NA</td>
<td>0</td>
<td>0</td>
<td>Post/TRT</td>
<td>Reach an agreement and avoid impasse</td>
<td>Second half of class</td>
</tr>
<tr>
<td>Greenhalgh and Chapman (1998)</td>
<td>GD&amp;N</td>
<td>0.25</td>
<td>0</td>
<td>0</td>
<td>Post/TRT</td>
<td>Building long-term relations</td>
<td>Second half</td>
</tr>
<tr>
<td>2 week in class</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Morris et al. (1999) (exp. 1)</td>
<td>JP&amp;SP</td>
<td>0.37</td>
<td>0.16</td>
<td>0</td>
<td>Post/TRT</td>
<td>Reach an agreement in the bargaining zone and avoid impasse</td>
<td>2 week negotiation course</td>
</tr>
<tr>
<td>Galinsky et al. (2002) (exp. 1)</td>
<td>JP&amp;SP</td>
<td>0.28</td>
<td>0.35</td>
<td>0</td>
<td>Post/TRT</td>
<td>1-issue new recruit contract</td>
<td>2 weeks/lec</td>
</tr>
<tr>
<td>Anderson and Thompson (2004) (exp. 2)</td>
<td>OB&amp;HDP</td>
<td>NA</td>
<td>0</td>
<td>0</td>
<td>Post/TRT</td>
<td>8-issue new recruit contract</td>
<td>2 week negotiation course</td>
</tr>
<tr>
<td>Brodt (1994)</td>
<td>OB&amp;HDP</td>
<td>0.29</td>
<td>0.04</td>
<td>0</td>
<td>Post/TRT</td>
<td>Reach an agreement in the bargaining zone and avoid impasse</td>
<td>1-day session of conflict training</td>
</tr>
<tr>
<td>First day of class</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Novemsky and Schweitzer (2004) (exp. 1)</td>
<td>OB&amp;HDP</td>
<td></td>
<td>0.11</td>
<td>0</td>
<td>Pre/TRT</td>
<td>Selling of a used truck</td>
<td>1-day</td>
</tr>
<tr>
<td>Novemsky and Schweitzer (2004) (exp. 2)</td>
<td>OB&amp;HDP</td>
<td></td>
<td>0.17</td>
<td>0</td>
<td>Pre/TRT</td>
<td>Selling of a used truck</td>
<td>1-day</td>
</tr>
<tr>
<td>White and Neale (1994)</td>
<td>OB&amp;HDP</td>
<td>0.53</td>
<td>0.14</td>
<td>0</td>
<td>Pre/TRT</td>
<td>Selling a HOUSE</td>
<td>1-day in negotiation and OB classes</td>
</tr>
<tr>
<td>Galinsky and Mussweiler (2001) (exp. 1)</td>
<td>JP&amp;SP</td>
<td>NA</td>
<td>0%</td>
<td>0%</td>
<td>Pre/TRT</td>
<td>Purchasing a pharmaceutical plant</td>
<td>1-day</td>
</tr>
<tr>
<td>Galinsky and Mussweiler (2001) (exp. 3)</td>
<td>JP&amp;SP</td>
<td>NA</td>
<td>0%</td>
<td>0%</td>
<td>Pre/TRT</td>
<td>Purchasing a pharmaceutical plant</td>
<td>1-day</td>
</tr>
</tbody>
</table>

students. More details regarding the method of meta-analysis and its universal steps follows.

**Meta-analysis procedures**

Meta-analysis is the only method for integrating findings across studies that “can control chance and other artifacts and provide a foundation for conclusions”, for the sake of theory development (Hunter and Schmidt, 1990). Hunter and Schmidt’s method of meta-analysis is the most commonly used one in behavioral research (Lipsey and Wilson, 2000). It controls for statistical artifacts, able to aggregate empirical results across studies, and to estimate the true relationships between variables (Hunter and Schmidt, 2004). The detailed procedures for this method are described in Hunter and Schmidt (1990, 2004) and Lipsey and Wilson (2000). A summary of these steps are introduced in the following section.

