Continuation/Research Progression Projects Form (7)

Required for projects that are a continuation/progression in the same field of study as a previous project.
This form must be accompanied by the previous year's abstract and Research Plan/Project Summary.

Student's Name(s) David Frank

To be completed by Student Researcher: List all components of the current project that make it new and different from previous research. The information must be on the form; use an additional form for previous year and earlier projects.

Components	Current Research Project	Previous Research Project: Year: 2017
1. Title	Shattering the Illusion of the Self-Earned Tip: The Effect of a Restaurant Magician on Co-Workers' Tips	A Table Magician's Greatest Trick: Affecting Patrons' Tipping Habits Without Them Knowing
2. Change in goal/ purpose/objective	To determine how restaurant servers' tips are affected by the performance of and tips to previously encountered service providers. To shed light on how advisable it is for restaurant management to hire in-house entertainment.	To determine if a tableside magician earns more frequent and larger tips from his customers if he gives them a playing card as a memento of his performance.
3. Changes in methodology	Data were obtained regarding servers' tips and per-person sales and then were analyzed.	Magician's tips were recorded and analyzed based on whether he left a souvenir playing card or not.
4. Variable studied	Servers' tips and per person sales	Magician's tips
5. Additional changes		

Attached are:

☑ Abstract and Research Plan/Project Summary, Year 2017

I hereby certify that the above information is correct and that the current year Abstract & Certification and project display board properly reflect work done only in the current year.

David Frank
Student's Printed Name(s)

David Frank
Signature

01/24/2020
Date of Signature (mm/dd/yy)

OFFICIAL ABSTRACT and CERTIFICATION

A Table Magician's Greatest Trick: Affecting Patrons' Tipping Habits Without Them Knowing

David Frank
John F. Kennedy High School, Bellmore NY, 11710

Tipping is an important source of income for many service workers, who would benefit from a better under- standing of things they can do increase their customers' tips. Among the many studies providing such knowledge are two studies reported by Strohmetz et al. (2002), who found that restaurant servers can increase their tips by leaving their customers with free candy at the completion of the dining experience. The current study tests how the " candy gift" effect generalizes for table magicians who leave their customers with a souvenir playing card. Data suggest that a table magician receives more frequent and larger tips when he gives the customer one of the cards from his deck as a memento. This finding suggests that gift effects on tipping are reliable and generalize beyond gifts of candy from waiters and waitresses. Apparently, workers in different areas of the service industry can use a variety of different gifts to create a need for their customers to reciprocate with larger tips.

Category
Pick one only—
mark an "X" in box
at right

Animal Sciences	☐
Behavioral & Social Sciences	■
Biochemistry	☐
Biomedical & Health Sciences	☐
Biomedical Engineering	☐
Cellular & Molecular Biology	☐
Chemistry	☐
Computational Biology & Bioinformatics	☐
Earth & Environmental Sciences	☐
Embedded Systems	☐
Energy: Chemical	☐
Energy: Physical	☐
Engineering Mechanics	☐
Environmental Engineering	☐
Materials Science	☐
Mathematics	☐
Microbiology	☐
Physics & Astronomy	☐
Plant Sciences	☐
Robotics & Intelligent Machines	☐
Systems Software	☐
Translational Medical Sciences	☐

1. As a part of this research project, the student directly handled, manipulated, or interacted with (check ALL that apply):

   ■ human participants ☐ potentially hazardous biological agents

   ☐ vertebrate animals ☐ microorganisms ☐ rDNA ☐ tissue

2. I/we worked or used equipment in a regulated research institution or industrial setting: ☐ Yes ■ No

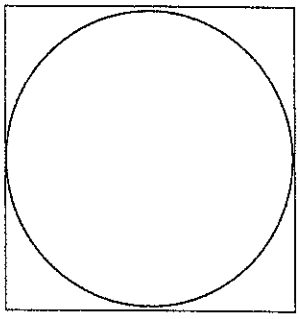
3. This project is a continuation of previous research. ☐ Yes ■ No

4. My display board includes non-published photographs/visual depictions of humans (other than myself): ☐ Yes ■ No

5. This abstract describes only procedures performed by me/us, reflects my/our own independent research, and represents one year's work only ■ Yes ☐ No

6. I/we hereby certify that the abstract and responses to the above statements are correct and properly reflect my/our own work. ■ Yes ☐ No

This stamp or embossed seal attests that this project is in compliance with all federal and state laws and regulations and that all appropriate reviews and approvals have been obtained including the final clearance by the Scientific Review Committee.



