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Behavior Based Safety and the Multi-Generational Workforce

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BEHAVIOR BASED SAFETY AND THE MULTI-GENERATIONAL WORKFORCE

By

Edward P. Grzybowski, Jr.

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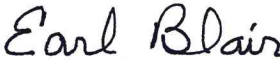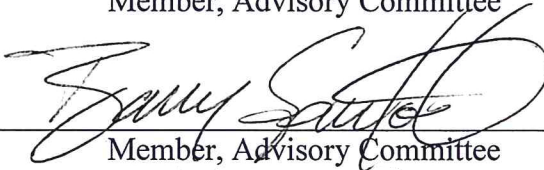
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BEHAVIOR BASED SAFETY AND THE MULTI-GENERATIONAL WORKFORCE

By

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Master's of Science

Eastern Kentucky University

Richmond, Kentucky

2015

Submitted to the Faculty of the Graduate School of
Eastern Kentucky University
in partial fulfillment of the requirements
for the degree of
MASTER OF SCIENCE
December, 2015

DEDICATION

This thesis is dedicated to

my wife Katie,

my sons Kevin and Joshua,

and my father, Edward, Sr.,

for believing in me

and for supporting me – especially through the tough times (which were many)!

ACKNOWLEDGMENTS

Abstract

Generational differences of Baby Boomers, Generation X, and Millennials regarding their acceptance of feedback and observations were studied in order to determine if different approaches to each were needed in order to effectively implement a Behavior Based Safety program within a specific company. The study found that there was a greater difference between generations regarding observations than on other domains. The results suggest that additional research should be undertaken in order to extrapolate the findings to a larger population.

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CHAPTER 1

Introduction

Background

Behavior Based Safety (BBS) was developed as a safety intervention in the 1980s in an effort to move beyond traditional reactive approaches to safety management (Krause, 2001, p. 27). These traditional approaches historically rely upon the use of lagging indicators (i.e. data resulting from hazardous exposures, incidents, accidents, etc.)(Stricoff, 2000, p. 37). Initially developed as a top-down supervisor driven strategy, BBS evolved in the mid 1980s and early 1990s into a system that involved all employees (Krause, 2001, p. 29). It incorporates the concepts of Total Quality Management (TQM) and applies those methodologies to safety issues (Krause, 1997, p. 25). Applying such methods, BBS is designed to be proactive, using leading indicators, so as to prevent accidents and incidents before they occur.

Like TQM, BBS is data driven. Both are quantitative, not qualitative, programs. Both rely upon good, reliable, measureable data (Krause, 1997, p. 25). Both require a company "to understand and measure upstream factors that permit intervention well before a defect occurs" (Stricoff, 2000, p. 36). Also, like TQM, data timeliness and validity are essential (Stricoff, 2000, p. 36). This means that while good data (i.e. timeliness, quantity) is vital, measuring the right things (i.e. the right data points) and reliability (i.e. accuracy) are essential. In fact, when BBS is based upon upstream data collection and analysis, its value has been demonstrated (Stricoff, 2000, p. 38).

Considering this, Behavior Based Safety needs to identify hazardous conditions and hazardous behaviors and establish upstream, predictive metrics in order to develop

appropriate, measurable, safe behaviors and interventions to prevent injuries before they occur (Stricoff, 2000, p. 39).

Like TQM, BBS is a continual improvement process (Krause, 1997, p. 71). As a process, it relies upon a cycle of identifying hazards, at-risk behaviors, observing those behaviors, and providing feedback, and making necessary modifications. Identifying occupational hazards (e.g. electrical hazards, caustic materials, fall hazards, etc.) and the associated at-risk behaviors (e.g. unprotected exposure) is relatively straightforward, quantifiable and measurable.

However, effectively observing at-risk behaviors so as to establish trends for analysis, to intervene, correct, or coach are harder to measure. It is a fairly straightforward thing to observe a machine and determine if its operating temperature, pressure, RPM, etc., conform to established/desired metrics. It is far more difficult to equally measure human performance, particularly at-risk behaviors.

Measuring human performance as it pertains to production is an observable event. An employer can measure how many widgets a worker produces, and the employer can also measure the quality of the widgets each worker produces. It is a straightforward thing for an employer to create proactive production and/or quality metrics regarding widget production. Management can establish metrics for worker performance to ensure that the number of widgets produced, and/or the quality of those widgets is met. These metrics can be easily set up to be proactive – i.e. produce an indicator for management to intervene to adjust production (i.e. speed up, or slow down), or to ensure quality.

It is another thing to try to measure how much a worker wants to make a widget, or to produce a quality widget. The output of the human performance can be measured,

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but the internal workers' motivations are much harder to see and influence. Behavior based safety is dependent upon effectively measuring such motivations.

Unlike production or quality metrics, it is much harder to observe and/or influence employee safety behavior in advance. Even when proactive (i.e. leading, upstream metrics) safety metrics have been established, it is difficult to correct unsafe behavior before it happens. This is the heart of BBS, measuring, monitoring and shaping the way workers think about what they do so that they choose to be safe.

The primary BBS tools used to address worker behavior and to guide workers to choose safe behavior is through observation and feedback. However, compared to the other elements of BBS, observation and feedback are is perhaps the hardest to achieve.

Many researchers have indicated that the organizational culture and individual personalities have a great impact on the ability to observe behaviors and provide feedback.

Organizational cultures are driven by several factors which create prevailing perceptions (Robbins, Decenzo, & Coulter, 2015, p. 44). Key to predicting success is to understand the perceptions that are predominant in the organization (Krause, 1997, p. 11). To understand the perceptions, it is essential to understand the psychology of the organization (Geller, 2001, p. 75). This understanding helps to determine if BBS will work in a particular setting. Because organizational cultures and individual personalities will vary greatly, they appear to have a significant impact on successful BBS implementation (Krause, 1997, p. 18).

Like organizational cultures and dynamics, individual personalities also have been found to have a dramatic effect on a worker's acceptance of BBS (Johnson, 2003, p. 40).

Individual motives have been shown to drive behavior (Johnson, 2003, p. 39). It has been observed that individual self-persuasion drives long term behavior change (Geller, 2001, p. 26). Yet other research contends that the observational and feedback practices within BBS set a framework for a larger, communal effort of actively caring for each other (Geller & Veazie, 2014, p. 44). Such a communal effort would be affected by the group(s)/grouping(s) within a particular work force.

While personal characteristics, organizational dynamics and behaviors have been researched and analyzed, it appears that the influence of generational characteristics, their needs and expectations of the modern workplace, have not been incorporated into the BBS model.

To address this issue, it is important to understand genesis of the multi-generational workforce. There has always been friction between generations, and the influence of the "baby boomer" generation on society has been well known. However, while each generation brings its own values to the workplace there has been an increase in complexity caused by the increasing number of generations active in the workforce (Lancaster & Stillman, 2002, p. 4).

From the 1970s into the 1990s, the predominant generation in the workforce was the "baby boomer" generation. "Baby boomers", those born between 1946 and 1964, drove social mores and trends for over thirty years (Meister & Willyerd, 2009, p. 3). At the time that BBS was introduced into the workplace baby boomers comprised over 50% of the workforce (Lerman & Schmidt, n.d., p. 2). By 1996 the percentage of baby boomers had fallen to under 50%, but it was still the predominant generation in the workplace (Lerman & Schmidt, n.d., p. 2). With baby boomers possessing such a large

percentage of the workforce population, and asserting itself in all aspects of society, baby boomers as a group would likely have had a significant impact on workforce cultural dynamics as well.

In fact, they did. As the next generation, Generation X (born between 1965and 1977) began to enter the work force in the mid-1990s there was a great deal of discussion about how this new generation would fit in (Tulgan, 1995, p. 1).

