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ROWAN UNIVERSITY'S ROWANCARD: PROGRAM EFFECTIVENESS
AND FUTURE DIRECTION

by
Christine A. Noon

A Thesis

Submitted in partial fulfillment of the requirements for the
Master of Arts in Higher Education Administration
of
The Graduate School
at
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Thesis Chair: Burton R. Sisco, Ed.D.

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ABSTRACT

Christine A. Noon
ROWAN UNIVERSITY'S ROWANCARD: PROGRAM EFFECTIVENESS AND
FUTURE DIRECTION

2010/11

Burton R. Sisco, Ed.D.
Master of Arts in Higher Education Administration

The purpose of this study was to explore the attitudes of Rowan University student's towards the RowanCard program. A secondary purpose was to gain insight from students about future growth of the program. The data were collected by means of a survey using 25 Likert-type items on a 5-point scale. In addition to the survey, two focus groups were conducted with 32 students. Each student was asked six questions pertaining to the program. Data analysis suggests that students overall attitudes towards the RowanCard program are very positive. Student's attitudes about all the current applications available to them with the RowanCard were also positive. The results of the study also indicate that there are some aspects of the program which can use improvement. These include obtaining a location on campus for a RowanCard office, assessment of door access as well as copier use, adding additional laundry locations, adding additional off campus merchants, and investigating applications which will keep the program current with today's technology.

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CHAPTER I

Introduction

Today, swipe cards are used by many different companies and organizations, including colleges and universities. Historically, the primary function of these cards was to allow students the ease of entering food service locations on-campus as well as the convenience of having money transferred from financial aid to use at the bookstore to purchase books and supplies.

The swipe card is now used for so much more including identification, meal plans, door access, laundry, and off-campus spending. The ability to have one card that allows students to access a multitude of products and services comes with pros and cons. As technology continues to advance, swipe cards should replace the need for cash, checks, and credit cards while attending college.

Statement of the Problem

This study focuses on the effectiveness of the RowanCard Program, the attitudes of students regarding their satisfaction with the current uses provided to them, and options for future growth. The swipe card technology today allows universities to offer a wide array of options available through campus card programs. The sophistication of the RowanCard technology offers student's a multitude of options both on and off campus. The RowanCard provides student's with the ability to access food venues on campus, do

their laundry, access activities, utilize the library, make copies, and even get snacks out of the vending machines. In addition, the RowanCard allows students' access to computer labs, academic buildings, the library, and in some cases their housing complex. The RowanCard program contracts with local merchants throughout Glassboro and Camden, New Jersey to give students more choices for purchasing power aside from the options they have on-campus. Although the RowanCard provides many services to students both on and off-campus, the card office does not know the student satisfaction level regarding the program. There are no current data available that provides information about the effectiveness of the program, Rowan University's student's attitude; whether positive or negative, pertaining to the current card functionality as well as options for future growth.

In order for the program to be successful, it must meet student's wants and demands for products and/or services. Currently, the university is unaware of the students demands and if they are meeting current student expectations. Rowan needs to determine how students perceive the program as well as any additional options they are looking for in order for the program to grow.

Purpose of the Study

The purpose of the study was to assess the attitudes of the students regarding the RowanCard program. Of particular interest was how the students felt about the many options available to them with regard to their card and how comfortable they are with only needing one card to serve all their needs. Since there are few studies pertaining to the program, the study is intended to provide the university with additional insight into the RowanCard program as well as possibilities for future growth.

Assumptions and Limitations

The scope of the survey was limited to currently enrolled students, both undergraduate and graduate, who purchased a meal plan in the spring, 2011 semester. It was assumed that students who purchased a meal plan would be willing to participate in the survey since it would allow them the opportunity to express their opinions about how the program is currently operating as well as provide feedback pertaining to future growth of the program. The surveys, as well as focus groups will allow students to discuss their satisfaction about the program options in addition to what they would like to see offered in the future with the program. It is assumed that the students will answer the survey items and focus group questions honestly.

Some limitations may consist of students feeling uncomfortable with discussing concerns about the program on a face-to-face basis. In addition, the sample size is limited to approximately 2,734 students who purchased a weekly meal plan for the spring 2011 semester since they would be the most likely to utilize all of the card functionalities. This population may cause a specific demographic group to be excluded from the study. There is a potential for researcher bias because the researcher is employed at Rowan in the RowanCard office. Those participating in the focus group study may be inclined to not answer questions honestly because of the researcher's position. Finally, there are no historical data to compare results to which will require a follow up study in the future.

Operational Definitions

1. Attitudes: The level of satisfaction undergraduate and graduate students enrolled in the spring 2011 semester who purchased a meal plan have about the RowanCard program.
2. Contract: An agreement between Rowan and off-campus merchants.
3. Merchants: Off-campus partners that accept the RowanCard for products and services that are contracted with Rowan.
4. Readers: The electronic devices used for swiping the RowanCard for goods and services.
5. RowanCard: The official identification card of Rowan University.
6. Students: Those who are actively enrolled for the spring 2011 semester which are participating in a meal plan at Rowan.
7. Vali-dine: Magnetic or punched card reader used to validate and check status of meal cards.
8. Verifone Trans 330: Equipment required by Rowan in order for off campus merchants to participate in program.

Research Questions

The study addressed the following research questions:

1. What are the attitudes of undergraduate and graduate students who are currently enrolled for the spring 2011 semester at Rowan University towards the meal plans?

2. Does card access give students a better sense of security on campus?
3. How satisfied are students with the services provided by the RowanCard?
4. Is there a significant difference in attitudes between on campus and off campus students towards the RowanCard program?
5. What recommendations do current students who have purchased a meal plan during the spring 2011 semester have for future growth of the program?

Overview of the Study

Chapter II provides a review of literature pertinent to the study. The section includes a history of the swipe card, an overview of prepaid cards, and their functionality. Also included is information about campus card technology, history of swipe card uses in higher education, as well as Rowan University's swipe card history including door access and security. Moreover, the section reviews research conducted by the University of Indiana – Purdue University on student satisfaction and a study conducted at Albion College which focused on town-gown relations and generating revenue. Finally, the findings are reviewed from a study conducted by the RowanCard office on student satisfaction in 2006, and a study completed in spring 2010 pertaining to the attitudes off-campus merchant's participating in the RowanCard program.

Chapter III describes the methodology used in the study. The chapter details the context of the study, how the information was extracted from the blackboard commerce suite, the population and sample selection, population demographics, the data collection instruments, and the process for analyzing the data.

Chapter IV presents the findings of the study. The chapter addresses the research questions posed in the introduction of the study. Narrative and statistical analysis are used to summarize the data in this section.

Chapter V summarizes and discusses the major findings of the study and offers conclusions and recommendations for practice and future research.

CHAPTER II

Review of the Literature

Chapter II begins with an overview of the history of institutionalization and change theory. Institutionalization and change are influenced equally by current administrators, current economics, and social influences. Authoritative rule has the ultimate say in most decisions however, maintaining control and influence requires a majority support (Eisenstadt, 1964). Institutionalization and change occur when the interaction of the rulers and the broader social conditions and attitudes of the various social strata mesh. Whatever differences between the aims of various rulers and whatever the attitudes of the various groups, once the major contours of the empires were institutionalized, various organizations developed with them mainly through the efforts of the rulers to implement policies designed to maintain the specific external and internal boundaries of the system, specifically, institutional contours and characteristics (Eisenstadt, 1964).

The most important characteristic of these institutions was coexistence within the same political institutions, of traditional, undifferentiated political activities, orientations, and organizations with more differentiated, specifically political goals (Eisenstadt, 1964). This is clearly demonstrated with the current political climate being driven by the political right, dissatisfied with the current economic and social climate.

Rowan University represents a microcosm of the current national temperature. The institution, overseen by the state government which is politically influenced, is torn

between the resistance to change and the need to remain current. The RowanCard program is an example of the progressive change, driven by cultural influences and political requirements. The RowanCard offers students, faculty, and staff the ability to purchase goods and services without the risks associated with the social norms of cash purchases. By eliminating cash transactions, there is a minimal risk for human error.

This condition is understood by current administration, not just as a tool used to involve broad internal support, but, also as a profit center, implemented to capture revenue from a logistically hungry market base. Working in an identified, finite market center, generates goods competition when a modified commerce program identifies a finite number of participants. Cultural change is more readily received when the rewards are beneficial to both sides; even if driven by the authoritarian body, it is more likely to succeed.

A study conducted at Albion College, *Exploring Economic Development Opportunities* stresses the importance of town-gown relationships between colleges and the community in which they reside. Albion College, located in Albion, Michigan is a small institution located in an area that has been hard hit by the failing economy. Copeland states that small town college images are influenced directly by the town they are located in. The image of the town adversely affects the college even if the college has its own campus and environment (Erickcek & Copeland, 2008). If the town is healthy and lively, it makes the college look more appealing, but if the town is tired and depressed it can have adverse effects (Erickcek & Copeland, 2008). It is important for colleges to work with the community to build a positive relationship. College students

are going to spend time in the town whether it is socially or for a trip to the grocery store. Campus card programs can play a positive role in the town-gown relationship.

In today's economy, colleges are expanding the card program to include off-campus merchants. This allows for merchants to attract additional business from the college students thus increasing their revenue. In addition, campus card programs build positive relationships between the college and local businesses. Colleges are able to generate additional revenue which helps to offset the cut backs from both state and federal funding agencies (Millard, 2006). This has been proven historically and is clearly demonstrated, through the RowanCard program.

