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Goal-Setting and Prompting to Increase ID-Checking Behavior

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**GOAL-SETTING AND PROMPTING TO
INCREASE ID-CHECKING
BEHAVIOR**

A Master's Thesis

Presented to

The Graduate College of
Missouri State University

In Partial Fulfillment

Of the Requirements for the Degree

Master of Science

By

Samantha Carton

May 2020

GOAL-SETTING AND PROMPTING TO INCREASE ID-CHECKING BEHAVIOR

Psychology

Missouri State University, May 2020

Master of Science, Applied Behavior Analysis

Samantha Carton

ABSTRACT

Credit card fraud is an important issue that occurs in many different business settings and locations across the world (Federal Trade Commission, 2018). The United States shifted to the use of Europay, Mastercard, and Visa (EMV) system to help with this issue but credit card fraud continues unabated. ID-checking is infrequently performed by employees when customers are purchasing items with debit/credit cards and results in an increase in fraudulent charges that cost businesses and consumers a considerable amount of time, frustration, and money. Two studies (Geller 1997; Geller 2001) showed that by using goal-setting, feedback, prompting, and utilizing managerial involvement it was possible to increase the ID-checking behavior of employees. The purpose of the current research was to increase the ID-checking behavior of employees at a small clothing store in southwest Missouri using goal-setting, prompting, and performance feedback. Results are discussed in relation to manager support/presence, environmental consistency, and goal-setting.

KEYWORDS: id-checking, group feedback, goal setting, credit card fraud

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A Master's Thesis
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Of Missouri State University
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May 2020

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In the interest of academic freedom and the principle of free speech, approval of this thesis indicates the format is acceptable and meets the academic criteria for the discipline as determined by the faculty that constitute the thesis committee. The content and views expressed in this thesis are those of the student-scholar and are not endorsed by Missouri State University, its Graduate College, or its employees

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INTRODUCTION

Credit card fraud happens throughout the United States and the rest of the developed world. It occurs in many different businesses and locations, and in many different forms. The U. S. shifted to the use of the Europay, Mastercard, and Visa (EMV) system in stores in the past few years due to the sizable number of large-scale data breaches that have occurred. This system is a global standard for cards that are equipped with computer chips, which contains technology that was used to authenticate chip-card transactions (Kossman, 2017). Even when cards were equipped with this new technology, it did not fully protect consumers from fraud. If the debit or credit card were to be stolen from the consumer, the card could still be used.

Most consumers and business owners underestimate the extent of the problem related to credit card fraud. In a conference call report from the federal trade commission that was published in March of 2018, it was reported that consumers lost a total of 905 million dollars in 2017 due to fraud, which was a 63 million dollar increase from 2016. The amount of fraud actually decreased between the 2016 to 2017 year, but still made up 23 percent of the consumer complaints. Of the 23 percent of consumer complaints, 14 percent of it were related to credit card fraud. The median amount of fraud that was reported for each consumer was 429 dollars. Based on the information highlighted above, it is obvious that credit card fraud (and fraud generally) were significant problems. Having employees check IDs when consumers were using debit or credit cards could lead to a decrease in the amount of fraud that occurs (Federal Trade Commission, 2018).

Consumers aren't the only ones to lose when fraudulent activity occurs due to credit or debit card theft. When someone steals a consumer's credit or debit card the victim usually bears

the cost of spending time trying to resolve the issue and reporting the fraudulent activity to the correct institutions. In some occurrences, the victim would have to spend money on lawyer fees. The store owner and/or credit card company bear the bulk of economic costs in the majority of situations. Anderson, Durbin and Salinger (2008) pointed out that a way to decrease the amount of fraudulent activity in stores was by using a “knowledge-based authentication process” which means checking photo ID’s when consumers were making purchases to ensure the person using the card was the person that it said they were.

Developing an intervention including a feedback component to the intervention package, could increase the effectiveness of the intervention as a whole. In a study looking at the “acquisition and maintenance of health-care routines”, the results showed when feedback was utilized with the employees there were increases in acquisition, but there were no increases in the absence of feedback. The study showed a functional relationship between feedback that were individualized and the increased improvement of health-care routines (Alavosius & Sulzer-Azaroff, 1990).

Another study supported the use of a manager or supervisor leading the intervention (Ludwing & Geller 1997). The results showed that when managers led the meeting to inform employees of the goals and provided their feedback it led to better outcomes. It also found that it did not matter which form of goal setting, participative versus assigned, were used because they were both effective when paired with feedback (Ludwig & Geller, 1997).

Results from Boyce and Geller (2001) also supported the findings that having on-site personnel delivering feedback or contingencies would strengthen the intervention. The results also showed that providing information about the reasoning for the target behavior being studied would help increase the likelihood of maintenance of the intervention after it is withdrawn. They

included the following steps to combine with feedback to increase the maintenance of the intervention: a) educating on the benefits of the utilization of the target behavior and the costs of not performing the target behavior, b) utilizing not only positive feedback, but also corrective to help reduce the chances of mistakes, c) training and goal setting that involves the employees and management to increase or decrease the target behavior, and d) utilizing feedback that is specific and individualized to employees (Boyce & Geller, 2001).

There were five points highlighted that were needed in order for a behavior safety process to be long-lasting and effective. Those included a) everyone in the business were trained and involved in the education aspect of the business, b) employees were involved in the design so as to create an atmosphere where everyone had a say and was involved, c) monitoring was done from inside the company by someone or multiple people that were given that responsibility, d) data was collected in an effective and formal manner as to best capture the effectiveness of the intervention, and e) those involved received feedback and recognition for their work (McSween & Matthews, 2001).

Involving management in the goal-setting and feedback process has shown continued success with the interventions that were implemented even after they were withdrawn. This was demonstrated in a study that was completed with operating room employees in a hospital using the hands-free approach when dealing with utensils. Management was involved in this intervention by setting goals with the employees, clarifying how the hands-free approach should be implemented, and then providing feedback to the employees based on completion of the desired behavior. The results showed that this treatment package was effective and increased the occurrence of the hands-free technique in operating room by over 30 percent in both the outpatient and inpatient ORs (Cunningham & Austin, 2007).