Since then the influence of the baby boomer generation has waned as additional generations have entered the workforce (Meister & Willyerd, 2009, p. 2). Generation Y, or the Millennial Generation (1978-1998), and Gen 2020 (1998 and later) have entered, and are entering, the work force today. The largely homogenous generational workforce of a generation ago, is now comprised of up to five generations working side by side. Said another way, today a worker could be working alongside his or her grandfather or granddaughter.

Each generation has different expectations from work and their employers (Martin & Tulgan, 2006, p. xi). As a result, expectations dependent upon culture or personality which may have been universally adopted in the past may not be readily observed today. Thus, it is possible that expected behavior-based interventions may not be effective in such a modern, heterogeneous group. Conversely, multi-generational dynamics may be a hidden and misunderstood root cause for unsuccessful BBS efforts. Table 1 provides an overview of key characteristics of the baby boomer, Generation X, and the Millennial generations.

Table 1: *Generational Characteristics*

Millennials	Generation X	Baby Boomers
Freedom and flexibility	Flexible work arrangements	Flexibility/authority
Seeks mentors	Training and opportunities/mentors	Be mentors
Tech is natural "digital natives"	Technologically savvy	Technologically challenged
Expect to work > 40 hours/week	Just a job/ Short term focus/commitment	Workaholics, Work ethic
Immediate constructive feedback	Lots of constructive feedback	We've always done it this way
confident	Self-reliant/low trust of organizations	Self centered
optimistic	cynical	optimistic
Value socially responsible companies	What do you want from me today? What do I get in return?	loyalty
Rewards linked to performance: soon, certain, positive	Career development /job learning	Public recognition
collaborative	independent	Consensus
Goal and Achievement Oriented	Multi-tasking/multiple projects	Teamwork, democratic

Source(s): Martin, C. A., & Tulgan, B. (2006). *Managing the generation mix - from*

urgency to opportunity (pp. 21-69). Amhearst, MA: HRD Press and Zemke,

R., Raines, C., & Filipczak, B. (2013). *Generations at work - managing the*

clash of boomers, Generation Xers, and genyers in the workplace (2nd ed.,

pp. 31-161). New York, NY: AMACOM.

Management books of the time discussed the remodeling of the workplace and

management practices in order to absorb these younger workers into the workforce

(Tulgan, 1995, p. 2). Later, the need for managing Generation "Y" became evident

(Martin & Tulgan, 2001, p. 17). By contrast, most of the writings and research on BBS

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date from the 1980s, 1990s, and early 2000s do not seem to address multi-generational dynamics and BBS. BBS writings during this period refer to Organizational Culture. One researcher includes "age" as an individual element of "personal characteristics" (Johnson, 2003, p. 41). However, there is no apparent evaluation of the effect of changes in the workforce due to generational influences affecting worker perceptions and acceptance of BBS.

Statement of the Problem

Thus the question of how, or if, a multi-generational work force effects the successful implementation of BBS does not appear to have been extensively examined. Because the answer to that question is largely focused on the human/behavioral aspect of BBS (i.e. observation and feedback) this study analyzed the following thesis question: Is there a distinction between baby boomers, Generation X, and Millennials in how they perceive the parameters of leadership responsibility, employee involvement, peer feedback, and employee observations and do these perceptions suggest how a multi-generational workforce may accept observation and feedback within a BBS system?

Purpose of the Study

Because the question of how, or if, a multi-generational work force effects the successful implementation of BBS has not been extensively examined it is necessary to conduct this study. Based upon the results of the literature review it appears that the impact of the multi-generational workforce (MGW) on the effectiveness of Behavior Based Safety has not been adequately examined. This study evaluated the effect of the MGW on BBS

particularly on the impact on worker acceptance of observation and feedback that may vary based on generation.

Potential Significance

If this study is able to determine that a multi-generational workforce can/does have an impact upon the acceptance of observation and feedback, then it may be possible to refine the types of observation and feedback used in order to obtain better results and a more effective BBS implementation. These findings may be the basis for additional research across multiple industries, regions, and/or populations in order to generalize the finding to the United States at large, thus enabling a greater refinement and success to BBS implementation. In particular, the study assessed if generational influences could impact effective BBS implementation within the company. The practical implications of this study were to determine if the target company's resources are best applied implementing BBS or if another type of safety intervention is better suited. This study was designed to build upon the work of Geller, Krause, and others using the demographics of the work force of this decade as it applies to this particular organization and industry.

Definition of Terms

Leadership Responsibility (LR). Leadership responsibility means the actual or expected role that management takes in setting and enforcing safety standards.

Employee Involvement (EI). Employee involvement means the actual or expected role that employees have in following safety rules and in participating in the development of safety procedures.

Peer Feedback (PR). Peer feedback means the actual or expected use of formal and/or informal constructive observation and discussion to report to an individual his/her actual performance vis-à-vis established safety norms.

Employee Observation (EO). Employee observation means the actual or expected observation and evaluation of an individual employee's performance and the reporting of such observations.

Assumptions

It is assumed that because participation was voluntary that participants were truthful in their responses. It is assumed that the target company presented the context of the survey and the project in an unbiased manner. It is assumed that the data entry by graduate assistants at Eastern Kentucky University was accurate.

Limitations

This study was limited to observations within a single, regional, medium sized non-union manufacturing company (approximately 400 employees) in the concrete industry (SIC 3272) operating facilities in Kentucky, Ohio, Indiana, and Tennessee. The target population consisted of Baby Boomers (born 1946-1964), Generation X (born 1965-1977) and Millennials (born 1978-1999). Extrapolations or application of the results to other industries and/or populations may not be accurate.

Organization of the Study

This study is documented in APA format. It is comprised of five basic chapters. Chapter 1 provides an introduction with background into Behavior Based Safety's (BBS) history and the advent of the multi-generational workforce (MGW). The introduction identifies the research gap that this study will address. It provides a statement of the problem, the potential significance of the research, definition of terms, assumptions relevant to the study, and limitations of the study. Chapter 2 provides a literature review of books and articles relating to BBS and the MGW. Chapter 3 provides the findings from the research. This includes the context of the study, selection of participants, the research question, data collection and analysis methodologies, and a statement regarding subjectivity. Chapter 4 provides the research findings and analysis results. Chapter 5 provides a discussion of the findings and their implications for BBS implementation and for additional study. There is a fully annotated list of references, list of tables and figures, and an appendix which provides the survey questions used.

Chapter 2

Literature Review

Discussion

Although no research studies seem to have directly addressed the multi-generational workforce and BBS, several studies have addressed the role of individual personality and motivation, as well as the dependence of BBS on effective observation and feedback. One study in particular found that "behavioral processes work best when a high degree of trust exists between management and employees" (Barrett, 2000, p. 28). As discussed in this study it is essential for management and the workforce to each do their part to ensure that programs work. Employees will need to trust management (Barrett, 2000, p. 28). The study also points out the need to provide effective feedback systems to motivate employees (Barrett, 2000, p. 27). The author also observed that "people only participate when they perceive value" (Barrett, 2000, p. 28).

Sulzer-Azaroff and Austion (2000) asked the question of whether BBS actually worked (Sulzer-Azaroff & Austin, 2000, p. 19). In this study the authors found that approximately 39% of the organizations evaluated had experienced an improvement in incident rates (Sulzer-Azaroff & Austin, 2000, p. 21). The authors concluded that there were seven key factors essential to effective BBS implementation (Sulzer-Azaroff & Austin, 2000, p. 23). Among these factors are employee buy-in and feedback (Sulzer-Azaroff & Austin, 2000, p. 23). The study did not discuss how to attain either buy-in or effective feedback.