History of Swipe Cards

The first swipe card was issued by Diner's Club back in 1950. This card allowed people to eat at restaurants and Diner's Club would pay the restaurant and then bill the person. At first the card was referred to as a charge card because customers were required to pay the balance in full when they received the bill. American Express was the next to issue a swipe card in 1958, which people referred to as a credit card (Woolsey, 2005). Bank of America issued the BankAmericard, now known as Visa, later in 1958. Credit cards were first promoted to traveling salesmen for use on the road in the early 1960s (Credit Card Forum, 2008). Credit cards became more and more popular throughout the 1970s, 80s and 90s. Students entering college today have been exposed to swipe cards throughout their childhoods and are savvy about such cards. Swipe cards have begun to replace the actual need for people to carry cash or checks.

The Discover card was unveiled to the nation during the 1986 Super Bowl. The company's goal was to change the consumers thinking about credit cards and how they functioned. Discover Financial was the first to offer no annual fee and cash back rewards to its customers (discoverfinancial.com, 2010).

Today, Discover is a leading credit card issuer and electronic payment services company with one of the most recognized brands in the United States financial services (discoverfinancial.com, 2010). Its payments network processes billions of transactions per year.

Pre-paid Cards

Pre-paid card systems allow consumers to pay for purchases electronically via the internet or some other form of electronic device. The system provides swipe cards each having its own unique identity number associated to it. The internet has become a gateway for people to purchase goods and services within the comfort of their own homes, eliminating the need to carry cash or the need for transportation. The concept is similar to the credit card however, pre-paid cards allow consumers to deposit a certain dollar amount onto the card or purchase a card with a pre-set spending limit. Many consumers are uncomfortable with using credit cards on-line because those transactions are connected to personal information and typically large credit limits which can lead to identity theft. Merchants can choose to participate in a pre-paid card program with a minimal charge back to the processor of the cards (Truman, Sandoe, & Rifkin, 2002).

The technology required in order for merchants to accept credit, debit, and pre-paid cards, is similar to the RowanCard technology. All require some type of telecommunication link. Based on the study conducted in spring of 2010, off campus merchants seem inclined to accept the RowanCard as payment because the technology needed is familiar to them.

Campus Card Technology

The original campus card technology was very basic in its applications, management, and cost. As technology continues to evolve, so have campus card systems. The demand for card technology continues to redefine itself to match the needs of other information technologies. One of the major uses of campus cards is a way of managing payments within the college community (Grills, 2000).

The use of swipe cards for electronic payments is replacing the cash system in the United States economy as well as on college campuses. Swipe cards offer a fast, convenient, and safe way to make payments. As with all forms of payment, swipe cards have direct and indirect costs. There are five main categories of swipe cards. The credit card is the most common type of swipe card in the United States. This card allows cardholders to pay their balance in full at the end of a billing cycle or revolve the balance into a line of credit. Debit cards allow cardholders access directly to their checking or savings account. Debit cards can be used on-line, requiring the use of a personal identification number (PIN) or off-line and processed like a credit card. Third, are charge cards, which require payment in full at the end of the billing cycle, typically one month. Next, commercial cards which are issued to businesses, corporations, government

agencies, and colleges and universities, are used to improve cash management and reduce purchasing costs. Finally, cash cards or pre-paid cards are preloaded with cash value either embedded in a chip or encoded on a magnetic stripe on the card (Grills, 2000).

Campus cards offer the benefit of portability to the user. Campus cards are compatible with other technologies and can go anywhere and are able to do almost anything. Institutions can manage and control the privatization of vendor activity, allow customers to view account balances at the time a transaction is processed, and a quick easy process for deactivating a lost card (Grills, 2000). The goals for a successful card program require convenience, safety, marketing, manageability, accountability, operations, statistics, access, public relations, and profit.

Swipe Card Uses in Higher Education

Swipe cards first started on a college campus in 1968. R.D. Products developed and installed the first electronic card access system at Rochester Institute of Technology located in Rochester, NY. The system, which was known as Vali-dine, mechanically punched holes in the card as it read to signify access to the dining hall. At its inception, swipe cards served as a meal ticket for on-campus dining. In 1972, California State Polytechnic University installed the first known card-based system utilizing proprietary magnetic stripe technology which included meal plan application software. At the same time, R.D. Products developed a patented one-piece card production system, containing a camera, timer, and laminator (Huber, 2009).

In the late 1970s, a new Vali-dine Series 4 system was created, which utilized magnetic stripe technology along with a “food points” application and privilege application software (Huber, 2009). This new application allowed the card to be used similar to a debit card in the college bookstore. Through the years and advancements in technology, campus ID cards have turned into so much more than an identification card. Not only can students use them around campus for dining, door access, laundry, vending, library access, printing and copying; students can use them at off-campus merchants similar to a debit card for products and services.

Colleges and universities have been using swipe cards for a variety of uses, including financial transactions, since the early 1990s. As technology has evolved, so have card capabilities, leaving colleges and universities with an endless menu of card options (Dratch, 2008). Although some colleges opt to stay with the conventional ID card with its use limited to on-campus dining and bookstore capability, other institutions have adopted to the many uses that swipe cards offer. In addition to students using their ID card to buy books or access dining facilities around campus, cards are now being used for door access, copy and printing capability, and for the purchase of products at off-campus merchants.

The concept behind the enhancement of campus cards is mostly for convenience and security. College administrators believe that having students carry only their ID card cuts down on theft crimes, as the card eliminates the need for students, as well as faculty and staff, to carry cash on-campus. Staff are more comfortable because no one is walking around collecting cash, depositing cash, and potentially getting robbed (Dratch, 2008).

Students find that the card offers them a passport to a host of services. They find that only needing to carry one card is more convenient for them. The one card enables them to buy something to eat, access a dorm or lab, pay for a transcript, check books out of the library, work out at the gym, and also buy groceries on their way home at the supermarket (Dratch, 2008). Today, the majority of students entering college are familiar with swipe cards. They have had exposure to credit and debit cards as early as their junior high school years. Students find it is easy to bounce from one account to another on their ID card with little or no hassle (Angelo, 2003).

Campus ID cards offer many services to students including meal plan accounts, school-based preloaded accounts, and checking accounts. Meal plan accounts allow students to eat in on-campus locations with a stored number of meals. Cashiers swipe the card each time a person enters and a meal is deducted from the account. School-based preloaded accounts work much like a debit account in which the university holds the money, acting as a financial entity (Dratch, 2008). Parents and students can apply funds to the card as needed via a website, campus kiosks, or through the card office. Students can also apply financial aid or grant money allotted to them for college living expenses to their ID card while attending college. Students can then use the money on-campus as well as off-campus at a select group of merchants.

More recent student swipe card innovations include secure access to housing as well as laundry access. Students have the convenience of swiping their card in an exterior door to gain access to their room without worrying about misplacing or losing keys. One

swipe through a washer or dryer and students avoid the frustration of trying to find quarters on-campus to wash their clothes.

University identification cards are now being used in place of a bank debit card. Parents can apply funds to a student's account for spending on and off-campus without having to pay fees associated with the average bank card. Since ID cards are not issued from a banking institution, it is much faster to get a replacement if the card is lost. Additionally, since it is a declining balance card, it stops working when the balance gets to zero, unlike bank cards which can allow students to overspend, increasing the balance that needs to be paid back (Angelo, 2003).

In today's economy, universities are operating within parameters of tightened budgets, campuses are turning to their swipe card's off-campus program to help generate revenue (Emery, 2010). As the popularity of off-campus programs expand, colleges and universities are seeing an increase in the amount of money that students deposit to their campus cards (Emery, 2010). The increased spending both on and off campus not only helps the university but local businesses as well.

History of Swipe Cards at Rowan University

Rowan University started its swipe card program in the 1980s. At that time, students were able to transfer financial aid money to the card for use in the on-campus bookstore. The swipe card, known as the student ID card, also served for access to the dining room for meals. Soon after, bar codes were printed on the back of the card in order for students to check books out of the library.

It was not until the 1990s that Rowan University's swipe cards started to evolve into much more. The identification card was renamed the RowanCard since it had more functionality than just an ID. By the end of the 1990s, students were able to use their RowanCard to access computer labs across campus, eat in the dining halls, purchase books and supplies from the bookstore, gain entry to the Recreation Center, and deposit money onto the card, allowing them to pay for parking tickets, buy a transcript, pay a library fine, purchase tickets for events on-campus, or even order pizza or Chinese food delivery.

Currently, Rowan's swipe card allows students and staff a wide array options. There are three accounts encoded on each card. The first account is for meals. When students enter a dining location on-campus, the card is swiped and a meal is deducted, reducing the balance in that account. The two additional accounts function the same way a debit card does. Funds are applied to a dining dollar account and a boro bucks account whenever a student purchases a meal plan. The dining dollars account allows students to make purchases in any food location on-campus only with the swipe of their card. The third account, boro bucks, gives students and staff the ability to purchase items both on- and off-campus using their swipe card. A simple on-line deposit into the boro bucks opens the door to endless spending possibilities.

