Impact of Advertising Personalization in Tablet Versions of Magazines

Junpeng Chang

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Impact of Advertising Personalization in Tablet Versions of Magazines

By Junpeng Chang

Thesis submitted in partial fulfillment of the requirements
for the degree of Master of Science in the School of Media Sciences
in the College of Imaging Arts and Sciences
of the Rochester Institute of Technology

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Abstract

In today’s digital publishing industry, personalization represents a trend, which has enabled the generation of one-to-one marketing communication via various media environments. Previous studies have shown how personalization works on different media types, such as web, email, and print. However, with the rapid development of tablets, the effectiveness of advertising personalization embedded in tablet magazines is unknown.

Using an experimental design, this study investigated the impact of advertising personalization on advertising recall and recognition, as well as the effectiveness among three different levels of advertising personalization: (1) Name and Product personalization (2) Product Only personalization (3) Name Only personalization. A digital magazine was designed with three personalized advertisements and three non-personalized advertisements; the participants were asked to fill out a post-test in the form of a questionnaire to measure their brand recall and recognition.

According to the data analysis of survey results, this study revealed that personalized advertisements led to higher brand recall and recognition than non-personalized advertisements. However, the differences among the three levels of personalized advertisements were not statistically significant.
Chapter 1
Introduction

Statement of the Problem

Personalization is a common practice in printed advertising. The potential market of personalization provides increasing opportunities for printing companies, as new technologies and new workflows make production more efficient. Recent research shows that people are likely to accept personalization, as well as to pay more attention to the personalized product or mail. Personalization occurs within many media environments, such as web, email, and print. Moreover, the rapid development of tablets makes the advantage of personalization on these devices more obvious. Xu, Liao, and Li (2007) stated that “providing personalized information to tablet users will create better customer satisfaction and will in turn increase the demand for mobile services” (p. 711). In addition, tablet users are more accepting of advertising than viewers of other media and are more likely to make a purchase after viewing an ad (Hopkins & Turner, 2012).

However, the implementation of personalization is fraught with challenges. Personalized printing has its own technologies, which are different from conventional printing technologies. The skills and training needed by employees can be a significant problem. Also, advertising is only one part of the marketing function that influences consumer buying (Sorce, 2009). Therefore, the impact of
advertising personalization in digital magazines is an unknown issue.

**Reason for Interest in the Study**

According to *DMA Direct Marketing Report* (2011), advertising expenditures on mobile devices are expected to grow from $1.2 billion to $3.1 billion between 2012 and 2016. Meanwhile, NPD DisplaySearch (2012) recently predicted that tablet shipments will jump from 121 million units by 2013 to 416 million units by 2017. Therefore, the upward growth trends of both digital publishing and advertising on tablet versions of magazines can be forecasted.

Although personalization is an established trend in the printing industry, there is little research that shows whether or not advertising personalization on tablet magazines is effective.

The researcher, who has a graphic design background, believes that personalization is one of the areas within the realm of production that is connected with design. Undoubtedly, advertising personalization in the digital publishing field will provide new opportunities for those graphic designers who prefer to work in the printing and publishing industries.
Chapter 2
Literature Review

This literature review begins with an overview of the current state of the advertising industry in the United States. It then discusses issues involved in personalized advertising and investigates its forecasted growth. It concludes with a discussion of the salient factors needed to conduct the proposed study on personalized advertising.

Overview of Advertising Industry

The advertising industry is one essential part of the growing U.S. economy. According to Kirchhoff (2009), the average person is exposed to approximately 500-1000 advertisements each day in the U.S. In order to generate income, most companies generally deliver product information via newspapers, television, radio stations, magazines, and other venues. However, according to Matasa, Sasseen, and Mitchell (2012), “the newest mobile devices, particularly tablets, may provide a particularly good environment for magazines.” NPD DisplaySearch (2012) also mentions that tablet shipments are predicted to grow from 121 million units to 416 million units by 2017. With the rapid development of new digital technologies, such as tablets and E-readers, the advertising industry will encounter significant challenges, as well as enjoy new opportunities. Matasa, Sasseen, and Mitchell (2012) indicate that, as an increasing number of readers have changed their
reading preference from paper to digital books in mobile devices, it has resulted in there being a higher number of mobile devices to deliver product advertising.