According to a study that was conducted by Cunningham and Austin (2007) on “using goal setting, task clarification, and feedback to increase the use of the hands-free technique by hospital operating room staff,” the authors found that this treatment packages was effective in increasing hands-free technique usage. They also stated in their findings that “it is possible that the feedback component was the most powerful component (Alavosius & Sulzer-Azaroff, 1990).”

Other research supports that managerial involvement in the intervention led to higher increases in employee performance and sustained rates after the termination of the intervention. In a review article by Sigurdsson and Austin (2010), the authors concluded that when giving feedback to employees it is recommended that it comes from a supervisor due to them being the one controlling the consequences that follow. Also, managers or supervisors in businesses were equipped with more knowledge about how the business operates on a daily basis and about their employees than someone outside of the company when trying to provide constructive feedback.

Downing, Capriola, and Geller, (2018), examined employee ID checking behavior by utilizing management involvement, prompting, and then withdrawing the intervention. They found that by having the manager presenting the ID checking intervention to the employees and providing the prompting throughout, there were significant increases in the number of ID's checked. Another finding was that having the manager present during the employee's shifts had a positive effect on the number of ID's checked compared to when the manager was not present. Although the intervention did result in increases in ID checking, when the intervention was withdrawn, the data showed a decline in the number of ID's being checked by the employees (Downing, Capriola & Geller, 2018).

According to Downing and Geller (2012), many cases of credit/debit card fraud go unreported by consumers. As a result it is difficult to know how many individuals are effected. The authors explained that if cashiers started checking ID's when people were paying with debit/credit cards, that the number of criminals that could be caught would be very large. In their study, the authors implemented a goal-setting and feedback intervention to help increase the number of cashiers who were checking ID's at a large grocery store. The results showed that ID checking by cashiers can be increased by using goal-setting and feedback and that most of the customers involved reported that having their ID's checked was not an inconvenience. Some of the limitations of this study was that the managers had little involvement, after the intervention was withdrawn the percentage of ID checks returned to near baseline levels, and the store had many customers that came in frequently so staff were familiar with them (Downing & Geller, 2012).

In the present study, a clothing store manager led a goal-setting, prompting, and feedback intervention to increase the occurrence of the ID checking behavior by employees when consumers were using a debit/credit card to purchase their items. Goal-setting goals were developed based on the previous cited research. It was shown by Ludwig and Geller (1997), that there were no benefits to using participative goals versus assigned goals, so the manager of this clothing store chose the overall goal for the employees. The prompting procedures that were used followed the guidelines proposed by Geller, Winett, and Everett (1982), which were a) behavior specific, b) presented in an area that the behavior will be able to occur, and c) the behavior that was being asked to emit was relative and easy for the employee. Finally including feedback from a manager or supervisor had been shown to increase the effectiveness of the

intervention and also was a component (e.g. Alavosius & Sulzer-Azaroff, (1990) & Ludwig & Geller, (1997)).

The goal of the current study was to increase ID-checking behavior of employees of a small clothing store by using goal setting, prompting, and group feedback. Employees completed a behavioral assessment (Austin, 2000) before the study began and completed a social validity survey at the conclusion of this study. In addition to using a different type of business setting, this systematic replication began with an assessment of employee motivation (PDC: Austin, 2000) and collected social validity data at the end of the study to evaluate treatment acceptability.

METHOD

Participants

Participants included 12 employees working at a small clothing store located in southwest Missouri. The business employed twelve female employees, ranging in age from 18 to 23 years old. The business was located off busy main road in a medium-sized city with an overall population of 167,319 resident.

Materials

Materials used were the observation checklist (Appendix A) and three scripts that the manager sent out in a group chat forum to all the employees, explaining the goal and the reasoning for the start of the ID-checking and small visual prompts that were placed at the cash register (Appendix B and C). Prior to the start of my study, the author obtained approval to run this study through the institutional review board (IRB) on February 2, 2019 (Appendix D).

The observation checklist allowed for the collection of data including the employee's name, whether or not they checked ID, whether the manager was present during the observation, and the time/date of the observation (Appendix A).

A 2.75 inch by 6.25 inch sign was used. The prompt was typed in a bold, 53-point Times New Roman font. As shown below in Appendix B, the message that was typed on it read, "Remember to check the customer's ID when they pay with a debit or credit card!". Behind the message there was an image of person's hand holding a credit card and handing it to another person's hand. The manager provided feedback every week on Monday letting the employees know what percentage of ID's were checked the previous week.

Another 2.75 inch by 6.25 inch sign was used to remind cashiers of their goal of checking 80% of customer ID's. The prompt was typed in a bold, 53-point Times New Roman font. As shown below in Appendix C, the message that was typed on it read, "Remember our goal of 80% ID checks when customers are paying with a credit and debit card! (Downing, Capriola & Geller, (2018)". Behind the message there was an image of a person's hand holding a credit card and handing it to another person's hand. The manager provided feedback on Monday of every week letting the employees know what percentage of ID's were checked the previous week.

The author also used the performance diagnostic checklist (PDC) to assess employee motivation beforehand (Appendix E). The PDC evaluated the knowledge base of employees on their job responsibilities, the effectiveness of the work environment, resources available to employees to better complete their job, and what consequences were provided if employees do not complete their job at an expected level of satisfaction (Appendix E). A social validity survey was provided to all employees after the withdrawal phase to inquire about their opinions on the effectiveness of the method that was utilized in this intervention (Appendix F).

Design

The experimental design used was an A-B-C-D-A reversal design.

Procedure

ID-Checking. An observer stood behind the check-out counter by a computer that was not used by employees and recorded the ID-checking behavior of the employees as they checked-out the customers. The observer was approximately ten feet from the cashier. The observer recorded the date and time, the employees' name, if the manager was present in the

store, and “Y” or “N” if the employees asked for the customers ID when they made a purchase on the data sheet or a “C” if the customer paid with cash or a gift card (Appendix A). Cashiers were told that the observers were there to collect data on cellphone usage in order to minimize participant reactivity.