In the past five years, the RowanCard has expanded its capability to allow people into buildings on-campus. Security has become a key issue at colleges and universities across the country and administration has made it one of its top priorities (Millard, 2006). Swipe access allows security to be able to track who and when people swipe into a

building or who tried swiping in and was denied access. In a time when safety and security has become a critical issue among college campuses, swipe card access allows a tracking system to help prevent crimes and tragedies from occurring. Limiting access to computer labs on-campus to those students, staff, and faculty who are in a specific major provides a sense of security in knowing that people who do not belong there cannot access the lab. Students can print class work out from many print locations throughout campus with the simple swipe of their card.

In addition, RowanCards can be used in laundry machines, vending machines, the mail room, the recreation center, the duplicating center and copiers all across campus. The Art Department accepts RowanCards for equipment deposits as well as printing work. Duplicating can accommodate large printing orders allowing students and staff the convenience of staying on-campus for all their printing purchases. Finally, students are required to provide their ID when attending after hour events on-campus. Only needing to worry about carrying one card provides simplicity for the college community.

The spending accounts allow students the ability to purchase goods and services on-campus as well as off-campus. By applying funds to their RowanCards, students can purchase tickets to different venues on-campus, pay their tuition, purchase a transcript, and even pay an outstanding fine or ticket. The on-line application for spending accounts allows students the ability to have e-mail notifications sent when their balance drops below a certain amount. Students can set the limit up on-line and receive an e-mail when their account drops below that set amount. Students can also have e-mails sent to mom,

dad, or even grandma alerting them of the low balance, so they can apply additional funds for the student (Offcampussolutions.com, 2008).

Door Access/Security

Campus identification cards are replacing the traditional medal keys for door access on college campuses throughout the United States. The move to electronic key cards was deemed to be able to increase security on college campuses. Building access and security on a college campus are very important because the public safety office must be able to maintain a level of comfort and security for students. If students do not feel that their university is safe, then the school will develop a bad reputation and see a spiraling decrease in enrollment (associatedcontent.com, 2008). Switching from the traditional metal key system to card access for doors can save university's hundreds to thousands of dollars yearly. When a student loses a key, they have to report it to the residential housing office who then has to have a licensed professional re-key the door costing the university a couple hundred dollars per occurrence. It is relatively inexpensive to deactivate a student's campus card and reissue a new one which will turn off the privileges associated with the lost card and activate them on the new card (associatedcontent.com, 2008)

Changing over to swipe card access allows public safety and other university personnel added features that are unable to be done with traditional lock and key such as, assignment of door privilege to only those students who reside in the building and individual rooms within the particular building. In addition, swipe access allows for monitoring of all swipes at exterior and in some cases interior doors throughout campus, ensuring additional safeguards for students, faculty, and staff. The card access system

provides administrators with records of denied access for anyone trying to access a door in which they do not have the privilege for. Administration can then investigate why access was denied allowing them to trace suspicious activity. In addition to residential buildings changing over to card access, academic buildings are following suit with regard to after-hours access and access to labs around campus.

Many colleges and universities offer an on-line feature that allows students to suspend their card if it gets misplaced. This freezes the meal account, debit account, and door access associated with the card. Students should be aware that not all transactions are able to be traced and in some instances, balances can be lost and unable to be returned to the student. It is important that cards be deactivated as quickly as possible.

The Cbord Group is the world's leading provider of campus and cashless card systems. Cbord offers food and nutrition service management software, nationwide student discount and off-campus commerce programs, housing and judicial process management software, and integrated security solutions. It is the leading provider of campus ID card software for colleges and universities. Cbord's vice president of sales for colleges and universities states that when campuses go cashless, they see anywhere from a 20 to 50% increase in snack and beverage sales on-campus (Cbord.com, 2010). A cashless campus entices parents to place additional funds onto the card, which students use at off-campus locations, generating an additional revenue source for institutions. This is due in a large part to the convenience that is offered with having funds available on the swipe card (Cbord.com, 2010).

Some colleges have agreements with local banks to allow students free or low-fee checking accounts. Students' ID cards double as ATM or debit cards. Sometimes, the card will also carry a Visa or MasterCard logo that lets students use them anywhere those cards are accepted. The money is then debited directly from the student's checking account (Dratch, 2008).

History of NACCU

The National Association of Campus Card Users (NACCU) was organized in Baltimore, Maryland in 1993 by several professionals interested in promoting the use of college cards on campus (NACCU, 2007). The vision of the organization was to educate college and university administrators charged with the responsibility for developing card systems by schooling them on newly installed applications, vendor performance, technology platforms, and other information relating to the marketplace for card systems (NACCU, 2007).

The first board meeting was held at Duke University in May of 1993. A quarterly newsletter began publication in July of 1993 titled, "NACCU News." The first publication included a campus card glossary and a beginner's FAQ about campus cards. NACCU held its first annual conference in February of 1994. Its goal was to help universities make initial decisions associated with the transition to a card program.

NACCU's membership was up to 150 institutions at the time of the first annual conference and drew an additional 255 institutional attendees. Joe Pietrantonio, Founder of NACCU, stated that the conference taught universities about the meanings of on-line,

off-line, smart card, hardware, and software associated with card programs (NACCU, 2007). As interest in campus cards grew, so did interest in NACCU. They launched the NACCU-L listserv in March of 1994 as a resource for institutional members to be able to ask questions and communicate with other members. *On-Campus Hospitality* magazine recognized the organization in 1995, stating that the networking and interchanging of ideas that are afforded by NACCU are unmatched (NACCU, 2007).

In 1996, NACCU created a site on the World Wide Web. The initial web site included membership information, upcoming conferences, and a membership directory. By June, 1997, the quarterly newsletter changed to CARDtalk and began monthly publications rather than quarterly. In addition, the logo “World of Possibilities” was created in December of 1997.

Institutional membership continued to climb throughout the end of the 90s and into the 21st century. Annual conference participation grew as well with topics categorized by Technology, Business, Marketing, Studies and Success, and Innovations in Card uses and Systems.

Today, NACCU has 473 institutional members and 65 corporate members (NACCU, 2010). The association continues to grow and is a great resource for card program administrators to network with other institutions to gain knowledge and ideas to help improve their campus program.

Student Survey Review

In 2006, the RowanCard office surveyed all Rowan students who purchased a meal plan for the fall 2006 semester. The survey was an on-line survey, which consisted of 25 questions pertaining to the different functionality of the RowanCard. The office received 983 responses to the survey.

The results indicated that 55% of the respondents were satisfied with the promotion of the RowanCard, stating that the medium they used most often to receive information about the program was email. Fifty percent stated they first learned about the RowanCard during freshman orientation and 40% reported eating more off-campus than on-campus. The survey also revealed however that more than 40% of students felt the terminology of the spending accounts was not easy to understand.

The end of the on-line survey allowed students to sign up for a focus group that staff at the RowanCard office would conduct as a follow up to the findings of the survey. Due to an overwhelming interest in participating, the office staff conducted three focus groups. Each session consisted of eight students with two personnel conducting face-to-face interviews. The findings from each session mirrored each other. All participants were pleased with the options they had available to them off-campus, although each group expressed an interest in having Wawa, which is a popular convenience store located throughout New Jersey and a gas station participate in the program. In conclusion, all participants expressed an interest in having dining dollars which are funds available for spending in on-campus food locations as well as Boro Bucks which are funds available to use anywhere on- or off-campus which accepts the

RowanCard included as a part of their meal plan and felt that the options they had with meal plans sections met their needs (Noon, 2006).

Studies on Student Satisfaction

A study conducted at Indiana University – Purdue University pertaining to student satisfaction of their card program, over 75% of students responded that the level of services and promotions available to them through the card program ranged from good to excellent. Students were asked a variety of questions ranging from friendliness of staff, functionality of the card, ease of use, to additional options they would like to see offered through the program. The majority of respondents stated that they receive information about the card program through the website and email notifications. When students were asked if there was any additional services they would like to see on the card program, 57% stated “no” (Eggleton, 2010). The biggest complaint was that when the card wears out, students are required to have a replacement card made at their expense which is the same practice at Rowan. Although Indiana University – Purdue University have some additional options not currently offered at Rowan, the programs are very similar.

Student Monitor LLC conducts studies pertaining to university campus card programs across the nation semi-annually. The survey was given to 1,200 college students enrolled in a four-year college or university throughout the United States. Findings from the study conducted in October of 2010 indicated that nearly four in ten students (37%) of students report owning a campus card. A total of 74% of these students reported that their campus card has a stored value feature and 39% stated they used their campus card daily to make purchases. Students with a campus card spend an average of \$108 monthly with their

card with 81% of that spending done on campus (Weil, 2010). When students were asked about the frequency of using their campus card to make purchases, 20% of on campus students replied they use their card daily where only 6% of off campus students reported daily use of their card. There was no significant variance between academic status or gender with regard to frequency of use. The highest percentage of students use their card at dining locations, followed by campus bookstores, printers or copiers on campus, vending machines, and laundry with 51% of students indicating they use their card at that location. A total of 67% of respondents indicated that their campus card is used as an ID, allowing access to buildings, and works as a stored value card (Weil, 2010). When asked about using their school issued campus card off campus, more than 69% of students answered that they use the card for off campus purchases. Of those, 77% indicated that they live at home. The study also indicates that online social networking has become a top online activity for college students, 60% of students log on to a social networking site weekly (Weil, 2010). The study shows that card programs across the country are becoming the card of choice for students attending college to meet their all their needs.