Considering that the tablet is the newest mobile device for magazine readers, many magazine publishers are beginning to charge for content online; this charging for content is predicted to increase significantly. Research based on mobile advertising from Xu, Liao, and Li (2007) reveals that “mobile advertising is predicted to be an important source of revenue for mobile operators in the future and has been identified as one of the most promising potential business areas” (p. 711). In the economic arena, mobile advertising expenditures are expected to grow from $1.2 billion to $3.1 billion between 2012 and 2016 (Direct Marketing Association, 2011). All of the aforementioned data and information indicate that mobile advertising has the potential to be a large part of the advertising industry.

This study aims to determine the effectiveness of personalized ads on mobile platforms, but measuring the effectiveness is a key challenge. According to the Interactive Advertising Bureau (2012), engagement is the essential way to measure effectiveness. Generally, the main form of engagement is cognitive engagement, which measures attention metrics with a brand (for example, awareness, interest, and intention). Russell (2002) mentions that all empirical studies of product placement to date measure the effectiveness of product placements in terms of how well they are remembered. This study will use recall metrics to measure the effectiveness of personalized advertising.
Overview of Personalized Advertising

The intended purpose of this research is to measure the effectiveness of advertising personalization on tablets. Yu and Cude (2009) defined personalized advertising as advertising which is designed for a specific customer or a group by using personal information about the customers themselves. In this one-to-one marketing (using descriptive and behavioral information of the customer), there are many ways that this information can be used in personalized ads. “This information includes either personally identifying information such as one’s e-mail address, name, or residence, and/or personal information such as shopping history, websites visited, preference for a specific product, or one’s hobby” (p. 504).

Moreover, personalization is also widely used in many media types. Most firms are likely to send consumer e-mails or recommendation websites based on consumers’ purchase preferences after buying. In the social media arena, Facebook launched a new function called “Sponsored Stories” in 2012; this function allows users to translate likes into personalized advertisements. In print media, according to Sorce (2009), variable data printing uses images or text in a database that feeds an algorithm plugging into a larger document. Generally, this variable data printing is used in direct mail, consumer promotion, and custom publishing executing advertising campaigns. Xu, Liao, and Li (2007) described their personalized mobile advertising application as “sending advertising
messages to mobile devices … based on customers’ user demographics, user preferences, content and content information” (p. 713).

The reason for the growth of personalization is its effectiveness. Researchers indicate that the response rates of personalized ads are generally higher than the response rates of non-personalized ads. In Howard and Kerin’s experiment, “the ads containing personalized notes had higher response rates than ads with comparable non-personalized notes or ads with personalized notes that did not contain a favorable product recommendation” (2004, p. 278). The initial results of Xu, Liao, and Li’s experiment (2007) reveal that “personalized mobile advertisements are effective and can affect mobile users’ purchasing behavior” (p. 720). According to Muñoz-Leiva, et al. (2009), personalization of invitations to a web-based survey dramatically increases the response rate. By testing downloads, Tam and Ho (2003) showed that a personalized web page is more effective than a non-personalized web page. They also indicate that “web personalization offers attractive value propositions to customers and can have a major impact on a firm’s bottom line as yield on cross- and up-sell opportunities increases” (p. 56).

In summary, the aforementioned research points out that advertising personalization is effective in various media environments and will attract the attention of customers and users. However, whether or not personalization also works for tablets is the question of this research.
Chapter 3

Research Questions

The research questions are:

1. Will advertising personalization in a tablet version of a magazine result in higher levels of brand recall and recognition than non-personalized advertising?