Observations were conducted during the busiest times of the day, as reported by the manager of the store. Observations occurred from 4:00 pm to 6:00 pm on Fridays and 1:00 pm to 3:00 pm on Saturdays. In order to collect interobserver agreement (IOA) data, a second observer was present during 35% of the observation periods.

The Performance Diagnostic Checklist (PDC). The PDC is a 20-item survey of employee motivation and knowledge of their job duties (Appendix E). See Appendix E for an example of the PDC administered to all of the employees before the study began. The PDC was administered to employees to gather information to evaluate their basic knowledge on their job role and what was expected of them while they were on shift (Appendix E). It also utilized questions to address if the employees were in need of further training, if the work environment was causing the employees to not perform to their full abilities and if additional training would lead to higher work performance (Appendix E). There was also a section in the PDC that utilized questions to address if employees were already receiving feedback and/or praise for how they were currently performing their job (Appendix E). The function of the PDC when administered was to identify deficits in the work environment, equipment, and communication with a store’s employees (Appendix E).

Baseline. During baseline, the observer stood behind the check-out counter by a computer that was not used by employees and recorded the ID-checking behavior in the absence of goal-setting, prompting and managerial feedback. Employees were told that the observer was

present in the store to take data on the amount of phone usage when they were on shift. In this way, employees behaved as they typically would with id-checking behavior.

General Visual Prompt and Manager Feedback. The first intervention included a visual prompt (Appendix B) and manager feedback to increase and provide consistent responding by the employees. Prior to implementation, the author shared the results of the PDC as well as the baseline data with the manager (Appendix E). The results of the PDC helped guide the specific intervention applied. After two weeks in baseline, the manager sent out a text in a group text message forum to all the employees explaining the ID-checking by using a script sent from the author (see below).

“Hello ladies, since we have started using the new cash register system, I would also like to start checking customer’s ID’s (identification) when they pay with a debit or credit card. This will increase the safety and security of our customers when they are shopping with us. With that being said, starting today, I would like everyone, including myself, to start asking every customer who pays with a debit or credit card to see their ID when they purchase items. When checking ID’s make sure the name on the card matches the name shown on the ID. This will be a group effort, so I expect everyone to work together and keep each other accountable. If you have any questions, please let me know. Also, everyone make sure to respond to this text so I know everyone has read it. Thank you!”

After all questions were answered and all employees responded stating that they had read the text, the manager taped the reminder prompt to the cash register to help remind employees of the ID-checking expectation.

Feedback was provided to the employees in the form of group feedback. The feedback was delivered by the manager every Monday in the form of a text in the group forum. A typed script was provided each Monday to the manager that included a general percentage amount of

ID's that were checked the previous week and positive feedback to keep working on checking ID's. This intervention was conducted for 21 days.

Goal Setting, Visual Prompt, Manager Feedback. The second intervention added goal setting to the previous treatment (prompts and feedback) to test if more consistent and effective responding would be obtained when a specific goal was stated. Before the second intervention started, all the data were shared with the manager and in discussion with the author, a reasonably attainable goal for ID-checking behavior was determined. The goal was not determined until the end of the first intervention phase.

After three weeks in the first intervention phase, the manager sent out a text to all the employees in the group forum explaining the new ID-checking goal, using a script that was provided by the author (see below).

“Hey everyone, I appreciate everyone working together to check ID's when customers are paying with a debit or credit card in the store. With that being said, I wanted to set a goal that we will work together to check at least 80% of all customers ID's when they pay with a debit or credit card. I know this is a stretch from what I have been seeing currently in the store, but I know that we can do it! Remember that we're doing this to ensure the safety and security of our customers when they shop with us! Let me know if you have any questions. Please respond to this text to let me know that everyone has read this. Thank you!”

Once the manager reported that all questions had been answered and everyone had responded to having had read the text, the old visual prompt (Appendix B) was removed and a new visual prompt with the 80% goal was posted on the register (Appendix C).

Feedback was delivered in the form of group feedback through the text forum that was used in the previous intervention every Monday. Each feedback text included a general

percentage of how many ID's were checked the previous week and positive feedback to keep working towards the goal. The second intervention lasted 21 days.

Goal setting, visual prompt, managerial feedback, contingent reinforcement. During the third intervention, the manager sent out a text message in the messaging forum that was used previously to inform the employees that contingent on the store reaching the 80% ID checking goal for three weeks in a row, a \$10 gift card would be provided to each employee. The visual prompt sign (Appendix C) that was used in treatment two remained. The script that was provided by the author (see below).

“Hello everyone! I wanted to thank everyone who is working so hard to reach our 80% ID-checking goal. I know that there are still employees who are not checking ID's when our customers are paying with debit or credit cards, so we have not met our 80% storewide goal. With that being said, if the store meets the 80% storewide ID-checking goal for three weeks in a row, all employees will be given a 10-dollar gift card. Let's keep up the good work and reach our goal! Let me know if you have any questions or concerns and please respond to this message so I know everyone has read it. Thank you!”

Once the manager had answered all questions and concerns that may have been presented by the employees and all employees stated they read the text, this intervention began. A script was provided to the manager with the average ID-checking amount from the previous week and positive feedback to continue working towards the goal. The manager provided this feedback to the employees through the text messaging forum, used previously, every Monday. This intervention phase lasted three weeks, 21 days.

Withdrawal. After nine weeks of the intervention phases, the sign that was taped to the cash register providing a visual reminder to check ID's was removed and the group managerial

feedback was no longer given. That was the beginning of the withdrawal phase and lasted two days.