David Frank

Title: A Table Magician's Greatest Trick: Affecting Patron's Tipping Habits Without Them Knowing

Category: Behavioral and Social Science

The Research Plan/Project Summary 2017

A. **Rationale:** *Include a brief synopsis of the background that supports your research problem and explain why this research is important and if applicable, explain any societal impact of your research.*

Tipping is an international phenomenon that shows one's gratitude towards another person's actions (Lynn, 1993). Many people in the service industry depend on gratuities as a major source of income. If these tip-dependent workers found a means of increasing their tips, their overall incomes would increase. Past studies have been conducted to test if certain actions would increase the gratuities left for a waiter or a waitress. Previous research has found that if the waiter or waitress leaves their customer with free candy at the completion of the dining experience, their tips increase (Strohmetz et al., 2002). The reason for this occurrence is not yet fully understood, but there are various theories as to why this happens. It can be concluded that since the waiter or waitress left a minimal item (free candy) with the consumer, the customer then felt a social pressure to reciprocate with a larger tip. There is also the possibility that this is due to the waiter or waitress being more likeable when they leave their customers with gifts. If the server is more likeable, the customers may be in a better mood, which may lead to increased tips. The increase in tips when free candy is provided could also be a result of an unmentioned psychological mechanism. This study will test how the "candy effect" generalizes for a table magician who provides his customers with a playing card from his deck at the completion of his routine. If the effect generalizes, the study would suggest that this tip-enhancing technique can be applied by workers in different areas of the service industry and that it can be applied using a multitude of gifts. This is important because there are many workers within the service industry that rely on these gratuities as a major source of income, so by knowing the small things that these tip-dependent workers can do to increase the size of their tips, they can in turn increase their take-home pay, which can lead to reduced stress. This reduced stress promotes a better quality of life, as well as greater financial stability.

B. Research Question(s), Hypothesis(es), Engineering Goal(s), Expected Outcome(s)
How is this based on the rationale described above?

Will a tableside magician earn more and larger tips from his customers if he gives them a card from his deck as a memento of his performance?

C. Describe the following in detail:

- **Procedures:** *Detail all procedures and experimental design including methods for data collection. Describe only your project. Do not include work done by mentor or others.*

Table magic will be performed on Friday nights between 7-10pm. At the end of the magic routine, the selected card will either not be left with the customer (control) or the card will be left with the spectator following the magic trick (experimental). The data will be collected on a Google Form or Excel spreadsheet.

Note: The table magician and primary investigator of this study performs magic at this restaurant on a regular basis.

- **Risk and Safety:** *Identify any potential risks and safety precautions needed.*

There is no more than minimal risk to participants. The table magician and primary investigator of this study performs magic at this restaurant on a regular basis. Therefore, as usual, the customers are asked if they would like to see magic or not. If not, the magician will ask another customer. People will not be aware that they are in a study, so the probability and magnitude of harm or discomfort anticipated in the research are not greater (in and of themselves) than those ordinarily encountered in everyday life. The table magician and primary investigator of this study will record his observations. The magician and primary investigator performs magic at this restaurant on a regular basis, so nothing has been changed from a typical evening at this restaurant.

- **Data Analysis:** *Describe the procedures you will use to analyze the data/results.*

Data will be imported into Excel which will be used to perform statistical analyses such as t-tests.