It starts with searching for eligible studies from all possible resources to aggregate the effect size as accurately as possible (Lipsey and Wilson, 2000). The researcher searched all databases such as ProQuest, PsychInfo... etc. using the term “Negotiat*”, browsed periodical’s indices and contents of specialized journals, or searched these journals using the term “Negotiation” or “bargaining.” The researcher traced early articles of some specialized authors through using reference lists of the most recent articles. Cooper (1989) calls the last method locating the “ancestry”.

To find unpublished studies, the researcher e-mailed many authors in the field of negotiation training, the Conflict Management Division of Academy of Management, and possible authors from different universities online paper banks: Kellogg’s Faculty working papers, SSRN Electronic Library and Wharton Faculty papers. The researcher searched Digital Dissertation Abstracts and ordered the original dissertations through the library-loan service.

The second step of meta-analysis is to determine criteria of inclusion. These are three:

1. design of the study;
2. characteristics of participants; and
3. constructs validity.

The sample includes experimental studies that investigated the effect of training on negotiators’ effectiveness, in dyadic negotiations. All studies followed typical steps: first participants received a level of negotiation training. Second, they engaged in face-to-face negotiation simulation where they are required to achieve fiscal outcome. Design of experiments was pre/post-training measurement or post-training measurement. Only the post-training measurement was included in the analysis. Some studies had control and treatment groups. The meta-analyses included participants from the treatment groups, those who received training.

Participants in the selected studies varied in their educational level, but were mostly graduate students. This was not a critical factor to moderate the results of the studies. Evidence shows no differences between undergraduate and graduate students performance in many negotiation simulations (Kim et al., 2003). Studies included participants of mixed gender, which is not a source of heterogeneity. A meta-analysis of 62 studies shows no major differences in negotiation strategies and performance
based on gender (Walters et al., 1998). Some variation in participants’ demographics was allowed to count the total sample as a random sample of participants.

For studies that contained more than one experiment and it was not clear whether they used the same participants in all experiments, results of only one experiment were included in the meta-analysis.

The meta-analyses excluded some studies because they did not meet some of the criteria of inclusion. For instance, studies that included participants from elementary or high school students such as (Johnson et al., 1997; Johnson et al., 1995) were not included. This was for two reasons, age of participants reflects that they do not have business background and studies did not use simulations that were designed to deal with interpersonal conflict. Studies of case analysis such as King and Puls (1996), and studies that did not provide enough descriptive statistics such as (Koszegi and Kersten, 2003; Lee, 1988; Pecorino and Boening, 2001; Van Boven and Thompson, 2003) were excluded. Finally, the meta-analyses excluded studies that did not report any information regarding agreement rate or the time students spent at the negotiation course before including them in research, of those studies (Brett et al., 1996; Morris et al., 1999; Northcraft et al., 1998).

For construct validity and limiting variables variation, included studies should all have variables with limited variation in concepts. Hunter and Schmidt (1990) illustrate that variation in variable names does not necessarily reflect variation in their concepts. The researcher examined how each study defined its variables and chose only those that matched the conceptual definitions of variables under investigation. For accuracy, the studies were limited to those that investigated dual face-to-face negotiations in the USA, in order to eliminate effects of culture on negotiation style or outcome.

Measurements of independent and dependent variables: the dependent variable is performance of trainees and it is measured by percentage of achieved outcome (goal) of each negotiation, which is measured in financial units, or equivalent rating based on financial outcome (Brett et al., 1999; Gist et al., 1990). Separated individual outcome were taken in different from dyad’s outcome. The independent variable is the length of negotiation training that was given to participants before practicing negotiations through simulations. Length of training ranged from short sessions, three to eight hours, to long sessions, more than ten hours. Training processes were all concentrated on providing trainees with knowledge and skills of negotiation that increase their ability to achieve the goal, which is always to reach an effective agreement and avoid impasse. There were no major variations in training processes and methods among studies.

