Selling with Confidence and Empathy: Utilizing Improvisation Training to Explore the Gender Gap in B2B Sales

By Jonathan Ross Gilbert and Stefanie Boyer

Recent studies indicate that women in business-to-business (B2B) sales are underrepresented (Gartner, 2020; USBLS, 2019). Little research examines the use of sales education to help close this gender gap. The purpose of this study is to explore how different genders respond to improvisational (improv) training; a unique approach to teaching sales that prepares learners to adapt to the ever-changing needs and expectations of buyers. A content analysis (n = 68; 32% F, 68% M) informs an exploratory study (n = 48; 44% F, 56% M) and post hoc analyses testing: (a) the efficacy of improv training on individual confidence and empathy; and (b) the moderating effect of learned confidence and empathy on adaptability. The findings suggest a global benefit of improv training for both women and men. Interestingly, women's confidence increases significantly to a level above men post-intervention and their attitudes toward the sales profession improves. Thus, sales training programs should consider adding improv training to enhance adaptive selling performance for all sales professionals, while empowering selling confidence in female sales professionals.

INTRODUCTION

Business-to-business (B2B) sales is evolving rapidly amid the backdrop of product complexity, informed buying teams and unforgiving global competition. This new customer-led era necessitates that salespeople be diligent problem finders, flexible problem solvers, and have the financial and relational acumen to co-create value (Kienzler, Kindstrom, and Brashear-Alejandro 2019; Mohanty 2017; St. Clair et al. 2018). Yet, despite evidence that the temperament and emotional intelligence of women may provide them with a competitive advantage over their male counterparts, the underutilization of female talent in the B2B sales profession persists (cf. Betts 2017; Gartner 2020; Taplett et al. 2019; USBLS 2019; Zoltners et al. 2020). There is an open question about whether training or interventions in academic environments might help develop these skills.

Sales functions have the second largest gender equity gap across industries (Gartner 2020). Women comprise less than 39% of B2B sales professionals overall and 25% or lower of B2B sales professionals in the fastest-growing industries, such as technology (Betts 2017; USBLS 2019). These figures drop precipitously in positions of sales leadership, where women account for fewer than 19% of first-line B2B sales supervisor roles (USBLS 2019) and fewer than 12% of more senior sales roles (Gartner 2020). In the last decade, the percentage of women in sales has only increased by 3%, and 50% of female B2B sales professionals judge opportunities for advancement to be lacking in comparison to their similarly qualified male counterparts (Gartner 2020).

This untapped potential is further exacerbated by the dearth of empirical research on women in sales and interventions to address gendered perceptions of salespeople by managers and buyers. It is no surprise then that sales career stigmas persist, even within the context of B2B selling, which is not only different from B2C selling, but also more dynamic. The issues are complicated, and a true solution will tackle the problem through multiple avenues.

One way that sales educators and professionals can address the lack of female engagement in B2B sales is at the university level, where new approaches to domain-specific training may shape, or reshape, how both genders experience the profession. The primary aim of the current study is to explore gendered responses to a unique form of experiential training that, unlike traditional role plays and sales simulations, taps into

Jonathan Ross Gilbert (MBA, Harvard Business School), Ph.D. Candidate in Marketing, The College of Business, University of Rhode Island, Kingston, RI, jrossgilbert@uri.edu

Stefanie Boyer (Ph.D., University of South Florida), Professor of Marketing, Bryant University, Smithfield, RI, sboyer@bryant.edu

the innate ability of an individual to adapt and adjust on the fly; as opposed to relying upon a forced set of behaviors that may be misaligned with the dynamic nature of buyer-seller relationships.

First, we discuss the potential benefits of improvisational (improv) training as an experiential learning tool for targeting two understudied factors in predicting adaptive selling behavior. Second, we briefly review extant sales literature on gender differences in B2B sales to develop hypotheses for how improv training may differentially influence selling mindsets and skill sets. Third, we present results from a mixed-methods study of 116 business students exposed to professional improv training modified for use in a sales context. Last, we present avenues for future research and consider the limitations of our findings.

THEORETICAL BACKGROUND

Using Improv in the Classroom to Develop Adaptability

Experiential learning theory (ELT; Kolb 1984) is the bedrock of sales training. ELT describes the acquisition of knowledge as a recurring process in which the learner experiences, reflects, thinks and acts. Teaching pedagogies that provide these hands-on, minds-on learning opportunities, promise to motivate students to become more involved in their education, make connections between theory and practice, and improve both communication skills and problem-solving abilities (Frontczak 1998). Sales educators and trainers often use applied scenarios, case studies, role plays, and live action simulations to increase engagement and enhance performance outcomes. Improv is considered to be a powerful experiential technique and may provide benefits above and beyond those realized by more common approaches to education (Mourey 2019; Rocco and Whalen 2014).

Improv refers to spontaneous scene work in which participants invent or discover the dialogue and action as they perform. [A] feature of improv theater is the absence of predetermined roles or dialogue, often with actors receiving only slight direction regarding their role or motivation prior to a scene (Joos 2012). There is an important distinction between improv and other experiential methods, such as role plays. Becoming intensely focused, present, and listening skillfully enhances role-plays; whereas improv both requires and facilitates these practices. In addition, participants are taken out of their comfort zone and find themselves faced with having to make connections and adapt on the fly without the opportunity of forethought (Boyer 2019). Fostering adaptability is a potential competitive advantage in fiercely competitive B2B markets. Adaptive selling takes a consultative approach to identifying buyer needs and co-producing mutually beneficial solutions. Two of the most important predictors of adaptive selling behavior are confidence and empathy (Giacobbe et al. 2006; Spiro and Weitz 1990).

A strong body of empirical evidence (Aylesworth 2008; Finsterwalder and O'Steen 2008; Shepherd, 2004) indicates that improvisation-based pedagogies promote a multitude of cognitive and social skills, including confidence. Prior studies of the use of improvisational techniques in the business domain are predominately conceptual in nature (see Aylesworth 2008; Berk and Trieber 2009; for a literature review of workplace training interventions utilizing improvisation, see Ratten and Hodge 2016). Two empirical studies highlight the promise of improv as a mechanism to enhance performance in a sales or business context. Rocco and Whalen (2014) utilized a quasi-experimental design to explore the relationship between the agreement tenet of improv and both sales effectiveness and course evaluations. Students receiving the improv training outperformed the control group in a subsequent real-world sales project and rated the class higher. Mourey (2019) found beneficial effects for both a brief improv intervention and a 10-week improv course. The brief "Yes, and…" activity suggested a correlation between improv manipulation and divergent thinking, while the 10-week improv course significantly amplified the adaptive outcomes of divergent thinking and perceptions of group collaboration.

There is limited research on the application of improv for empathic skill development in sales training. However, there is conceptual support and empirical evidence for integrating improv and related techniques for the training of empathy within the helping professions

(Reilly et al. 2012; Shochet et al. 2013). Therefore, this study further explores the outcomes of improvisational training in a classroom setting, with the recognition that gender could affect responses to the training.

Gender

Historical sales performance literature reflects the ideological hegemony that men are better-suited than women to work in the sales profession (cf. Swan and Futrell 1978; Swan, Futrell and Todd 1978). This perspective changed after the Equal Employment Opportunity Act of 1972 brought about an influx of women into industrial sales positions and facilitated the comparative study of gender in B2B sales roles.