2. Will the viewer’s name placement and product interest affect brand recall and brand recognition?
Experimental Design

This study aimed to determine the effectiveness of designed personalized advertisements in a tablet version of a magazine versus non-personalized advertisements on the same mobile device.

The experiment targeted twenty-seven college students and three faculty members of the Rochester Institute of Technology (RIT) within three different colleges. The researcher asked permission from different professors, and visited classrooms later in their classes. All volunteer participants solicited to participate in this experiment were asked to first fill out the personal information request form one week before they were exposed to a customized digital magazine. One trigger question in the personal information request form asked the participants to rank their top three activities on which they usually spend their spare time. According to the participants’ personal information, the researcher designed a tablet version of a magazine with six different kinds of advertisements: three personalized advertisements and three non-personalized advertisements for each participant and placed them into a digital magazine during a one-week period. All the magazine content was used from RIT Reporter Magazine. The personalized advertisements were designed based on three levels:
Name and Product related personalization

Product related only personalization

Name related only personalization

The researcher randomly selected two of the participant’s top three favorite interests to create a Name and Product related personalized advertisement and a product related personalized advertisement. The researcher also randomly selected one of the participant’s non-favorite interests to design a Name related only personalized advertisement.

In order to test the effectiveness of advertising personalization on a digital magazine, a post-test experimental design with a questionnaire was created to determine whether the advertising personalization resulted in higher levels of brand recall and recognition. Finally, a T-test was performed to statistically test the different levels of brand recall and recognition in this experiment.

Procedure

The researcher designed six advertisements for each participant, with three of them personalized with information based on his or her reported personal information and preferences. The personalized advertisements for each participant included the variable text of name of person and product information in one ad, only product personalization in the second, and name only personalization in the third. This resulted in three levels of personalization for the
independent variable (i.e., participants’ name-only personalization, name and product personalization, and product-only personalization).

Each participant was exposed to a digital magazine with three personalized advertisements and three non-personalized advertisements based on the experimental design. The digital magazine with six advertisements was designed in Adobe InDesign CC. The personalized advertisements with various text and images were created manually in Adobe Photoshop CC. The magazine with advertisements was displayed on an iPad, created with Adobe Digital Publishing Suite.

To test the effectiveness of designed advertising for both personalization and non-personalization, a post-test with a questionnaire form (which contained six questions) was used to examine different levels of brand recall and recognition (refer to Appendix B where final version of questionnaire is presented):

Did you enjoy reading articles on the Tablet?
Do you think Tablet is better than paper for reading? Explain why.
Name the topics of the articles you remember in this digital magazine. (List all you remember)
Name the products advertised in this magazine. (List all you remember)
For the products and articles listed below, indicate the ads you saw (Yes) or did not see (No) in the magazine.
Did you notice anything unique about the magazine in terms of content or advertising?
After all questionnaires were received, the proportions of brand recall and recognition, as well as the t-test were used in the statistical procedure. The conclusions were analyzed based on the listed percentages of brand recall, brand recognition, and p-value. Figure 1 illustrates this experimental procedure.
Figure 1: The experimental procedure.
Chapter 5

Results

Part one of this analysis describes the sample with brief demographic information and users’ reading experience. Part two highlights the findings organized by the research questions. Part three describes other results of interest.

Description of Sample

A total of thirty adults completed the experiment. Twenty-seven of the subjects were college students (between the ages of 19 and 40), and three subjects were college faculty (above the age of 51). Most of the subjects were from the College of Imaging Arts and Science at RIT.

According to the post-test survey, the participants’ general acceptance of reading articles on tablets was positive, with 80% having enjoyed reading the digital magazine. However, only approximately 36.7% of participants thought that reading on the tablet was better than reading on paper.
Test of Research Questions

Research Question 1: Will advertising personalization in a tablet version of a magazine result in higher levels of brand recall and recognition than non-personalized advertising?

