

DOES POST-SECONDARY COURSEWORK PREDICT PERCEIVED SALES SUCCESS?

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Does post-secondary coursework predict perceived sales success?

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ABSTRACT

A sales career is common for recent graduates of post-secondary institutions. Looking to see if post-secondary coursework completed predicts perceived sales success assists new and upcoming programs to determine the most beneficial ways to prepare students. This study asks sales representatives at a major U.S. based corporation to answer in what ways their different levels of post-secondary coursework assists in their sales careers.

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I would like to thank my immediate family who has kept me grounded and reminded me how far I have come working through the hurdles towards this degree.

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CHAPTER 1: PURPOSE AND SIGNIFICANCE OF THE STUDY

One of the highest costs to run a successful company comes from the expense of those employed and the benefits for the employees. Every role brings a different value to the company. An engineer or developer creates and designs new products for a company to sell. A secretary or front desk staff organizes and acts as the ‘first face’ of a company when welcoming customers to an office. In sales, employees bring revenue to the company by selling products or services related to the company. Having a sales employee bring in more revenue than the employee costs the company is the bottom line. With the high turnover rate within sales careers, how can companies hire the best candidate not only for a position, but also for the company?

Skills learned during the completion of a college degree or those learned during on the job training become much more valuable as an individual enters the job market. Sales skills, in particular, are used in nearly every aspect of a person’s life. Some everyday examples of sales are children selling lemonade on the front lawn, teenagers convincing their parents to let them stay out past their curfew, and adults explaining why they deserve a certain job. Selling is everywhere. Research involving sales hits on a huge array of topics making the delineation of useful research important.

Trigger words such as sales, selling, management, learning, education, revenue, and more are all associated with research done by countless professionals. By starting the search through current literature with a broad scope assisted in the finalization of the purpose and research questions which will be stated later in the review of literature.

Is a college degree or training needed for all careers? Today, some would say, ‘Yes, of course. How can someone succeed if they do not put in the time to learn.’ While others would say, ‘No, getting a degree is not the only way that someone can continue to learn.’ Is there a right

answer? Does it depend on the situation? This study looks at the type of degree and/or training a sales representative has and if he or she believes that this degree and/or training assists them in their sales career.

As stated before, research within sales includes a large breadth of topics. Many of these topics have become, generally speaking, outdated due to technology advances in the last few decades, 1990s and early 2000s. Finding recent, within the past five years, relative research involving technology and technical sales was less fruitful than expected. Major topics that were covered within the research included: technology replacing jobs employees can complete, if sales skills are developed through nature or nurture, and how even with the changing types of selling the career field is still growing at a fast rate.

The topic of technology was not a surprise to find within the research. Technology, and how it has changed modern day society, is commonplace in any field of study today. What stood out was the lack of educational connections made to the changes in technology. Generational gaps exist in technological skills due to the involvement each generation had in daily life. For example, the generation cohorts (Colby & Ortman, 2014) of baby boomers, born between 1946 and 1964, and generation X, born between 1965 and 1980, had little to no access to technology such as cell phones while growing up and in the majority of their careers.

According to the Dimock (2019) from the Pew Research Center, millennials, born between 1981 and 1996, are the first-generation cohort that grew up with technology readily available in their childhood and have continued to see it expand into their careers. Most recent, the cohort generation Z, born between 1997 and today, has never and will never know a world without the constant availability of technology and the integration into their everyday lives. As generation Z begins to enter the working class there will be four generations with very different

upbringings working in the same work environment. Each of these generational cohorts will handle the change in technology differently because of their experience and comfort level.

As access to technology increased, multiple generations had their first experience with technology at school. Education plays a significant role in exposing and teaching youth about the use of technology. This exposure can be anything. Common practices are learning how to type quickly with correct form, how to properly secure passwords, or how to use data collected to learn, code, and analyze. Of course, each learning experience can come at different ages for different individuals. For many millennials, this learning process started when they were less than 10 years old.

As different generations join the working class a sales career is often the starting point. Working at a local fast-food chain or retail is common for teenagers and young adults alike. This exposure can lead to other sales roles throughout one's career. At times, sales can be seen as an entry level position due to the young adult environment it often hosts, but many generations have seen success in selling and thus bring a refined view on the need for sales.

What makes individuals who find success in a sales career unique? Are these individuals more outgoing and willing to make the amount of outreach necessary to make a sale? Did they have a mentor who helped them grow into a sales role by shadowing and learning sales techniques?

There is research written regarding the role of nature versus nurture in sales success (Shannahan, Bush, & Shannahan, 2013; Novell, Machleit, & Ziegler Sojka, 2016; Hartmann, Rutherford, Hamwi, & Friend, 2013). Some researchers have found that having mentors within the organization can bring more connection between the salesperson and organization. Other research talks about the mindset of the seller. If a mindset is fixed, then the willingness to learn is

lower than if a growth mindset is held. All of these findings still ask the question, is an individual born with the skills to be successful in a stressful, numbers driven sales environment?

Many factors can come into play to answer the previous questions. In the research found, a person's educational background was not brought up as a component to this skillset. Education though, can be a determining factor to what a student chooses to study and use as career exploration. This study hops to fill this gap in the research.

Sales is one of the largest growing career fields and as stated by Moncrief (2017), the sales discipline, "...is the lifeblood of the business economy" (p. 277). Even with this deep-rooted need for sales it often has a negative stigma. Many colleges and universities have added selling programs to bridge this gap in the workforce, yet, a degree is not always a requirement of a sales position. A gap in the knowledge is finding what value an education in sales or selling does for a sales career. Surveying salespeople within an Inside Sales organization will show how useful the sellers believe their degree, or lack thereof, assists in their career.