- **Bibliography:** *List major references (e.g. science journal articles, books, internet sites) from your literature review. If you plan to use vertebrate animals, one of these references must be an animal care reference.*

Lynn, M., & Grassman, A. (1990). *Restaurant tipping: An examination of three 'rational' explanations* [Electronic version]. Retrieved [10/3/17], from Cornell University, School of Hospitality Administration site: http://scholarship.sha.cornell.edu/articles/43

Lynn, M., Zinkham, G.M., & Harris, J. (1993) *Consumer Tipping: A Cross-Country Study. Journal of Consumer Research, 20(3), 478.doi:10.1086/209363.*

Rind, B. and Strohmetz, D. (1999), Effect on Restaurant Tipping of a Helpful Message Written on the Back of Customers' Checks. Journal of Applied Social Psychology, 29: 139–144. doi:10.1111/j.1559-1816.1999.tb01378.x

Rind, Bruce, and David Strohmetz. "Effect On Restaurant Tipping Of Presenting Customers With An Interesting Task And Of Reciprocity." *Journal Of Applied Social Psychology* 31.7 (2001): 1379-1384. *Business Source Alumni Edition*. Web. 26 Jan. 2017.

Strohmetz, D. B., Rind, B., Fisher, R. and Lynn, M. (2002), Sweetening the Till: The Use of Candy to Increase Restaurant Tipping1. Journal of Applied Social Psychology, 32: 300–309. doi:10.1111/j.1559-1816.2002.tb00216.x

"Six Tips to Get Higher Tips." *Psychology Today*. N.p., n.d. Web. 26 Jan. 2017.

1. **Human Participant Research:**

A. ***Participants:*** *Describe age range, gender, racial/ethnic composition of participants. Identify vulnerable populations (minors, pregnant women, prisoners, mentally disabled or economically disadvantaged).*

Customers at a local Italian restaurant.

B. ***Recruitment:*** *Where will you and your participants? How will they be invited to participate?*

No recruitment is necessary.

C. ***Methods:*** *What will participants be asked to do? Will you use any surveys, questionnaires or tests? What is the frequency and length of time involved for each subject?*

Magic tricks will be performed for the customers. Participants will not be asked to do anything. The magician and primary investigator will ask the customer if they would like to see magic as he does every night he works at the restaurant. As usual, if the customer says no then he does not perform and if they say yes he does perform. No surveys, questionnaires or tests will be used. The magician will only ask the table once if they want to see a magic performance and it will last approximately 5-10 minutes.

Note: The table magician and primary investigator of this study performs magic at this restaurant on a regular basis.

D. ***Risk Assessment:*** *What are the risks or potential discomforts (physical, psychological, time involved, social, legal, etc.) to participants? How will you minimize risks? List any benefits to society or participants.*

There is no more than minimal risk to participants. The magician regularly performs at this restaurant. Subjects are only involved in the study to the extent that they watch a magic trick. This study may provide an understanding of factors that influence tipping behavior, which may increase servers' take-home pay, which can lead to reduced stress. This reduced stress may promote a better quality of life, as well as greater financial stability.

E. ***Protection of Privacy:*** *Will identifiable information (e.g., names, telephone numbers, birth dates, email addresses) be collected? Will data be confidential/anonymous? If anonymous, describe how the data will be collected. If not anonymous, what procedures are in place for safeguarding confidentiality? Where will data be stored? Who will have access to the data? What will you do with the data after the study?*

No identifiable information will be recorded. Data will be confidential and anonymous. A magician employed as a restaurant entertainer will randomly select tables on the nights he worked for inclusion in the study or not. He then will randomly assign included tables to either receive a tableside magic performance or not. Those who receive a performance will also be randomly assigned to receive or not receive a souvenir playing card used in the performance. The magician then will record the conditions that tables are assigned to, the number of people at the table, and the amounts (if any) they tipped him. Data will be stored on an Excel spreadsheet.

The principal investigator will have access to the anonymous data. Data will be stored on the researcher's computer.

F. ***Informed Consent Process:*** *Describe how you will inform participants about the purpose of the study, what they will be asked to do, that their participation is voluntary and they have the right to stop at any time.*

Participants choose whether or not they want to see magic tricks as they typically do in this restaurant. Therefore, informed consent is not needed. Research does not manipulate the participants' behavior and the study does not involve more than minimal risk.