Cook and McSween (2000) found that supervisors should participate in observations. The authors based this conclusion on observations from 1980-2000 (Cook

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& McSween, 2000, p. 33). The authors found that locations in which managers implemented safety observations there was a higher employee participation rate (Cook & McSween, 2000, p. 34). However, while there was no direct evidence, the authors surmised that informal leader influence could have an effect on employee participation (Cook & McSween, 2000, p. 35).

Groover (2001, p. 35) observed that "pivotal to success are efforts to develop employees who do not merely blindly follow rules and regulations, but who are engaged, motivated, and equipped to see and continuously evaluate risk." The author suggests an "integrated" BBS model that focuses on the interface between the system, behavior, and exposure (Groover, 2001, p. 35). The author found that progressive organizations that "truly understand the continuous improvement process…establish mechanisms that engage employee behavior in understanding the value of performing safely and develop within each employee the desire to perform safely" (Groover, 2001, p. 34). He also noted that "such an organization also ensures that employees value the mechanisms" (Groover, 2001, p. 34).

Johnson (2003) reviewed the impact of personal characteristics, organizational culture and behavior to determine the underlying elements of motivation and acceptance of behavioral safety. The author found that values and attitudes and social pressures lead to certain behavior (Johnson, 2003, p. 40). He observed that while both the value-attitude-behavior hierarchy and the Theory of Planned Behavior (TPB) largely agree, TPB presents a better predictor of behavior because it addresses environmental factors (Johnson, 2003, p. 40). The author indicates that research has found that consequences are "the true motivators of behavior", and that consequences that are "soon, certain, and

positive" are the most effective (Johnson, 2003, p. 41). The author points out that "organizational commitment is an expression of a person's intent to perform a behavior" (Johnson, 2003, p. 42). Thus, the more an individual is committed to the organization, the more the individual's behavior will conform to expected norms. The author points out that organizational culture is a product of several overlapping group influences (Johnson, 2003, p. 43).

A 2012 study contends that Behavior Based Safety inaccurately evaluates behavior (Carrillo, 2012, p. 38). Carrillo contends that static approaches do not influence people's priorities because change is continuous (Carrillo, 2012, p. 35). She states that "management's control over people's behavior, complex technology or the environment is severely limited" (Carrillo, 2012, p. 36). Carrillo contends that traditional approaches, including those founded upon the scientific method, fall short when viewed within the context of chaos theory and quantum physics (Carrillo, 2012, p. 37). Instead, she argues that theories such as Complexity Management Theory (CMT) and relationship psychology are better suited to maintaining safety priorities (Carrillo, 2012, p. 35). She asserts that continual reinforcement is essential to keeping safety as a priority (Carrillo, 2012, p. 37). Carrillo cites earlier research that found there was no direct evidence linking behavioral observations to positive safety performance. She contends that observations are not the change agent because they exist at a fixed point in time. Instead continuous reinforcement is needed (Carrillo, 2012, p. 38). Carrillo uses reporting from large organizations that have attempted BBS to note that BBS reporting is largely unreliable (Carrillo, 2012, p. 38).

Carrillo concedes that even with its shortcomings BBS has had recorded success. She suggests that BBS successes can be attributed to "intense communication forums, training on proper social interaction, and management commitment" (Carrillo, 2012, p. 38).

Carrillo indicates that relationship psychology "proposes that people decide what they believe based upon conversations with people they trust" (Carrillo, 2012, p. 39). She indicates that "because multiple stakeholders influence priorities, repeated face to face communication is considered the most effective way to maintain attention" (Carrillo, 2012, p. 39). Carrillo quotes an earlier researcher who stated "BBS largely ignores the fact that loss prevention is not primarily a technical or behavioral problem: it is primarily a social or cultural problem" (Carrillo, 2012, p. 38). In essence it seems that Carrillo believes that ongoing communication, interaction, and feedback are essential to success. A fundamental difference then would be that CMT and relationship psychology rely upon external drivers for changes in behavior. BBS relies upon external drivers to produce an internal, personal driver or motivation.

A 2014 study likens BBS to a "practice" run for another method, Actively Caring for People (AC4P)(Geller & Veazie, 2014, p. 45). The authors view AC4P as an evolved form of BBS (Geller & Veazie, 2014, p. 44). In this report the authors contend that BBS is too mechanistic to be truly effective (Geller & Veazie, 2014, p. 45). In large measure the authors assert that the primary difference comes from the formality of BBS, versus the informal, continual process of actively caring (Geller & Veazie, 2014, p. 46). They contend that self-motivation for safety is rare and that caring "comes easily" (Geller & Veazie, 2014, p. 46). Part of the authors' rationale is that in their view success within

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BBS is measured with far fewer observations than in AC4P. The authors contend that five person states influence a person's willingness to perform AC4P. These include self-esteem, self-efficacy, personal control, optimism, and belongingness (Geller & Veazie, 2014, p. 47). The authors also point out that AC4P is contrary to natural behavior (Geller & Veazie, 2014, p. 49).

Conclusions

While these studies provide some excellent lessons regarding trust, feedback, and perceived value, they also generate a number of questions from a multi-generational workforce perspective. This study built upon existing BBS literature by investigating the potential impact of various generations on the acceptance of observations and feedback within a Behavior Based Safety program.

Chapter 3

Methodology

Context of the Study

Because this is a comparison study, a quantitative research method was used (Bouma & Ling, 2006, p. 95). A survey was developed using a continuum of the criteria strongly agree, agree, neutral, disagree, and strongly disagree. Twenty questions were developed with four domains: Leadership Responsibility (LR), Employee Involvement (EI), Peer Feedback (PF), and Employee Observations (EO). The questions and domains were structured in order to quantify results by generation and to determine generational trends and differences between generations in these areas. Totals were aggregated by generation and then graphically evaluated and compared. Questions 13 and 19 were written in the negative so as to require respondents to answer in the negative for an affirmative response. Data from these questions was inverted in the calculations for consistency.

Selection of Participants

Participants in this study were employees of the selected firm. The total population of 400 employees was solicited for participation in the survey. Results were aggregated across the company. A total of 347 surveys were distributed with a total of 136 responses. This represents a 39% response rate. Participation was voluntary and informed consent attestations were obtained for each participant.

Research Question

This research sought to answer one research question. Within the target population, is there a distinction between Baby Boomers, Generation X, and Millennials in how they perceive the parameters of leadership responsibility, employee involvement, peer feedback, and employee observations and do these perceptions suggest how a multi-generational workforce may accept observation and feedback within a BBS system?

Data Collection

A total population sampling method was used based upon the independent variable: generation. Participants were selected based on their employment within the organization under study. Generation is based upon three generational groups (Baby Boomers born 1946-1964, Generation X, born 1965-1977, and the Millennial Generation born 1978-1998.

Within the target company there was insufficient response from Gen 2020 (1998 or later) (one response) to be of analytical value. There was a total of 70 respondents for the Millennial generation (1978-1998), 40 respondents for Generation X (1965-1977), and 25 respondents from baby boomer (1946-1964) employees. This volume of response across the three generations provided an adequate amount of data for analysis within each generation. Both males and females participated within each generation, but this distinction was not made in the analysis due to a statistically low number of female respondents.

The company coordinator solicited all employees to participate in the study. Respondents completed the survey and informed consent and returned each document separately. Surveys were provided to the company coordinator in digital format. They were administered over a one week period. The results were emailed back to the university and were aggregated into a Microsoft Excel spreadsheet. The university then provided a completed spreadsheet to the researcher for analysis.