The purpose of the current study is to find if salespeople believe their post-secondary education or technical training helps in their sales career. Selling is a fast-paced environment that is often described as competitive and numbers driven. Because of this, a quantitative method will be used to acquire data. A short survey, to allow for less time commitment, will be sent to salespeople working in an Inside Sales Business to Business (B2B) environment.

The significance of this study is tied to what has been stated previously regarding the need for more salespeople and the ever increasing need to fill open positions in the field. In today's competitive job market, skilled workers are becoming more and more of a commodity. Learning if education, in the eyes of current salespeople, helps with their career will help not

only hiring practices for the next generation of sellers, but also help with retention by finding individuals who will excel in the environment.

Research Questions

Does earning a bachelor's degree predict perceived sales success?

Does earning a bachelor's degree, predict actual sales success?

Research Design

The study surveyed 126 Inside Sales Representatives from Microsoft's Demand Response Inside Sales team using a Qualtrics survey. A convenience sample was used because the researcher was a colleague of the participants being surveyed. LinkedIn was used to send the survey to participants by connecting to each seller on LinkedIn and sending a personal message requesting participation. After the first personal message was sent follow up messages were sent at one week and two weeks.

Due to the high turnover in role, the researcher received an updated employee list prior to sending the survey to ensure the maximum number of participants are included. LinkedIn was chosen as the vehicle to send the Qualtrics survey due to the amount of time that the Inside Sales representatives spend on the platform. Social selling is a priority within the field which makes it common practice for sellers to be logged in and actively engaging on LinkedIn by connecting with others, sharing content, and messaging potential customers on a daily basis.

The theoretical framework was based around Social Cognitive Career Theory, SCCT. This is a more recent developed theory which looks at career development from a few frames. Lent (2005) outlines three aspects, "(1) how basic academic and career interests develop, (2) how educational and career choices are made, and (3) how academic and career success is obtained" (p. 750). By asking current salespeople if their education helps with their sales careers insight to

point three from above will be found. Although all three aspects of SCCT are intertwined, each has its own model within the theory. Thus, highlighting the career success obtainment is done by working with the performance model looking at the success in career pursuits.

Assumptions and Limitations of Study

The study includes only one organization and one subset of sellers within that organization and may not reflect the same input for other sellers or all organizations. Policy at the organization where this study took place does not allow work to be done during business hours making the participants have to complete the survey during lunch, breaks, or outside of work.

An assumption of this study was that the participants are honest and truthful in their responses. “Response bias is a widely discussed phenomenon in behavioral and healthcare research where self-reported data are used; it occurs when individuals offer self-assessed measures of some phenomenon” (Rosenman, R., Tennekoon, V., and Hill, L., 2011, p. 320). Tied into this assumption are the questions asked within the given survey. Questions were asked to participants about their perceived sales success. Sales boards are created by management for sellers to track their sales goals and follow how much they are meeting these goals. By asking for how many ‘win’ and ‘revenue’ attainment a seller has brings in the actual attainment within the research questions. Another assumption was that each seller surveyed was aware of where his or her sales performance lies compared to the goals given by management by using the sales boards.

Last, the researcher assumes that each participant can determine if the post-secondary coursework or training helped in their current career.

CHAPTER 2: LITERATURE REVIEW

A common theme found within the literature was that finding, and keeping, good sales representatives is a difficult task for many companies. Why would this be? Some factors touched on by Katsikea, Theodosiou, and Morgan (2015) were the role ambiguity, role conflict, job satisfaction, and stress found from a survey of export salespeople. In the current study, each salesperson works domestically with little to no travel in role. This role change affects the time away from family and home, but also keeps the underlying sales mentality and goal-oriented behavior which can often lead to higher levels of stress and lower job satisfaction.

Current research often concentrates on what makes a good salesperson but ignores the story of how an individual found themselves in the sales role in the first place. "...People express interest in certain career and academic pursuits if they think they can perform well in them..." (Lent, Brown, & Hackett, 2002, p. 272). Sales positions have continued to rise as companies compete for business in an ever-changing market with technology advances. A way for young adults to prepare themselves for their careers is to complete post-secondary coursework or training. Sales education does not mean only a college of business diploma, but can span across all majors (Bolander, Bonney, & Saturnino, 2014; Knight, Mich, & Manion, 2014).

A study originally completed in 1980 and replicated in 1990 titled, "How Do Sales Managers View College Preparation for Sales?" by Johnson (1990) was used as part of the survey for the current study. This original study had 5 questions pertaining to the feeling's managers had around sellers' preparation for the sales environment. The scale used was a grading scale from A through F. Next to each question was a blank space for the participant to add his or her response. Below is summary given in Johnson (1990). In the current study, a Likert scale was used due to

capture the variety of responses available to participants and the potential irregularity of grading scales.

Table 1.

Sales Managers Rate of Colleges on Preparation for Sales

	1990	1980
1. Preparing Students to communicate verbally	C+	C+
2. Preparing students to communicate in writing	C	C-
3. Preparing students to relate to others	C+	C
4. Preparing students to think creatively	C	C
5. Preparing students for sales careers	D+	D

Note: Results from sales managers survey in both the original 1980 and revisited 1990 research.

Social cognitive career theory ties together multiple aspects of the study at hand.

Considering how a student chooses a major or area of interest to study, how a student searches for and finds a job after completing college education, and last how to be successful at that job all involve components of this theory. Within the textbook *Career Choice and Development*, Lent, Brown, & Hackett (2002) state that social cognitive career theory, “emphasizes the interplay between self-referent thought and social processes in guiding human behavior...” (p. 258).