Coding procedures were to give each study one serial number, except for studies that used two different samples. Coding recorded the studies: author/s, date, publication type, independent and dependent variables, measurement type and sample size. A portion of the coding process and the studies list are illustrated in Table I.

Calculation
The researcher used two measures of effect size first correlation “r” when the raw product-moment correlation was provided in the original studies, second, the proportion Logit-method when studies reported agreement rates among trainees. The researcher used three statistical packages to conduct calculations. The major one is the Beta of Comprehensive Meta Analysis II (CMA). This is meta-analyses software
provided by Biostat. The software can be found at www.metaanalysis.com. The calculation procedures and equations that CMA uses to aggregate effect size, are provided in Lipsey and Wilson (2000), Hunter and Schmidt (2004) and the CMA software guide.

When the studies did not report the raw correlation among investigated variables, the researcher used one of two effect size calculators to calculate the appropriate effect size to use in the meta-analysis. The first called META that calculates correlations using means, sample sizes and standard deviations. META is provided at users.rcn.com/dakenny/meta.html The second software is called the Effect Size Determination Program by Wilson, which can be found at http://mason.gmu.edu/~dwilsonb/ma.html

The researcher used the “random effect meta-analysis” method, since it is a method that allows and counts for missing or unreachable studies such as unknown conference papers (Hunter and Schmidt, 2004; Lipsey and Wilson, 2000). For this method, studies are considered units of a random sample that represent wider population of studies (Hunter and Schmidt, 1990; Lipsey and Wilson, 2000). Additionally, test of heterogeneity among studies were significant across different studies, and so using the fixed method was not possible according to the meta-analyses experts (Hunter and Schmidt, 1990; Lipsey and Wilson, 2000).

**Study one: the first meta-analyses group**

Three meta-analyses were conducted. All were done on studies designed to investigate negotiation training variables. The major objective of study one is to measure the main effect of time length spent in negotiation training on trainees’ performance. This performance was measured by percentage of achieved outcome out of one’s BATNA, the best alternative to a negotiated agreement which some consider the equivalent of resistance point. Studies included are designed to measure effect of training on negotiators’ individual performance.

The first meta-analysis included 14 effect-sizes from nine studies that measured the direct main effect of training on negotiators’ performance. Each experiment in every study counted for one effect-size. Studies included 820 graduate and undergraduate trainees of mixed genders. All studies provided short training before offering the negotiation simulation, and did not have control group. Trainees received short training sessions ranged in length from one to eight hours. Negotiation simulations were of the same difficulty level; all were multi-issue business agreements and were timed. Trainees had to stop negotiating after a point of time was around 30 minutes of negotiating. Trainees did not have prior experience in negotiations, and so the resulted effect size reflects direct effect of training on performance.

Results show main immediate effect of training on trainees performance is represented in the average correlation coefficient that results show was $r = 0.22$ and significant, $p < 0.05$. The effect size is in the range of the confidence interval at 95 per cent is $(0.09 < r < 0.35)$ with a small variance of 0.004, and a small standard error $SE = 0.06$. The $Q$-test is insignificant ($Q = 12.691, p = 0.472$), which means studies are homogeneous and effect sizes are normally distributed, and the variability among effect sizes is lower than rates related to sampling errors (Lipsey and Wilson, 2000). As negotiation training and research experiments follow the same procedures, there is low or no variability expected. This means the results of the meta-analysis are close and
can be considered drawn from one sample. The fail-safe $N$ value tells us how many studies are necessary to bring $p$-value of effect size to insignificant value (Hunter and Schmidt, 2004). We need 122 studies, which results prove that effect size of this meta-analysis is insignificant.

According to Lipsey and Wilson (2000) any meta-analysis effect-size less than 0.25 is small; a large effect size is equal to or larger than 0.40. This small effect and the other indicators support that there were no variability or errors. The results are interpreted in the favorable direction. Short training programs have effect on negotiator’s performance that is small but significant.