A subsequent series of articles on women in the B2B sales domain examined gender stereotypes and advocated for the recruitment of women in relational selling roles such as business-to-consumer (B2C) retail, where the majority of customers are female. However, women are perceived as limited in their ability to provide technical assistance to B2B customers and less desired as a point of contact by predominantly male buyers, who rate selling relationships more highly when similarities exist in terms of gender and age (Dion, Easterling, and Javalgi 1997).

A small but growing body of contemporary sales literature positions relational selling as a potential competitive advantage for female B2B sales professionals; especially within a context of increasingly complex service and solution offerings. Gender differences are specifically identified in communication style and other soft selling skills (Rosenbaum 2001; Sojka and Tansuhaj 1997) that translate to enhanced sales performance outcomes for saleswomen over time as rated by customers and sales support teams (Frino and Desiderio 2013; Rosenbaum 2001).

HYPOTHESIS DEVELOPMENT

Gender and Confidence

Confidence is a key factor in salesperson performance. Men are perceived to have more confidence and expertise than women; even when of equal intelligence and rank (Kenton 1989). "Confidence is a nondescript term that refers to strength of belief but does not necessarily specify what the certainty is about. I can be supremely confident that I will fail at an endeavor. Perceived self-efficacy refers to belief in one's agentive capabilities, that one can produce given levels of attainment" (Bandura 1997, 382). Sales researchers accordingly measure self-confidence as a salesperson's belief (or confidence) in her or his ability to accomplish a specific task within a specific situational context (e.g., ability to call on a specialist, ability to close a sale, etc.). This belief is also commonly referred to as self-efficacy in the extant sales literature. A specific type of salesperson self-efficacy that best reflects the increased need to adapt or tailor the selling approach to the behavior of the customer is referred to as adaptive selling confidence. Adaptive selling confidence (ASC) is defined as the "salesperson's belief in his or her capability to use a variety of different sales approaches and make adjustments in the message in response to the customer's reactions" (Román and Iacobucci 2009, 366).

Despite different approaches to measuring confidence across studies, the congruence of evidence strongly suggests that sales training is enhanced by incorporating processes that increase salesperson confidence and belief in sales ability. The developmental need extends to prospective sales professionals, who can be instrumental in efforts to address the gender gap in B2B sales. Given previous research, we propose the following hypothesis:

H1: Female students exhibit lower levels of selling confidence compared to male students.

Gender and Empathy

The ability to sense and react to buyers' thoughts, feelings, and experiences may be essential to complex B2B sales and an important point of differentiation between male and female salespeople. Early research establishes a moderating link between trait empathy and sales performance. Dion, Easterling, and Javalgi (1997) suggests women have higher empathy for buyers and subsequent studies propose that this greater sensitivity to, and ability to predict, customer needs results in comparatively higher performance outcomes. Similarly, Rosenbaum (2001) concludes that women may outperform men in complex selling situations by leveraging empathy, in addition to other competencies.

More recent research suggests that empathy and other related communication variables wholly or partially influence salesperson performance through adaptive selling behavior. Specifically, empathetic salespeople are more likely to adapt to the needs of B2B buyers, and these adaptive behaviors directly impact salesperson performance (Limbu et al. 2016; Anaza, Inyang, and Saavedra 2017). Empathy increases both trust and satisfaction in customers prior to, and after, the initial sale in competitive B2B contexts (Aggarwal et al. 2005; Ahearne, Jelinek, and Jones 2007).

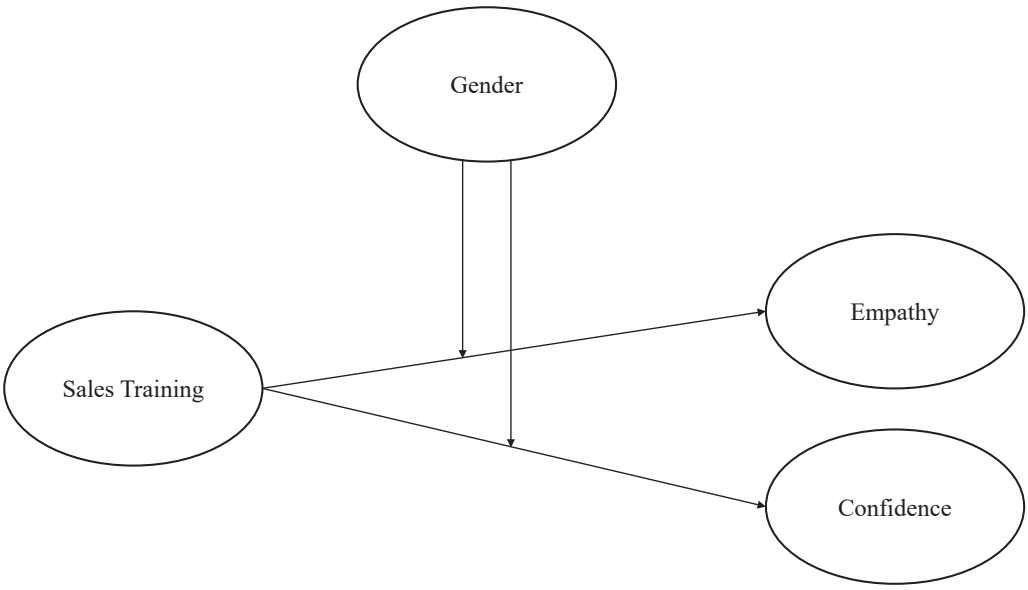
Scant empirical research exists investigating gender differences within this expanded model of adaptive selling. However, a contemporary neuroscience study confirmed that women are, on average, more empathic than men due to nongenetic cultural factors such as socialization (Warrier et al. 2018). The socialization process is likely to affect college students, and their empathy, as well. Therefore, the we propose the following hypothesis:

H2: Female students exhibit higher levels of empathy compared to male students.

Intervention

The dynamic and ever-changing nature of business requires a different approach to sales training that is sensitive to the contrasting needs of men and women and also empowers both groups to successfully transfer knowledge and skills from the classroom to the field. Since gender relates to these constructs in general, it is conceptualized to moderate the relationship between sales training and the targeted adaptive outcomes of empathy and selling confidence (*see* Figure 1).