2. ***Vertebrate animal research: Not Applicable***
3. ***Potentially hazardous biological agents research: Not Applicable***
4. ***Hazardous chemicals, activities, and devices: Not Applicable***

NO ADDENDUMS EXIST

Continuation/Research Progression Projects Form (7)

Required for projects that are a continuation/progression in the same field of study as a previous project.
This form must be accompanied by the previous year's abstract and Research Plan/Project Summary.

Student's Name(s) David Frank

To be completed by Student Researcher: List all components of the current project that make it new and different from previous research. The information must be on the form; use an additional form for previous year and earlier projects.

Components	Current Research Project	Previous Research Project: Year: 2018
1. Title	Shattering the Illusion of the Self-Earned Tip: The Effect of a Restaurant Magician on Co-Workers' Tips	To Gift or Not to Gift: How Providing a Memento Affects a Restaurant Magicians's Tips
2. Change in goal/ purpose/objective	To determine how restaurant servers' tips are affected by the performance of and tips to previously encountered service providers. To shed light on how advisable it is for restaurant management to hire in-house entertainment.	To determine if a tableside magician earns more frequent and larger tips from his customers if he gives them a playing card as a memento of his performance.
3. Changes in methodology	Data were obtained regarding servers' tips and per-person sales and then were analyzed.	Magician's tips were recorded and analyzed based on whether he left a souvenir playing card or not. Groups were randomly assigned to the treatment condition.
4. Variable studied	Servers' tips and per person sales	Magician's tips
5. Additional changes		

Attached are:

☑ Abstract and Research Plan/Project Summary, Year 2018

I hereby certify that the above information is correct and that the current year Abstract & Certification and project display board properly reflect work done only in the current year.

David Frank — Student's Printed Name(s)

Signature

01/24/2020 — Date of Signature (mm/dd/yy)

OFFICIAL ABSTRACT and CERTIFICATION

To Gift or Not to Gift: How Providing a Memento Affects a Restaurant Magician's Tips

David Frank
John F. Kennedy High School, Bellmore NY, 11710

Tipping is an important source of income for many service workers, who would benefit from a better under- standing of things they can do increase their customers' tips. Among the many studies providing such knowledge are two studies reported by Strohmetz et al. (2002), who found that restaurant servers can increase their tips by leaving their customers with free candy at the completion of the dining experience. The current study tests how the " candy gift" effect generalizes for table magicians who leave their customers with a souvenir playing card. Data suggest that a table magician receives more frequent and larger tips when he gives the customer one of the cards from his deck as a memento. This finding suggests that gift effects on tipping are reliable and generalize beyond gifts of candy from waiters and waitresses. Apparently, workers in different areas of the service industry can use a variety of different gifts to create a need for their customers to reciprocate with larger tips.

Category
Pick one only—
mark an "X" in box
at right

Animal Sciences	☐
Behavioral & Social Sciences	■
Biochemistry	☐
Biomedical & Health Sciences	☐
Biomedical Engineering	☐
Cellular & Molecular Biology	☐
Chemistry	☐
Computational Biology & Bioinformatics	☐
Earth & Environmental Sciences	☐
Embedded Systems	☐
Energy: Chemical	☐
Energy: Physical	☐
Engineering Mechanics	☐
Environmental Engineering	☐
Materials Science	☐
Mathematics	☐
Microbiology	☐
Physics & Astronomy	☐
Plant Sciences	☐
Robotics & Intelligent Machines	☐
Systems Software	☐
Translational Medical Sciences	☐

1. As a part of this research project, the student directly handled, manipulated, or interacted with (check ALL that apply):

   ■ human participants ☐ potentially hazardous biological agents

   ☐ vertebrate animals ☐ microorganisms ☐ rDNA ☐ tissue

2. I/we worked or used equipment in a regulated research institution or industrial setting: ☐ Yes ■ No

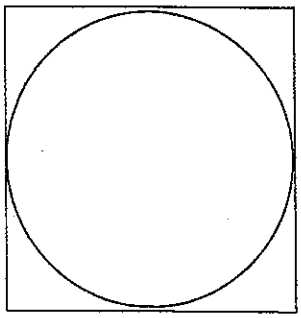
3. This project is a continuation of previous research. ■ Yes ☐ No