Today, “Technology is seen as leveling the educational playing field” (Hunt, Eagle, & Kitchen, 2004, p. 76). Companies such as Microsoft, which is where the population surveyed in this study are employed, are not requiring specific degrees to apply for positions. An example is from the job posting for the position held by the study participants. The Inside Sales

Representative qualifications list as its' first two metrics, "4 year degree preferred, 2-6+ years sales experience with a proven track record of success. Familiarity with modern sales techniques and tools is a bonus, including experience from retail sales, corporate internships, or entrepreneurial programs" (Microsoft Careers Webpage, 2019). These broad requirements for technical sales at one of the largest technology companies in the world assisted in developing the problem statement.

Diversity is a major component within the Microsoft mission "to empower every person and every organization on the planet to achieve more" (Microsoft Home webpage, 2019). This diversity can come from race, ethnicity, gender, experiences, and educational background. In this study, the educational background will be focused on in relation to technical sales.

This study looks specifically at sales surveying inside sales representatives. Topics covered within academic research involving sales cover a wide range of topics. Both outside and inside sales are analyzed, perceptions of sales careers are discussed, marketing influence on positions, and the changes technology has brought to the field are just a few topics covered within previous research. Some of these topics will be discussed shortly.

The Need for Selling

"Labor statistics point to an increase in sales as a key occupation in the present and future workforce" (Bolander, Bonney, & Saturnino 2014, p 169). Cummins, Peltier, Erffmeyer, and Whalen (2013) stated, "Demand for graduates seeking a sales career has never been higher" (p.75). Finding employees to fill these positions has been a challenge for years, but recently educational institutions have attempted to take a step forward and assist in filling this gap.

Educational institutions have added programs within sales to graduate students who are prepared to work in a sales environment. "Sales educators expose students to working world

conditions in order to achieve two goals: building sales knowledge and skills and elevating sales-based self-efficacy" (Knight, Mich, & Manion, 2014, p 157). Activities such as role-playing scenarios are popular to use real-world application in the classroom. Internships, job shadowing, or apprenticeships are strongly encouraged, and at times required, for a student to complete their program. These experiences build the knowledge within sales, but also give students the confidence and belief they can complete the tasks given to them.

Adding to this, colleges and universities are consistently adding sales programs or certificates for students to complete, often within a College of Business setting. This may help bridge this gap of individuals interested in a sales career, but does it prepare them for the career field? Surveying salespeople within an Inside Sales organization will show if the sellers believe their degree, or lack thereof, assists in their career.

An area of improvement mentioned in *A Critical Review of the Literature for Sales Educators* by Cummins et al., (2013) was how educators introduced students to selling as well as buying in order to fully understand the complex nature of a sales career. Another important point was, "The authors found that progress toward the acceptance of sales as a profession requires the development and enforcement of an ethical code of conduct" (p.72). Every generation has employment preferences. Millennials have continued to put emphasis on the flexibility of a job along with the desire to make a difference. Working in an environment that is ethical allows for both aspects to flourish.

With knowledge regarding ethics, real-world experience, and the full sales process, students can make informed decisions on where they want to work after graduation. "The perception of a profession is formed throughout life and the progression of a group of related jobs into a profession is a cultural artifact years in the making" (Peltier, Cummins, Pomirleanu,

cross, & Simon, 2014, p.64). The more experience students have prior to graduation within a sales environment, whether that is with internship experience, shadowing, or role play the less stigma is seen within the environment.

The Constant Churn

Although sales roles are a high need and high turnover career; many people do not see selling as a career path. The constant churn of sellers moving into new positions whether in or out of sales means that recruitment is a large cost for companies. Recruitment is a constant process to fill positions in a high turnover career. Recruiters can work with faculty and educators to find high achieving students interested in a sales career. The cost of hiring and training new salespeople can be more expensive than the salary of the prior employee. Novell, Machleit, & Ziegler (2016) stated that the average cost of replacing a sales employee is \$115,000!

Another challenge can be the hierarchy of an organization. In a global sales environment, often managers do not have all their staff in the same location. Keeping management communication clear is even more important when the employees are scattered. Communication mishaps can lead to lost sales or compliance not being followed by sellers. Thankfully, with the technology available today working from home or on another continent can be nearly the same as working in the office. The internet has brought this change to allow sellers to work at home offices, work on vacation, or while travelling to ensure customers receive the assistance desired.

In this scenario, sellers need to learn to manage their time and not work all of the time. Sales never sleeps, but employees do. Management teams need to keep the collaboration fluid on their teams for their sellers to stay connected, help each other succeed, and maintain a positive work culture. Culture must be created and actively cultivated. Longevity of sellers can be viewed as a sign of a good work culture.

Another way to connect employees with the company and culture is through mentors. Most often, mentors are tenured employees at the company who are willing to build a relationship with less tenured employees. Mentor relationships can concentrate on anything such as career advice, conflict in the workplace, assistance with selling skills, or personal life. Not all mentors need to be formally set up through the organizational structure. Employees may reach out to others on their own. A great example of this is if a new job becomes available, an employee reached out to someone in that role currently to begin a mentor-mentee relationship. Hartmann, Rutherford, Hamwi, and Friend (2013) stated, "...organizational mentors are believed to offer greater organizational resources and availability..." (p. 2295). These connections can help keep good employees engaged with the culture, in turn, keeping longevity in the role a higher probability.