Merchant Survey Review

In spring 2010, the RowanCard office surveyed Glassboro merchants participating in the off-campus program. The survey was mailed to the merchants and consisted of two parts. The first part consisted of demographic information and the second consisted of 35 Likert-style questions pertaining to the card program functionality.

Of the 24 surveys distributed, 21 completed surveys were returned, yielding a return rate of 87.5%. Fifty two percent of the businesses stated that they were a corporate entity and 52% were classified as restaurants.

The results of the study in general confirmed that merchants are satisfied with the RowanCard program and feel that both the University and their business benefit from it. Merchants believe that they have a good relationship with students. The biggest concern that merchants have is the reliability of the equipment as well as the amount of time it takes for a transaction to process.

Merchant's attitudes pertaining to the installation process was positive as well as their attitude regarding monthly payments. When merchants were asked about any recommendations they had, they all stated that they would like to see an improvement with the equipment. With the technology available today, there should be more than one option for equipment needs (Noon, 2010).

Summary of the Literature Review

Swipe card use is ever-changing in response to student's wants and needs. In today's society with the plastic savvy student, expanding options for card use is the way of the future while attending college. Having a pre-paid account activated on their identification card opens a new way of spending with the use of one simple card. Having a photo ID also reduces the risk of fraudulent activity since their picture is displayed right on the front. Incorporating an off-campus merchant program helps to meet students' demands for more meal options as well as giving additional convenience options of

getting a prescription filled, going bowling, or even buying groceries. This program benefits not only the merchants and students but the university as well.

The student study conducted in 2006 allowed the RowanCard office to assess the program from the student's point of view. After the findings of the study, changes were made to meal plans, allowing students more spending money for off-campus purchases. A contest was done to allow student's the chance to rename the spending accounts associated with their RowanCard since that was one of the concerns uncovered in the findings. Overall, students were pleased with the options they had for off-campus spending, however, the RowanCard office continued to recruit additional merchants to give students a larger variety to meet their needs.

In order to understand current practice and expand for future applications, it is necessary to gain an understanding of what currently enrolled Rowan students know about the card program and what their attitudes are about the services that it offers. Moving forward, it is important to continue to expand the program based on the wants and needs of the students to ensure student satisfaction.

CHAPTER III

Methodology

Context of Study

The study was conducted at Rowan University, located in Glassboro, NJ. The university is located in Southern New Jersey between Philadelphia, PA and Atlantic City, NJ. It is a medium sized institution with comprised of undergraduate and graduate students with a current student population of more than 11,000 as of the spring 2011 semester. Students can select from 80 undergraduate majors, 55 graduate degree programs and a doctoral program in educational leadership. The university is comprised of six academic colleges including the Rohrer College of Business, College of Communication, College of Education, College of Engineering, College of Fine & Performing Arts, and the College of Liberal Arts & Sciences. It also offers degree completion programs through the College of Graduate and Continuing Education (CGCE). Rowan University recently partnered with Cooper Hospital to develop the Cooper Medical School of Rowan University. The medical school with be the newest medical school created in the state in over 30 years and the first ever four-year allopathic medical school in South Jersey (Rowan University, 2010).

Rowan University provides students, faculty, and staff an ID card known as the RowanCard which gives them a variety of privileges that can be used both on and off-campus. Among those privileges are meals, boro bucks, dining dollars, door access,

copier, computer lab, printing, laundry, and vending machine access, to name some. There has been a growing demand for RowanCard capabilities over the past five years which has led to the expansion of the program.

Population and Sample Selection

The target population for the study consisted of all undergraduate, graduate, and non-degree students participating in the meal plan program during the spring 2011 semester. The population included New Jersey resident students as well as out-of-state resident students, both full and part-time students, and commuting students. The selection includes students of all ethnic backgrounds, genders, and geographic areas of origin. There were approximately 4,100 students purchased a meal plan for the spring term. Of those, 2,764 students purchased a weekly meal plan. This information was extracted from the Rowan University blackboard commerce suite, which is the system that facilitates all meal plans in addition to all RowanCard transactions.

An on-line survey was administered in the beginning of March 2011 to 1,300 randomly selected students of the 2,764 students who met the criteria in the spring 2011 semester. In addition to the on-line survey, two focus groups were conducted on-campus consisting of 32 students who were randomly selected from those who completed the survey.

Instrumentation

An on-line survey was used to assess the student's involvement and attitudes about the program. The data for enrollment in the meal plans was extracted from the blackboard

commerce system after the add/drop period, which ended on January 24, 2011. A survey instrument was created after a thorough review of the literature and sought to examine student's attitudes towards the current services provided by the RowanCard program. The instrument had to be created because there is no historical data showing any type of research ever being conducted on this issue. In addition, the focus groups allowed students to discuss their likes and dislikes about the program and options for future improvement/growth of the program.

The survey (Appendix B) consisted of two parts: background information about the person completing the survey and statements about the program and its positive or negative impact on the student. The first section collected demographic information including the student's current class status, ethnic background, if they are a full or part-time student, and whether they reside on or off-campus. The second section consisted of 25 Likert-style statements pertaining to meal plans, door access, off-campus services, other RowanCard services, and customer service. Participants were asked to indicate their level of agreement to the statements on a five-point scale from 5 strongly agree to 1 strongly disagree. After receiving approval from the Rowan University Institutional Review Board (IRB), the survey was created as an on-line instrument using the Survey Monkey on-line surveying tool and a pilot study was conducted in the Bursar's Office in late February. The pilot study was conducted to ensure the desired response rate could be accomplished using an electronic survey and for readability. The pilot was conducted in the Bursar's office because of the extensive survey creation and experience the professional staff has. The IRB application was submitted February 7, 2011 to the IRB committee and approved (Appendix C) February 23, 2011.

Survey items yielding Cronbach's coefficients of .70 or higher are considered acceptable when conducting research (UCLA: Academic Technology Services, Statistical Consulting Group). Section two of the survey included 25 Likert items with a Cronbach coefficient of .910. The survey was determined reliable through Cronbach analysis.

In addition to the survey, two focus groups were conducted in March, 2011. Participants for the focus groups were randomly selected from those who completed the on-line survey. There were a total of 32 people who participated in the focus groups. The focus groups enabled the researcher to obtain more detailed and personal experiences from participants with regard to the RowanCard program.

Data Collection

The meal plan enrollment data were extracted by the RowanCard office following the end of add/drop and saved as a comma delimited (CSV) file that could easily be exported to various reporting tools. The surveys were administered electronically using the Survey Monkey surveying tool at www.surveymonkey.com in early March, 2011. Students were notified of the study via their Rowan University email address which was extracted from the meal plan data file from the spring 2011 semester. The link to the survey was delivered via email which was sent to randomly selected students who purchased a meal plan for the spring 2011 semester. Included in the email were instructions and a personal letter (Appendix D). One additional reminder email was sent out to the survey population one week after the survey was administered. At the end of the survey, participants were asked if they would be interested in participating in a focus group.

Students who wanted to participate were asked to provide their email address to be contacted for the focus groups.

Focus groups were conducted at the Rowan Boulevard complex in early March by RowanCard staff. Participants were asked to complete a form to provide demographic regarding their gender, current academic status, and ethnic background. There was no identifiable information collected from the focus group participants. All participants were asked six open-ended questions. They were first asked where they get the majority of their information pertaining to the RowanCard. They were asked if they had experienced any difficulties when using their RowanCard either on or off campus as well as if they had experienced problems when getting assistance for problems with their account. Participants were then asked if there were any additional merchants they would like to see accept the RowanCard or if there were additional applications that they would like added. Finally, participants were asked to discuss their overall attitudes towards RowanCard program.

The focus groups offered students an opportunity to discuss in their own words their attitudes about the RowanCard program as it currently is and both the positive and negative experiences they have had with the program as well as their attitudes about the current options available through the program. It also gave students the chance to discuss ideas for the future growth of the program.

Data Analysis

The independent variables in the study included gender, ethnic background, graduate or undergraduate student, class status, and resident or commuter. This information was collected in the first part of the questionnaire. The dependent variables were the attitudes students had towards the RowanCard program. The data collected from the survey instrument were downloaded into a comma delimited format and loaded into Predictive Analytic Software (PASW) version 18.0 for further analysis to answer the research questions. Data were analyzed by performing descriptive statistics of all factors. Descriptive statistics used to analyze the data were frequency, percentages, means, and standard deviations. Cross-tabular analysis was used to look at the independent and dependent variables through PASW. The findings were analyzed to answer the research questions. Correlations were completed between demographic information and areas of satisfaction to determine any significant correlations.

Qualitative methods of analysis were used with the assistance of Sisco's (1981) *Rules of Procedures for Logical Analysis of Written Data* (Appendix E). This method assisted me in looking over the focus group notes for common and divergent themes. The process of examining the data with this method helped to answer research question 5 in Chapter I.

CHAPTER IV

Findings

Profile of the Sample: Survey

The subjects for the study consisted of undergraduate and graduate students enrolled at Rowan University in the spring 2011 semester who purchased a weekly meal plan. There were a total of 1,300 surveys emailed to students. There were a total of 813 responses and 775 completed surveys. The incomplete surveys were removed giving a response rate of 60%. Female respondents accounted for 56% of the results while males made up 44% of the total. The majority of respondents were white (81%) followed by Hispanic (6%), African American (5.8%), and Asian or Pacific Islander (3%). Freshman students had the highest percentage of responses (36%) followed by Sophomores (28%), Seniors (20%), then Juniors (14%), and finally graduate students with (2%). Ninety-nine percent of responses were from full-time students with 84% living on-campus.