4. My display board includes non-published photographs/visual depictions of humans (other than myself): ☐ Yes ■ No

5. This abstract describes only procedures performed by me/us, reflects my/our own independent research, and represents one year's work only ■ Yes ☐ No

6. I/we hereby certify that the abstract and responses to the above statements are correct and properly reflect my/our own work. ■ Yes ☐ No

This stamp or embossed seal attests that this project is in compliance with all federal and state laws and regulations and that all appropriate reviews and approvals have been obtained including the final clearance by the Scientific Review Committee.



David Frank

Title: To Gift or Not to Gift: How Providing a Memento Affects a Restaurant Magician's Tips
Category: Behavioral and Social Sciences

Research Plan 2018

A. **Rationale:** *Include a brief synopsis of the background that supports your research problem and explain why this research is important and if applicable, explain any societal impact of your research.*

Tipping is an international phenomenon that shows one's gratitude towards another person's actions (Lynn, 1993). Many people in the service industry depend on gratuities as a major source of income. If these tip-dependent workers found a means of increasing their tips, their overall incomes would increase. Past studies have been conducted to test if certain actions would increase the gratuities left for a waiter or a waitress. Previous research has found that if the waiter or waitress leaves their customer with free candy at the completion of the dining experience, their tips increase (Strohmetz et al., 2002). The reason for this occurrence is not yet fully understood, but there are various theories as to why this happens. It can be concluded that since the waiter or waitress left a minimal item (free candy) with the consumer, the customer then felt a social pressure to reciprocate with a larger tip. There is also the possibility that this is due to the waiter or waitress being more likeable when they leave their customers with gifts. If the server is more likeable, the customers may be in a better mood, which may lead to increased tips. The increase in tips when free candy is provided could also be a result of an unmentioned psychological mechanism. This study will test how the "candy effect" generalizes for a table magician who provides his customers with a playing card from his deck at the completion of his routine. If the effect generalizes, the study would suggest that this tip-enhancing technique can be applied by workers in different areas of the service industry and that it can be applied using a multitude of gifts. This is important because there are many workers within the service industry that rely on these gratuities as a major source of income, so by knowing the small things that these tip-dependent workers can do to increase the size of their tips, they can in turn increase their take home pay, which can lead to reduced stress. This reduced stress promotes a better quality of life, as well as greater financial stability.

B. **Research Question(s), Hypothesis(es), Engineering Goal(s), Expected Outcome(s)**
How is this based on the rationale described above?

Will a tableside magician earn more and larger tips from his customers if he gives them a card from his deck as a memento of his performance?

C. Describe the following in detail:

- **Procedures:** *Detail all procedures and experimental design including methods for data collection. Describe only your project. Do not include work done by mentor or others.*

Table magic will be performed on Friday nights between 7-10pm. At the end of the magic routine, the selected card will either not be left with the customer (control) or the card will be left with the spectator following the magic trick (experimental). To randomize whether or not the spectator will receive a card at the end of the routine, immediately prior to the final trick, the magician will randomly determine whether he will leave a card or not. The magician will record the condition, the amount tipped, and table size.

Note: The table magician and primary investigator of this study performs magic at this restaurant on a regular basis.

- **Risk and Safety:** *Identify any potential risks and safety precautions needed.*

There is no more than minimal risk to participants. The table magician and primary investigator of this study performs magic at this restaurant on a regular basis. Therefore, as usual, the customers are asked if they would like to see magic or not. If not, the magician will ask another customer. People will not be aware that they are in a study, so the probability and magnitude of harm or discomfort anticipated in the research are not greater (in and of themselves) than those ordinarily encountered in everyday life. The table magician and primary investigator of this study will record his observations. The magician and primary investigator performs magic at this restaurant on a regular basis, so nothing has been changed from a typical evening at this restaurant.

- **Data Analysis:** *Describe the procedures you will use to analyze the data/results.*

Data will be imported into Excel which will be used to perform statistical analyses such as t-tests.