Connecting with Bots

Technology in the workplace has never been more prevalent than today and will only continue to evolve as time continues to pass. Although some positions may be replaced by technology, it is more common that technology is here to assist with and increase productivity in jobs. Today, within marketing, using bots to begin the conversation with customers is commonplace. In these scenarios, 'bots' is referring to electronic technology engines that can respond to customers with pre-built responses to common questions. An example is when a customer calls a pharmacy and a prerecorded message offers choices to choose from by clicking the corresponding button. Once an option is picked the customer is forwarded to the proper department and can complete their business. Another example is when a marketing campaign is emailed to potential customers. Those who respond and ask a question from the campaign can be answered by a bot through artificial intelligence. A blog written by Alex Hillsberg titled,

Artificial intelligence: The sales renaissance is here stated, "Predictive analysis in AI is going beyond the 'what' in data and delves into the 'why'" (p. 2).

As artificial intelligent insights become more common, sales representatives will have to delineate information from them. Within a sales environment, artificial intelligence is getting rid of the repetitive tasks that sales representatives must complete. This way, sales representatives can concentrate on the most important customers. "Offloading 40% of work doesn't make you, the rep, less important, just more efficient" (Hillsberg, 2017, p. 3).

A potential downside to using bots is the assumption by customers that a human could be more useful. Thankfully, at its' core, the bot was created by humans and up until a certain point, can answer simple FAQ type of questions to take the burden off sales representatives.

An insight from Moncreif (2017) was, "The telesales industry has been used since the 1990s, but it may be increasing because of the buyer's desire to have quick information" (p. 274). The age of the internet has changed the expectations from customers. Immediate satisfaction and immediate answers are expected. Companies such as Uber Eats, Amazon Prime, and Instacart have used this change in expectation to fill a need for the population by bringing products right to the customer's door on demand. Within the sales environment, this change may take time to fall through the hierarchy of organizations.

There is still active debate as to whether long term relationships are expected in a sales environment today. Lindzon (2018) stated, "...today's deals are more often closed over spreadsheets and analytical forecasts than longstanding relationships and rounds of golf" (p. 1) while Tarafdar, Bolman Pullins, and Ragu-Nathan (2014) stated, "...there is a strong positive association between time spent with customers and probability of making quota, indicating that

time redirected from selling to use of technology could translate into lost sales" (p. 51). One answer may not be superior to the other.

Every salesperson handles this change differently often due to their comfort with technology. Generations that were not raised with technology may be more uncomfortable with this change while generations who have grown up with technology present their entire lives see no change adding it to their work life.

Born to Sell

Do you know someone who is simply born to sell? This person is great at connecting with others easily, can strike up a conversation anywhere about anything, and does not seem to have any problem asking about sensitive topics such as budget, timeline, and, at times, politics. Is this person simply born to sell?

Novell, Machleit, and Ziegler (2016) reference how each individual person has implicit theories about how someone's ability is determined i.e. born with talent or made the talent. The incremental theory views that ability can be changed by the effort or time someone puts into a task. Murphy and Dweck (2016) similarly stated, "An organizational mindset is the shared belief of people within a group that human attributes (like intelligence and personality) are fixed and relatively stable or, instead, malleable and expandable" (p.131). Not all skills are provided at birth. Whereas an entity theory thinks that no matter the effort that is put in the skill will not change.

In a sales environment, this can be incredibly insightful for managers to better lead their sellers. For example, "...when a person has an entity (versus incremental) theory of ability, they lose confidence when they encounter challenge or failure, and internalize the failure" (Novell, Machleit, & Ziegler, 2016, p. 312). If a manager knows a seller has an entity theory mindset a

conversation can be done privately to ensure that a potential failure does not stall their success. Shannahan, Bush, and Shannahan (2013) state it well, "As for the question of whether good salespeople are "born" or "made," our results suggest that good salespeople, much like athletes, are willing to take a proactive approach to performance improvement" (p. 49).

CHAPTER 3: METHODS

The purpose of this study was to find if salespeople believe their education or training helps their sales performance. The two research questions were:

1. Does earning a bachelor's degree predict perceived sales success?
2. Does earning a bachelor's degree, predict actual sales success?

Participants

The Fargo, North Dakota campus for Microsoft employs approximately 140 Inside Sales Representatives on Microsoft's Demand Response team (hiring was still ongoing when this research was conducted). The researcher was a member of this group. A census approach was used to send an electronic survey to each member of the group. The invitation to participate went to 126 Inside Sales representatives based on the most current employee list. The response rate was 45%; 53 participants completed the entire survey while two participants opened the survey, but did not complete it in its entirety. Although sales employees are encouraged to maintain an active business professional presence on social media, not all individuals within the Inside Sales group are active on the LinkedIn platform so may have missed the message sent in the time period allotted to take the survey. Fortunately, a number of participants saw the LinkedIn message and were able to complete the entire survey before the Qualtrics survey was closed after two weeks.

Participants ranged in age from 18 to 53+ as shown in Table 2. Every age category offered had at least one participant response from 18-22 through 53+, but 43 respondents (75.44% of participants) were between the ages of 23 and 37. The technology industry was still a male-dominated industry and this survey mirrored this fact in the participants. The participants

consisted of 71.93% ($n = 41$) males, 26.32% ($n = 15$) females and 1.75% ($n = 1$) who preferred not to answer. No one identified as transgender ($n = 0$).

Table 2.

Demographic Characteristics of Participants (n=53)

Demographic	<u>Gender</u>			Total
	Male ($n = 41$)	Female ($n = 15$)	Prefer not to answer	
Age at the time of survey (years)				
18-22	2	1	0	3
23-27	12	8	0	19
28-32	9	1	1	11
33-37	9	3	0	11
38-42	3	1	0	4
43-47	5	0	0	4
48-52	0	1	0	0
53+	1	0	0	1
Total	41	15	1	53

They had a wide range of academic qualifications, ranging from a high school degree or equivalent to a Master’s degree. No participants reported having a doctoral degree. There appear to be discrepancies in this reporting. For example, only 25 participants report having graduated from high school or obtaining a GED high school equivalency, but 46 participants report having earned a bachelor’s degree. This discrepancy will be addressed in the Data Analysis section.