The second meta-analysis included eight effect sizes from five studies that represent the second experiments of the studies included in the first meta-analysis. The objective of the second meta-analysis is to measure effects of a follow up training on individual performance of trainees, which represents post-training transfer. The participants were 381, mostly MBA students. After five to seven weeks of the first training session, participants received a follow up short reflective training session, two hours, then participated in the simulations.

The results show that the effect size $r$ is 0.76 and significant ($p < 0.05$). According to Lipsey and Wilson (2000) rule, the effect size is a large. The effect size is in the range of confidence interval at 95 per cent, $(0.39 < r < 1)$, which is a large range to one side, with a small variance of 0.036, a small standard error $SE = 0.19$, and insignificant $Q$-value ($Q = 6.494, p = 0.434$) indicating no present variability among studies. The fail-safe $N$ is 486, which results prove that effect size of this meta-analysis is insignificant.

A second session of follow up training is important for increasing negotiators’ performance and post-training transfer. The second session concentrated on repeating lessons from first session, and gave a chance to reinforce good strategies and avoid bad ones.

The third meta-analysis included seven effect sizes from seven studies that measured effect of training on dyads’ joint outcome. The joint outcome indicates negotiators’ ability to cooperate during negotiation and focus on concern for others and relation-building (Rollof et al., 2003). This is necessary for building networks in the business world to keep long-term relations and for reaching integrative agreements when it is possible to do so. Therefore, it was necessary to measure effect of training on joint outcome.

The studies included 598 undergraduates from seven experiments. All studies used simulations for multi-issue business agreements. Performance measured in terms of percentage of negotiators who reached the maximum possible joint outcome. Training time was short, ranged from 20 minutes to one hour of training. The training method used in most studies was analogical encoding.

The effect size was $r = 0.37$ and $p < 0.05$. It is a medium effect size according to Lipsey and Wilson’s (2000) rule. The effect size is in a small range of confidence interval at 95 per cent $(0.20 < r < 0.54)$. There was a small variance of 0.008, small standard error $SE = 0.09$, insignificant $Q$-value ($Q = 4.785, p = 0.572$), and the fail-safe $N$ is 171.

Negotiation training has main effect on joint outcome. Training transfer is higher, compared to results of the first meta-analysis, short training have less effect on individual outcome.
Study two: the second group of meta-analyses

Study two includes three meta-analyses. All were done using studies done during negotiation courses [3] in American universities. Though these studies did not investigate negotiation training per se, we can estimate training transfer post hoc by examining when during the class term the data were collected: the later in the term the more training the students have had. Given that, almost all negotiation courses follow the same structured style of training. Agreement rate was the measure of performance, given that all simulations required students to avoid impasse. Effect size is estimated using proportion Logit-method in all of the following studies.

Proportion Logit-method is used to measure the effect size in meta-analysis when studies report proportions only (Lipsey and Wilson, 2000). It is used to convert proportions to logits when it is preferred to discover differences between studies, and its values are positive and bigger than zero if the original proportion is more than 0.5 (Lipsey and Wilson, 2000). In other words the effect size is big the bigger the Logit than zero. The following section provides results of the remaining meta-analyses.

The fourth meta-analysis includes six effect sizes from six studies that included 630 MBA students. All studies were done at the second half or last week of a negotiation course. Simulations used were multi-issue business agreements of salaries of a new recruit or of purchasing of new machinery. Measuring transfer at the far end of negotiation courses provides an accurate estimate transferred negotiation skills (Susskind and Corburn, 2000). Results show that across studies trainees did not have any impasses. The Logit Point-estimate, 5.2, is large with a small error, SE = 0.58, variance of 0.34, insignificant Q-value (Q = 0.94, p = 0.967), and the fail-safe N is 173.

The fifth meta-analysis included 15 effect sizes of four studies conducted in the second week of class with total sample of 442 MBA students and professional managers. Spending two weeks in class means students received three to eight hours of training depending on the school academic system, semester or quarter. This is a medium length of training time.

The results show that Point-estimate is 2.4 which is medium, with a small error, SE = 0.6, variance of 0.35, insignificant Q-value (Q = 5.7, p = 0.127), and the fail-safe N is 158.