Profile of the Sample: Focus Groups

The participants for the focus groups consisted of 32 students of which 18 (56%) were female and 14 (44%) were male. All participants were randomly selected from those who responded to the on line survey. The groups consisted of eight (25%) freshman, six (19%) sophomores, six (19%) juniors, 10 (31%) seniors, and two (6%) graduate students. The majority of participants were white (56%), followed by African American (19%),

Hispanic (16%), Asian or Pacific Islander (6%), and (3%) other. The focus groups were conducted in the multi-purpose room at Rowan Boulevard on February 28, 2011 and March 7, 2011. There were six open ended questions asked pertaining to their attitudes towards the RowanCard program and future applications.

Analysis of the Data

Research Question 1: What are the attitudes of undergraduate and graduate students who are currently enrolled for the spring 2011 semester at Rowan University towards the meal plans?

Table 4.1 represents student responses regarding meal plans. A total of 57% of students responded that they understood how their meal plan worked. In addition, over 45% of respondents indicated that the meal plan application was easy to understand and they know where to go on-line to sign up for a plan (45%). Students (36%) indicated that they somewhat agree when asked if they were satisfied with the meal plan options offered to them on campus, while 34% strongly agreed with this statement. Responses indicate that students agreed that the amount of Dining Dollars and Boro Bucks associated with their meal plan option is adequate. When asked the question, "I know where to go when I have a problem with my meal plan," only 25% of respondents strongly agreed. A total of 36% stated that they somewhat disagreed or disagreed with the above statement.

Table 4.1

Meal Plan (N=775)

	Strongly Agree		Somewhat Agree		Undecided		Somewhat Disagree		Strongly Disagree	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
I understand how my meal plan works <i>n=770, SD=.961, M=4.35, missing=5</i>	440	57.1	246	32.0	32	4.2	37	4.8	19	2.5
The meal plan application is easy to understand <i>n=771, SD=1.013, M=4.17, missing=4</i>	359	46.6	269	35.0	79	10.1	49	6.2	21	2.5
I know where to go on-line to sign up for a meal plan <i>n=768, SD=1.105, M=4.10, missing=7</i>	347	45.2	261	34.0	60	7.8	62	8.0	38	5.0
The dining dollars associated with the meal plan are adequate <i>n=718, SD=1.188, M=3.89, missing=57</i>	266	37.0	268	37.3	60	8.4	84	11.7	40	5.6
The boro bucks associated with the meal plan are adequate <i>n=751, SD=1.281, M=3.74, missing=24</i>	257	34.1	273	36.5	61	8.1	101	13.5	59	7.8
I am satisfied with satisfied with the meal plan options offered to me <i>n=720, SD=1.262, M=3.75, missing=55</i>	243	33.8	256	35.6	72	10.0	93	12.9	56	7.8
I know where to go when I have a problem with my meal plan <i>n=721, SD=1.433, M=3.21, missing=54</i>	184	25.5	161	22.3	110	15.3	151	20.9	115	16.0

Research Question 2: Does card access give students a better sense of security on campus?

Table 4.2 focuses on responses regarding door access on campus. A total of 60% of the students stated they have no problem accessing labs on campus with their RowanCard. When asked if they feel safer knowing after-hours door access required a card swipe, 43% of respondents strongly agreed with the statement. In addition, 33% replied they would feel safer if all residence halls required card swipes to access them.

Table 4.2

Door Access (N=775)

	Strongly Agree		Somewhat Agree		Undecided		Somewhat Disagree		Strongly Disagree	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
I do not have a problem accessing labs on campus with my RowanCard <i>n=719, SD=.990, M=3.78, Missing=56</i>	433	59.9	176	24.3	79	10.9	17	2.4	18	2.5
I feel safer knowing after hours door access requires a card swipe <i>n=765, SD=1.126, M=3.98, missing=10</i>	328	42.9	222	29.0	130	17.0	48	6.3	37	4.8
I would feel safer knowing that all residence halls require a card swipe <i>n=753, SD=1.243, M=3.63, missing=22</i>	248	32.9	190	25.3	177	23.5	89	11.8	49	6.5

Research Question 3: How satisfied are students with the services provided by the RowanCard?

The overall response from students regarding their attitudes towards the RowanCard program was positive. The majority of students (68.2%) preferred having just the RowanCard to take care of all their needs while attending Rowan University while only 2.4% of student's disagreed. A total of 34% of students strongly agreed that applying funds to their RowanCard is easy. When asked if they frequently use their RowanCard for printing or to make copies on campus, the results indicate that most students do not. Most students are undecided when it comes to where the RowanCard office is located in addition to whether the office has convenient hours. Over 50% of respondents selected they were undecided with regard to how easy it is to access the RowanCard office in addition to the friendliness/helpfulness of the RowanCard staff. Student responses were also low when asked if they felt well informed about changes and additions to the RowanCard program. Overall, students attitudes about the RowanCard being the only card they prefer to use was positive but, the attitudes about services provided were undecided.

Table 4.3 shows the top five and lowest five responses pertaining to RowanCard services. Participants in the focus groups expressed concern about not knowing where the RowanCard office is located as well as frustration when trying to resolve an issue with their card.

Table 4.3

Services (N=775)

	Strongly Agree		Somewhat Agree		Undecided		Somewhat Disagree		Strongly Disagree	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
I prefer having one card for all of my needs <i>n</i> =737, <i>SD</i> =.820, <i>M</i> =4.55, <i>missing</i> =38	502	68.2	181	25.0	27	3.7	9	1.2	18	2.4
Applying money to my RowanCard is easy <i>n</i> =775, <i>SD</i> =1.096, <i>M</i> =3.92	270	34.8	241	31.1	171	22.1	61	7.9	32	4.1
The RowanCard web site is easy to navigate <i>n</i> =769, <i>SD</i> =.990, <i>M</i> =3.78, <i>missing</i> =6	198	25.7	240	31.2	249	32.4	57	7.4	25	3.3
I know how to suspend my card if it is lost or stolen <i>n</i> =746, <i>SD</i> =1.482, <i>M</i> =3.18, <i>missing</i> =29	196	26.2	183	24.5	87	11.6	147	19.6	135	18.1
The RowanCard office is easy to contact <i>n</i> =771, <i>SD</i> =.968, <i>M</i> =3.32, <i>missing</i> =4	117	15.2	128	16.6	395	51.2	75	9.7	56	7.3
Employees in the RowanCard office are friendly/helpful <i>n</i> =722, <i>SD</i> =.922, <i>M</i> =3.39, <i>missing</i> =53	115	15.9	137	19.0	411	56.9	36	5.0	23	3.2
I am well informed about changes/additions to the RowanCard <i>n</i> =723, <i>SD</i> =1.235, <i>M</i> =3.11, <i>missing</i> =52	114	15.8	168	23.2	204	28.2	154	21.3	83	11.5

(Table Continued)

Table 4.3

Services (N=775)

	Strongly Agree		Somewhat Agree		Undecided		Somewhat Disagree		Strongly Disagree	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
I frequently use my RowanCard to make copies on campus <i>n=719, SD=1.415, M=2.73, missing=56</i>	93	12.9	166	23.1	118	16.4	139	19.3	203	28.2
The RowanCard office has convenient hours <i>n=721, SD=.889, M=3.29, missing=54</i>	87	12.1	132	18.3	426	59.1	52	7.2	24	3.3

Research Question 4: Is there a significant difference in attitudes between on campus and off campus students towards the RowanCard program?

A Pearson product moment correlation was calculated to determine if there were any significant relationships between demographic variables of students and the reported level of satisfaction of the RowanCard program services. The data showed weak to moderate levels of significant correlations between gender and academic status compared with satisfaction level of students. Student's residential status compared to satisfaction level indicate a negative weak correlation. The data indicate that both on campus and off campus student tend to have the same level of satisfaction with regard to the options they have available to them with the RowanCard program.

Table 4.4 provides information regarding the relationship between students that reside on campus to the students that reside off campus and satisfaction of offered services. A

Pearson product moment correlation was calculated for the relationship between student's residential status and the satisfaction of options provided by the RowanCard on campus. A weak negative correlation was found ($r = -.155, p = 0.00$), indicating a weak negative relationship between the two variables. There is also a weak negative correlation between students residential status and the satisfaction with all the RowanCard options available to students ($r = -.102, p = 0.00$).

Table 4.5 provides information regarding the relationships between student's academic status (freshman, sophomore, junior, senior, graduate) and satisfaction of select items. There is a strong positive correlation between student's academic status and the satisfaction of options available to them with the RowanCard on campus ($r = .651, p = 0.00$). There is also a moderate positive correlation between student's academic status and the options available off campus ($r = .551, p = 0.00$) as well as all options available to them with the RowanCard ($r = .548, p = 0.00$), indicating a moderate relationship between student's academic status and the satisfaction with RowanCard options.

Table 4.6 provides information regarding gender and the satisfaction of select items. There is a moderate positive correlation between gender and the satisfaction of RowanCard options available to them off campus ($r = .483, p = 0.00$). Finally, there was a moderate positive correlation ($r = .651, p = 0.00$) between gender and the satisfaction of options available to them.