Cashier Survey. At the end of the study, a cashier survey was given to each employee and the manager. The survey consisted of the following questions 1) did you notice the signs on the register, 2) do you think it's necessary to check ID's when customers pay with a credit or debit card, 3) did you like receiving group feedback on how often you were checking IDs, and 4) did you think the overall goal was appropriate (Appendix F). Question 1 was a Yes or No question and questions 2-4 were provided with a Likert-scale, with options ranging from strongly agree to strongly disagree (see Appendix F).

RESULTS

Reliability data were collected during ten observation sessions, sixty-five total purchases, representing 37% of all the observations completed by the researchers. Inter-observer (IOA) reliability was calculated for each dependent variable by dividing the number of agreements divided by the number of disagreements and x 100. The reliability score was 100% for all ten observations where there were two observers present.

The PDC (Appendix E) was administered to nine employees that were actively working in the store. The forms were left on the counter behind the register with a note requesting that all employees complete anonymously and leave them in a separate pile to be picked up during observations.

The results from the revised PDC showed 22% of staff answered “yes” to all the questions pertaining to the information section and 78% staff answered with a variation of “yes” or “no” to questions pertaining to the information section. Overall, 85% of the employees answered “yes” to the questions in this section (Figure 1). This section included questions such as if there was a written job description describing what the employees exact job responsibilities were, if they felt as though they had been given adequate instructions on what they were supposed to do, if they were aware of the mission of the store, if there was somewhere located in the store that an employee could look to be provided with information on what they were supposed to do on shift, if the manager was often present during the employees shifts, and if there were goals currently set that employees were expected to work towards.

In the equipment and process section of the revised PDC, 100% of staff responded to questions pertaining to the equipment being in good working order, the working environment to

being arranged in a manner that was organized and made working easier, and that there wasn't anything in the work environment that was keeping them from performing their job appropriately. Overall, 100% of the employees answered "yes" to the questions in this section (Figure 1).

The knowledge and skills section of the revised PDC showed that 100% of staff felt that they could tell someone of their job responsibilities if asked, that they were physically able to perform the work that was being asked of them safely, and that they felt that they would be able to do more pertaining to their job with more training. Overall, 100% of employees answered "yes" (Figure 1).

In the consequences section of the revised PDC, five employees answered "yes" to all the questions. There were 44% of employees who answered a variation of "yes" and "no" to the questions in the consequence section of the PDC. Questions that were included in this section include questions about if there were consequences delivered when they completed a task, if being praised for their job would lead to a higher job performance, if they noticed a difference in how the store ran if they perform job responsibilities correctly versus when they don't, and if they were currently receiving feedback from their supervisor on their job performance. Overall, 86% of the employees answered "yes" to the questions in this section (Figure 1).

The baseline phase lasted for a total of two weeks with a total of 40 purchases being observed. During the baseline phase, there were no visual prompts and the cashiers had been told that the observers were there taking data on the occurrence of phone usage in the store. The manager was not providing any group feedback on Mondays. Of the 40 purchases, five of those purchases were paid for with cash by the customer. Of the 35 remaining purchases, it was observed that none of the ID's were checked by the employees when the customer paid with a

debit or credit card (Figure 2). The manager was not present in the store during any of the observation times.

As discussed previously, the results from the Performance Diagnostic Checklist (PDC) showed that 86% of the employees reported that there were consequences delivered when they completed a task and that being praised would lead to them performing their job at a higher level than what they already were. In the consequence section of the PDC the employees reported that they were already receiving feedback on their job performance from their manager but it was unknown if the feedback was provided only when goals were met, only when they weren't met, or if it was neutral inconsistent feedback. These results were used to aid in the development of the intervention phases that are outlined below.

Intervention One lasted for three weeks, with observations occurring on Fridays from 4:00 pm to 6:00 pm and Saturdays from 1:00 pm to 3:00 pm. These were times that were reported as being the busiest for customer activity in the store by the manager. During this intervention phase the general visual prompt was taped to the cash register and the manager was providing group feedback, every Monday, through a group text forum.

This first intervention phase lasted for three weeks, with a total of 63 purchases being made and 15 of the those being paid for with cash by the customer. Of the remaining 48 purchases, a total of 38% of the those resulted in an ID being checked by the employee when the customer paid with a debit or credit card. This resulted in a 38% increase in ID checking from the data that was collected during baseline (Figure 2). The manager was present in the store during 0% of the observations done by the observers.

Following the first treatment phase, a second treatment phase was implemented due to inconsistent responding across observations in the first treatment phase. The second treatment

phase included managerial group feedback provided every Monday, a goal of 80% of ID's to be checked by employees when customers paid with a debit or credit card when purchasing items, and a visual prompt taped to the cash register that included the 80% goal. A script was sent to the manager based on observations from the week prior, including an average of ID checks done by employees, positive praise on progress made, the reason for checking ID's when debit or credit cards were used, and the progress towards the 80% goal that was made.

In the second treatment phase, there were a total of 28 purchases made during observations. Of the 28 purchases, 5 purchases (18%) were paid for with cash by the customer, leaving 23 (42%) purchases made with a debit or credit card. Across all purchases made with a debit or credit card during observations, 8 (35%) ID's were checked by employees. There was one observation where there were zero purchases made during the observation (Figure 2). The manager was present in the store during 0% of the observations where data collectors were present.

Following the second treatment phase, a third treatment phase was implemented due to inconsistent responding by employees in the second treatment phase. The third treatment phase included managerial group feedback on Mondays and a visual script stating the 80% ID checking goal, with the new addition of a contingent reinforcer of reaching the 80% ID checking goal for three weeks. The reinforcer that was used was a ten-dollar gift card for each employee to a preferred restaurant. The 80% reinforcer goal was not consistently reached by employees, so the reinforcer was never obtained during this treatment phase. During this phase, there were a total of 31 purchases made by customers during the observations. Of the 31 purchases made, 2 (6%) purchases were made with cash by customers, leaving 29 (94%) of purchases made by customers

with a debit or credit card (Figure 2). The manager was present in the store during 0% of the observations times.