This point estimate reflect significantly lower effect size (2.14) for agreement rate compared to effect size after longer period in class.

The sixth meta-analysis includes five effect sizes from five studies conducted at first day of the negotiation course with total sample of 896 MBA and undergraduate students.

The results show that the Logit point estimate is 2.028; this is a small effect size. The error is small, SE = 0.27, variance is 0.07 and insignificant Q-value (Q = 9.542, p = 0.05), and the fail-safe N is 487.

Results of the previous three meta-analyses support that trainees’ performance increases the longer the time they spend in training. The slightly smaller Logit of trainees who spent one day to those who spent three days maybe due to the small difference in length of time spent in the course.

Discussion

Negotiation training has direct effect on performance of trainees. Results of study one and two indicate that even the shortest training program improved performance of
trainees. Negotiators should spend more time in training programs to enhance their performance and gain more skills. More time in training courses means more practice of business negotiation that builds valuable experience for the trainees.

The results of the six meta-analysis conducted in study one and study two show increase in the effect size with the increase of length of time spent in training programs. Results of study one is more meaningful because participants were the same for the first and second meta-analyses. The elevating effect size for the same participants from the first to the second meta-analysis reflects how follow up training helps to increase and maintain skills acquired through negotiation training. Training builds experience in negotiation. The relatively small effect size of the first meta-analysis reflects that training provides the base for building negotiation skills and experience. This fact was confirmed in the second meta-analysis. Besides, we can infer conclusions for methods of training a mix of experiential and reflective training might be more valuable than offering experiential training alone as the case in the first meta-analysis.

The results support practices of negotiation training and its effectiveness in transferring negotiation skills to trainees. This finding can be generalized to the other factors of negotiation training, because they are measured through the level of received training. Level of training combines all the interactions happening in the process of negotiation training. Effects of methods styles and structure of the courses are the underlined factors of level of training. Level of training is a measure of the overall effectiveness of these factors. Characteristics of both trainer and trainees are not major players in the process of training, maybe because the methods of training offset their effect. However, more in-depth research is required to know how these characteristics affect training transfer.

Implications for practice

The value of negotiation training is somehow neglected due to the doubts surrounding its effectiveness and value for maintaining and developing human forces of the firm. This study supports the value of negotiation training for increasing firms’ performance through increasing the negotiation skills of its executives. Enough time should be allowed for negotiation training, ten hours or more, to guarantee high training transfer.

Practice of negotiation training should focus on reinforcing gained knowledge through follow up regular training with enough time. This is the way to maintain gained negotiation skills. Other fields of training could benefit from the findings. Training can be effective in building soft skills and experience in other managerial fields if long enough, repeated and designed in the appropriate.

Trained negotiators win deals that add financial value to the firm. This is especially important for survival in tough times. Executives who are good negotiators are satisfied with their performance and spread productivity in the firm. When executives win deals for their firms they feel confident, satisfied and self-esteemed. They are able to improve customer relations, employee’s satisfaction (Ertel, 1999; Susskind and Corburn, 2000) and build business networks for the firm. The opposite is true when they lose deals causing their firms’ financial loses and a bad reputation. Firms should build and maintain negotiation skills in its human forces through negotiation training.
Implications for theory

The results of this study bring attention to the effect of time spent in training on participants’ reactions during negotiation experiments. Most negotiation studies, if not all, are done during undergraduate and graduate negotiation courses in business schools. The length of time spent in the negotiation course has a direct effect on negotiators’ performance and accumulated experience. This effect should be counted for when conducting research studies during course.

Length of time spent in the course may moderate or mediate the relationships being tested between other dependent and independent variables of negotiation studies. This may skew results of the negotiation experiments conducted at the end of the negotiation courses. It is better to conduct experiments at the first day of course if experience is a moderating factor in the experiment. If experience is a variable of interest, experiments should be kept to the last week of the course. This is especially true for freshmen.