Table 4.4

Correlation Between Selected Items of Satisfaction and Residential Status

Variables	<i>R coefficient</i>	<i>p-level</i>
Residential Status/ I am satisfied with the RowanCard options on campus	-.155**	0.00
Residential Status/ I am satisfied with all the RowanCard options available to me	-.132**	0.00

**Correlation is significant at the 0.01 level (2-tailed) for all items

Table 4.5

Correlation Between Selected Items of Satisfaction and Academic Status

Variables	<i>R coefficient</i>	<i>p-level</i>
Academic Status/ I am satisfied with the RowanCard options on campus	.651**	0.00
Academic Status/ I am satisfied with the RowanCard options off campus	.551**	0.00
Academic Status/ I am satisfied with the RowanCard options available to me	.548**	0.00

**Correlation is significant at the 0.01 level (2-tailed) for all items

Table 4.6

Correlation Between Selected Items of Satisfaction and Gender

Variables	<i>R coefficient</i>	<i>p-level</i>
Gender/ I am satisfied with the RowanCard options off campus	.483**	0.00
Gender/ I am satisfied with the RowanCard options available to me	.651**	0.00

**Correlation is significant at the 0.01 level (2-tailed) for all items

Research Question 5: What recommendations do current student who have purchased a meal plan during the spring 2011 semester have for future growth of the program?

Two focus groups were conducted on campus and participants were asked six questions pertaining to the RowanCard program. The responses to these questions are discussed in order. Focus group question six discusses the findings for this research question.

Focus Group Question 1: Where do you get the majority of your information pertaining to the RowanCard?

Participants stated they get most of their information about the RowanCard from the on-line web site (<http://www.rowan.edu/rowancard>). Participants felt that the site was easy to navigate, was informative and up-to-date however, the majority expressed that they did not find the interactive map useful and would like to have an easy way to find all places both on and off campus that accept the RowanCard. More than half the participants stated that they get most of the information from the welcome package they receive in the fall semester. One student commented, "I wish we could get the same package in the spring semester, the information is very useful and I like getting the coupons." Some stated that they get their information by word-of-mouth, especially when a new off campus merchant is added to the program. Participants also expressed making a page for the RowanCard on Facebook which would allow them to link to off campus merchant sites and they felt it would allow for the RowanCard office to receive regular feedback from students as well as students being able to post recommendations to fellow students and the office.

Table 4.7

Information about the RowanCard (N=32)

Category	Subcategory	Frequency	Rank
On-line	RowanCard Web Site	26	1
Print	Welcome Package The Whit	22	2
Verbal	Word-of-Mouth	16	3

Focus Group Question 2: Have you experienced any difficulties when using your RowanCard either on or off campus?

Participants said that from time-to-time they have difficulty when a reader is not working. They stated on occasion a reader will not work at an off campus merchant but did not feel it was a big issue because they always have other places available both on and off campus for food selections. Some stated that vending readers around campus tend to be off line and it can be an inconvenience because they then have to go to the student center to purchase a drink or snack. The majority of participants stated that they have not experienced any difficulties with their RowanCard.

Focus Group Question 3: Have you had any problems getting assistance with your account when experiencing a problem?

Students where asked if they knew where to go when having a problem with their card and how they felt about the RowanCard staff. All participants stated that they felt it was important to have an office designated for the RowanCard. Participants expressed that

when an issue with their card arises, they are usually sent to multiple offices before they find the correct place to help them. Those who had experienced a problem commented that once they got to the proper office, the staff was very helpful and were able to resolve their card issues in a reasonable amount of time. Focus group participants stated that they assumed all of their concerns could be addressed at the Information Desk located in the Chamberlain Student Center however, that was not the case. Some stated that although the staff at the Information Desk couldn't resolve some issues, they were helpful in contacting the office that could and in some instances they were able to have their problem resolved over the phone without having to travel to another building on campus. One participant stated, "I don't know where the RowanCard office is." Another participant said, "It is frustrating that there is no way to have a suspended card reactivated when the office is closed." This causes some participants to have to rely on others to access their building or force them to order food from off campus merchants because the cashier in on campus food locations will not allow them access without their RowanCard.

Participants also expressed that they would like to be able to swipe multiple times during any meal period. Currently students that purchase a weekly meal plan can only get one meal during each meal period. One participant said, "I would like to be able to swipe more than one time for a meal in any given meal period."

Every participant said that Rowan needs to have one location on campus where students can go to take care of all their RowanCard needs.

Table 4.8

Issues with the RowanCard (N=32)

Category	Subcategory	Frequency	Rank
RowanCard office	Location	32	1
Meal Plans	Usage	26	2
Off Campus Transactions	Reader Down Slow Transaction time	20	3
Lost Card	Suspending/ Reactivate	15	4

Focus Group Question 4: Are there any off campus merchants that you would like to have participate in the RowanCard program?

The next question addressed off campus options. The groups were asked if there were any off campus merchants currently not participating in the program whom they would like to see accept the RowanCard. An overwhelming number of participants stated that they would like to have Wawa participate with the RowanCard program. Other suggestions were a gas station, Staples, Angelo's Diner, the Landmark Americana restaurant, and the Educational Information and Resource Center (EIRC) at the South Jersey Technology Park.

Focus Group Question 5: Are there any applications that you would like to see added to the RowanCard?

Responses varied on this question. Students want to have additional laundry services, specifically at Rowan Boulevard available to them, a RowanCard Facebook page, cell

phone notifications which will update them with new merchants, and the current balance remaining on their RowanCard. In addition, the majority of students said they would like to see more door access requiring card swipes because it will keep people who are not current students of Rowan University from accessing buildings and it makes them feel safer.

Table 4.9

RowanCard Applications (N=32)

Application	<i>f</i>	%
Parking Decals	22	68.8
Additional Vending	10	31.3
Door Access	20	62.5
Additional Laundry	11	34.4
Facebook	24	75.0
Cell Phone Notifications	24	75.0

Focus Group Question 6: What is your overall attitude towards the RowanCard program?

Overall, students attitudes were very positive with the functionality of the RowanCard, the options currently available to them, and the flexibility that one card allows them while attending Rowan. The vast majority of the students felt that Rowan has provided them with many applications that are useful with their card which has made the day-to-day functions while attending school much easier. One participant said, “I would be lost without my RowanCard.” Another participant stated, “I love knowing I can do everything with just my RowanCard.” Participants expressed that not having to worry about carrying cash or needing a credit card is wonderful and it is so easy to apply funds to the card that it is their primary card to use even when they are not on campus.

CHAPTER V

Summary, Discussion, Conclusions, and Recommendations

Summary of the Study

The purpose of this study was to determine the attitudes of Rowan University student's towards the current RowanCard program. The study was conducted to help assess student's attitudes and to discuss future applications that can be effective and current with today's technology. The subjects for the study included a randomly selected group of Rowan University's undergraduate and graduate students who had purchased a weekly meal plan for the spring 2011 semester.

Data collected for the study came from two sources. The first was a RowanCard survey which was administered to examine if students had positive or negative attitudes towards the services offered by the program. The survey instrument was arranged in three parts; demographic information, RowanCard usage, and RowanCard survey consisting of 25 Likert-style statements in which students were asked to indicate their level of agreement on a five-point scale ranging from 5 strongly agree to 1 strongly disagree. The survey was posted on-line and students received an email inviting them to participate. The survey yielded a response rate of 60%.

The data collected from the survey were downloaded into a comma delimited format and loaded into PASW for analysis to answer the research questions. Data were

analyzed by performing descriptive statistics of all survey items. The descriptive statistics data included frequency, percentages, means, and standard deviations. A Pearson product moment correlation was calculated to compare demographic information and satisfaction statements to determine any significant correlations. The data suggest that Rowan University students currently using a meal plan in the spring 2011 semester have very positive attitudes about the services and functions available through the RowanCard program.

The second data source included two focus groups that were conducted on campus to help assess students overall attitudes with the program and to discuss applications for the future growth of the program. Participants for the focus groups were randomly selected from the completed on line surveys and contacted individually via email and invited to participate in a focus group. A total of six questions were asked of the participants about where they get the majority of their information about the RowanCard, if they experienced any difficulties using their RowanCard, and if they experienced problems getting assistance when there is a problem with their account. Participants were also asked to give suggestions for additional merchants they would like to see participate, new applications to consider adding, and to give feedback on their overall attitude about the RowanCard program.

Discussion of the Findings

Data from the survey and focus groups produced positive attitudes toward the RowanCard program. I will discuss these findings as well as, student's concerns, and input regarding future growth of the program.

Research Question 1: What are the attitudes of undergraduate and graduate students who are currently enrolled in the spring 2011 semester towards the meal plans?

The survey revealed that Rowan students have positive attitudes about the meal plan options available to them. Over 80% of participants felt the meal plan application was easy, while 69% of participants agreed that they were satisfied with the meal plan options available to them. Focus group participants also stated they were happy with meal plan options available however, some indicated they would like to be able to swipe multiple times within any given meal period for meals. Students felt that being limited to only one swipe during each meal period does not always allow them to be able to use their meals when they want. Participants in the focus group also said that there are times when they swipe for a meal and the system displays they had already eaten when in fact they had not. A majority of focus group participants expressed frustration with this and stated they would like to have the issue resolved in the future. In a study conducted by the RowanCard office in 2006, Noon (2006) found similar findings about overall positive attitudes pertaining to meal plans offered to students. In addition, Eggleton (2010), in a study conducted at Indiana University-Purdue University pertaining to student satisfaction, stated that more than half the participants were satisfied with the meal plan options available to them. Although there have been few studies conducted in this area, Rowan University students have similar attitudes to those students surveyed at Indiana University-Purdue University.