This question was tested using both brand recall and recognition measures. Brand recall measures how well consumers remember a brand name with a type of product, and brand recognition measures how well consumers correctly identify some specific products from a products list. According to the post-test survey, brand recall was tested by asking participants to name the products advertised in this magazine, and brand recognition was measured by asking participants to read a list of advertisements in the post-test questionnaire, and indicate the advertisements they saw or did not see in this magazine.

In this experiment, three personalized advertisements and three non-personalized advertisements were designed for each participant, so there was a total of 90 personalized advertisements and 90 non-personalized advertisements for thirty participants. The results were based on the percentage, which was calculated by dividing the total number of participants’ correct recall or recognition by the total number of advertisements presented.
Table 1: Brand Recall and Recognition of Total Personalized Advertising and Non-Personalized Advertising.

<table>
<thead>
<tr>
<th></th>
<th>Brand Recall - All 30 participants</th>
<th>Brand Recognition - All 30 participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Advertising</td>
<td>Personalization</td>
<td>Non-personalization</td>
</tr>
<tr>
<td>Total Number Correct</td>
<td>53</td>
<td>33</td>
</tr>
<tr>
<td>Total Ads Presented</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td>Correct Percentage</td>
<td>58.9%</td>
<td>36.7%</td>
</tr>
<tr>
<td></td>
<td>Total Number Correct</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>Total Ads Presented</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>Correct Percentage</td>
<td>78.9%</td>
</tr>
</tbody>
</table>

Regarding the effectiveness, subjects paid more attention to the personalized advertisements than the non-personalized advertisements. The overall percentage of brand recall for personalized advertisements was 58.9% versus 36.7% for non-personalized advertisements (see Table 1). Not surprisingly, advertising recognition had a higher correct percentage than advertising recall: 78.9% for recognition versus 60% for recall.

In addition, two t-tests were used to test the significance of the differences between personalized advertisements and non-personalized advertisements. The mean personalized advertising recognition is 2.37 out of 3 versus 1.77 out of 3 for non-personalized advertising. Table 2 shows the results of the t-tests between the two means.
Table 2: T-test for Total Personalized Advertising and Non-Personalized Advertising on Brand Recall and Recognition.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand Recall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personalized Ads</td>
<td>1.77</td>
<td>3.551</td>
<td>0.001</td>
</tr>
<tr>
<td>Non-personalized Ads</td>
<td>1.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pair 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand Recognition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personalized Ads</td>
<td>2.37</td>
<td>3.458</td>
<td>0.002</td>
</tr>
<tr>
<td>Non-personalized Ads</td>
<td>1.8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

With $p=0.001$ and $p=0.002$, the differences between personalized advertisement and non-personalized advertisement for participants' brand recall and recognition were significant in the t-test at the $p<0.05$ level.

Research Question 2: Will the viewer’s name placement and product interest affect brand recall and brand recognition?

Table 3 shows the percentage of brand recall for different levels of personalized advertisements. Each participant saw three personalized advertisements through the experiment: (1) “Name & Product” (2) “Product Only” (3) “Name Only”. For “name & product” personalization, 70% of participants recalled this type of advertising, which was 10% higher than the “name only” advertising (60%) and 23% higher than “product only” advertising (47%).

To examine differences in these three levels of personalization, paired samples T-test were used. As seen in Table 3, there were no significant
differences between “name & product” advertising and “name only” advertising (Pair 2), and “product only” advertising and “name only” (Pair 3) advertising on brand recall. However, with p=0.09, the differences between “name & product” advertising and “product only” (Pair 1) advertising were marginally significant.

Table 3: The Brand Recall of Three Levels of Personalized Advertisement

<table>
<thead>
<tr>
<th>Pair</th>
<th>Level</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td>Name&amp;Product</td>
<td>0.7</td>
<td>0.466</td>
<td>1.756</td>
<td>0.09</td>
</tr>
<tr>
<td></td>
<td>Product Only</td>
<td>0.47</td>
<td>0.507</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pair 2</td>
<td>Name&amp;Product</td>
<td>0.7</td>
<td>0.466</td>
<td>0.722</td>
<td>0.476</td>
</tr>
<tr>
<td></td>
<td>Name Only</td>
<td>0.6</td>
<td>0.498</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pair 3</td>
<td>Product Only</td>
<td>0.47</td>
<td>0.507</td>
<td>-1</td>
<td>0.326</td>
</tr>
<tr>
<td></td>
<td>Name Only</td>
<td>0.6</td>
<td>0.498</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4 indicates the percentage of brand recognition of different levels of personalized advertisements. The brand recognition for “name & product” advertising was 83%; for “name only” advertising, it was 80% and for “product only” advertising, it was recognized by 73% of participants.