Table 3.

Educational Degrees of Participants

Characteristic	n	%
Educational Credential		
Certificates/Vocational Training	18	28.07
High School Diploma/GED	19	43.86
Associate's Degree	2	14.04
Bachelor's Degree	41	80.70
Master's Degree	2	8.77
Doctoral Degree	0	0.00

Note. Totals of percentages are not 100 because of multiple degrees.

Instrument

This research was a quantitative research design using a survey designed using Qualtrics. The survey was adapted by the researcher from an earlier study that studied sales managers regarding how well-prepared they believed members of their sales staffs were for their positions (Johnson, 1990). The survey was modified to be a self-report instrument that sales people filled out themselves without intervention by managers. In addition to the adapted survey, a few demographic questions were included to record gender, age, and completed levels of education. Age was asked using ranges in order to minimize the possibility of identifying the participants. Question 5 asked “How much education have you completed? Check all that apply.” Options included high school degree/GED, Associate’s Degree, Bachelor’s Degree, Master’s Degree, and Doctoral Degree. If a participant indicated any of the college degrees, they were asked to provide their major area of study. In addition, participants were asked if they had any training beyond high school such as certificates, apprenticeships, or vocational coursework. If a participant

answered affirmatively, they were asked to list the training or certifications. The question about education used branching logic. Participants were thus asked to answer a series of six questions for each level of identification they indicated. The series of six questions is described below. The complete survey can be found in Appendix A.

The bulk of the survey consisted of questions adapted from the scale used by Johnson (1980). It asked sales managers to rate how educational institutions (in general);

1. Prepare students to communicate verbally
2. Prepare students to communicate in writing
3. Prepare students to relate to others
4. Prepare students to think creatively
5. Prepare students for sales careers

The survey items used by Johnson (1990) were modified for this research. The original study used a grading scale from A to F as commonly used in educational institutions. For this study, the survey was modified to a 5-point Likert scale with rankings from Never to Always, with Never = 1, Almost Never = 2, Sometimes = 3, Almost Always = 4, and Always = 5. An option was added for Does Not Apply. This modification was made due to the difficulty of performing data analysis on categorical data such as letters of the alphabet, complicated by the fact that the grading scale skipped the letter E.

In addition, a sixth question was also added to the original five questions from the Johnson (1990) study regarding technical sales preparation from education. Research referenced in a multitude of ways the importance that technical skill has on employees today (Moncrief, 2017; Tarafdar, Bolman Pullins, & Ragu-Nathan, 2014; Novell, Machleit, & Ziegler Sojka, 2016). Adding the sixth question asking “Do you believe your education helps you within your

technical sales role?” was added for this purpose. In addition, participants could have previous sales experience in other non-technical fields.

Finally, two questions were added to give insight into actual sales performance. These two questions also used the 5-point Likert scale described above. These questions asked “How often do you meet your revenue sales goal?” and “How often do you meet your win target goal?” There was no option to answer Does Not Apply, because all of these participants received compensation based on meeting revenue sales goals and win target goals. These target goals and revenue sales goals vary depending on the quarter and fiscal year. An example, in the month of January, to receive 100% compensation, an Inside Sales Representative must close 8 wins with at least \$50,000 in revenue. A typical sales cycle is 90 days, so if a new inside sales representative takes the survey within the first 0-3 months in role, he or she may not have data to answer the final two questions. Therefore, there was an option to say 0-3 months in sales (at Microsoft) along with 4-11 months. There was initial concern about whether participants would accurately self-report performance data since it is linked to compensation, but this performance is publically available within the sales unit at Microsoft.

Data Collection

After receiving permission from Microsoft and approval of the Institutional Review Board at North Dakota State University, the invitation to participate was sent to the Inside Sales Representatives on Microsoft’s Demand Response team located in Fargo, ND. The researcher contacted each salesperson and sent an individual message through LinkedIn requesting participation. This was due to the Microsoft policy that work email accounts and work time could not be used by either the researcher or the participants. A follow-up message was sent one week after the survey was released as well as two weeks after. A total of 126 LinkedIn messages

were sent to 126 Inside Sales representatives based on the most current employee list. The response rate was 47%; 59 participants completed the entire survey while two participants opened the survey but did not complete it in its entirety. The data and reports were downloaded from Qualtrics.

Data Analysis

The researcher planned to compare the mean response to each question of usefulness for each individual's education achievements (high school/GED, associate's degree, bachelor's degree, master's degree, and doctoral degree). These questions give insight into the participants' perceptions about how their post-secondary training and education contribute to their success in their sales career. Upon reviewing and cleaning the raw data, it was immediately apparent that quite a few participants failed to follow the instructions. Although Question 5 asked, "How much education have you completed? Check all that apply." the majority of participants ($n = 53$) marked only their highest level of post-secondary coursework completed. Only 9 participants who had completed degrees beyond their high school diploma/GED correctly answered this question. The other 44 participants who completed the entire survey only chose their highest level of education completed. This means that these participants only provided answers to the six questions about education helping their sales career for the highest level of post-secondary coursework completed.