Research Question 2: Does card access give students a better sense of security on campus?

The data indicate that students worry about safety while on campus. Participants (58%) agreed or strongly agreed that they would feel safer knowing they had to swipe their RowanCard when entering a residence hall. A total of 71% of respondents agreed or strongly agreed with the statement, "I feel safer knowing that after hour door access requires a card swipe." Focus group participants expressed that they are pleased that Rowan is taking measures to ensure student safety and have noticed more doors requiring card swipes especially during the off hours.

A national study conducted by Student Monitor LLC, asked college students from across the United States a host of questions pertaining to campus cards from how often it is used, to where it is used. Everything from ID to door access, vending, and every day purchases were assessed. Based on the findings, Weil (personal communication, March 30, 2011) stated that across the country, students are concerned with security on college campuses. In light of the event that took place at Virginia Tech in 2007, Weil said, "Students responses pertaining to security have increased." NACCU (2007) also indicates that campus ID cards allowing swipe access to residence halls is a growing trend on campus throughout the United States. Finally, associatedcontent.com (2008) indicates that if students do not feel that their university is safe, then the school will develop a negative reputation that could result in decreased enrollment. Making changes from a traditional metal key system to card access for doors can save university's hundreds of thousands of dollars yearly while reinforcing student's sense of safety.

Research Question 3: How satisfied are students with the services provided by the RowanCard?

The survey revealed that 68% of respondents prefer having one card to take care of all their needs while attending Rowan. A total of 34% stated that it is easy to apply funds to the RowanCard. These findings are similar to those found in the survey conducted by Student Monitor in fall, 2010. Their study indicated that 53% of students felt it was very important that their university provide them with a campus card. The study further indicated that students rated convenience, not having to carry cash, having a prepaid card, and all on-and-off campus financial needs satisfied as the main reasons for feeling satisfied with the card program at their college or university.

Eisenstadt's (1964) institutionalization and change theory discusses the importance of organizations to keep up with change and remain current with the economic times. This condition is understood by current administration, not just used as a tool to involve broad internal support, but, also as a profit center, implemented to capture revenue from a logistically hungry market base. This theory can be used to examine the RowanCard program and its town-gown relations while satisfying the needs of many. The RowanCard offers students, faculty, and staff the ability to purchase goods and services without the risks associated with the social norms of cash purchases while generating a positive town-gown relationship.

In the present study, 68% of participant's overall attitudes were positive when asked if they were satisfied with their options for purchases at off campus merchants. In a study conducted in spring 2010 by Noon (2010) pertaining to off campus merchants attitudes

about the RowanCard program, merchants stated that they felt that both the University and their business benefit from the program. Merchants believed that they have a good relationship with the students as well. These findings are in line with a 2008 study conducted at Albion College, *Exploring Economic Development Opportunities*, which stresses the importance of town-gown relationships between colleges and the community in which it resides. Erickcek and Copeland (2008) stated that college students are going to spend time in the town whether it is socially or for a trip to the grocery store, and campus card programs can play a positive role in the town-gown relationship because they build a positive relationship between the college and the local businesses. Data from this study suggest that students have positive attitudes about the merchants participating in the RowanCard program and are pleased with their options.

Although Rowan University offers students the ability to make copies (47%) on campus as well as do their laundry (53%) using their RowanCard, these services were rated lowest amongst students in terms of regular use. This finding suggests more attention should be placed on laundry and copy services that combine convenience and low-cost and could be a revenue service for the university.

Eggleton (2010) stated the biggest complaint found in the satisfaction survey conducted at Indiana University – Purdue University was that students are required to pay a fee when their card wears out in order to get a replacement card. Students in the focus group expressed this same issue with Rowan's card replacement policy.

Research Question 4: Is there a significant difference in attitudes between on campus and off campus students towards the RowanCard program?

The data showed moderate positive correlations between demographic variables and satisfaction level of students. The data indicate that regardless of demographics, student's attitudes towards the RowanCard program was constant. Both on campus and off campus students utilized the RowanCard for a number of services including printing, accessing the recreation center, attending an after-hours venue, library services, and many of campus purchases. The study indicates that the 57% of Rowan students swipe their RowanCard daily. Student Monitor LLC indicated in their study that students reported 39% of students nationwide use their ID card daily while 22% indicated they use their card several times a week. Participants from the focus groups said they like the convenience of only needing one card to take care of all their needs. One participant said, "Being able to transfer my financial aid credit onto the card and knowing it is there whenever I need it, allows me more freedom and independence." The idea of funds being prepaid was a big factor to students. This is supported by Student Monitor which indicates that 64% of those who participated in their study felt the same. The RowanCard study indicates there is no real difference between those students living on campus as opposed to off campus students with their attitudes towards the RowanCard.

Research Question 5: What recommendations do current students who have purchased a meal plan during the spring 2011 semester have for future growth of the program?

The focus group participants revealed that overall they are very pleased with the current applications the RowanCard offers. In addition to the current options, current students stated they would like to have the a local gas station accept their RowanCard as well as Wawa, Staples, Angelo's Diner, the Landmark Americana, and the Educational Information and Resource Center (EIRC) at the South Jersey Technology Park. Students expressed an interest in having a Facebook page for the RowanCard and a cell phone application which would allow for them to receive notifications about new merchants, current balance, and alerts when the system is down. Although implementing these applications should be rather inexpensive, further research should be done to see if other colleges are currently offering these and how useful they have been.

Conclusions

The findings from the study examined the attitudes of Rowan University students towards the RowanCard program. The RowanCard program has been growing over the past decade allowing students to use their ID card for more than just buying textbooks and accessing food services on campus. The results of the study show that student's attitudes are very positive toward the RowanCard program.

The results of the study provide answers to the research questions posed in Chapter I. The majority of responses to the survey questions as well as feedback from the focus

groups indicate that student attitudes are very positive about the current applications available on the RowanCard. The findings indicate that students are pleased with their meal plan options although, they do not like being restricted to how many meals they can receive within a meal period. In addition, students are happy with the current selection of off campus merchants however, they indicated that they would like to have Wawa, a local gas station, Staples, Angelo's Diner, the Landmark Americana, and EIRC at the South Jersey Tech Park added to the growing number of merchants currently participating with the RowanCard program. Participants had positive attitudes towards the overall ease of use the card allows them.

The study indicates students worry about safety and feel safer on campus when card access is required to enter buildings. Although, students have the ability to make copies and do their laundry on campus using their RowanCard, these services are not used regularly by the students. Focus group participants expressed an interest in adding laundry capabilities to the Rowan Boulevard housing complex which currently does not offer students the option of using their RowanCard when doing laundry at that facility. There should be further research done to assess the cost involved in adding this at Rowan Boulevard. More research should be done regarding copier use on campus in order to make this an effective application for students.

The results also show that regardless of demographics, all students utilize at least one of the applications available on the RowanCard. Focus group participants strongly urged the importance of having one location on campus that can facilitate all the services required for the RowanCard. Participants expressed high levels of frustration when they

are having a problem with their card and need assistance. An overwhelming number of participants stated they did not know they needed to go to a different location on campus and thought the Chamberlain Student Center Information Desk was the office to handle their problems. There should be additional follow up to gain a better understanding of how the university can minimize student frustration when they need assistance with their RowanCard account.

Finally, the study concluded that students are very technology savvy and spend a large percentage of their time on social networks. Focus group participants expressed an interest in having a Facebook page about the RowanCard which would allow them to leave comments about experiences at RowanCard merchants and make suggestions and recommendations. Students would also like to have a mobile application available to them that would allow them to view the off campus merchants that accept the RowanCard and provide directions, as well as be able to view their transactions and account balances on their cell phones.

Overall, Rowan University student's attitudes towards the RowanCard program is extremely positive. There should be some follow up done to look into the costs associated with student's suggestions for future growth of the program.

Recommendations for Practice

The following are suggestions for practice based on the results of this study:

1. Investigate a central location at Rowan University where all RowanCard services can be handled.

2. Assess door access functionality and convert all exterior entrances to swipe access.
3. Incorporate a marketing plan to promote the RowanCard program to the entire Rowan community.
4. Implement applications to enable students to have real time access to their accounts.
5. Create an advertising campaign which can improve town-gown relations with merchants and potentially generate additional revenue for the university.
6. Conduct regular customer service surveys to ensure the RowanCard program as well as the RowanCard staff are meeting the needs of its students.

Recommendation for Further Research

The following are recommendations for further research based on the findings and conclusions of the study:

1. Further studies should be conducted to include student populations that do not have meal plans as well as non-traditional students.
2. A study should be conducted to assess the faculty/staff satisfaction with the RowanCard program.
3. Further research should be conducted to better analyze door/security options at other public institutions.
4. Follow up studies should be conducted every three years to ensure students attitudes toward the RowanCard program remain positive.

