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The Impact of Implementing a Design-Thinking Project in the Sales Classroom

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ABSTRACT

Experiential instruction has been implemented in classrooms as a method of learning and reinforcing complicated material. This study introduces a design-thinking project taken from a University Art & Design Program and adapted for a sales course. 'Pre' and 'post' comprehension testing of students on the SPIN selling approach was completed to establish the value of this project, and the study further investigates its impact on student interest and engagement. Results suggest that this project not only helps to reinforce key concepts, but also student confidence, level of interest, and perceptions of sales people as customer-oriented and benevolent service providers.

Keywords: sales education, design-thinking, active learning

INTRODUCTION

Research in business education has taken up a call for active learning opportunities (Whetten, 2007; Stefanou, Stolk, Prince, Chen & Lord, 2013; Mullen & Larson, 2016). For example, utilizing simulations, role-plays and games in the classroom can both enhance student engagement and provide a deeper level of understanding when applied correctly (Dubel, 2015; Inks, Schetzsle & Avila, 2011). Activities such as these are increasingly important within university sales curriculum, as sales is an applied discipline that should imply the use of some active learning

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strategies. These efforts are especially significant, given that business students report they do not tend to work through difficult course material if they do not find it interesting, nor are they very likely to spend time considering how the concepts they are learning in class could be applied outside of the classroom (Greimel-Fuhrmann, 2009). Furthermore, students exposed to such activities report higher levels of elaboration and metacognition, while perceiving the instructor as more supportive of their autonomy (Stefanou et al., 2013).

As an example, the concept of process-oriented guided inquiry learning (herein referred to as 'POGIL') suggests that a student's learning experience can be enhanced if they are allowed the space to construct their own solutions to a problem, with the aid of three core learning structures: *exploration, term introduction, and application* (Abraham, 2005). Firstly, in the *exploration* stage, students are provided with some model through either visuals, audio, or slides, and presented with thought-provoking questions to help introduce a new concept. Next, *term introduction* involves providing definitions associated with this concept. Finally, *application* involves allowing the student to utilize their new understanding of this concept and to construct new meaning through some applied task (Hale & Mullen, 2009). The POGIL concept is student-focused and is meant to engage the student aurally, visually, and tactilely, making it practical for all learning styles. Students participate as active, rather than passive learners and the professor acts as guide, coach and facilitator, rather than purely a lecturer. This innovative teaching method of creating a more active learning environment has been found to reduce absenteeism, motivate students to be active learners, and increase student performance in classes (Eberlein et al., 2008).

Within a sales program, students are typically introduced to some form of routinized sales communication strategy for 'needs identification' (identifying the needs of the buyer as they relate to the product at hand) to effectively establish the value proposition (Rackham & DeVincentis, 1999). Within many university sales programs, this training is focused heavily on the use of the Situation-Problem-Implication-Need (SPIN) selling approach (Rackham, 1988). SPIN selling is simply a method of framing questions to a buyer in a way that is individually tailored to their business and their unique business problems. This technique is meant to help a salesperson turn implied needs into explicit needs through a needs discovery routine with the purposeful use of 'Situation,' 'Problem,' 'Implication' and 'Need Payoff' questions (Rackham, 1988). If utilized effectively, these questions allow the salesperson to essentially take on the role of consultant, by steering the conversation with a buyer towards a solutions-focused presentation. While the concept itself can be straightforward, a full understanding of how SPIN can work in guiding a conversation truly requires practice and experience in application of the method; in other words, it needs to be practiced within a real conversation. However, at this early stage in their sales education, students often lack any specific product knowledge with

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which to practice the SPIN method; therefore, many sales programs seek to create a unique experience for introductory sales students, which would allow them the opportunity for applied practice of the SPIN technique using a simple product that they would create themselves (and therefore have full product knowledge of).

Statement of Purpose

The current manuscript provides two contributions to the Sales education literature. First, a POGIL-inspired project with the aim of enhancing student learning is described in detail. Then, the results of several inventories intended to investigate the impact of this project are presented.

The Stanford Wallet Project: User Experience Design

The project created for the above purpose in the sales classroom in fact originated in the design classroom. The original Stanford 'wallet project' was developed by faculty at the Stanford Design School for their inaugural Boot Camp in the winter of 2006 as a way of immersing art students into the process of design-thinking. Design-thinking as a concept can be considered as a set of three core principles: the ability to focus on user experience and to empathize with users, the use of prototyping and testing to explore a problem more deeply, and a tolerance for failure with the understanding that it is rare to get something right without first trying and failing (Kolko, 2015).