Limitations and directions for future research

The study was under the general limitations of meta-analysis. Studies included were of fairly a small number for regular meta-analyses conducted in other fields. This limitation is due to the publishing restrictions that limit repeating the same study with different samples in the management journals. A practice allowed with some limitation in other fields such as psychology and medicine, where meta-analysis is a regular research practice.

Meta-analysis is essential for validity and generalizability. Drugs are not allowed for human usage without meta-analysis of a large number of studies tested the drugs on enough volunteers. To benefit from the power of meta-analysis in theory building and validation in management fields, some redundancy should be allowed to provide enough studies to conduct meta-analyses. Management researchers turn around this situation by conducting meta-analyses on studies that used the same questionnaire or use the available number of studies as small as it gets. For this paper, studies included in the meta-analysis represent the population of negotiation training studies.

Some meaningful directions for future research are encouraged. Many aspect of negotiation training and education are worthy of investigation in order to improve negotiation training transfer even more. This study focused on few aspects related to nature of training programs and tools, because it was not feasible to find enough empirical studies that measure the association between trainer’s and trainee’s characteristics and training transfer. The normal extension of this paper is to develop a psychometric instrument to estimate the trainees’ negotiation skills pre- and post-training. It is necessary to know parts of negotiation skills ingenerated in personality traits and parts built by learning, to design training programs around the individual needs of each trainee. This is more valuable for one-on-one training of top executives that lack time and patience to stay in training for long periods.

The regular practice of providing a mix of the three methods of training in courses (e.g. Fortgang, 2000), is effective as is with some small additions. Instead of the regular debriefing after each simulation, it is better to provide a list of effective strategies that help each role player to reach Pareto-efficient goals. Also, students can be asked to disclose their strategies. This method would help students more to identify their weaknesses and strengths to reinforce the learned lessons from the simulations.
There are some valuable directions for future research, none was validated empirically, are worthy of testing. For instance, negotiation experts suggest that repeating similar or same simulations toward the end of the course helps to increase and test trainees acquired skills (Patton, 2000). Engaging trainees in real negotiations with real businessmen after finishing training is an ideal manner to test trainees’ performance in a realistic to avoid self-fulfilling biases of trainees (Patton, 2000). Other effective methods are to provide some kind of immediate punishment or rewards in order to enhance trainees’ motivation to learn (Kniveton, 1975). There is a need for more studies in the rich, yet not so cared for, field of negotiation training.

Notes
1. Didactic-analogical training, also referred to as conceptual training, provides trainees with negotiation principles directly through readings, and lectures (Rollof et al., 2003). Experiential training is based on Kolb’s (1974) model of learning from experience (Lewicki, 1997). Experiential training begins by engaging students in experience, role-play simulations, and then generalizes knowledge from it, or begins by abstracted lessons and moves to experience (Lewicki, 1997). Reflective training is a complementary follow up training to analyze and generalize acquired lessons from experiential training (Rollof et al., 2003). Reflective training lets participants learn by analyzing their results compared to others’ during the debriefing process after simulations (Susskind and Corburn, 2000).

2. According to the behavioral theory, behavior of negotiators refers to the strategies they apply during negotiation process. Therefore, strategy and behavior are used interchangeably in this paper.

3. There is a group of 11 studies that been conducted in first week of negotiation course. It was not clear whether these studies offered training for students at all. So, I e-mailed authors to ask them first about the exact training time that students received, before deciding to include these studies in the meta-analysis. It turned out to be one day of training.

References


Further reading


About the author
Eman ElShenawy is Assistant Professor at The Faculty of Commerce at the Suez Canal University, Ismailia. She joined the Suez Canal University in 1996 not counting her years in the USA as a PhD student. Her PhD degree was received from Washington State University. Her research interests are in negotiations, personality traits effects on strategic decision making and negotiations, cross-cultural teams and entrepreneurship. Eman ElShenawy can be contacted at: eelshenawy@scuegypt.edu.eg

To purchase reprints of this article please e-mail: reprints@emeraldinsight.com
Or visit our web site for further details: www.emeraldinsight.com/reprints