Figure 1. Conceptual Model

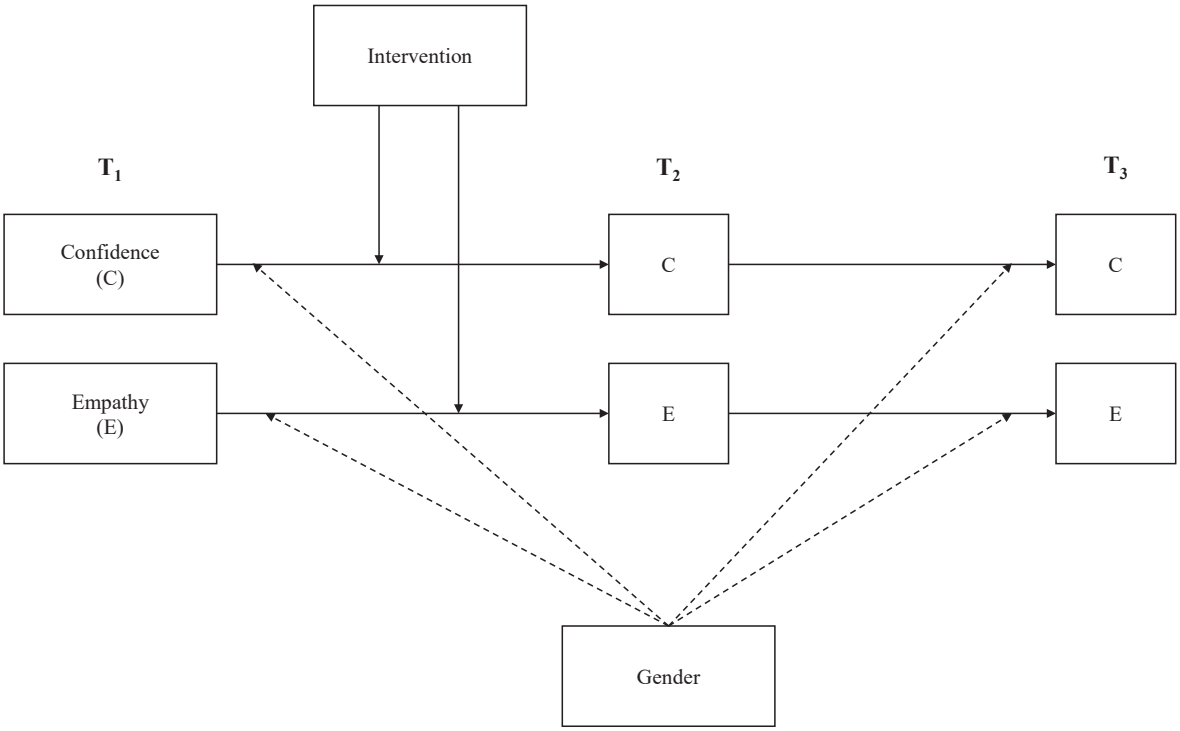


Improv is operationalized as an intervention that moderates the relationship between pre- and post-test measures of salesperson empathy and confidence (*see* Figure 2). For example, using improv techniques (e.g., "Yes, and…") and games in a sales context requires students to adapt quickly to new information and think on their feet. Therefore, we propose that improv training will help both men and women develop empathy and confidence.

H3: An improv intervention increases selling confidence in male and female students post-test.

H4: An improv intervention increases empathy in male and female students post-test.

Figure 2. Testable Model for Exploratory Study



An action research framework is used in this study (Martella et al. 2013). Action research was developed as a mixed methods approach for use within classrooms, where the teacher plays a dynamic role as an active participant in both data collection and classroom administration, to more fully understand a problem. Qualitative observations and quantitative assessments are synthesized to provide a well-rounded exploration of a phenomenon. While there are many confounding factors that classroom teachers cannot fully control, active engagement as both a participant and observer allows for insightful qualitative reflections, which can account for some of these limitations.

CONTENT ANALYSIS

Undergraduate business students (n = 68; 22 F, 32%; 46 M, 68%) at a small, private university in the Northeast participated in improv training as part of an elective sales course. An improv expert conducted two 75-minute workshops over the course of the semester that incorporated improv games (e.g., "Yes, and…") to get students to adapt and think on their feet, all related to sales. To explore the relationship between improv participation and individual factors, including confidence and empathy, students were asked: "Are there any changes or lasting effects that you are experiencing after adaptability training with the course?"

A descriptive qualitative analysis was performed on the open-ended responses from participants. Responses were categorized by two independent coders (interrater reliability = .94; disagreements resolved by a third judge) and are presented in Table 1. The most common themes identified were changes to confidence, empathy, perceptions of selling as a profession, and adaptability. Interestingly, there were marked gender differences in how changes or lasting effects were communicated. First, women tended to articulate increases in confidence more often than men. Second, women emphasized soft selling skills more than men. Third, women expressed more positive changes in their attitude toward sales as a career.

EXPLORATORY STUDY

Method

Participants were 48 prospective sales professionals enrolled in two marketing courses at a small, private university in the Northeast (see Table 2 for descriptive statistics). There were similar rates of male (n = 21; 44%) and female (n = 27; 56%) participants within the sample. All participants received improv training related to sales. However, one group received a greater amount of improv training. Thus, there was an opportunity to compare students who experienced more intensive improv training (improv heavy: 9 F, 64%; 5 M, 36%) to students who experienced less intensive improv training (improv light: 10 F, 36%; 18 M, 64%).

An improv expert joined all classes for a 50-minute active workshop utilizing improv techniques such as, "Yes, and…" (see Appendix for sample exercise). The intensive training group received two additional 50-minute training workshops. All games required students to think on their feet and react and adapt to unexpected situations. Data were recorded using an online survey at three time points: baseline (during the first week of classes), intervention (4-6 weeks after baseline) and follow-up (13-15 weeks after baseline). No students were in both the pre-test and treatment groups.

There were two main self-reported outcomes: confidence and empathy. Empathy was measured using the full set of 28 items on the validated Interpersonal Reactivity Index (IRI), including: "I am often quite touched by things that I see happen" and "I believe there are two sides to every question and try to look at them both" (Davis 1980, 1983). Participants completed the five-point Likert scale items, ranging from "Does not describe me well" to "Describes me very well." Confidence was measured using three statements: "I am good at thinking on my feet," "I am good at making decisions," and "I can adapt well" (adapted from Spiro and Weitz 1990 and Pettijohn, Schaefer, and Burnett 2014). Responses were captured using a Likert scale anchored by 1 (representing "strongly disagree") and 7 (representing "strongly agree").

Data Analysis and Results

Generalized linear mixed modeling was used to estimate the means across groups and time (Brown and Prescott 2014). The independent variable of the analysis was improvisational grouping: improv heavy or improv light. Additionally, time was included as a categorical variable at three timepoints (baseline, immediately after intervention, and at the end of the semester). Gender identity was included as a moderator. The analysis included all main effects and interactions among these three variables.

A brief a priori power analysis was conducted using G*Power software to verify that sampling was sufficient for the analysis (Faul et al. 2007). Only in the event of a small population effect size ($R^2 = 0.02$), would the analysis have been underpowered ($\alpha = 0.05$; power = 0.146). This supported that the sample should be sufficient for identifying quantitative evidence to clarify some of the relationships between improv training, confidence, and empathy.