Specifically, the project strives to allow facilitators to touch on the design school fundamentals of human-centered 'user experience' design that is action-oriented and geared towards an iterative prototyping process (Plattner, 2012). Designing a wallet was chosen for the project because it is a common object that everyone should have some experience with; it can evoke feelings related to core aspects of a person's life and as a starting point allows for significant innovation. Also, it is something tangible that allows for recall of experiences that can support empathy and shared knowledge among participants (Plattner, 2012). Each student who participates in this project sources ideas on what features and benefits might be built into an ideal wallet, and then they build a prototype of that ideal wallet based on what users specify that they would want.

The Modified Wallet Project: Redesigned for a Sales Classroom

Moving the original Stanford wallet project from a design school context into a business school context for professional sales students was quite intuitive. The modified project retains the

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same core function: recognizing that all products are solutions for the needs of unique individuals, and that understanding your target's needs allows you to offer a product that resonates with their needs. In addition to the project's original scope, a speed-selling element was added, such that students not only design a wallet but also then practice selling it using the SPIN method. The wallet project consists of a series of individual and group activities to facilitate learning and increase student knowledge of the SPIN selling approach. It was assumed that in using a product as simple and familiar as a wallet, students would have the mental freedom to focus on the task of applying SPIN, without worry or confusion over the depth of their product knowledge. Completing all aspects of the wallet project takes approximately two class sessions.

In the initial class session, students are provided a traditional lecture to introduce the SPIN technique and all of the terminology associated with it. This coincides with the 'exploration stage' of POGIL: Students are first asked key questions meant to lead to an understanding of why exactly a salesperson should be adept at asking the right types of questions, what those 'best' questions might look like, and how they might function in needs discovery. The 'term introduction' phase of POGIL follows, involving a more complete explanation of the SPIN concept and all the terminology associated with it. Essentially, this initial class session represents what is already typically done in the classroom utilizing traditional topical lecture. In the next class session, the 'application' phase of these ideas begins with the modified wallet project. As a first step, students form groups of five to six students, are asked to place their own wallet on the desk, and as a group discuss what they like and do not like about the functionality of their current wallet. As part of the discussion, the groups are instructed to discuss what an ideal wallet would look like, and how it might solve everyday problems they have encountered (for example, losing a wallet, overstuffing a wallet, no space for change), or novel problems that rise above the banality of a wallet (for example, how an imaginary wallet could be built to solve issues such as overspending, or being mugged, if disbelief were suspended for this project). During the discussion, each student writes down the many problems they might want a wallet to solve, as identified during the discussion.

At this point the students are notified for the first time that each one of them is going to build a prototype paper wallet, to include features and benefits that address the previously identified problems. The instructor provides a variety of materials for the wallet build: construction paper, tape, stickers, markers, etc. Students are reminded that their paper wallet is just a physical representation of the features and benefits they intend to show, therefore a red sticker might be a 'GPS locator' or a hand-drawn squiggly line might represent a 'mini receipt-shredder.' The paper wallet build takes approximately twenty minutes. After completing the wallet build, each student is given time to sketch out SPIN questions they'd want to ask of their buyer to

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effectively present to them the product they have created. Once this is complete, each student will have built out their ideas for a SPIN strategy, to help identify in conversation which problems this wallet might solve for their buyer (A set of worksheets were designed by the authors for this purpose and are available upon request).

The final step in the activity is to practice SPIN selling their wallets, which is novel and not a part of the original wallet project meant for design students. Across the classroom, pairs of students place their desks face-to-face so that one student can act as the buyer and one as the seller (see Figure 1).

Each student as seller investigates their buyer's needs using the SPIN technique, followed by a demonstration of the paper wallet and how it specifically addresses buyer needs that were uncovered within the conversation. When the sales process is complete, the two students switch roles and the other student plays salesperson and sells their wallet. Once all students in the class have been both the buyer and the seller in their partnership, students must move down the row to find a new partner and repeat the sales process, selling the wallet to as many unique buyers as there is time for in the class period. The changing of partners provides a speed-selling atmosphere and allowing multiple opportunities to practice SPIN selling techniques. Once the students sell several different times, the instructor conducts a debriefing of the activity with the class reflecting on their experience.