Initially there was concern regarding whether the Qualtrics survey was created correctly. A common sales skill is attention to detail. With this lack of correct responses, the concern was relevant. If Question 5 had been asked using radio buttons which only allow one choice, it would have caused a problem by limiting the participants to one choice. When using radio buttons, selections are mutually exclusive. However, the survey used checkboxes for this question, so that

a participant could select more than one option. A second concern involved whether the branching logic was programmed correctly. If every participant had only answered the six questions for one level of education, the branching logic could have been incorrect. Only 9 participants who had completed degrees beyond their high school diploma/GED correctly answered this question. Seven participants reported earning both a high school degree/GED equivalent and a bachelor's degree. Two participants reported earning three degrees: high school, associate's degree, and bachelor's degree. The survey worked correctly for those participants who understood and followed the instruction.

The misunderstanding of Question 5 was unfortunate because it made the data incomplete. No pilot survey was conducted that might have uncovered the confusion regarding Question 5. Had the confusion been identified earlier, the electronic survey could have been modified by emphasizing the words "Check all that apply" with all capital letters (CHECK ALL THAT APPLY), bold font (**Check all that apply**) or both (**CHECK ALL THAT APPLY**).

CHAPTER 4: FINDINGS

Because of the discrepancies caused by participants' failure to answer Question 5 correctly, the data was not analyzed as originally intended. Only two people reported earning an Associate's degree, two reported earning Master's degrees, and no one reported earning a doctoral degree. Fourteen participants reported that they had training beyond high school coursework, such as certificates, apprenticeships, vocational coursework, etc. Although they were asked to list that training, only 12 did so. Some reported incomplete college degrees, one reported 15 years of management experience, and others reported unrelated training such as carpentry, masonry, automated logistics, state insurance licensing, and peace officer training. Six individuals reported Microsoft training or other certificates related to technology. Because of these disparate answers, the researcher decided to focus on the 41 individuals who reported completing Bachelor's degrees.

Of the 41 participants who reported earning a Bachelor's degree, 15 of 30 had some type of business management aspect such as Business Administration, International Business, or Business Management. All 41 participants answered all six questions related to how much that degree helped with an aspect of their sales work. Each of those questions had answers coded from 1 to 6, with 6 being "Does Not Apply." Only one individual responded Does Not Apply, so the 6 was removed from the cell and left as a null value. In effect, this left the researcher with a 5-point Likert scale.

A visual inspection of the data for those employees who reported earning a Bachelor's degree shows that the highest answer was to the question "Do you believe your Bachelor's degree prepared you to communicate in writing?" with a mean of 4.15 (on a 5-point Likert scale). The next highest answer was a mean of 4.0 on the 5-point Likert scale to the question "Do

you believe your Bachelor's degree prepared you to communicate verbally? But further investigation was needed to determine if the differences reported for a Bachelor's degree were statistically significant. In order to do this, t-tests were conducted on each of the six questions asked about a Bachelor's degree.

The null hypothesis ($H_0: \mu=3$) was that a participant completing a bachelor's degree did not increase perceived sales success. The alternate hypothesis ($H_1: \mu \neq 3$) was a participant completing a bachelor's degree did make a difference in perceived sales success.

Since the Likert scale was a five point scale, excluding the "Does not apply" option for participants, a t-test was performed to each of the six questions participants answered regarding their bachelor's degree. The mean response of the participants for each question was compared to a constant value of 3.0, which is the mean of a Likert scale ranging from 1 to 5.

For each subsequent question, a t-value was calculated. From these t-values, ranging from 1.8 to 9.06, the null hypothesis was rejected for each question. From these calculations, there was a statistically significant difference in the mean responses by participants who completed their bachelor's degree regarding how their bachelor's degree increases their sales success for all questions asked.

Determining actual sales success brought into question the metrics that participants were paid. Both the number of sales or wins a participant had along with the amount of revenue that this brought to the company tied directly into the compensation each participant received. These metrics were shared knowledge among participants and are shared monthly during reviews internally.

Table 4 below shows the mean response participants had for those who completed a bachelor's degree. Overall, 65.85% of participants answered Almost always or Always to "How

often do you meet your revenue sales goal?” while 80.49% said Almost always or Always to “How often do you meet your win goal?” This was a telling insight into the data. These two survey questions give insight into the overall picture of participants actual sales success. The finding that nearly two-thirds or more participants almost always meet their sales goals.

Table 4.

Differences Between the Constant Mean of a 5-point Likert Scale and Participants who Earned a Bachelor’s Degree (n = 41)

	Bachelor’s Degree		Constant Mean of 5-point Likert scale		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>df</i>	<i>t</i>
Do you believe your (input degree) helps you within your technical sales role?	3.23	0.961	3.00	40	1.8
Do you believe your (input degree) prepared you to communicate verbally?	4.0	0.883	3.00	40	7.25
Do you believe your (input degree) prepared you to communicate in writing?	4.15	0.813	3.00	40	9.06
Do you believe your (input degree) prepared you to relate to others?	3.63	1.03	3.00	40	2.78
Do you believe your (input degree) prepared you to think creatively?	3.73	0.988	3.00	40	4.74
Do you believe your (input degree) prepared you for your sales career?	3.34	0.953	3.00	40	2.28

CHAPTER 5: DISCUSSION

Why does this study matter? This study continues the conversation around sales and selling and the search for what the ‘best’ preparation is for this career. Much of the research presented at the beginning of this paper revolved around the drastic changes in technology and how this affects the upbringing, technology savviness and career choices of younger generations. Careers available to future generations will be affected, some positively and some negatively, by the changes in technology.

Student loan debt is of the biggest stresses on the millennial generation and generation Z. The more expensive post-secondary coursework becomes the more important it is that there is a return on investments for those choosing to complete coursework. Thinking back to the Social Cognitive Career Theory, SCCT, technology has embedded itself into every aspect of this theory and participants lives. How academic and career interests develop occurs from childhood. What a student sees and learns about shapes their frame of reference. Seeing how technology integrates into children’s lives today will affect how they develop and how their frame of reference is formed. A cyber security position likely was not on a student’s radar until technology advances began. How education and career choices are made is often influenced by friends and family, but also by what a student can afford. With technology, students can attend class from afar which opens a wider variety of educational institutions to choose.