Table 1. Female Responses to Adaptability Training Using Improv Games and Exercises

Theme	Frequency	Description of Thematic Concepts and Sample Quotations
Confidence	12/22 (55%)	**Belief in Personal Capabilities:** • "*I feel more confident…and better equipped to handle curve balls that may be thrown my way by a boss or a customer*" • "*Boosted my confidence and stronger belief in my abilities*" • "*CONFIDENCE has done a complete 180 for me*" **Reduction in Anxiety:** • "*I feel more prepared to handle different situations in the selling world no matter what the context is thanks to this type of training*" • "*Training really brought me out of my shell*" • "*Taught me to roll with anything and not get flustered as easily*"
Empathy	9/22 (41%)	**Self-Awareness:** • "*I have also become more aware of my posture and body language, which I will remember long after I graduate*" • "*Helps me adjust my conversation, tone and strategy to each client I speak with*" **Communication:** • "*It helped me realize how to read people better*" • "*Taught me to have a more open mind and listen to what is being said and go on from there*" • "*I find I am more engaged in my conversations with people and do a better job at listening to what they are saying, and adapting to that*"
Sales Stigma	6/22 (27%)	**Changes in Perception:** • "*I definitely became more comfortable with the sales process as a whole*" • "*I feel more comfortable with sales [profession]*" • "*I learned how important relationships really are in business, and how to maintain them in a genuine way"*
Adaptability	5/23 (23%)	**Thinking on Feet:** • "*Able to think quicker on my feet and handle any objections I get moving forward with my business*" • "*I am able to think on my feet quicker when I don't have an exact answer right away*" **Solutions-Orientation:** • "*Made me realize that not every one of my selling points will work, and that I need to realize what I can use as alternatives"* • "*Keep your mind working and looking at all possible options*" • "*Reminds me to think that there is more than one way of getting to an answer*"

Analyses were performed on R studio and SAS studio, specifically the R psych (Revelle 2018) package and the SAS proc mixed procedure (Singer 1998). Internal consistency was calculated for the empathy and confidence measures. The IRI scale was less consistent than desired, but not unreasonably so (omega = 0.69; Harlow 2014). The confidence scale demonstrated good sample consistency (omega = 0.86). Models were fit and examined diagnostically before interpretation. Residuals appeared normally distributed and most participants had low residuals (i.e., Cook's D<|0.20|). A summary of model results can be found in Table 2.

Table 2. Sample Characteristics

Variable	N	Min	Max	Mean	SD	Skew	Kurtosis
Self-reported empathy	54	39	80	61.42	7.68	-0.37	0.10
Female	24	47	80	64.01	7.01	-0.22	-0.21
Male	29	39	74	59.18	7.56	-0.46	0.06
Self-reported confidence	54	4	18	14.53	2.62	-0.81	0.73
Female	24	4	18	14.28	3.01	-0.81	0.49
Male	29	9	18	14.75	2.22	-0.52	-0.14
Self-reported adaptability	54	13	36	27.56	4.97	-0.39	-0.18
Female	24	13	36	27.61	4.76	-0.46	0.24
Male	29	13	36	27.51	5.25	-0.34	-0.50
Improvisation experience at baseline	54	0	3	0.53	0.91	1.55	1.14
Female	24	0	3	0.54	0.96	1.63	1.34
Male	29	0	3	0.52	0.86	1.46	0.91
GPA	54	2.25	3.97	3.28	0.39	-0.63	0.08
Female	24	2.90	3.97	3.45	0.26	-0.11	-0.46
Male	29	2.25	3.88	3.14	0.42	-0.27	-0.54

Variable	Level	N	%
Age	College age (i.e., >24 years)	51	94.44
	Professional (i.e., <24 years)	3	5.56
Class	Sales	20	37.04
	Marketing section 1	22	40.74
	Marketing section 2	12	22.22
Ethnicity	Asian/Pacific Islander	2	3.70
	African American	1	1.85
	Caucasian	51	94.44
Major	Marketing	20	37.04
	Finance	10	18.52
	Management	4	7.41
	Other	20	37.04

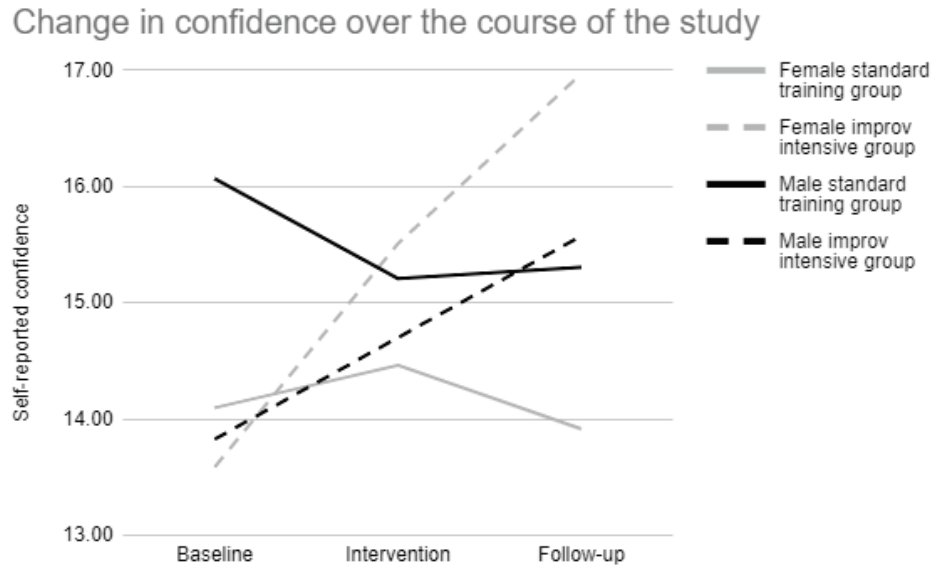
Selling Confidence. It was hypothesized that men demonstrate higher levels than women at baseline, but that the intervention would help close that gap over time. Table 3 presents least squares means and 95% confidence intervals at each time point for each of the four stratified groups. An R^2 approximation for generalized linear mixed model found that a very large amount of variance could be explained by the model (R^2 = 0.738; Harlow 2014). Cohen's d was calculated comparing overall averages between each pair of time points. A large effect was taken as d = 0.8, medium as d = 0.5, and small as 0.2 (Cohen 1988). The results indicated a medium increase in confidence across most participants between baseline and follow-up (Cohen's d = 0.53). Participants increased in confidence a small amount from baseline to intervention (Cohen's d = 0.22), and a small to medium amount from intervention to follow-up (Cohen's d = 0.31). These values suggest that the model was effective at explaining differences in the sample, and there were medium-sized increases in confidence across the whole study.

Table 3. Least Squares Means for Self-Reported Confidence

	Female		Male	
	Standard training group	Improv intensive group	Standard training group	Improv intensive group
Baseline	14.10	13.59	16.07	13.83
95% CI LL	12.57	12.22	14.90	12.11
95% CI UL	15.62	14.95	17.23	15.54
Intervention M	14.46	15.51	15.21	14.70
95% CI LL	12.94	14.14	14.04	12.99
95% CI UL	15.98	16.87	16.38	16.41
Follow-up M	13.92	16.97	15.30	15.58
95% CI LL	12.39	15.61	14.14	13.86
95% CI UL	15.44	18.34	16.47	17.29

Figure 3 plots the changes in confidence over time. Except for the male improv light group, which demonstrated disproportionally high self-reported confidence (M = 16.07, 95% CI [14.90, 17.23]), the groups were fairly close together at baseline (male improv heavy: M = 13.83, 95% CI [12.11, 15.54]; female improv light: M = 14.10, 95% CI [12.57, 15.62]; female improv heavy: M = 13.59, 95% CI [12.22, 14.95]). Both female and male intervention groups demonstrated greater confidence immediately following training. Women in the improv heavy group demonstrated medium to large increases in confidence over the study (M = 15.51, 95% CI [14.14, 16.87]; follow-up: M = 16.97, 95% CI [15.61, 18.34], Cohen's d = 0.56). Increases in confidence for men in the improv heavy group were small (improv heavy: M = 14.70, 95% CI [12.99, 16.41]; follow-up: M = 15.58, 95% CI [13.86, 17.29], Cohen's d = 0.33). The improv light groups demonstrated smaller changes over the course of the study. Women and men in the improv light group were relatively unaffected by the intervention.