Figure 1. Classroom configuration for speed selling

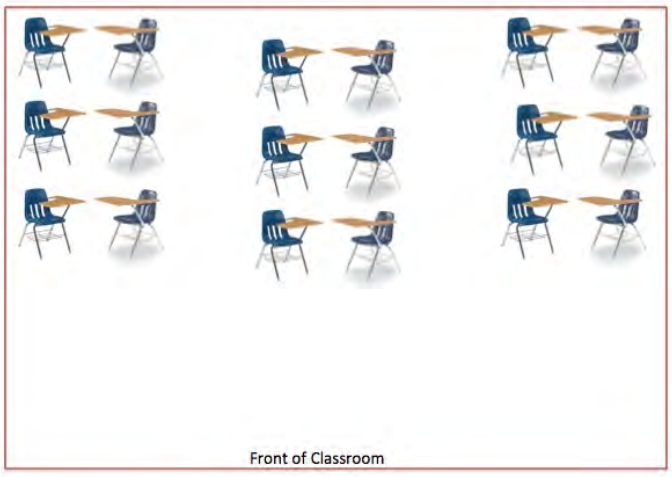

Figure 1. The standard layout for the classroom

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SURVEY METHOD

Beyond creating this 'POGIL' inspired project for introductory sales courses, an effort was made to assess the impact of the project in the classroom. Specifically, the research questions of interest were as follows: Is learning of the SPIN method improved through the introduction of this project? Are there additional perceptual benefits derived among students, in terms of their confidence with utilizing SPIN, their interest in learning about SPIN, or their perceptions of salespeople as customer-oriented?

Within three sections of a Professional Selling class, students participated in both pre and post testing of their understanding of the SPIN concept, their comfort with and interest in the SPIN concept, as well as their perceptions of salespeople. Pre-testing was completed after the first class session, in which exploration and term introduction was completed on the topic of SPIN selling; in other words, after a typical lecture is given on the topic of SPIN selling. Post-testing was completed after the second class session, in which students went through the application phase of designing and selling their wallets with SPIN. Any student who was not present for both of the two days set aside for this project was eliminated from the analysis, leaving 77 students who had been present for both the introductory lecture on SPIN, and the subsequent wallet project. Utilizing an online survey, students were asked to complete several inventories within one day following the introductory lecture, and then to complete the same inventories once again within one day following the wallet project. Participation was made fully anonymous and did not count towards any grade within the course, allowing students to participate without the pressure to answer in any way, or to cheat on the 'quiz' portion to obtain a higher score. Each student was provided a numerical identifier so that their first round of pre-test responses could be compared to their post-test responses.

Measures

Students first confirmed their participation in both the class lecture introducing the SPIN method, and the subsequent class date during which the wallet project was completed. Next, they took a 7-question SPIN quiz to assess their understanding of the concepts, adapted from Huthwaithe's SPIN assessment quiz (Rackham, 1996). Within the quiz, in addition to correct and incorrect response options, an option was available to select 'I am not sure,' and students were reminded within the instructions that this quiz not for a grade or course credit, therefore they should not feel pressure to guess if they were unsure of an answer. This format was meant to reduce the likelihood of results being impacted by chance guessing. An incorrect answer, or an 'I am not sure' answer was counted as incorrect.

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Students then took several brief inventories, each built on 7-point scales. Adapted from a scale of general confidence created by Ozanne, Brucks & Grewal (1992), a 3-item semantic differential for confidence with SPIN scale was presented (Uncomfortable-Comfortable, Did Not Understand-Understand, Not Confident-Very Confident). The original reported reliability for this scale was .72; the Cronbach's alpha computed with the current sample was .93. Next, a 3-item semantic differential scale on interest in SPIN (Boring-Interesting, Unexciting-Exciting, Unimportant-Important) adapted from Mano and Oliver (1993) was presented. The original reported reliability for this scale was .90; for the current sample Cronbach's alpha was computed as .94. Finally, a 3-item Likert scale on general perceptions of the customer-orientation of a salesperson (ranging from 'no salespeople' to 'all salespeople) adapted from Saxe and Weitz (1982) was presented. Items included belief statements such as "Salespeople are trying to help customers achieve their goals," "Salespeople have their customer's best interest in mind," and 'Salespeople try to find out what kind of product would be most helpful to a customer." The original reported reliability for this scale was .81; the Cronbach's alpha computed for the current sample was .83.