Data Analysis

The spreadsheet was arranged with individual respondent and generational responses as well as percentage of responses for each domain. This data was then tabulated in graphic form for analysis. Data for the line graphs was a simple average of the generational responses across each domain. For example the Millennial scores for Peer Feedback were averaged for Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree for the three questions in that domain. This process was used for all domains and all generations. Results were then tabulated for each generation and domain using Microsoft Power Point. Data used in bar graphs in the List of Figures were the actual percentage response for each question in each domain by generation.

Chapter 4

Research Findings and Analysis

The Leadership Responsibility (LR) domain describes employee perceptions of the company management's role and responsibility in setting and enforcing safety rules and standards. As depicted in Figure 1, all three generations are similarly disposed to strong company leadership roles. All three generations agreed that they were comfortable reporting safety concerns to their managers, that safety rules were necessary, and that leaders should set the example and follow through with corrective actions.
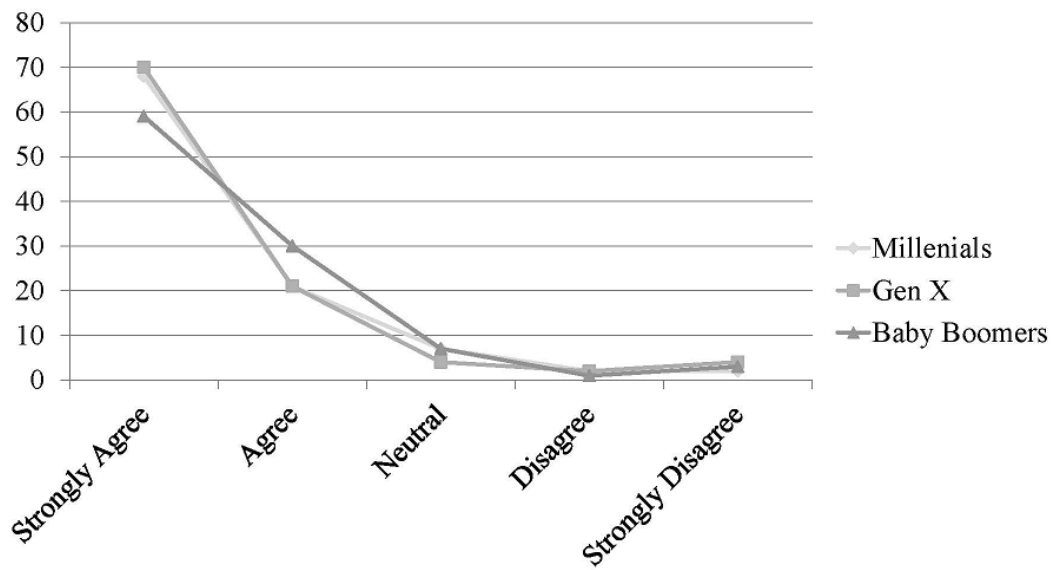
Figure 1: *Leadership Responsibility*

Figures B-1 through B-3 in Appendix B, List of Figures, provide a summary of each generation's responses.

The Employee Involvement (EI) domain describes employee perceptions of their actual or expected role in following safety rules and in participating in the development of safety procedures. Figure 2 indicates that there was strong agreement, particularly between Millennials and Generation X employees.
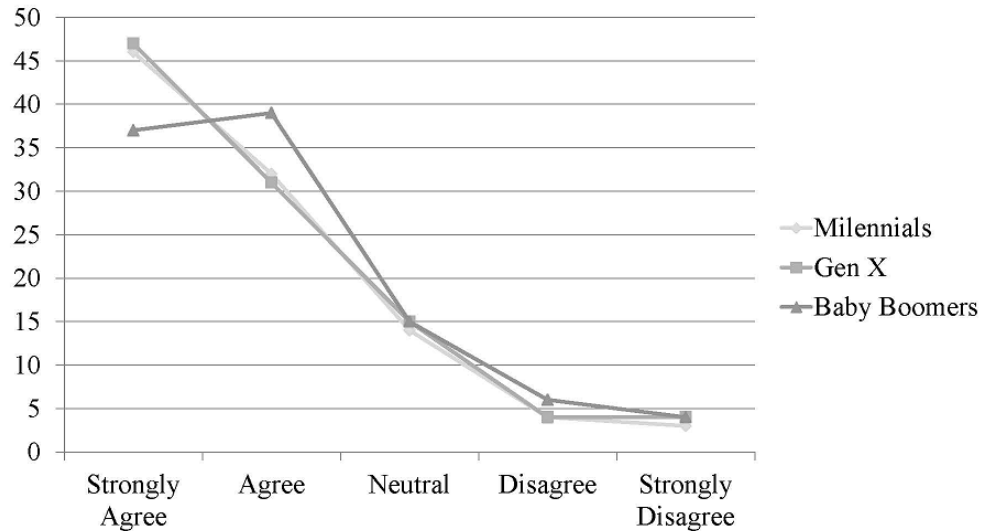
Figure 2: *Employee Involvement*

Figures B-4 through B-6 show that all three generations indicated that they strongly believed in the need for effective communication, that unsafe conditions should be immediately reported and that employees should look out for each other. The teamwork represented by these results is reflective of the collaborative and consensus characteristics of the Millennials and the Baby Boomers as depicted in Table 1, but is not as readily apparent in Generation X. However, it could indirectly be reflective of Generation X's need for constructive feedback.

The Peer Feedback (PR) domain describes employee perceptions of their actual or expected use of formal and/or informal constructive observation and discussion to report to an individual his/her actual performance vis-à-vis established safety norms. Again, there was a very close alignment between all the generations. As depicted in Figure 3 all three generations strongly agreed that peer feedback was valued.
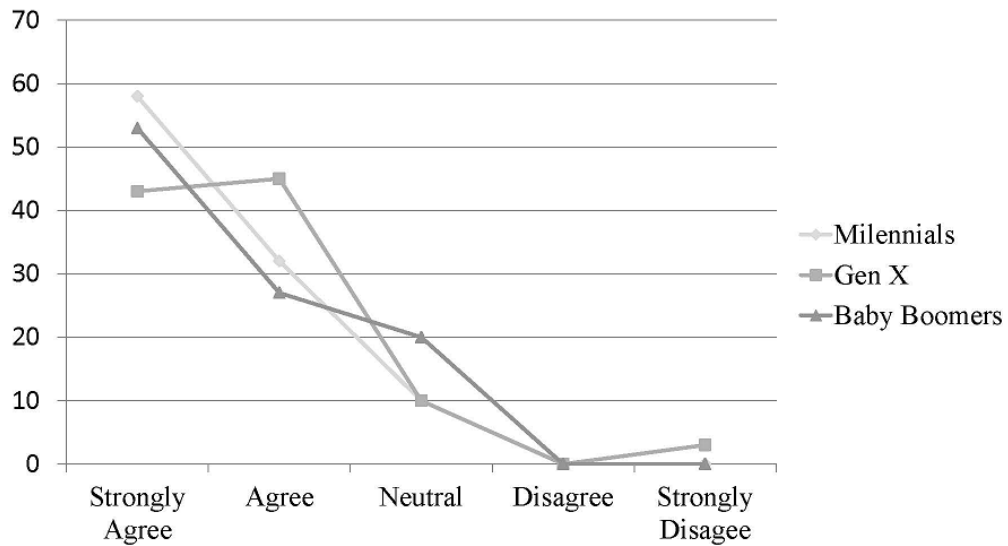

Figure 3: *Peer Feedback*

Peer feedback appeared to be valued slightly more by the Millennials and the Baby Boomers, than by Generation X. These results appear to be consistent with the generational characteristics as reflected in Table 1. Figures B-7 through B-9 provide a summary of each generation's responses.