Figure 3. Change in Self-Reported Confidence Over the Course of the Study



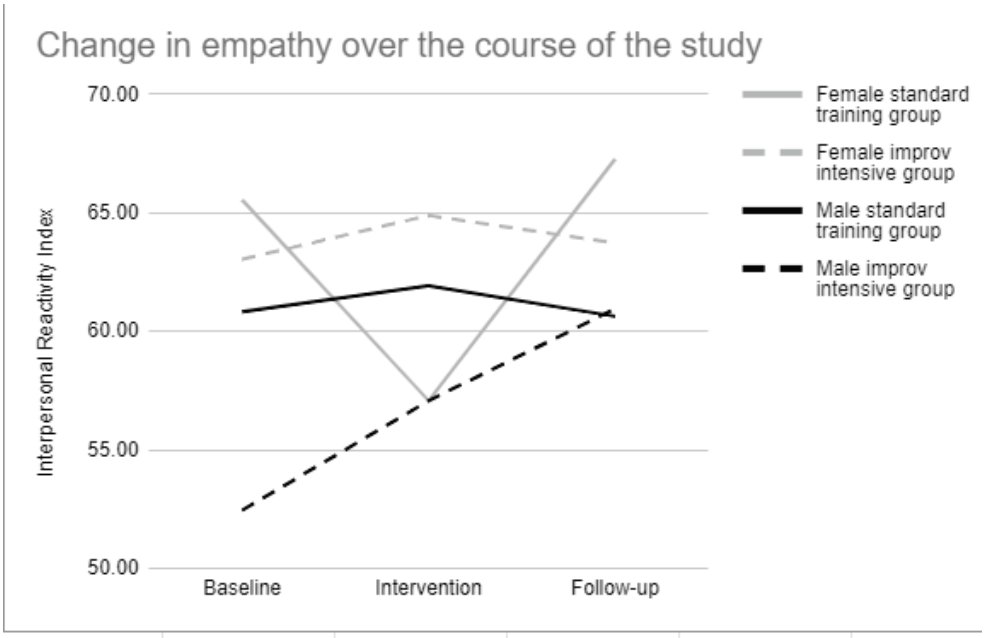
Empathy. It was hypothesized that women would be higher than men at baseline, but that the intervention would bring both groups closer together. Table 4 presents the least squares means and confidence intervals for this outcome. An R^2 approximation for generalized linear mixed model accounted for most of the variance in the sample (R^2 = 0.877; Harlow 2014). A large effect was taken as d = 0.8, medium as d = 0.5, and small 0.2 (Cohen 1988). Across groups, the sample demonstrated a small to medium increase in empathy at baseline and follow-up (Cohen's d = 0.35). There was a small increase in empathy from baseline to intervention (Cohen's d = 0.23) and from intervention to follow-up (Cohen's d = 0.11). These values suggest that the model was effective at explaining differences in the sample at each time point following training.

Table 4. Least Squares Means for Self-Reported Empathy

	Female		Male	
	Standard training group	Improv intensive group	Standard training group	Improv intensive group
Baseline	65.55	63.04	60.82	52.45
95% CI LL	60.96	58.97	57.24	47.38
95% CI UL	70.13	67.11	64.41	57.52
Intervention M	57.07	64.89	61.92	57.07
95% CI LL	52.00	60.82	58.34	52.00
95% CI UL	62.14	68.95	65.50	62.14
Follow-up M	67.27	63.73	60.63	60.95
95% CI LL	52.00	60.82	58.34	52.00
95% CI UL	62.14	68.95	65.50	62.14

Figure 4 is a line chart of changes in empathy. As hypothesized, at baseline, women (improv light: M = 65.55, 95% CI [60.96, 70.13]; improv heavy: M = 63.04, 95% CI [58.97, 67.11]) had higher empathy scores than men (improv light: M = 60.82, 95% CI [57.24, 64.41]; improv heavy: M = 52.45, 95% CI [47.38, 57.52]). Men in the improv heavy group reported medium to large increases in empathy at each time point (intervention: M = 57.07, 95% CI [52.00, 62.14], baseline-intervention Cohen's d = -0.60; follow-up: M = 60.95, 95% CI [52.00, 62.14], intervention-follow-up Cohen's d = 0.50). Men in the improv light group and women in both groups were relatively unaffected by the intervention.

Figure 4. Change in Self-Reported Empathy Over the Course of the Study

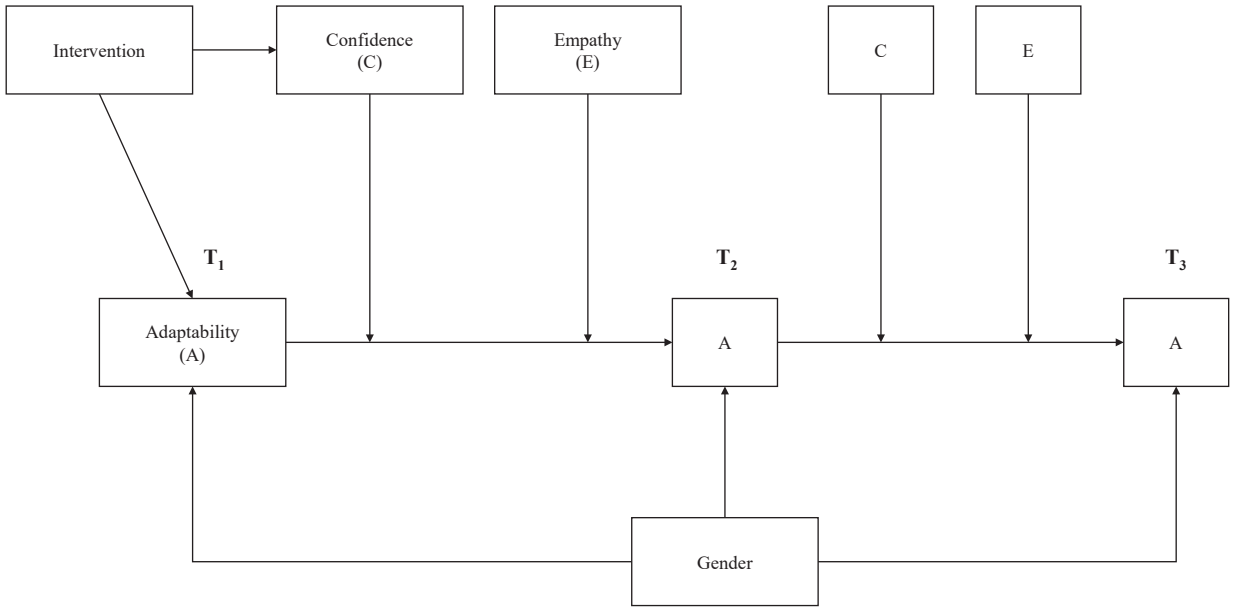


These results demonstrate the overall efficacy of improv training on confidence and empathy for business students enrolled in marketing courses. However, the results appear to be stratified by gender identity. Women in the improv heavy group showed larger increases in confidence than men in both groups. In contrast, men in the improv heavy group showed larger increases in empathy than women in both groups.