Last, how academic and career success is obtained is changed. Working from home and working fewer hours in a week are becoming more common trends. Just as this survey was being conducted, Microsoft finished a pilot in Japan of a 4-day work week, still 8-hour days, and saw a 40% increase in productivity by staff! Studies like these and others change the viewpoint of what a ‘typical’ location for work is and in what timeline that work needs to be completed.

The most practical implication of this study and apparent finding is that people who have completed a bachelor's degree do predict perceived sales success. This shows that, although listed as preferred on an Inside Sales Representative job post through the Microsoft Careers webpage (2019) it is not something that nearly 50% of participants completed. How does this impact organizations with Inside Sales departments? Findings from this research solidify the thought that a bachelor's degree or other specific degree 'requirement' predict success for that individual in a sales role. Using other skills such as communication, willingness to learn, and knowledge of field may also be indicators of sales success. This could be a great future research topic to continue this line of study.

Future directions for research

In addition, a useful line of research might be how do-it-yourself education is a rising trend. With the constant changes in technology, being a lifelong learner helps professionals grow within their careers. Do-it-yourself education is a trend where individuals use a variety of learning environments such as self-teaching, online videos, and weekend courses to prepare for a job.

Future research may also want to dive deeper into specific comparison of technical training as post-secondary coursework and bachelor's degree post-secondary coursework. A deeper dive into these two post-secondary options could allow a researcher to ask more details of participants regarding the type of coursework completed and usefulness of specific courses or topics.

As mentioned within chapter 4, only 9 participants answered question five correctly by listing all of their completed post-secondary coursework versus only the highest post-secondary coursework completed. In future research, conducting a pilot study would allow a researcher to

be aware of possible confusion regarding survey items. Making the text bolded, underlined, or italicized could also draw attention to the question of “check all that apply” similarly stated previously. Last, running both reliability and validity testing on the original 1980 study and any changes will allow for researchers to have a more consistent and accurate comparison of the two studies.

In the end, a successful sales career is dependent on many things, but after reviewing these findings it shows that earning a bachelor’s degree does indeed cause inside sales people within Microsoft to perceive that it helps them to be successful in their careers.

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APPENDIX A: SURVEY

Start of Block: Participant consent

Because you are an Inside Sales Representative in Inside Sales at Microsoft, you are invited to take part in this research project. Your participation is entirely your choice, and you may change your mind or quit participating at any time, with no penalty to you. By clicking "Next" you give consent to the research survey. You are not expected to get any benefit from being in this research study. However, benefits to sales research are likely to include advancement of knowledge regarding the sales and technology connection with education, so please do consider participating. It should take about 10 minutes to complete the questions about your sales experience, educational background, and goal attainment. Please click the link below to access the Qualtrics survey. Any data collected will be kept confidential, and no one, not even members of the research team, will know that the information you give comes from you. If you have any questions about this project, please contact me at Briana.Justin@ndsu.edu, 612-845-2012, a LinkedIn message, or contact my advisor, Claudette Peterson, at either 701-231-7085 or Claudette.Peterson@ndsu.edu. You have rights as a research participant. If you have questions about your rights or complaints about this research, you may talk to the researcher or contact the NDSU Human Research Protection Program at 701.231.8995, toll-free at 1-855-800-6717, by email at ndsu.irb@ndsu.edu, or by mail at: NDSU HRPP Office, NDSU Dept. 4000, P.O. Box 6050, Fargo, ND 58108-6050. Thank you for your taking part in this research!

- Agree and continue to survey

Page Break

Q1 Age

- 18-22
- 23-27
- 28-32
- 33-37
- 38-42
- 43-47
- 48-52
- 53+

Q2 Gender

- Male
- Female
- Transgender
- Prefer not to answer

Q3 Time in sales (at any organization)

- 0-11 months
- 1-2 years
- 3-5 years
- 6-10 years
- 11-20 years
- 21+ years

Q4 Time in sales (at Microsoft)

- 0-11 months
- 1-2 years
- 3-5 years
- 6-10 years
- 11-20 years
- 21+ years

Q5 How much education have you completed? Check all that apply.

- High School Diploma/GED
- Associate's Degree
- Bachelor's Degree
- Master's Degree
- Doctoral Degree

If How much education have you completed? Check all that apply. = High School Diploma/GED

Q6 Have you taken any training past high school coursework (Ex. certificates, apprenticeships, vocational coursework, etc.)?

- Yes
- No

Display This Question:

If How much education have you completed? Check all that apply. = High School Diploma/GED

Q7 Please list any of your applicable training past high school coursework here.

Display This Question:

If How much education have you completed? Check all that apply. = High School Diploma/GED

Q8 Please think back to your high school/GED to answer the set of questions below.

Do you believe your high school diploma/GED helps you within your technical sales role? (1)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)
Do you believe your high school diploma/GED prepared you to communicate verbally? (2)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)
Do you believe your high school diploma/GED prepared you to communicate in writing? (3)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)
Do you believe your high school diploma/GED prepared you to relate to others? (4)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)
Do you believe your high school diploma/GED prepared you to think creatively? (5)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)
Do you believe your high school diploma/GED prepared you for your sales career? (6)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)

Display This Question:

If How much education have you completed? Check all that apply. = High School Diploma/GED

Q9 Please think back to your training past high school coursework (Ex. certificates, apprenticeships, vocational coursework, etc.) to answer the set of questions below.