The Employee Observation (EO) domain describes employee perceptions of actual or expected observation and evaluation of an individual employee's performance and the reporting of such observations. As depicted in Figure 4, there was a greater

dispersion of results for this domain. In general the three generations were more neutral in their views of being observed or observing others.
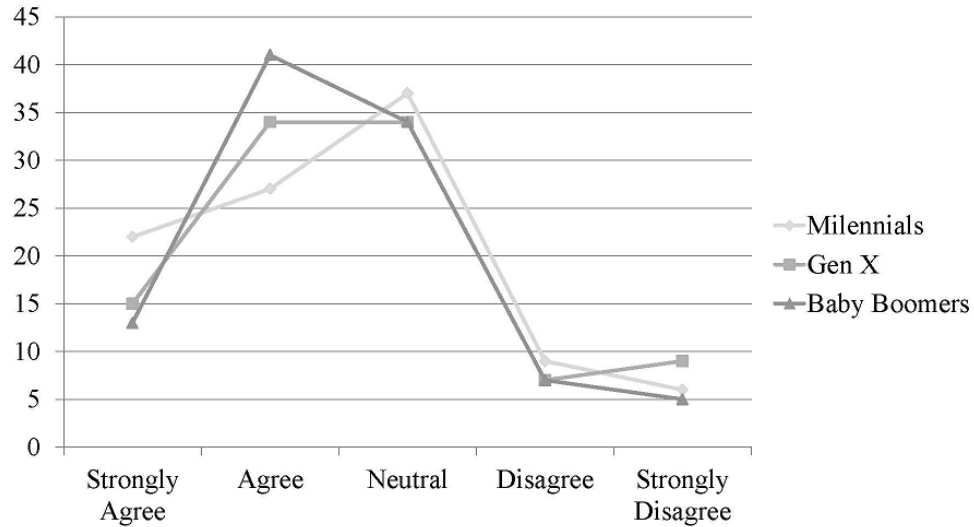
Figure 4: *Employee Observations*

Figures B-10 through B-12 illustrate that the three generations were accepting of being observed and observing (as opposed to strongly agreeing with it). This appears to be contradictory to the generational characteristics of mentoring and seeking feedback as shown in Table 1.

Question 19 asked "My work experience allows me to take risks lesser experienced employees should not take". The results for question 19 were very revealing regarding each generation's view of risky behavior. As shown in Figure 5, Generation X

was much more disposed to taking risks than either the Millennials or the Baby Boomers.

This may be directly related to their level of risk tolerance (Zemke, Raines, & Filipczak,

2013, p. 108). These results are also provided as a bar graph in Figure B-13 in Appendix

B.
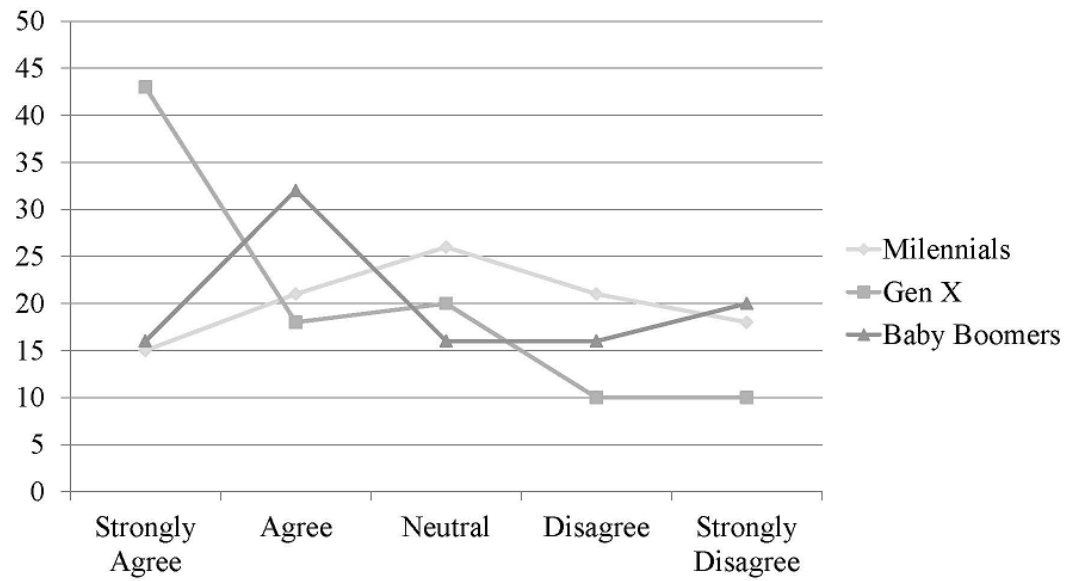
Figure 5: *Question 19* Line Chart*

Chapter 5

Discussion and Implications

This study found that within the target company the three generations, Baby Boomers, Generation X, and Millennials share similar perspectives regarding Leadership Responsibilities, Employee Involvement, and Peer Feedback. There appear to be differences regarding Employee Observations. The differences may be attributable to generational characteristics as found in Table 1. Also noted was a higher level of risk acceptance by Generation X. These findings suggest that other generational characteristics that were not measured in this study may also be present. Some examples of such relevant characteristics include types of acceptable rewards and technological savviness. Some characteristics that were measured appear to be contra-indicative of the acceptance of feedback and monitoring. This suggests that the target workforce may not be as amenable to the required feedback and observation required for BBS. In order for the feedback and observation to be effective, it would seem that the employer will need to market the concept to each generation differently. The Millennials are predisposed to rewards that are linked to performance. Thus, rewards that are soon, certain, and positive and that are linked to effective safety metrics may be best used with this cohort. As listed in Table 1, Generation X seeks career development and learning opportunities. Developing feedback and observation metrics that accentuate growth and development potential may be able to garner this cohort's support. Baby boomers have a great deal of experience and seek public recognition. Looking for seasoned boomers to take on the

role of mentor to the younger generations can garner their support and create mutually supporting relationships between the generations.

This study has shown that there are commonalities and differences in the perceptions of the Baby Boomer generation, Generation X, and the Millennials as it pertains to their perception and acceptance of observation and feedback within a single company. Additional research should be conducted to expand this analysis across multiple industries and regions across the country so as to gain a solid basis for adapting BBS methodologies to the modern multigenerational workforce.

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Appendix A - Generational Survey

Consent

The purpose of this survey is to understand the level of employee acceptance of key components of behavior-based safety. There will be no risks or foreseeable discomfort related to the survey. Records related to this research will be submitted by you anonymously and will be maintained confidentially via hard copy and electronic files. Participants may contact Ed Grzybowski at edward_grzybowski@mymail.eku.edu with any questions throughout the process. Participation in taking this survey is voluntary. Refusal to participate will not result in a penalty. Participants may discontinue participation at any time without penalty.