Following treatment phase three, based on inconsistent data trends across phases, the author moved into the withdrawal phase. The withdrawal phase was measured by the absence of managerial group feedback, the visual prompt, the 80% ID checking goal being represented, and the removal of the contingent reinforcement.

After the final observation of treatment phase three, the manager was prompted to remove the visual prompt from the cash register and to discontinue the group feedback that was being delivered on Mondays. There was a 26-day period between the ending of treatment phase three and the beginning of the withdrawal phase to decrease the likelihood of a carry-over effect. During the withdrawal phase, there were 10 total purchases that were made by customers, with 1 (10%) of those purchases being done with cash. The remaining 9 (90%) of the purchases were completed with a debit or credit card. Of the 9 (90%) remaining purchases, 3 (33%) ID's were checked by employees (Figure 2). The manager was present in the store during 0% of the observations during this phase.

A social validity survey in the form of a cashier survey was provided to all the cashiers that were currently employed with this store (Appendix F). The first question that was listed on the cashier survey was a "yes" or "no" question that asked "Did you notice the sign on the register?" (Appendix F). The results showed that 83% of the cashiers answered "yes", while 17% of the cashiers did not respond (Figure 3).

Questions two through four were questions designed to be rated on a Likert scale, with the highest rating being "strongly agree" and the lowest rating being "strongly disagree." Question two indicated "Do you feel that it's important to check ID's when customers pay with

credit or debit cards?” The results showed that 33% voted strongly agree, 33% voted agree, 0% voted neutral, 33% voted disagree, and 0% voted strongly disagree (Figure 4).

Question three asked “Did you like receiving group feedback on how often you were checking ID’s?”. The results showed that 33% voted strongly agree, 67% voted agree, 0% voted neutral, 0% voted disagree, and 0% voted strongly disagree (Figure 4).

Question four asked “Did you think the overall ID checking goal was appropriate?”. The results showed that 50% voted strongly agree, 17% voted agree, 17% voted neutral, 17% voted disagree, and 0% voted strongly disagree (Figure 4).

There was a comments section located on the bottom of the survey to allow for any additional comments that the cashiers wanted to leave (Appendix F). There were no comments on any of the cashier surveys (Figure 4).

DISCUSSION

The present study incorporated several different techniques to help with increasing the amount of ID-checking being conducted in the store. At the beginning of the study, the researcher wanted to test to see if utilizing goal setting, managerial feedback, and contingent reinforcement would lead to a consistent increase in the frequency of ID-checking. The intervention did not lead to consistent results as hypothesized, in that the store did not stay above the 80% goal consistently. The interventions did produce results that supported that the use of visual prompts (Appendix B and C), managerial group feedback, and contingent reinforcement that did have some effect on the ID checking behavior of some of the cashiers.

As previously mentioned, the results from Boyce and Geller (2001) suggested having on-site personnel delivering feedback or contingencies would strengthen the intervention. This was a significant limitation as the manager was not present in the store during any of the observations completed by the author. It is believed based on past research that if the manager would have been more present, the frequency of ID checks completed would have increased and help strengthen the intervention, similar to the Boyce and Geller (2001) findings.

Results from Boyce and Geller (2001) also suggested having on-site personnel delivering feedback or contingencies would strengthen the intervention. The results also showed that by providing information about the reasoning for the target behavior being studied will help increase the likelihood of maintenance of the intervention after it is withdrawn. In Dowling and Geller (2018) the manager presented the intervention and provided the feedback to the employees. The authors in this study found that having the manager have the hands on approach that he did led to better success in the intervention phases. It was also determined that due to the

manager having worked in the store prior to the study, he had a better knowledgebase of the inner workings of the store and employees than the authors.

Another limitation to the study was that there was a high turnover rate halfway through the intervention due to the store employing many college students and them leaving for the summer. It is unknown if having the same staff throughout the whole intervention would have led to the ID checking being more consistent. It would be believed that due to the small size of the store that having as much consistency as possible would have led to better success in the intervention phases.

Lastly, due to the store being as small as it was, it was difficult for the observers to collect data in an unobtrusive manner. Neither the original study, nor the replication, stated how the observers collected data in an unobtrusive manner to protect themselves from becoming a discriminative stimulus in the environment thus skewing the data due to their physical presence.

Perone (1991) made note that it's important for the data depicted in single-case designs show a level of stability prior to moving on to another phase. The reason that stability is so important is to show that the intervention that is in place is either having some constant affect or in affect prior to being modified. Single-case designs show data in real-time which allow for the practitioner to manipulate the intervention as needed after stability has been reached to better compare the intervention phases to one another. The data trends in my intervention phases did not depict stability due to the limited amount of time that was had to run each of my phases. For the sake of my study, I moved through the intervention phases prior to stability being obtained in hopes of better data trends being depicted in the next phase.

Future research should continue to assess the effectiveness of these interventions in different store types and locations (i.e., larger clothing stores, event establishments). Another

avenue of future research would be to use either of the methods from Intervention One or Two of this study and pair it with individual feedback to test if a specific goal is needed to obtain a consistent increase in ID checking behavior. Future research should also examine the utilization of individualized feedback and the effectiveness of the intervention compared to group feedback. Alavosius and Sulzer-Azaroff (1990) found success in the functional relationship between feedback that was individualized and the increased improvement of health-care routines. If deception were used in future research the author should attempt to find a method that would be more believable. Lastly, future research should collect data on the frequency of ID checks completed when customer's pay with a credit card to when they pay with a debit card. Any additional follow-up research that were to be done should pick a store location that will have significant managerial buy in to help with efficacy of the intervention.

In conclusion, it should be noted that, while this study did not present clear and consistent results, it did show that the utilization of goal setting, managerial presence and feedback, and contingent reinforcement did increase the ID checking behavior of some employees.