Table 1
Scale items

	Scale Items	α
Confidence with SPIN	1. Uncomfortable/Comfortable 2. Did not understand/Understand 3. Not confident/Very confident	.93
Interest in SPIN	1. Boring/Interesting 2. Unexciting/Exciting 3. Unimportant/Important	.94
Customer-orientation of Salespeople	1. Salespeople are trying to help customers achieve their goals. 2. Salespeople have their customer's best interest in mind. 3. Salespeople try to find out what kind of product would be most helpful to a customer.	.83

With these various inventories, the intention was to measure not only improvements in comprehension of the SPIN concept, but also student feelings about the SPIN concept (comfort with, and interest in), as well as whether the experience would influence student perceptions of

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salespeople as benevolent actors. Oftentimes students entering the sales program may start off with stereotyped beliefs about salespeople as self-interested. In Dan Pink's (2012, p. 44-45) text on sales and psychology, he reflects on the fact that adjectives such as "pushy" and "manipulative" are frequently mentioned in his discussions with laypeople. SPIN as a practice is a highly consultative and customer-oriented method, meant to tailor a sale to the needs of the buyer. Therefore, a deeper appreciation of this process might help students see that sales is not necessarily a manipulative endeavor meant to swindle a buyer into purchasing.

ANALYSIS AND RESULTS

One-way repeated measures ANOVA was conducted to compare the effect of participation in the wallet project on understanding of the SPIN method, feelings of comfort utilizing SPIN, interest in the SPIN method, and perceptions of salesperson benevolence. Firstly, there was a significant impact of the wallet project on the SPIN quiz results [F(1, 76)=11.197, p=.001], such that this applied project significantly enhanced the number of correct responses to this quiz in post-testing, as compared to just the lecture portion of the curriculum in pre-testing. Next, a significant impact upon feelings of comfort with the SPIN method was found [F(1, 76)=9.734, p=.003], such that students reported significantly enhanced comfort with the SPIN method after the applied portion of the wallet project. The project also enhanced interest level in learning more about SPIN [F(1, 76)=4.200, p=.044], and perceptions of salespeople as customer oriented at near-significance [F(1, 76)=3.800, p=.055].

Table 2
Means table with ANOVA results

	Pre-Project		Post Project		Repeated Measures ANOVA	
	Mean	SD	Mean	SD	F-value	*p*-value
Spin comprehension quiz	4.87	1.48	5.43	1.43	11.197	.001**
Confidence with SPIN	4.80	1.09	5.17	0.98	9.734	.003**
Interest in SPIN	5.28	1.16	5.50	1.11	4.200	.044*
Customer-orientation	4.04	0.80	4.18	0.84	3.800	.055

Note: All items measured on a 7-point Likert scale
*$p < .05$, **$p < .005$

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DISCUSSION

In a literature review on the most effective means of improving student engagement, Zepke and Leach (2010) offered ten key propositions to educators. Of those ten actions proposed to enhance engagement, five are represented that can be seen in the implementation of the wallet project, namely: enhancing student self-efficacy, guiding students towards working autonomously, aiding in the recognition that teachers are central to engagement, creating a learning environment that is active and collaborative, and creating experiences that students find challenging.

The modification of Stanford's wallet project, originally intended to help art and design students better understand user-experience design, is a great fit for helping sales students understand how all products can be framed as solutions to business problems. It also allows for a unique project in which sales students can build up an understanding of a new concept, and then try to work through application of that concept using a familiar, everyday product. Introducing the concept of SPIN Selling as a technique can be highly abstract for introductory sales students, and the wallet project allows for contextualization of the technique within a low-pressure, high-energy experience.

Furthermore, analysis of student pre and post 'application phase' testing allowed for a comparison of the impact of lecture to the subsequent additive impact of the interactive wallet project. Results suggest that not only are students displaying a better understanding of the actual SPIN concept after applying it, but they also report feeling more comfortable with the SPIN method, more interested in learning about the SPIN method, and finally, students report perceptions of professional salespeople as more benevolent actors with a customer-focused orientation. These findings support the notion that as an applied discipline, students in sales will benefit from active learning experiences in which they are given the opportunity to engage with sales concepts directly. As such, future research may also focus on additional ways in which design-thinking projects may be incorporated into the sales classroom.

A major limitation of the project itself is the nature of any exercise that takes two full class days to complete, specifically in terms of ensuring that students have been in attendance on both dates. For example, if a student has missed the first class introducing the SPIN concept through lecture, then it can be difficult for that student to find meaning in the second class, during which they are expected to apply the concept autonomously. One solution that has been attempted is to have those students work side-by-side with either the professor or a highly competent student during the time they are given to begin developing SPIN questions, in the hopes that they will catch on quickly enough to engage in the speed-selling exercise. Since

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those students who missed one of the two class sessions were removed from analysis (and since there are too few to draw conclusions from), it would be interesting to determine the degree to which these students make gains on the SPIN concept when learning about it primarily through the wallet project, without an initial lecture on SPIN.