Birth Year **Position** **Gender**

Birth Year	Position	Gender
☐ 1999 or after	☐ Production	☐ Female
☐ 1978-1998	☐ Office Staff	☐ Male
☐ 1965-1977	☐ Manager	
☐ 1946-1964		

Questions

	Code	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I feel comfortable reporting safety concerns to my manager.	LR					
Communication between employees and managers is effective.	EI					
I like receiving feedback on my work performance from my peers.	PF					
I like receiving feedback on my work performance from my supervisor.	PF					
I like receiving feedback on my work performance from those who are below me in our organizational structure.	PF					
I like people observing me while I do work.	EO					
I am willing to let people observe me while I do work.	EO					
I like to observe people doing their work.	EO					
I am willing to observe people doing work.	EO					
I like making recommendations to improve safety.	EI					

Employees should look out for each other.	EI					
Co-workers will change their work behavior if I provide them with feedback on behavior I see.	EI					
I believe safety rules are not necessary.	LR					
Everyone should report unsafe conditions immediately.	EI					
Leadership should set the example for safety.	LR					
I believe leaders should follow through with corrective action to address safety issues.	LR					
I have engaged in a formal peer-observation process.	EO					
I have been involved in developing a peer-observation checklist.	EO					
My work experience allows me to take risks lesser experienced employees should not take.	EI					
I am familiar with behavior-based safety.	EI					