5. Research should be conducted to investigate additional applications offered at other universities.

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APPENDIX A

RowanCard Focus Group Questions

RowanCard Program Focus Group

The information presented to you in this voluntary focus group is being requested to gain a better understanding of your attitude about the RowanCard program, for the purpose of master's thesis publication. The information gathered from the focus group will be used for statistical reporting purposes only. You are assured that all of your responses will be kept confidential. If you have any questions please contact Christine Noon at (856) 256-4531 (noon@rowan.edu) or Doctor Burton Sisco at (856) 256-4500 ext. 3717 (sisco@rowan.edu). Thank you for your participation in this focus group!

1. Where do you get the majority of your information pertaining to the RowanCard??
2. Have you experienced any difficulties when using your RowanCard either on or off campus?
3. Have you had any problems getting assistance with your account when experiencing a problem?
4. Are there any off campus merchants that you would like to have participate in the RowanCard program?
5. Are there any applications that you would like to see added to the RowanCard?
6. What is your overall attitude about the RowanCard program?

APPENDIX B

RowanCard Survey

ROWAN UNIVERSITY ROWANCARD SURVEY

While your participation in this survey is voluntary and you are not required to answer any of the questions herein, your cooperation and participation are important to the success of the project and are greatly appreciated. If you choose to participate, please understand that all responses are strictly confidential and no personally identifiable information is being requested. Your completion of this survey constitutes informed consent and your willingness to participate. Please contact Christine Noon at 256-4531 or Doctor Burton Sisco at 256-4500 ext. 3717 with any questions.

Part I: Background Information: Please check one appropriate response for each item.

1. What is your current academic status:

Freshman Sophomore Junior Senior Graduate Student

2. Racial/Ethnic background:

African American Asian or Pacific Islander Hispanic-Other
 White, Non-Hispanic Choose not to indicate

3. What is your gender: Male Female

4. What is your residential status:

On-campus resident Off-campus (In Glassboro)
 Off-Campus (Not in Glassboro)

5. Current status: Full-time student Part-time student

Part II: RowanCard Usage: Please answer each question accordingly:

1. On average, how many times per week do you use the RowanCard:

Daily Once a week 2-3 times per week 4 or more times per week
 Never

ROWAN UNIVERSITY ROWANCARD SURVEY

2. In what ways do you use your RowanCard for purchases on-campus:

- Copies Door access Meals Pay fines SUP events
 Transcripts Textbooks Other _____ Don't use
(specify)

3. In what ways do you use your RowanCard for purchases off-campus:

- Entertainment Groceries Restaurants Other _____
(specify)
 Don't use

4. Please check how often you used your RowanCard during the current academic year for any of the following:

	Daily	Once a week	2-3 times a week	4 or more times a week	Never
Make a payment					
Access a building					
Library services					
Purchase textbooks					
Laundry					
Print a document					
Make copies					
Get a meal					
Access the Rec Center					
Information Desk purchases					
Access events on-campus					
Buy a transcript					
Off-campus purchase					

ROWAN UNIVERSITY ROWANCARD SURVEY

Part III: For each item identified below, circle the number to the right that best fits your judgment of the level of agreement for each statement.

Description/Identification of Survey Item	Scale				
	Strongly Agree	Somewhat Agree	Undecided	Somewhat Disagree	Strongly Disagree
<u>Meal Plans</u>					
1. I know where to go on-line to sign up for a meal plan	5	4	3	2	1
2. The meal plan application is easy to understand	5	4	3	2	1
3. I am satisfied with the meal plan options offered to me	5	4	3	2	1
4. The Dining Dollars associated with my meal plan is adequate	5	4	3	2	1
5. The Boro Bucks associated with the meal plan is adequate	5	4	3	2	1
6. I know where to go when I have a problem with my meal plan	5	4	3	2	1
7. I understand how my meal plan works	5	4	3	2	1
<u>Door Access</u>					
8. I do not have a problem accessing labs on-campus with my RowanCard	5	4	3	2	1
9. I feel safer knowing after hours door access requires a card swipe	5	4	3	2	1
10. I would feel safer knowing that all residence halls required a card swipe to for access	5	4	3	2	1
<u>Other Services</u>					
11. I frequently use my RowanCard to do laundry on-campus	5	4	3	2	1
12. I frequently use my RowanCard to make copies on-campus	5	4	3	2	1
13. I know how to suspend my card if it is lost or stolen	5	4	3	2	1
14. Applying money to my RowanCard is easy	5	4	3	2	1
15. I am satisfied with the RowanCard options on-campus	5	4	3	2	1
16. I am satisfied with the RowanCard options off-campus	5	4	3	2	1
<u>RowanCard Services</u>					
17. The RowanCard office is easy to contact	5	4	3	2	1

ROWAN UNIVERSITY ROWANCARD SURVEY

18. The RowanCard office has convenient hours	5	4	3	2	1
19. Employees in the RowanCard office are friendly/helpful	5	4	3	2	1
20. I feel well informed about the RowanCard program	5	4	3	2	1
21. When I have a problem with my RowanCard account, I know where to go for assistance	5	4	3	2	1
22. I prefer having one card to handles all my needs while on-campus	5	4	3	2	1
23. The RowanCard web site is easy to navigate	5	4	3	2	1
24. I am well informed about changes/additions regarding the RowanCard	5	4	3	2	1
25. I am satisfied with the options available to me with my RowanCard	5	4	3	2	1

If you are interested in participating in a focus group pertaining to the RowanCard program, please enter your email address below. A member of the RowanCard office will contact you.

(Email address)

APPENDIX C

Institutional Review Board Approval Letter



February 23, 2011

Christine Noon
289 Edsam Avenue
Pitman, NJ 08071

Dear Christine Noon:

In accordance with the University's IRB policies and 45 CFR 46, the Federal Policy for the Protection of Human Subjects, I am pleased to inform you that the Rowan University Institutional Review Board (IRB) has exempted your project:

IRB application number: 2011-110

Project Title: Campus Card Programs: The Rowan Card

If you need to make significant modifications to your study, you must notify the IRB immediately. Please reference the above-cited IRB application number in any future communications with our office regarding this research.

If, during your research, you encounter any unanticipated problems involving risks to subjects, you must report this immediately to Dr. Harriet Hartman (hartman@rowan.edu or call 856-256-4500, ext. 3787) or contact Dr. Gautam Pillay, Associate Provost for Research (pillay@rowan.edu or call 856-256-5150).

If you have any administrative questions, please contact Karen Heiser (heiser@rowan.edu or 856-256-5150).

Sincerely,

A handwritten signature in cursive script that reads "Harriet Hartman".

Harriet Hartman, Ph.D.
Chair, Rowan University IRB

c: Burton Sisco, Higher Education, Education Hall

Office of Research
Bole Hall Annex
201 Mullica Hill Road
Glassboro, NJ 08028-1701

856-256-5150
856-256-4425 fax

APPENDIX D

Letter to Focus Group Participants

Informed Consent Form for RowanCard Program Focus Group

Participants over the age of 18

I agree to participate in a study entitled Campus Cards: The RowanCard Program at Rowan University, which is being conducted by Christine Noon, Graduate candidate in the Higher Education-Administrative Track Master's Program, supervised by Dr. Burton Sisco of the Educational Leadership Department, Rowan University.

The purpose of this study is to gain insight into the attitudes of Rowan students regarding the RowanCard program. The data collected in this study will be used to assess the current functionality of the program as compared with other institutions as well as gain knowledge for future applications and will be submitted for publication in a research journal.

I understand that I will be required to attempt to solve a logic problem, and I will be assigned to work either individually or as part of a group. My participation in the study should not exceed one hour.

I understand that my responses will be anonymous and that all the data gathered will be confidential. I agree that any information obtained from this study may be used in any way thought best for publication or education provided that I am in no way identified and my name is not used.

I understand that there are no physical or psychological risks involved in this study, and that I am free to withdraw my participation at any time without penalty.

I understand that my participation does not imply employment with the state of New Jersey, Rowan University, the principal investigator, or any other project facilitator.

If I have any questions or problems concerning my participation in this study, I may contact Christine Noon at (856) 256-4531 (noon@rowan.edu) or Dr. Burton Sisco at (856-256-4500 ext. 3717 (sisco@rowan.edu).

(Signature of Participant)

(Date)

(Signature of Investigator)

(Date)

APPENDIX E

Rules and Procedures for Logical Analysis of Written Data (Sisco, 1981)

RULES AND PROCEDURES FOR LOGICAL ANALYSIS OF WRITTEN DATA

The following decisions were made regarding what was to be the unit of data analysis (Sisco, 1981):

1. A phrase or clause will be the basic unit of analysis
2. Verbiage not considered essential to the phrase or clause will be edited out—
e.g., articles of speech, possessives, some adjectives, elaborative examples.
3. Where there is a violation of convention syntax in the data, it will be corrected,
4. Where there are compound thoughts in a phrase or clause, each unit of thought will be represented separately (unless one was an elaboration of the other).
5. Where information seems important to add to the statement in order to clarify it in context, this information will be added to the unit by using parenthesis.

The following decisions were made regarding the procedures for categorization of content units:

1. After several units are listed on a sheet of paper, they will be scanned in order to determine differences and similarities.
2. From this tentative analysis, logical categories will be derived from the units.
3. When additional units of data suggest further categories, they will be added to the classification scheme.
4. After all the units from a particular question response are thus classified, the categories are further reduced to broader clusters (collapsing of categories).

5. Frequencies of units in each cluster category are determined and further analysis steps are undertaken, depending on the nature of the data- -i.e., ranking of categories with verbatim quotes which represent the range of ideas or opinions. (p.177).