POST HOC ANALYSES

Statistical analyses were specified after the data was seen to provide further evidence for the articulated relationships by examining the moderated effect of learned confidence and empathy on adaptability (*see* Figure 5). We hypothesize that: (1) students will report higher levels of adaptability from improv training; and (2) learned confidence and empathy associated with that training will moderate changes in adaptability, such that positive increases in either factor will positively influence adaptability. Exploring moderation may also yield insights into the potential for overconfidence and excessive empathy as maladaptive outcomes.

Figure 5. Testable Model for Post Hoc Analyses



Method

Participants (including sample sizes) and procedures are identical to the exploratory study, with the exception of one additional measured variable. An adaptability scale was developed by the authors for the purpose of this study, based on the shortened version of the adaptive selling behaviors scale (ADAPTS-SV; Robinson 2002). Statements are provided on a Likert scale scored from 1 (representing "strongly disagree") to 5 (representing "strongly agree"). Sample qualities for this scale are provided in Table 2.

Data Analysis and Results

Generalized linear mixed modeling was used to estimate the mean adaptability across time and intervention, while accounting for covariances between measures (Brown and Prescott 2014). The outcome was adaptability score. As with the exploratory study, the intervention group (improv heavy or improv light) was included as a fixed effect, as well as gender identity and time (baseline, intervention, and 6-week follow-up). To account for longitudinal moderation, empathy and confidence were included as fixed effects. Because the focus of the analysis was on how intervention-induced changes in these constructs moderated learning of adaptability, they were centered within subjects at baseline values and standardized.

A power analysis using G*Power (Faul et al. 2007) demonstrated that the sample was sufficient for the analysis ($\alpha = 0.05$; power = 0.73). Only in the event of a medium population effect size ($R^2 = 0.15$), would the analysis have been underpowered ($\alpha = 0.05$; power = 0.146). This suggests that the analysis should be able to provide insights into some of the trends underpinning changes in adaptability, even if those details are difficult to quantify. The adaptability measure was appropriately distributed for the analysis and internal consistency reliability for the scale within the sample was estimated to be strong (omega = 0.85). Residuals appeared more or less Gaussian.

An R^2 approximation for generalized linear mixed modeling suggested that the model accounted for nearly all of the variance ($R^2 = 0.965$; Harlow 2014). There was a moderate increase in adaptability across all participants from baseline to follow-up (Cohen's d

= 0.34). Participants in the improv heavy group tended to have significantly higher ratings of adaptability (M = 26.62, 95% CI [24.91, 28.33]) than the improv light group (M = 29.67, 95% CI [27.12, 32.22]), a large difference between the means (Cohen's d = 0.61). These findings suggest that both groups benefited from improv interventions, yet more intensive training was especially effective.

Next, the moderating effects of learned empathy and confidence were examined. Across all participants, increases in confidence were associated with increases in adaptability (beta = 1.88, p = 0.0045). Generally speaking, changes in empathy were more impactful for women than for men (gender empathy interaction, beta = 1.81, p = 0.0077). It should be noted that there was one subgroup of men for whom increases in empathy were especially effective: men in the improv heavy group (baseline, M = 24.28, 95% CI [21.52, 27.03]; follow-up, M = 27.52, 95% CI [25.26, 29.79]). This was a large improvement (Cohen's d = 0.65). These results demonstrate broad benefits to adaptability based on learned confidence and empathy.

That said, if the intervention can increase confidence and empathy, it was a concern that some participants may learn overconfidence or excessive empathy. To some extent, this phenomenon was identified in the model. The interaction between learned confidence and empathy was significant and predicted lower rates of adaptability (beta = -5.47, $p < 0.0001$). Participants who increased the most in empathy and confidence tended to have more sizable reductions in adaptability. Examining the estimated means, there was one group that was at risk for overconfidence or excessive empathy: men who increased in confidence. This subgroup in specific demonstrated moderate decreases in adaptability between baseline (M = 32.78, 95% CI [30.06, 35.50]) and follow-up (M = 31.36, 95% CI [28.98, 33.74]; Cohen's d = 0.29).

The analysis highlights broad benefits to adaptability across most participants in response to a classroom improv intervention. Many of these benefits can be explained by increases in confidence and empathy. However, there may be some men for whom overconfidence was a roadblock to learning.

DISCUSSION

The results suggest that the incorporation of improv training into sales education may help to mitigate the gender gap in three important ways: (1) enhancing female perceptions of B2B sales as a legitimate profession (Content Analysis); (2) improving selling confidence in women, while maintaining high levels of relational empathy (Exploratory Study); and (3) positively impacting adaptability through learned confidence and empathy (Post Hoc Analyses). Perhaps most important, the benefits of improv training are likely realized in an egalitarian manner. Men reported significant gains in their level of empathy, which is highly correlated with enhanced communication and customer rapport in the literature (Limbu et al. 2016; Anaza, Inyang, and Saavedra 2017). The concurrent erosion, and subsequent partial rebound, in male confidence likely also signals an important recalibration in self-awareness that is aligned with a growth mindset.

While changes in male confidence were not formally predicted, the lag in scores relative to women post-intervention may be viewed as surprising to some and, therefore, warrant further discussion. Some men (n = 7; 33%) self-reported high levels of selling confidence prior to intervention. The fact that these scores increased only a small amount as a result of an intervention, which was designed to positively influence confidence, may be explained by the dynamics of overconfidence. Sales education that includes improv training is designed to move people out of their comfort zone in a hurry. This new reality may be particularly humbling for those individuals who are not accustomed to the inevitability of failure. A growing body of literature suggests that men tend to be overconfident across a variety of domains. including investments and war games (Barber and Odean 2001; Johnson et al. 2006). This gendered overconfidence may have important implications for B2B sales, where there appears to be a palpable disconnect between predominantly male salespeople and buyer perceptions of the quality of their sales interactions and managed relationships.

Overconfidence and excessive empathy were preliminarily explored through post hoc analyses, with some support for overconfidence in men and no evidence for excessive empathy in either men or women.

MANAGERIAL IMPLICATIONS

New approaches to enhance sales education for all students are important in a changing business environment. This research suggests that improv training may positively influence two underdeveloped areas of salesperson knowledge, skills, and abilities (KSAs): confidence and empathy. For prospective female sales talent, this means actively empowering selling confidence and reinforcing empathy; whereas for men, it likely involves recalibrating selling confidence and boosting empathy.

Faculty and managers can use improv techniques to help students and trainees who are just getting started in sales to build their confidence. Higher confidence will encourage trainees to perform more role plays and lean into uncomfortable situations, like the uncertainty and possibility of embarrassment in a role play. Students and trainees who struggle to listen and understand customer challenges can also benefit from improv techniques to develop their empathy and understand customer perspectives.

The use of improv training during initial and ongoing sales training should be considered to facilitate adaptive growth. This includes not only the design of sales domain improvisational exercises, but also industry and customer domain scenarios. Gamification can also extend ongoing improv training to the field to target gaps in specific salesperson developmental needs.

LIMITATIONS AND FUTURE RESEARCH

These conclusions are limited by the exploratory nature of the study design, quality of the measures, and representativeness of the sample. This research employed a natural experiment in which a convenience sample self-selected into levels of intervention without a true control. All participants received ongoing sales education and were exposed to adaptive selling techniques throughout the entirety of their semester-long course. Only one of the measures used (empathy) was a traditionally validated scale, and self-reported data is subject to a number of potential biases. Potential confounds were not identified or accounted for at, or between, each point in time. Any generalizations made from these participants to other students or sales professionals should be done so judiciously.