Based on the t-test results from the brand recognition of personalized advertisement, there were no significant differences at p<0.05 levels among the three different types of personalized advertising (see Table 4).
### Table 4: The Brand Recognition of Three Levels of Personalized Advertisement

<table>
<thead>
<tr>
<th>Pair</th>
<th>Condition</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td>Name &amp; Product</td>
<td>0.83</td>
<td>0.379</td>
<td>0.1</td>
<td>0.326</td>
</tr>
<tr>
<td></td>
<td>Product Only</td>
<td>0.73</td>
<td>0.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pair 2</td>
<td>Name &amp; Product</td>
<td>0.83</td>
<td>0.379</td>
<td>0.112</td>
<td>0.769</td>
</tr>
<tr>
<td></td>
<td>Name Only</td>
<td>0.8</td>
<td>0.407</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pair 3</td>
<td>Product Only</td>
<td>0.73</td>
<td>0.45</td>
<td>0.106</td>
<td>0.536</td>
</tr>
<tr>
<td></td>
<td>Name Only</td>
<td>0.8</td>
<td>30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Other Results

As part of the post-test survey, one question asked if they noticed anything unique in this digital magazine. Seventeen of the participants (56.7%) stated that they noticed that the researcher had placed their name and favorite products into the digital magazine.
Chapter 6
Conclusion

Summary of Findings

The purpose of this experiment was to determine whether the three levels of personalized advertising or normal commercial advertising is more effective in terms of brand recall and brand recognition on a tablet.

The results indicated that advertising personalization placed in a tablet magazine led to higher brand recall (58.9% vs. 36.7%) and brand recognition (78.9% vs. 60%) than the non-personalized ads.

In addition, among the three different levels of personalization placed in advertising, this study showed comparably more recall and recognition towards “name & product” advertising than the other two types of personalization, which is expected. However, the results were not statistically significant. This may be due to the lower power of the test because of sample size, which will be discussed later in this chapter.

Advertising Agency and Personalized Advertisements

In the previous studies, it has been shown that advertising personalization works and is effective on different media types, but little research tested whether personalized advertisements work on digital magazines. This study clearly
revealed that personalized advertisements designed in a tablet version of a magazine generated higher recall and recognition among the participants. Therefore, advertisers are encouraged to create advertisements on digital devices for targeted consumers using personalization.

Nevertheless, all advertisers are facing three minor challenges on advertising personalization now:

- How do advertisers get consumers’ personal information?

  In many cases, companies require customers to fill out a personal information form before they pre-order or purchase a product, or send a post questionnaire after they purchased. There always exist some trigger questions that let a company know what exactly their customers’ interests are. Based on these cases, the researcher suggests that advertisers offer a personal information collective form before consumers subscribe to a digital magazine. In addition, advertisers could place a post questionnaire to monitor people’s interests regularly.

- How would advertisers implement advertising personalization?

  In this experiment, the researcher designed three levels of personalized advertisement in Adobe Photoshop CC and placed participants’ names manually. It was time-consuming, due to the limitations of variable data printing (VDP) software. In addition, the results showed there are no statistically significant differences among the three levels of personalized advertisements. Therefore, an
easier way for advertisers to design personalized advertisements is using “product only” personalization based on consumers’ interests. For example, Amazon has successfully used this method in today’s advertisement campaigns. They deliver interest-based advertising based on users’ information from activities, such as browsing Amazon ads or purchasing Amazon products. Once users click or purchase Amazon products, advertisers are able to collect users’ personal interests via cookies software. Cookies enable advertisers to see what consumers browsed and purchased. This is a smart way for advertisers to implement interest-based advertising. However, Amazon also used billions of dollars to generate interest-based ads, which most publishers cannot afford. Meanwhile, since “product only” advertising already exists in the area of magazine marketing, the smarter way for advertisers to design personalized advertisements is using “name & product” personalization to increase the competitiveness.