- **Bibliography:** *List major references (e.g. science journal articles, books, internet sites) from your literature review. If you plan to use vertebrate animals, one of these references must be an animal care reference.*

Lynn, M., & Grassman, A. (1990). *Restaurant tipping: An examination of three 'rational' explanations* [Electronic version]. Retrieved [10/3/17], from Cornell University, School of Hospitality Administration site: http://scholarship.sha.cornell.edu/articles/43

Lynn, M., Zinkham, G.M., & Harris, J. (1993) *Consumer Tipping: A Cross-Country Study. Journal of Consumer Research, 20(3), 478.doi:10.1086/209363.*

Rind, B. and Strohmetz, D. (1999), Effect on Restaurant Tipping of a Helpful Message Written on the Back of Customers' Checks. Journal of Applied Social Psychology, 29: 139–144. doi:10.1111/j.1559-1816.1999.tb01378.x

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"Six Tips to Get Higher Tips." *Psychology Today*. N.p., n.d. Web. 26 Jan. 2017.

1. **Human Participant Research:**

A. ***Participants:*** *Describe age range, gender, racial/ethnic composition of participants. Identify vulnerable populations (minors, pregnant women, prisoners, mentally disabled or economically disadvantaged).*

Customers at a local Italian restaurant.

B. ***Recruitment:*** *Where will you and your participants? How will they be invited to participate?*

No recruitment is necessary.

C. ***Methods:*** *What will participants be asked to do? Will you use any surveys, questionnaires or tests? What is the frequency and length of time involved for each subject?*

Magic tricks will be performed for the customers. Participants will not be asked to do anything. The magician and primary investigator will ask the customer if they would like to see magic as he does every night he works at the restaurant. As usual, if the customer says no then he does not perform and if they say yes he does perform. No surveys, questionnaires or tests will be used. The magician will only ask the table once if they want to see a magic performance and it will last approximately 5-10 minutes.

Note: The table magician and primary investigator of this study performs magic at this restaurant on a regular basis.

D. ***Risk Assessment:*** *What are the risks or potential discomforts (physical, psychological, time involved, social, legal, etc.) to participants? How will you minimize risks? List any benefits to society or participants.*

There is no more than minimal risk to participants. The magician regularly performs at this restaurant. Subjects are only involved in the study to the extent that they watch a magic trick. This study may provide an understanding of factors that influence tipping behavior, which may increase servers' take-home pay, which can lead to reduced stress. This reduced stress may promote a better quality of life, as well as greater financial stability.

E. ***Protection of Privacy:*** *Will identifiable information (e.g., names, telephone numbers, birth dates, email addresses) be collected? Will data be confidential/anonymous? If anonymous, describe how the data will be collected. If not anonymous, what procedures are in place for safeguarding confidentiality? Where will data be stored? Who will have access to the data? What will you do with the data after the study?*

No identifiable information will be recorded. Data will be confidential and anonymous. A magician employed as a restaurant entertainer will randomly select tables on the nights he worked for inclusion in the study or not. He then will randomly assign included tables to either receive a tableside magic performance or not. Those who receive a performance will also be randomly assigned to receive or not receive a souvenir playing card used in the performance. The magician then will record the conditions that tables are assigned to, the number of people at the table, and the amounts (if any) they tipped him. Data will be stored on an Excel spreadsheet.

The principal investigator will have access to the anonymous data. Data will be stored on the researcher's computer.

F. ***Informed Consent Process:*** *Describe how you will inform participants about the purpose of the study, what they will be asked to do, that their participation is voluntary and they have the right to stop at any time.*

Participants choose whether or not they want to see magic tricks as they typically do in this restaurant. Therefore, informed consent is not needed. Research does not manipulate the participants' behavior and the study does not involve more than minimal risk.

2. ***Vertebrate animal research: Not Applicable***
3. ***Potentially hazardous biological agents research: Not Applicable***
4. ***Hazardous chemicals, activities, and devices: Not Applicable***

NO ADDENDUMS EXIST