Finally, it should be noted that while the current paper considers design-thinking specifically within the sales classroom, it has long been suggested that design-thinking should be brought into business school classrooms more generally. For example, in a discussion on MBA education, Dean Roger Martin of the Rotman School of Management has explicitly said that business education must "be made more like design education" in that MBA's should learn to listen and understand the client or user at a deeper level (Dunne & Martin, 2006, p. 514). Design-thinking opportunities may allow business students to apply the theories they learn, actively experiment with their application of those theories, and reflect upon the success or failure of theory in practice (Glen, Suciu, Baughn, 2014).

REFERENCES

Abraham, M. R. (2005). Inquiry and the Learning Cycle Approach. in N.J. Pienta, M.M. Cooper, and T.J. Greenbowe (Eds.), *Chemists' Guide to Effective Teaching* (pp. 41-52), Upper Saddle River, NJ: Pearson Prentice Hall.

Dubel, E.A. (2015). Using games in business education: an evaluation experiment comparing games to other selected methods in teaching sustainable development concepts. *International Journal for Business Education*, 155, 31-38.

Dunne, D. & Martin, R. (2006). Design thinking and how it will change management education: An interview and discussion. *Academy of Management Learning &Education, 5*(4), 512-523.

Eberlein, T., Kampmeier, J., Minderhout, V., Moog, R.S., Platt, T., Varma-Nelson, P. & White, H.B. (2008). Pedagogies of Engagement in Science: A Comparison of PBL, POGIL and PLTL. *Biochemistry and Molecular Biology Education*, 36 (July), 262-273.

Glen, R., Suciu, C. & Baughn, C. (2014). The need for design thinking in business schools: A review. *Academy of Management Learning & Education, 13*(4), 653-667.

Greimel-Fuhrmann, B. (2009). Learning strategies of first-year business students. *The Review*, 149, 5-14.

Hale, D. & Mullen, L.G. (2009). Designing Process-Oriented Guided-Inquiry Activities: A new innovation for marketing classes. *Marketing Education Review, 19* (1).

Inks, S., Schetzsle, S., & Avila, R. (2011). Taking the professional sales student to the field for experiential learning. *Journal for Advancement of Marketing Education, 19* (1), 35-47.

Kolko, J. (September 2015). Design-thinking comes of age. *Harvard Business Review*.

Mano, H. & Oliver, R.L. (1993). Assessing the dimensionality and structure of the consumption experience: evaluation, feeling and satisfaction. *Journal of Consumer Research*, 20, 451-466.

ISSN 2164-2877 (print)
ISSN 2164-2885 (online)

Mullen, L.G. & Larson, L.R.L. (2016). Analyzing the impact of a Sales shadowing program: process & outcomes. *Journal for Advancement of Marketing Education*, 24, 36-42.

Ozanne, J.L., Brucks, M. & Grewal Dhruv (1992). A Study of information search behavior during the categorization of new products. *Journal of Consumer Research*, 18, 452-263.

Pink, D. (2012). *To sell is Human: The surprising truth about moving others*. New York: Riverhead Books.

Plattner, H. (2012). *An Introduction to Design Thinking: "Wallet" Edition*. Stanford University.

Rackham, N. (1988). *SPIN selling*. New York: McGraw-Hill.

Rackham, N. & DeVincentis, J.R. (1999). *Rethinking the salesforce: Redefining selling to create and capture customer value.* New York: McGraw Hill.

Rackham, N. (1996). *The SPIN Selling Fieldbook*. New York: McGraw-Hill.

Saxe, R. & Weitz, B.A. (1982). The SOCO Scale: A measure of the customer orientation of Salespeople. *Journal of Marketing Research*, 19, 343-351.

Stefanou, C., Stolk, J.D., Prince, M., Chen, J.C. & Lord, S.M. (2013). Self-regulation and autonomy in problem and project based learning environments. *Active Learning in Higher Education, 14*(2), 109-122.

Whetten, D.A. (2007). Principles of effective course design: What I wish I had known about learning-centered teaching 30 years ago. *Journal of Management Education, 31*(3), 339-357.

Zepke, N. & Leach, L. (2010). Improving student engagement: Ten proposals for action. *Active Learning in Higher Education, 11*(3), 167-177.