- Limitations of VDP design software for digital magazine

Xerox has released VDP software – XMPIE, which enables designers to automatically change variable data on direct mail, email, videos and etc. drawing from a large number of databases. However, XMPIE as VDP software was designed for personalized documents, email, web and mobile campaigns. Users can easily automate change in variable data in images, graphics or text in a flyer or an-email. However, there is no targeted software designed for digital magazines, which enables designers to automatically change multiple pages of
personalized advertisements within variable data in a digital magazine. Therefore, the researcher believes that it is the right time for a creative company to develop personalized advertising design software for digital devices, since advertising personalization has significant potential in the commercial world now. For example, the future VDP designing software for digital magazines should enable advertisers to automatically change all the advertisements in an entire digital magazine, and all the advertisements should be selectable from a large advertising designing database based on the customers’ interests. The future VDP designing software also should enable designers to automatically place users’ name or other variable texts in a selected area.

Limitations and Suggestions for Future Research

This study revealed the positive side of advertising personalization, as well as blazing a new path for future research. After the entire experiment, the small size of the sample, and the narrow scale of demographics were key limitations. Further research on this study with a large sample size and different demographics should be conducted.

Apart from the limitations, future research based on the post-test survey should include:
1) Will advertising personalization in a paper version of a magazine result in higher levels of brand recall and recognition than in a tablet version of a magazine?

2) Will advertising personalization in digital devices with different screen sizes affect participants' brand recall and brand recognition?
Bibliography


Appendix A

Personal Information Collection Form

Digital Magazine Survey

The goal of this research is to elicit honest feedback from people on their experiences reading and comprehending articles on the Tablet. The data collected will help assess what types of digital publications are preferred amongst readers of various ages and technical know-how.

We would appreciate if you would take a few minutes of your time to fill out this form by answering the following questions. It only takes you 3-5 minutes. You will then be contacted in a few weeks to schedule a time for the magazine reading part of the study.

1. What is your name?
   First Name ___________   Last Name ___________

2. Where are you from?
   City___________ State___________ Country___________

3. What is your gender?
   ☐ Male  ☐ Female

4. How old are you?
   ☐ Under 18  ☐ 19-25  ☐ 26-30  ☐ 31-40  ☐ 41-50  ☐ Above 51
5. What is your RIT E-mail address?

6. What college are you in?
   - CAST
   - CIAS
   - COB
   - COLA
   - COS
   - GCCIS
   - KGCOE
   - NTID
   - GIS
   - Other: _______________

7. On what platform do you prefer to read books or magazines? (Check only one)
   - Paper
   - Tablet
   - Computer Screen
   - Phone
   - E-Reader

8. How long do you usually spend reading for pleasure (not homework) everyday?
   - Less than 1 hour
   - 1-3 hours
   - More than 3 hours
9. Except for reading, how do you usually spend your spare time? (Please rank each of the following items in order of importance, and place a #1 for your favorite, a #2 for your next favorite, and up to rank #3)

- Fitness Activities
- Organized Sports
- Computer Gaming
- Shopping
- Watching TV
- Listening Music
- Watching Movie
- Cooking or Eating
- Other: _______________

10. Do you own a tablet or reader, such as ipad, Kindle, Nook and etc.

- Yes
- No

11. What the time/date you are available to do the reading experience?

<table>
<thead>
<tr>
<th>Time Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
</tr>
<tr>
<td>Tuesday</td>
</tr>
<tr>
<td>Wednesday</td>
</tr>
<tr>
<td>Thursday</td>
</tr>
<tr>
<td>Friday</td>
</tr>
<tr>
<td>Saturday</td>
</tr>
<tr>
<td>Sunday</td>
</tr>
</tbody>
</table>
Appendix B
Post-Test Survey