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APPENDICES

Appendix A. Observation Checklist

Data Sheet

Date: _____ Time: _____ Employee: _____ Manager Present: _____



<p>In the boxes below, if the employee asked to see the customers ID (identification) when they paid with a debit or credit card, write a "Y", if the employee did not ask to see the ID when the customer paid with a debit or credit card, write a "N", if the customer paid with cash write a "C"</p>			
1.		26.	
2.		27.	
3.		28.	
4.		29.	
5.		30.	
6.		31.	
7.		32.	
8.		33.	
9.		34.	
10.		35.	
11.		36.	
12.		37.	
13.		38.	
14.		39.	
15.		40.	
16.		41.	
17.		42.	
18.		43.	
19.		44.	
20.		45.	
21.		46.	
22.		47.	
23.		48.	
24.		49.	
25.		50.	



Appendix B. First Visual Prompt



Appendix C. Second Visual Prompt



Appendix D. IRB Approval

Date: 9-24-2019

IRB #: IRB-FY2019-495

Title: A Goal-Setting and Prompting Intervention to Increase Cashiers' ID-Checking Behavior

Creation Date: 2-2-2019

End Date:

Status: **Approved**

Principal Investigator: Michael Clayton

Review Board: MSU

Sponsor:

Study History

Submission Type	Initial	Review Type	Expedited	Decision	Approved
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Key Study Contacts

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Member	Michael Clayton	Role	Principal Investigator	Contact	MClayton@MissouriState.edu

Appendix E. Revised Performance Diagnostic Checklist

Revised Performance Diagnostic Checklist (PDC)

Below is an anonymous questionnaire that needs to be answered. Please place an “x” in either the “yes” or “no” box at they pertain to your personal believe for each question.

Information:	Yes	No
1. Is there a written job description describing exactly what is expected of you as the employee?		
2. Do you feel that you have been given adequate instructions on what you are supposed to do during your shift? (ex. Cleaning, straightening, putting clothes away)		
3. Are you aware of the mission (or purpose) of the store?		
4. Is there somewhere that you can look that provides you with information about what you are supposed to do on shift? (ex. Reminders, signs, or notes)		
5. Is your manager often present during you shifts?		
6. Are there goals set that you are supposed to work towards while on shift?		
Equipment and Processes:		
7. Do you feel that the equipment that is used on shift is in good working order?		
8. Is the working environment arranged in a manner that is organized and makes working easier?		
9. Is there anything in your work environment that is keeping you from doing your job to the best of your ability?		
Knowledge and Skills:		
10. If asked, would you be able to tell someone what your job responsibilities are?		
11. Are you physically able to perform all the job responsibilities that are expected of you?		
12. Do you feel like you would be able to do more things with enough training?		
Consequences:		
13. Are there consequences delivered when you complete a task?		
14. Would being praise for you job performance lead to you performing at a higher level that you are currently?		
15. Do you see a difference on how the store runs when you perform your job responsibilities effectively versus when you don't?		

16. Do you receive feedback from your supervisor? In person? Email/Text message?		
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Appendix F. Cashier Survey

Cashier Survey

For question one, please write “yes” or “no”, for questions 2-4 please rate it you “strongly agree”, “agree”, “neutral”, “disagree” or “strongly disagree” with the question. If you would like to provide any other feedback or comments, those can be left in the “comments” section at the end of this survey.

1. Did you notice the signs on the register?

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
2. Do you feel that it's important to check ID's when customers pay with credit or debit cards?					
3. Did you like receiving group feedback on how often you were checking ID's?					
4. Did you think the overall ID checking goal was appropriate?					

Comments:

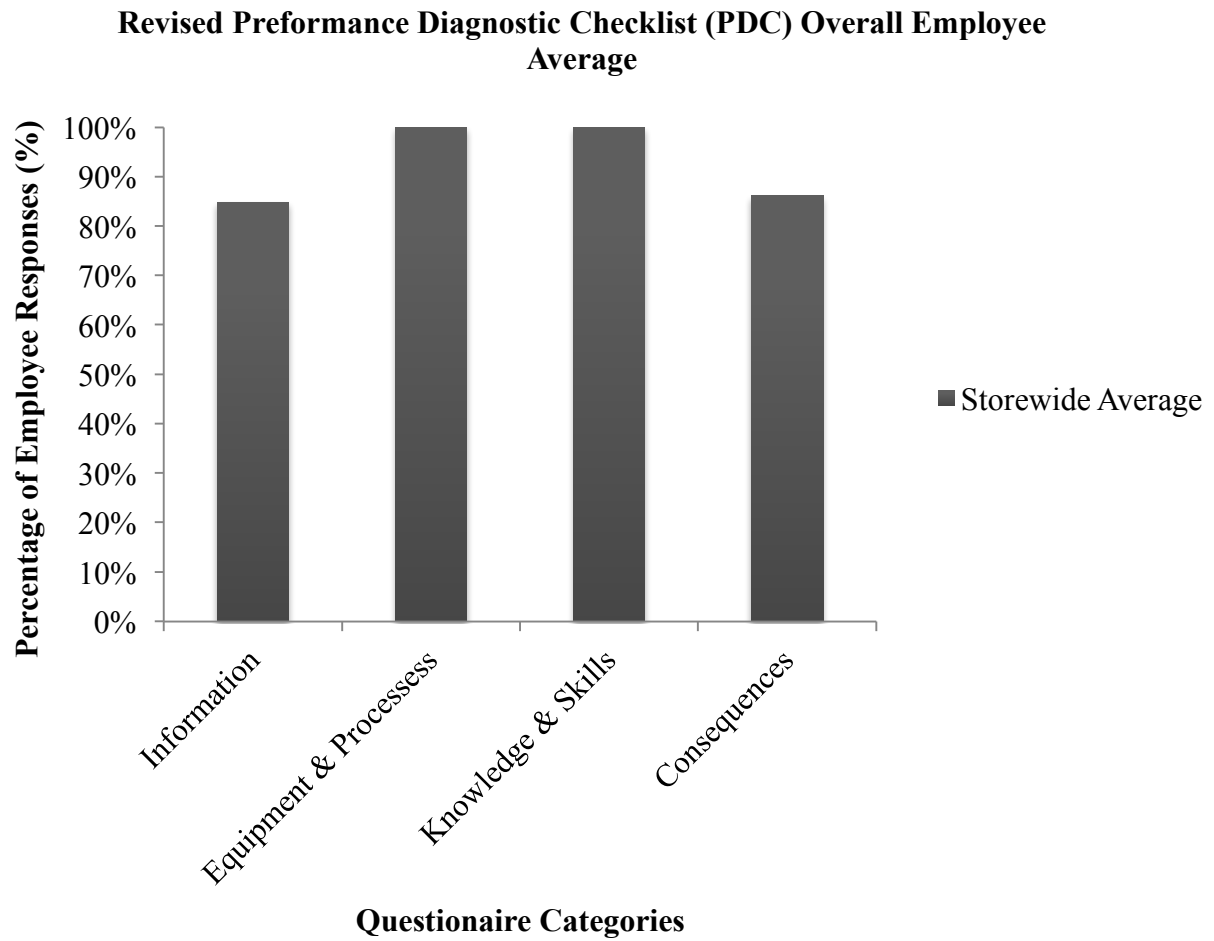


Figure 1. Storewide results from the performance diagnostic checklist (PDC)

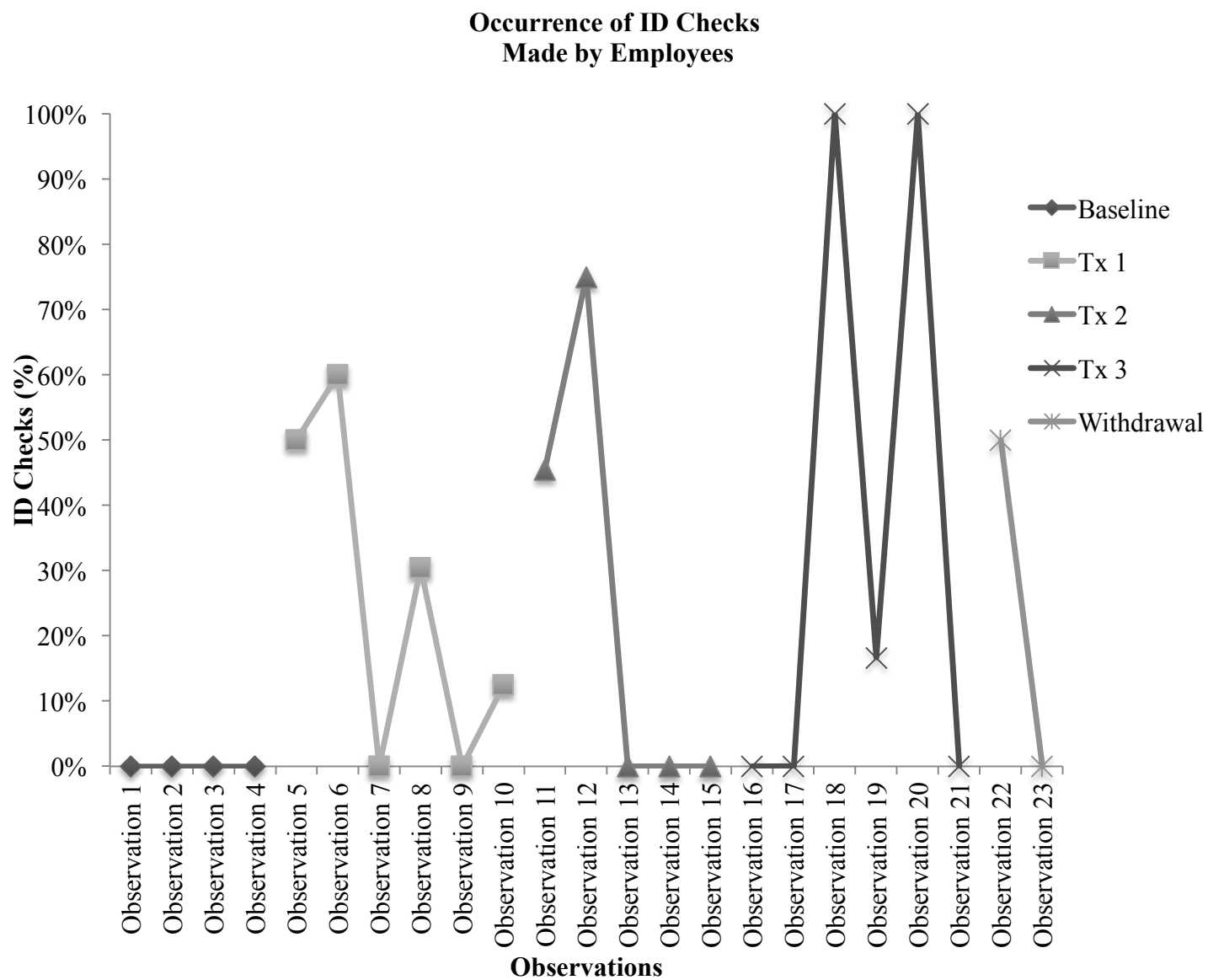


Figure 2. Results from data collected throughout study.