Appendix B -List of Figures
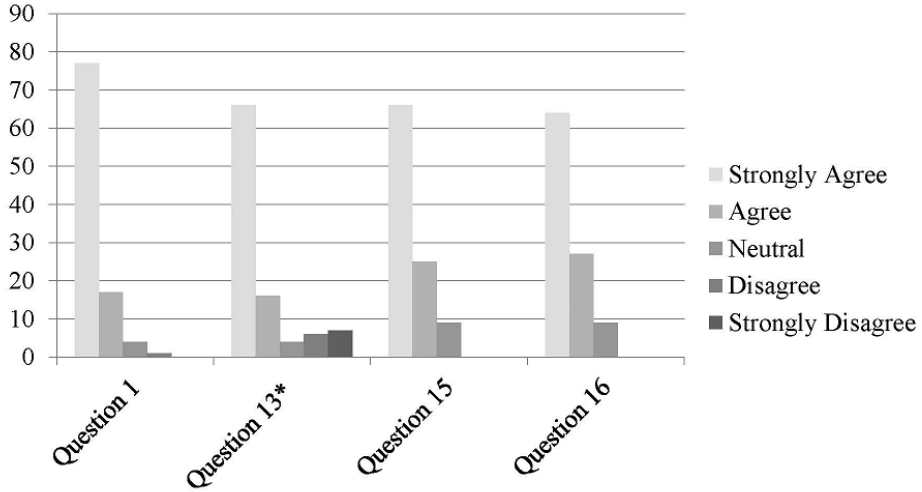
Figure B-1: *Leadership Responsibility – Millennials*
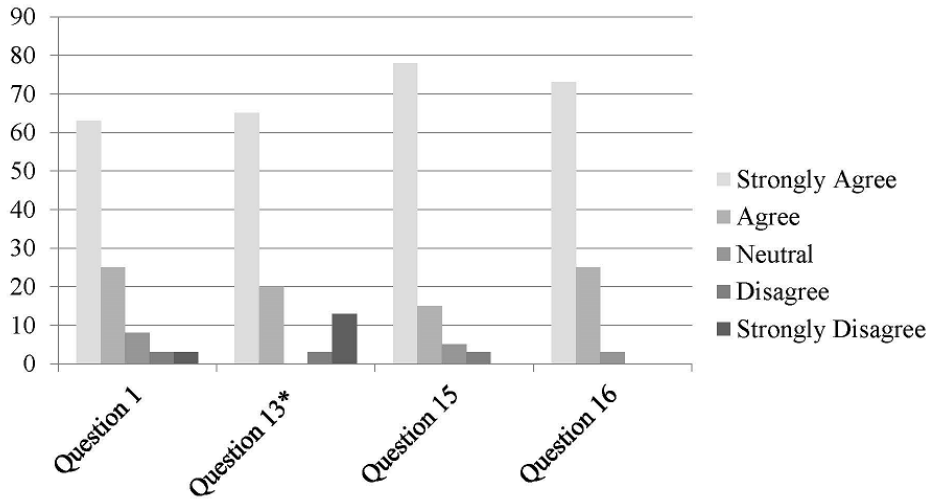
Figure B-2: *Leadership Responsibility – Generation X*
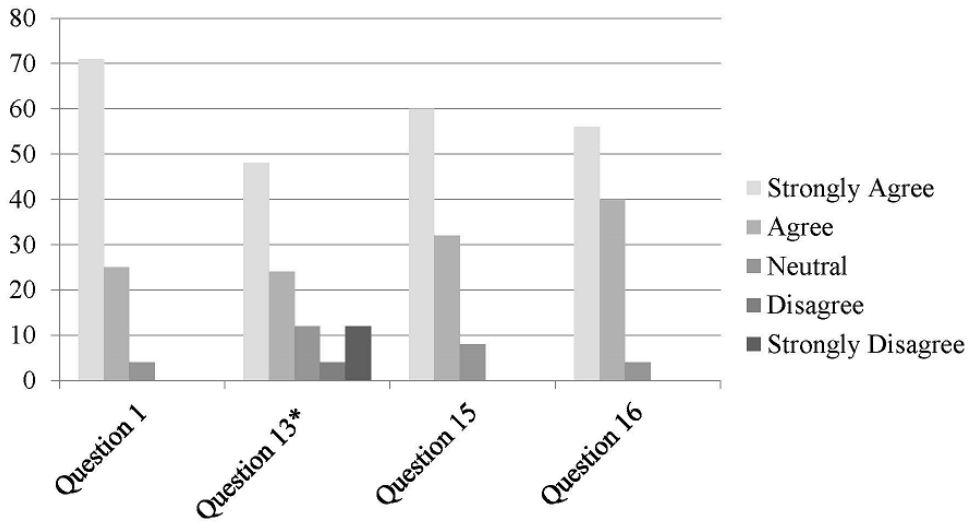
Figure B-3: *Leadership Responsibility – Baby Boomers*
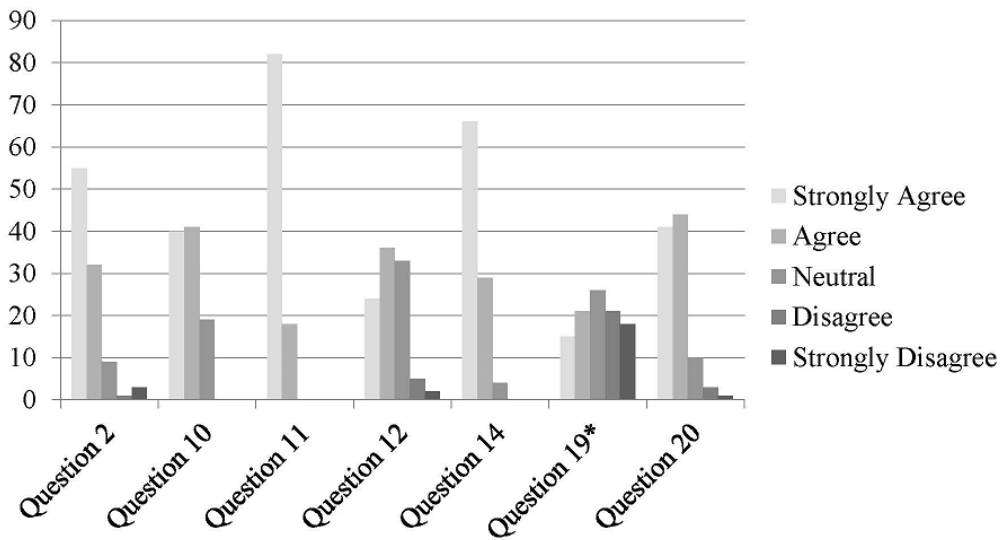
Figure B-4: *Employee Involvement – Millennials*
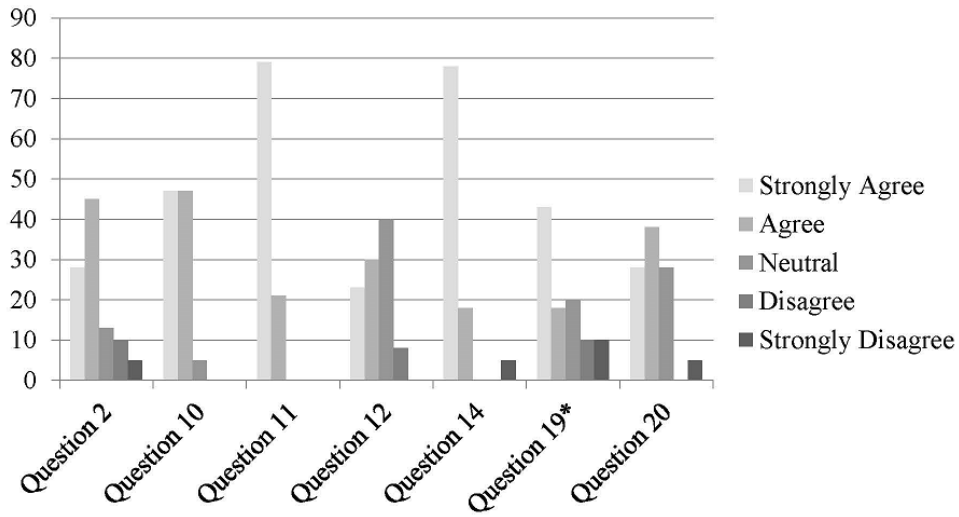
Figure B-5: *Employee Involvement – Generation X*
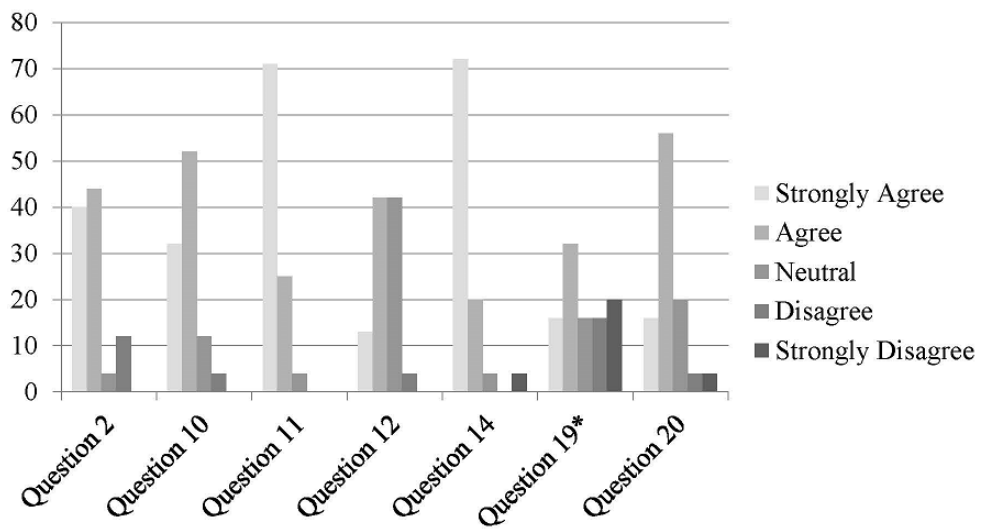
Figure B-6: *Employee Involvement – Baby Boomers*