Future research should replicate the utilization of improv training with larger samples and extend its use to sales professionals over a sustained period of time. The longitudinal impact of improv training would also benefit from the inclusion of objective measures of sales performance (e.g., sales revenue and buyer satisfaction). Additional research should recognize the full spectrum of racial and gender identity to ensure that this training approach doesn't disproportionately impact any group. Cultural sensitivity, in particular, must be better understood within this context, given that many improvisational techniques may be antithetical to core social values, such as saving face in some cultures.

REFERENCES

Aggarwal, Praveen, Stephen B. Castleberry, Rick Ridnour, and C. David Shepherd. 2005. "Salesperson Empathy and Listening: Impact on Relationship Outcomes." *Journal of Marketing Theory and Practice* 13 (3): 16-31.

Ahearne, Michael, Ronald Jelinek, and Eli Jones. 2007. "Examining the Effect of Salesperson Service Behavior in a Competitive Context." *Journal of the Academy of Marketing Science* 35: 603-616. doi:10.1007/s11747-006-0013-1.

Anaza, Nwamaka A., Aniefre Eddie Inyang, and Jose L. Saavedra. 2017. "Empathy and Affect in B2B Salesperson Performance." *Journal of Business & Industrial Marketing* 33 (1): 29-41. doi:10.1108/JBIM-05-2016-0103.

Aylesworth, Andy. 2008. "Improving Case Discussion with an Improv Mind-Set." *Journal of Marketing Education* 30 (2): 106-115. doi:10.1177/0273475308317703.

Bandura, Albert. 1997. *Self-Efficacy: The Exercise of Control*. New York: Freeman.

Barber, Brad M., and Terrance Odean. 2001. "Boys Will Be Boys: Gender, Overconfidence, and Common Stock Investment." *Quarterly Journal of Economics* 116: 261-292. doi:10.2139/ssrn.139415.

Berk, Ronald A., and Rosalind H. Trieber. 2009. "Whose Classroom Is It, Anyway? Improvisation as a Teaching Tool." *Journal on Excellence in College Teaching* 20 (3): 29-60.

Betts, Carolyn. 2017. "Are We Really Not There Yet on Women in Tech Sales?" *Mashable*, August 31. Accessed July 1, 2020. https://mashable.com/2017/02/21/are-we-not-there-yet-on-women-in-tech-sales/.

Boyer, Stefanie. 2019. "Why You Should Add Humor to Your Sales Training Program." *Sales Education Foundation Annual Magazine* 13: 5-6.

Brown, Helen, and Robin Prescott. 2014. *Applied Mixed Models in Medicine*. West Sussex: John Wiley & Sons.

Cohen, Jacob. 1988. *Statistical Power Analysis for the Behavioral Sciences*. New York: Routledge Academic.

Davis, Mark H. 1980. "A Multidimensional Approach to Individual Differences in Empathy." *JSAS Catalog of Selected Documents in Psychology* 10: 85.

Davis, Mark H. 1983. "Measuring Individual Differences in Empathy: Evidence for a Multidimensional Approach." *Journal of Personality and Social Psychology* 44: 113-126.

Dion, Paul A., Debbie Easterling, and Raj Javalgi. 1997. "Women in the Business-to-Business Salesforce: Some Differences in Performance Factors." *Industrial Marketing Management* 26: 447-457. doi:10.1016/S0019-8501(96)00152-6.

Faul, Franz, Edgar Erdfelder, Albert-Georg Lang, and Axel Buchner. 2007. "G*Power 3: A Flexible Statistical Power Analysis Program for the Social, Behavioral, and Biomedical Sciences." *Behavior Research Methods* 39: 175-191. doi:10.3758/BF03193146.

Finsterwalder, Jörg, and Billy O'Steen. 2008. "Marketing Theatre Education: Using Improvisation for Teaching and Learning." *Australian and New Zealand Marketing Academy Conference 2008: Shifting the Focus from Mainstream to Offbeat*, Sydney, Australia, 1-3 December.

Frino, Michael G., and Katie P. Desiderio. 2013. "The Role of Demographics as Predictors of Successful Performance of Sales Professionals in Business-to-Business Sales." *Performance Improvement Quarterly* 25 (4): 7–21. doi:10.1002/piq.21128.

Frontczak, Nancy T. 1998. "A Paradigm for the Selection, Use and Development of Experiential Learning Activities in Marketing Education." *Marketing Education Review* 8 (3): 25-34. doi:10.1080/10528008.1998.11488641.

Gartner. 2020. "A Business Case for Increasing Gender Diversity in Sales." *Sales Research Team*, March 6. Accessed July 1, 2020. https://www.gartner.com/en/documents/3981896/a-business-case-for-increasing-gender-diversity-in-sales.

Giacobbe, Ralph W., Donald W. Jackson Jr., Lawrence A. Crosby, and Claudia M. Bridges. 2006. "A Contingency Approach to Adaptive Selling Behavior and Sales Performance: Selling Situations and Salesperson Characteristics." *Journal of Personal Selling & Sales Management* 26 (2): 115-142. doi:10.2753/PSS0885-3134260202.

Harlow, Lisa L. 2014. *The Essence of Multivariate Thinking: Basic Themes and Methods*. New York: Routledge.

Johnson, Dominic D. P., Rose McDermott, Emily S. Barrett, Jonathan Cowden, Richard Wrangham, Matthew H. McIntyre, and Stephen Peter Rosen. 2006. "Overconfidence in Wargames: Experimental Evidence on Expectations, Aggression, Gender and Testosterone." *Proceedings Biological Sciences* 273 (1600): 2513-2520. doi:10.1098/rspb.2006.3606.

Joos, Anja. 2012. "Improvisation: An Empirical Study on Improvisational Action." *Cuadernos de Filosofia Latinoamericana* 33: 79–91. doi:10.15332/s0120-8462.2012.0106.07.

Kenton, Sherron B. 1989. "Speaker Credibility in Persuasive Business Communication: A Model which Explains Gender Differences." *The Journal of Business Communication* 26 (2): 143-157. doi:10.1177/002194368902600204.

Kienzler, Mario, Daniel Kindström, and Thomas Brashear-Alejandro. 2019. "Value-Based Selling: A Multicomponent Exploration." *The Journal of Business & Industrial Marketing* 34 (2): 360-373. doi:10.1108/JBIM-02-2017-0037.

Kolb, David A. 1984. *Experiential Learning: Experience as the Source of Learning and Development*. New Jersey: Prentice-Hall.

Limbu, Yam B., Chinnappa Jayachandran, Barry J. Babin, and Robin T. Peterson. 2016. "Empathy, Nonverbal Immediacy, and Salesperson Performance: The Mediating Role of Adaptive Selling Behavior." *Journal of Business & Industrial Marketing* 31 (5): 654-667. doi:10.1108/JBIM-03-2015-0048.

Martella, Ronald C., J. Ron Nelson, Robert L. Morgan, and Nancy E. Marchand-Martella. 2013. *Understanding and Interpreting Educational Research*. New York: Guilford Press.