Questionnaire:

1. Did you enjoy reading articles on the Tablet?
   □ Yes □ No

2. Do you think Tablet is better than paper for reading?
   □ Yes □ No
   Explain Why:

3. Name the topics of the articles you remember in this digital magazine. (List all you remember)
   a. ________________________________________
   b. ________________________________________
   c. ________________________________________
   d. ________________________________________
   e. ________________________________________

4. Name the products advertised in this magazine. (List all you remember)
   a. ________________________________________
   b. ________________________________________
5. For the **products and articles** listed below, indicate the ads you saw (Yes) or did not see (No) in the magazine.

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6. Did you notice anything unique about the magazine in terms of content or advertising?
Appendix C

Data Analysis Tables

Brand recall of three different levels of personalized advertisements and total personalized advertisements versus non-personalized advertisements

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<th>NON-PERSONALIZED</th>
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Brand recognition of three different levels of personalized advertisements and total personalized advertisements versus non-personalized advertisements

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| %           | 83.33%         | 73.15%  | 80.00%    | 78.99%            | 60.00%          |
Appendix D

T-test Results

*T-test results of three different levels of personalized advertisements for brand recall*

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### Paired Samples Test

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<th>Std. Error Mean</th>
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### Paired Samples Test

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T-test results of three different levels of personalized advertisements for brand recognition

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</tbody>
</table>
## Paired Samples Test

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
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<tr>
<td>Pair 1</td>
<td>.100</td>
<td>.548</td>
<td>.100</td>
<td>-.105</td>
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<tr>
<td>Name&amp;Product-Recognition - Product Only-Recognition</td>
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<tr>
<td>Pair 2</td>
<td>.033</td>
<td>.615</td>
<td>.112</td>
<td>-.196</td>
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<tr>
<td>Name&amp;Product-Recognition - Name Only-Recognition</td>
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<tr>
<td>Pair 3</td>
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<td>.583</td>
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<td>Product Only-Recognition - Name Only-Recognition</td>
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</table>

## Paired Samples Test

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>95% Confidence Interval of the Difference</td>
<td>Upper</td>
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<td>29</td>
</tr>
<tr>
<td>Name&amp;Product-Recognition - Product Only-Recognition</td>
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<tr>
<td>Pair 3</td>
<td>.151</td>
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<td>29</td>
</tr>
<tr>
<td>Product Only-Recognition - Name Only-Recognition</td>
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**T-test results of personalized advertisements versus non-personalized for both brand recall and recognition**

<table>
<thead>
<tr>
<th>Paired Samples Statistics</th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
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</thead>
<tbody>
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<td><strong>Pair 1</strong></td>
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<tr>
<td>Total personalized</td>
<td>1.77</td>
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<tr>
<td>Total Non-personalized</td>
<td>1.10</td>
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<td>.139</td>
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<tr>
<td>Total personalized-Recognition</td>
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<td>.765</td>
<td>.140</td>
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<td><strong>Pair 2</strong></td>
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<td>Total</td>
<td>1.80</td>
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<td>Non-personalized-Recognition</td>
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<table>
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<tr>
<th>Paired Samples Correlations</th>
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<td></td>
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<td>Total personalized &amp; Total Non-personalized</td>
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<td>.819</td>
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<tr>
<td>Total</td>
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<td>.098</td>
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<tr>
<td><strong>Pair 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-personalized-Recognition</td>
<td></td>
<td></td>
<td></td>
</tr>
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<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total personalized - Total Non-personalized</td>
<td>.667</td>
<td>1.028</td>
<td>.188</td>
<td>.283</td>
</tr>
<tr>
<td>Total personalized-Recognition - Total Non-personalized-Recognition</td>
<td>.567</td>
<td>.898</td>
<td>.164</td>
<td>.231</td>
</tr>
</tbody>
</table>