Do you believe your training helps you within your technical sales role? (1)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)
Do you believe your training prepared you to communicate verbally? (2)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)
Do you believe your training prepared you to communicate in writing? (3)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)
Do you believe your training prepared you to relate to others? (4)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)
Do you believe your training prepared you to think creatively? (5)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)
Do you believe your training prepared you for your sales career? (6)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)

Page Break

Display This Question:

If How much education have you completed? Check all that apply. = Associate's Degree

Q10 What field(s) of study was your Associate's major(s)/degree(s)?

Display This Question:

If How much education have you completed? Check all that apply. = Associate's Degree

Q11 Please think back to your Associate's degree(s) to answer the set of questions below.

Do you believe your Associate's degree(s) helps you within your technical sales role? (1)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)
Do you believe your Associate's degree(s) prepared you to communicate verbally? (2)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)
Do you believe your Associate's degree(s) prepared you to communicate in writing? (3)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)
Do you believe your Associate's degree(s) prepared you to relate to others? (4)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)
Do you believe your Associate's degree(s) prepared you to think creatively? (5)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)
Do you believe your Associate's degree(s) prepared you for your sales career? (6)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)

Display This Question:

If How much education have you completed? Check all that apply. = Bachelor's Degree

Q12 What field(s) of study was your Bachelor's major(s)/degree(s)?

Display This Question:

If How much education have you completed? Check all that apply. = Bachelor's Degree

Q13 Please think back to your Bachelor's degree(s) to answer the set of questions below.

Do you believe your Bachelor's degree(s) helps you within your technical sales role? (1)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)
Do you believe your Bachelor's degree(s) prepared you to communicate verbally? (2)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)
Do you believe your Bachelor's degree(s) prepared you to communicate in writing? (3)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)
Do you believe your Bachelor's degree(s) prepared you to relate to others? (4)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)
Do you believe your Bachelor's degree(s) prepared you to think creatively? (5)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)
Do you believe your Bachelor's degree(s) prepared you for your sales career? (6)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)

Display This Question:

If How much education have you completed? Check all that apply. = Master's Degree

Q14 What field(s) of study was your Master's degree(s)?

Display This Question:

If How much education have you completed? Check all that apply. = Master's Degree

Q15 Please think back to Master's degree(s) to answer the set of questions below.

Do you believe your Master's degree(s) helps you within your technical sales role? (1)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)
Do you believe your Master's degree(s) prepared you to communicate verbally? (2)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)
Do you believe your Master's degree(s) prepared you to communicate in writing? (3)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)
Do you believe your Master's degree(s) prepared you to relate to others? (4)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)
Do you believe your Master's degree(s) prepared you to think creatively? (5)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)
Do you believe your Master's degree(s) prepared you for your sales career? (6)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)

Display This Question:

If How much education have you completed? Check all that apply. = Doctoral Degree

Q16 What field(s) of study was your Doctoral degree(s)?

Display This Question:

If How much education have you completed? Check all that apply. = Doctoral Degree

Q17 Please think back to Doctoral degree(s) to answer the set of questions below.

Do you believe your Doctoral degree(s) helps you within your technical sales role? (1)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)
Do you believe your Doctoral degree(s) prepared you to communicate verbally? (2)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)
Do you believe your Doctoral degree(s) prepared you to communicate in writing? (3)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)
Do you believe your Doctoral degree(s) prepared you to relate to others? (4)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)
Do you believe your Doctoral degree(s) prepared you to think creatively? (5)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)
Do you believe your Doctoral degree(s) prepared you for your sales career? (6)	Never (1)	Almost Never (2)	Sometimes (3)	Almost Always (4)	Always (5)	Does not apply (6)

Q18 How often do you meet your revenue sales goal?

- Never (1)
- Almost Never (2)
- Sometimes (3)
- Almost Always (4)
- Always (5)

Q19 How often do you meet your win target goal?

- Never (1)
- Almost Never (2)
- Sometimes (3)
- Almost Always (4)
- Always (5)

End of Block: Participant consent

APPENDIX B: IRB LETTER

October 17, 2019

Dr. Claudette Peterson
School of Education

Re: IRB Determination of Exempt Human Subjects Research:
Protocol #HE20083, "Does post-secondary coursework predict perceived sales success?"

Co-investigator(s) and research team: Briana Justin
Date of Exempt Determination: 10/17/2019 Expiration Date: 10/16/2022
Study site(s): Fargo, ND - online
Sponsor: n/a

The above referenced human subjects research project has been determined exempt (category #2(i)) in accordance with federal regulations (Code of Federal Regulations, Title 45, Part 46, Protection of Human Subjects). This determination is based on the original protocol submission (received 10/10/2019) with survey (received 10/14/19)

Please also note the following:

- If you wish to continue the research after the expiration, submit a request for recertification several weeks prior to the expiration.
- The study must be conducted as described in the approved protocol. Changes to this protocol must be approved prior to initiating, unless the changes are necessary to eliminate an immediate hazard to subjects.
- Notify the IRB promptly of any adverse events, complaints, or unanticipated problems involving risks to subjects or others related to this project.
- Report any significant new findings that may affect the risks and benefits to the participants and the IRB.

Research records may be subject to a random or directed audit at any time to verify compliance with IRB standard operating procedures.

Thank you for your cooperation with NDSU IRB procedures. Best wishes for a successful study.

Sincerely,
Kristy Shirley, CIP, Research Compliance Administrator

For more information regarding IRB Office submissions and guidelines, please consult https://www.ndsu.edu/research/for_researchers/research_integrity_and_compliance/institutional_review_board_irb/. This Institution has an approved FederalWide Assurance with the Department of Health and Human Services: FWA00002439.