Mohanty, Kumar. 2017. "Understanding the Role of Service and Value Co-Creation in Sales Functions." *KIIT Journal of Management* 13 (2): 47-57. doi:10.23862/kiit-parikalpana/2017/v13/i2/164520.

Mourey, James A. 2019. "Improv Comedy and Modern Marketing Education: Exploring Consequences for Divergent Thinking, Self-Efficacy, and Collaboration." *Journal of Marketing Education*: 1-15. doi:10.1177/0273475318822087.

Pettijohn, Charles E., Allen D. Schaefer, and Melissa S. Burnett. 2014. "Salesperson Performance: Exploring the Roles of Role Ambiguity, Autonomy and Self-Efficacy." *Academy of Marketing Studies Journal* 18 (1): 99-112. doi: http://140.234.252.185/.

Ratten, Vanessa, and Josh Hodge. 2016. "So Much Theory, So Little Practice: A Literature Review of Workplace Improvisation Training." *Industrial and Commercial Training* 48 (3): 149-155. doi:10.1108/ICT-08-2015-0053.

Reilly, Jo Marie, Janet Trial, Debra E. Piver, and Pamela B. Schaff. 2012. "Using Theater to Increase Empathy Training in Medical Students." *Journal for Learning through the Arts* 8 (1): 1-8.

Revelle, William R. 2018. *psych: Procedures for Personality and Psychological Research*. Software.

Robinson, Jr., Leroy, Greg W. Marshall, William C. Moncrief, and Felicia G. Lassk. 2002. "Toward a Shortened Measure of Adaptive Selling." *Journal of Personal Selling & Sales Management* 22 (2): 111-119. doi:10.21977/D9812646.

Rocco, Richard A., and D. Joel Whalen. 2014. "Teaching Yes, and . . . Improv in Sales Classes: Enhancing Student Adaptive Selling Skills, Sales Performance, and Teaching Evaluations." *Journal of Marketing Education* 36: 197-208. doi.org/10.1177/0273475314537278.

Román, Sergio, and Dawn Iacobucci. 2009. "Antecedents and Consequences of Adaptive Selling Confidence and Behavior: A Dyadic Analysis of Salespeople and Their Customers." *Journal of the Academy of Marketing Science* 38 (3): 363-82. doi:10.1007/s11747-009-0166-9.

Rosenbaum, Bernard L. 2001. "Seven Emerging Sales Competencies." *Business Horizons* 44 (1): 33-36.

Shepherd, Dean A. 2004. "Educating Entrepreneurship Students About Emotion and Learning from Failure." *Academy of Management Learning & Education* 3 (3): 274-287. doi:10.5465/AMLE.2004.14242217.

Shochet, Robert, Julie King, Rachel Levine, Sarah Clever, and Scott Wright. 2013. "Thinking on My Feet: An Improvisation Course to Enhance Students' Confidence and Responsiveness in the Medical Interview." *Education for Primary Care* 24: 119–124. doi:10.1080/14739879.2013.11493466.

Singer, Judith D. 1998. "Using SAS PROC MIXED to Fit Multilevel Models, Hierarchical Models, and Individual Growth Models." *Journal of Educational and Behavioral Statistics* 23 (4): 323-355. doi:10.3102/10769986023004323.

Sojka, Jane Z., and Patriya Tansuhaj. 1997. "Exploring Communication Differences Between Women and Men Sales Representatives in a Relationship Selling Context." *Journal of Marketing Communications* 3 (4): 197-216. doi:10.1080/135272697345899.

Spiro, Rosann L., and Barton A. Weitz. 1990. "Adaptive Selling: Conceptualization, Measurement, and Nomological Validity." *Journal of Marketing Research* 27 (1): 61-69. doi:10.2307/3172551.

St. Clair, Donald P., Gary K. Hunter, Philip A. Cola, and Richard J. Boland. 2018. "Systems-Savvy Selling, Interpersonal Identification with Customers, and the Sales Manager's Motivational Paradox: A Constructivist Grounded Theory Approach." *The Journal of Personal Selling & Sales Management* 38 (4): 391-412. doi:10.1080/08853134.2018.1517357.

Swan, John E., and Charles M. Futrell. 1978. "Men Versus Women in Industrial Sales: A Performance Gap." *Industrial Marketing Management* 7 (6): 369-373. doi:10.1016/0019-8501(78)90013-5.

Swan, John E., Charles M. Futrell, and John T. Todd. 1978. "Same Job—Different Views: Women and Men in Industrial Sales: How Differently Do They View Their Jobs? And What Can Sales Management Do About It?" *Journal of Marketing* 42 (2): 92-98. doi:10.1177/002224297804200116.

Taplett, Frances, Roger Premo, Marina Nekrasova, and Maegan Becker. 2019. "Closing the Gender Gap in Sales Leadership." *Boston Consulting Group*, November 21. Accessed June 18, 2020. https://www.bcg.com/publications/2019/closing-gender-gap-in-sales-leadership.aspx.

USBLS. 2019. *Labor Force Statistics from the Current Population Survey.* Washington, D.C.: United States Bureau of Labor Statistics.

Warrier, Varun, Roberto Toro, Bhismadev Chakrabarti, iPSYCH-Broad Autism Group, Anders D. Børglum, Jakob Grove, 23andMe Research Team, David A. Hinds, Thomas Bourgeron, and Simon Baron-Cohen. 2018. "Genome-Wide Analyses of Self-Reported Empathy: Correlations with Autism, Schizophrenia, and Anorexia Nervosa." *Translational Psychiatry* 8 (35): 1-10. doi:10.1038/s41398-017-0082-6.

Zoltners, Andris A., P. K. Sinha, Sally E. Lorimer, Tania Lennon, and Emily Alexander. 2020. "Why Women Are the Future of B2B Sales." *Harvard Business Review*, May 28. Accessed June 18, 2020. https://hbr.org/2020/05/why-women-are-the-future-of-b2b-sales.

APPENDIX

Exercise using sales improv short form agreement, "Yes, and…"

Group size: medium to small groups or pairs

Goal: Students think on their feet and understand the concept of value by exploring product features and benefits using the agreement tenet of improvisation.

Instructions: Place students into groups or pairs. Each student takes a turn adding a statement about a product/service feature or benefit. At the beginning of each statement, the student says, "Yes, and". The instructor or audience should share the name of the product or service just as the students begin. There should be no time for practice or preparation. For more challenging exercises, make sure the product is not something that already exists, to encourage creative thinking and problem solving.

Here is an example using a student dyad:

Instructor: Your product is a phone chair.

Stacy: Imagine you are sitting down and need to make a business call, but don't have your phone. We have a solution—the phone chair!

Mark: Yes, and the phone chair allows you to call anyone, anywhere. It is only available today.

Stacy: Yes, and while we are here today, notice the phone chair can cast video and connect to all of your smart appliances.

Mark: Yes, and while connected to appliances, you have mobility – you can travel around on your phone chair because it has wheels.

Stacy: Yes, and when traveling on your phone chair, while dining, you can receive a 10% discount on meals. If you dine out often, the chair will pay for itself in months!

Students continue. Encourage students to build off one another, rather than add random statements in order to design a story about what the fictional product is, how it looks and performs. Encourage students to have fun and over time, students will ask to practice improv exercises.

Special thanks to our improv trainer, who has improved our program over the last decade.