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<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total personalized - Total Non-personalized</td>
<td>1.051</td>
<td>3.551</td>
<td>29</td>
</tr>
<tr>
<td>Total personalized-Recognition - Total Non-personalized-Recognition</td>
<td>.902</td>
<td>3.458</td>
<td>29</td>
</tr>
</tbody>
</table>

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Appendix E

Examples of Magazine Content

ONLINE RESOURCES
NO RIT STUDENT SHOULD LIVE WITHOUT

TEXTBOOKS

- Internet Archive - have access to a vast collection of books, magazines, and other materials.
- JSTOR - access to a large collection of academic journals, books, and primary sources.
- Project Gutenberg - free access to thousands of books in the public domain.

REFERENCE RESOURCES

- Wikipedia - a free online encyclopedia containing information on a wide range of topics.
- Google Scholar - search for scholarly articles and other academic resources.
- Dictionary.com - access to a comprehensive dictionary.

PERIODICALS

- The New York Times - a daily newspaper known for its in-depth reporting and analysis.
- The Economist - a weekly magazine covering current events and business news.
- Scientific American - a monthly magazine covering scientific and technological advancements.

PRINTED MEDIA

- The RIT Magazine - a quarterly publication featuring articles on RIT campus life and events.
- The RIT News - a newspaper covering news and events on the RIT campus.

MISCELLANEOUS

- The Grey Area - an online magazine featuring articles on culture, society, and politics.
- The RIT Journal - a student-run publication featuring articles on campus life and events.
- The RIT Blog - a platform for students to share their thoughts and experiences.

Finding the Goods

Finding goods on an RIT campus is essential to making your life easier. This guide will help you find the goods you need.

1. The Bookstore

The Bookstore is located in the Student Union Building. It offers a wide range of textbooks, supplies, and other materials. You can also purchase RIT apparel, snacks, and other items.

2. The Student Union

The Student Union Building is located in the center of campus. It houses a variety of offices, including the Student Activities Office, the Career Center, and the Health Center. You can also find a food court and a student lounge.

3. The Library

The Library is located in the Science and Engineering Library Building. It offers a large collection of books, journals, and other resources. You can also access online databases and other digital resources.

4. The Health Center

The Health Center is located in the Science and Engineering Library Building. It offers a range of services, including health screenings, vaccinations, and health education.

5. The Career Center

The Career Center is located in the Science and Engineering Library Building. It offers a range of services, including career counseling, job search assistance, and interview preparation.

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Appendix F

Examples of Personalized Advertisements

“Name & Product” and “Name Only” Advertising
HEY NATHAN,

STUDENT DISCOUNTS UP TO 60%
AT OUR THEATRES

VISIT OUR WEBSITE
RoyalCinema.com
FOR PROGRAM DETAILS
VALID ID REQUIRED, LIMITED TIME ONLY.

HELLO Kenton,

BUY 2 GET 1 FREE
on all PreOwned PS3 Games

Only in GameParadise.com

HI, CHARLES

UP TO 70% OFF
SALE
FOR BOTH MEN & WOMEN

THIS IS A&N FASHION STOP
IT'S FASHION TIME.

HEY Di,

KEEP CALM AND GO SHOPPING

You can find everything you need.

OXYGENSPORTS.com
“Product Only” and Non-personalized Advertisements

**BUY 2 GET 1 FREE**
on all PreOwned PS3 Games

Only in GameParadise.com

It is time To Make Spark!

With 3D technology, the Spark 4K UHD TV delivers incredible visuals. To build a complete 3D home theater system, you need an LED TV with a 3D Blu-ray player, high-speed HDMI cable and a HDMI receiver that is compatible with 3D products.

**CHANG’S RESTAURANT**

MAKES YOU FEEL RESTAURANT AGAIN

Listen top songs anytime anywhere. You are never alone with MUSIBOX.