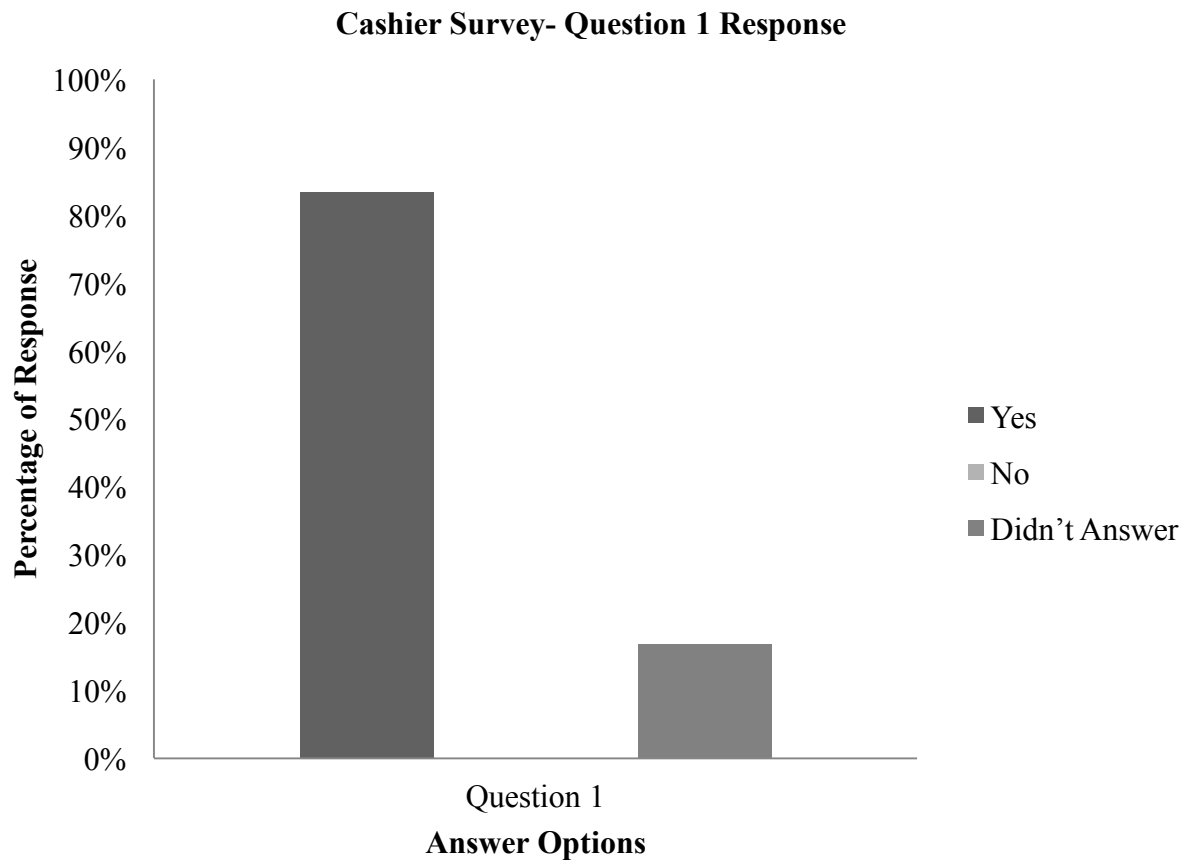


Figure 3. Results from question 1 of the cashier's survey.

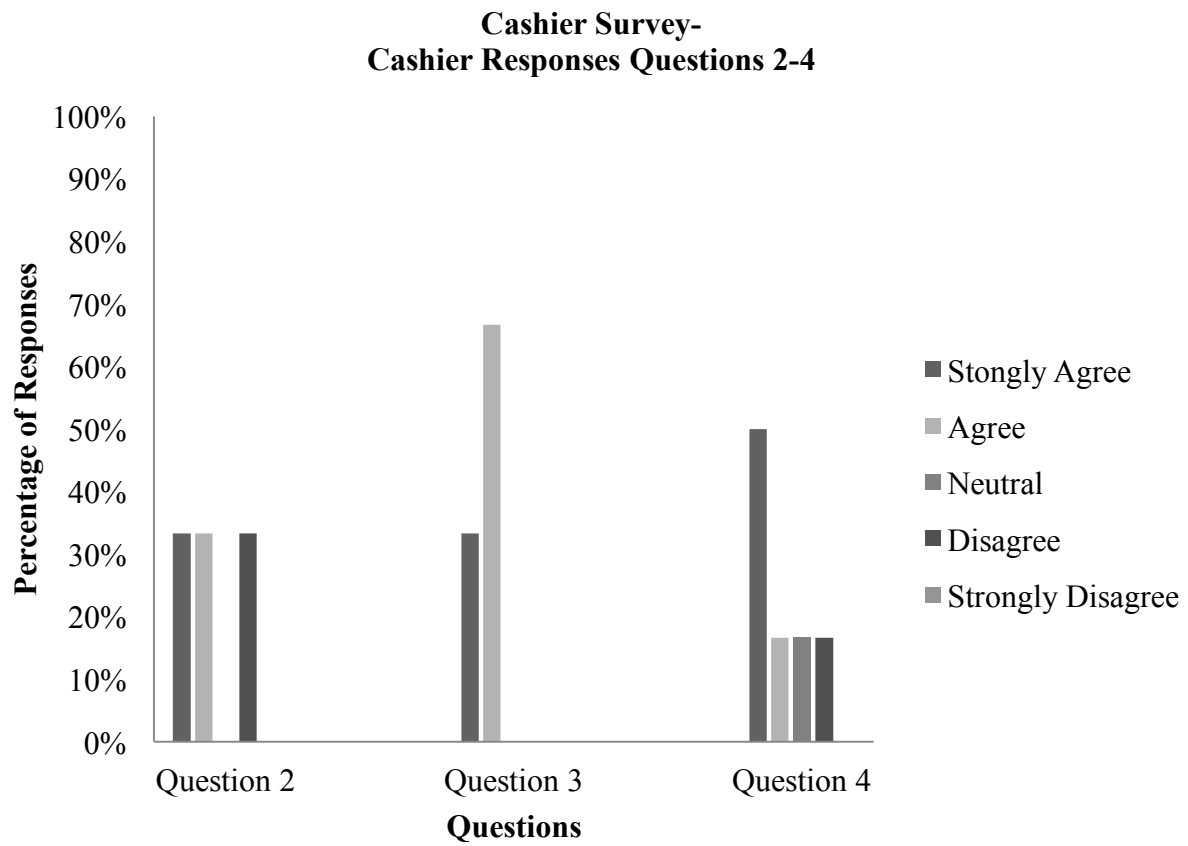


Figure 4. Results from questions 2 through 4 of the cashier's survey