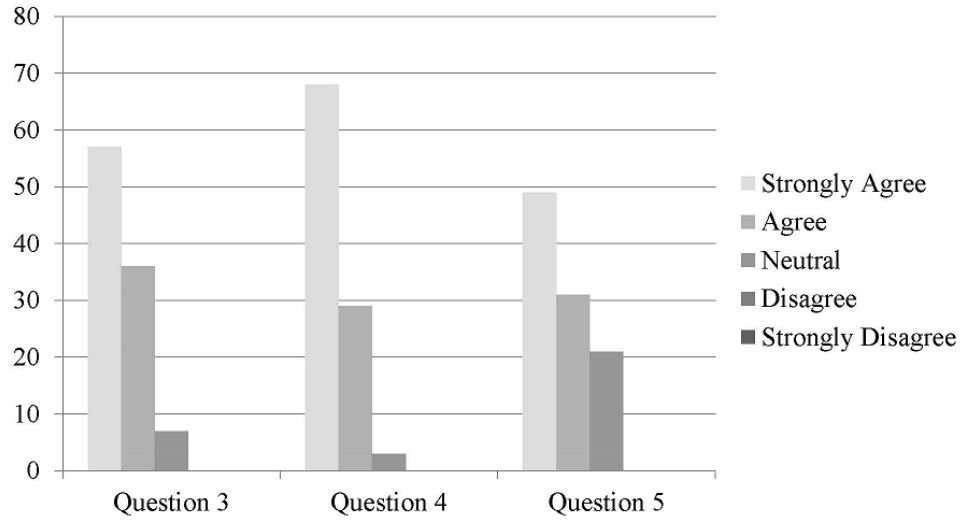
Figure B-7: *Peer Feedback – Millennials*
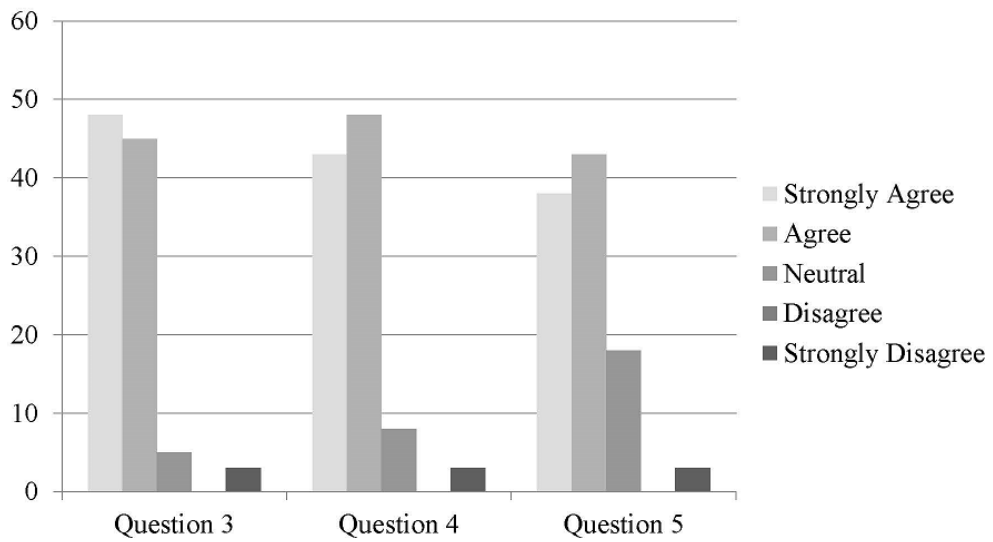
Figure B-8: *Peer Feedback – Generation X*
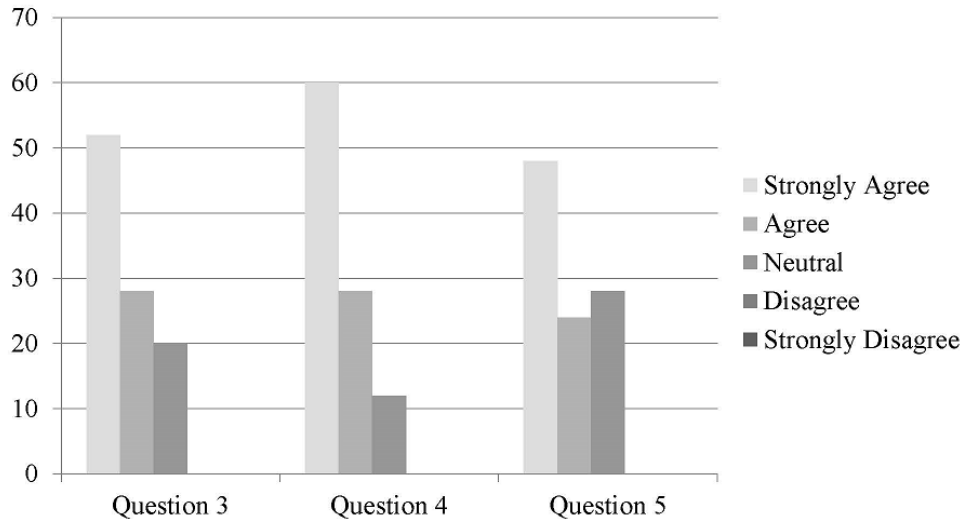
Figure B-9: *Peer Feedback – Baby Boomers*
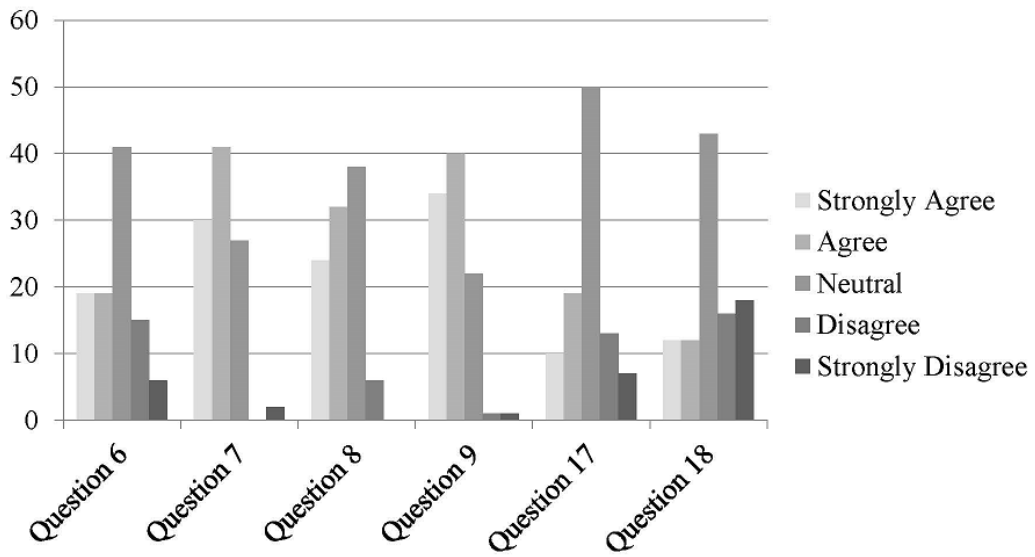
Figure B-10: *Employee Observations – Millennials*
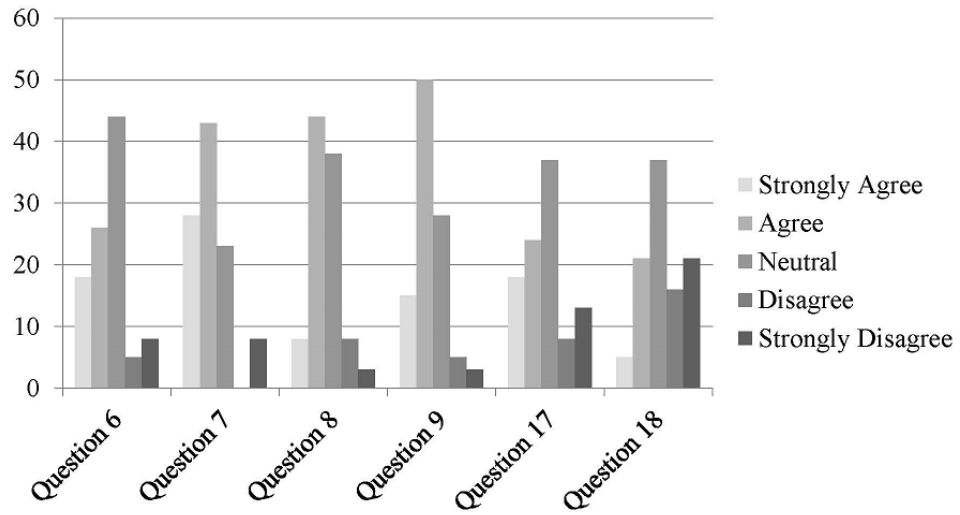
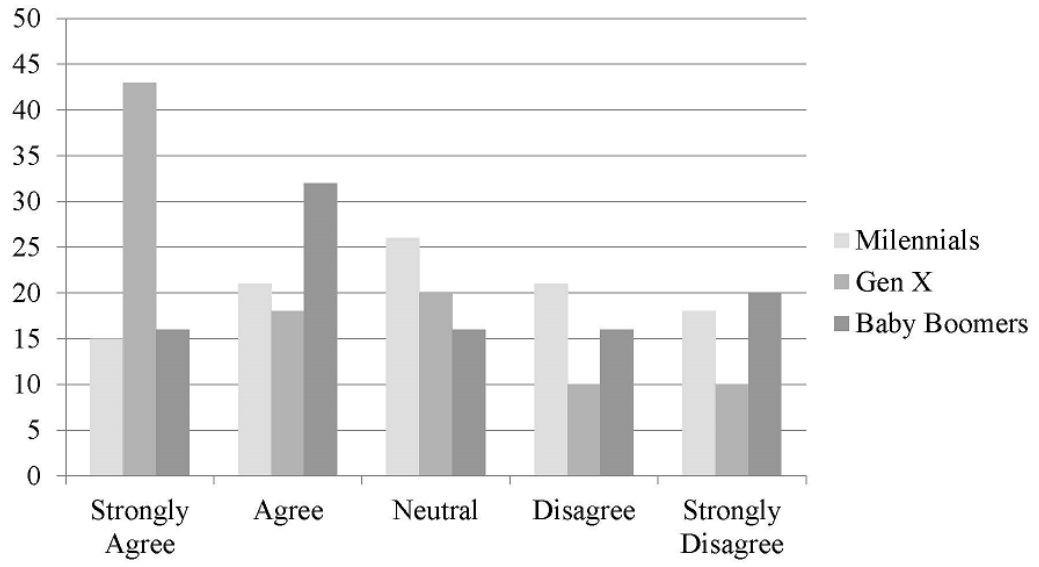Figure B-11: *Employee Observations – Generation X*
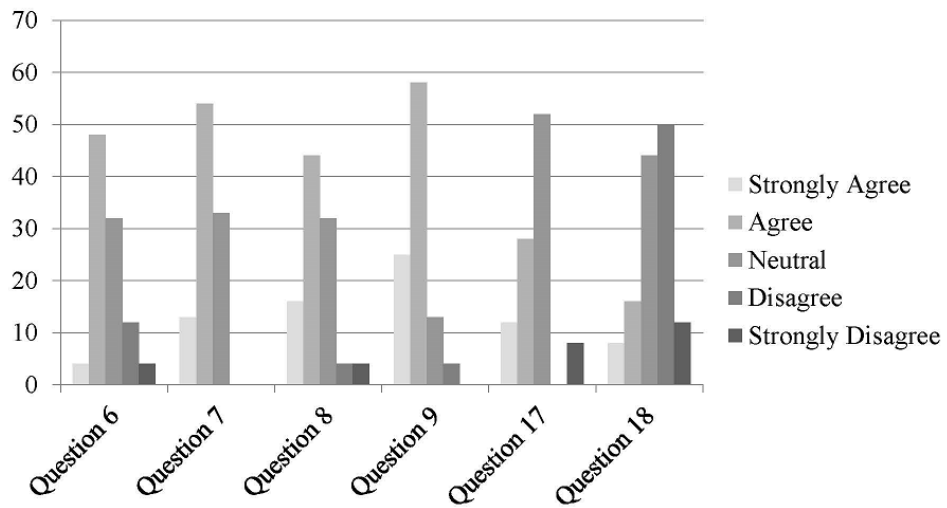
Figure B-12: *Employee Observations – Baby Boomers*

Figure B-13: *Question 19* Bar Chart*