

Effectively Utilizing WeChat Service Account to Influence the Behavioral  
Intention of  
Prospective International Students from China to Apply for a University in the U.S.  
by  
Mi Wu

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Graduate Supervisory Committee:

Craig Mertler, Chair  
Leigh Wolf  
Aryn Baxter

ARIZONA STATE UNIVERSITY

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## ABSTRACT

The action research was inspired by the current trend of international student enrollment in the U.S. Through a mixed-methods approach, the action research explored the effective ways for a higher education institution in the U.S. to utilize WeChat service account as a marketing and communication tool to influence the behavioral intentions of prospective international students from China to apply for admissions to the institution. Through the four data sources of qualitative interview, document analysis, focus group interview, and quantitative survey, both quantitative and qualitative data were collected and analyzed for findings to answer the research questions. Specifically, content provided on an institution's WeChat service account should be relevant to the Chinese student population and up-to-date, and incorporate diverse modalities and creative digital assets. In addition, an institution's WeChat service account should engage followers through interactive approach, and establish a landing page that is easy for followers to navigate. In terms of the impact of WeChat service account, it has been found that an institution's WeChat service account may impact students' behavioral intentions to apply for admissions to the institution both directly, and indirectly through influencing the students' impressions of the institution and the opinions of their important others.

## DEDICATION

To my parents, who have always been supportive in my pursuit of education. I hope I am making you proud.

To my husband, who has always believed in me. Thank you for supporting my retail therapy and always being there for me through this process.

And to Pickles, Meatball, and Noodles, who have contributed to this process through their adorable companionship. Especially to my Meatball. I hope you have many treats, toys and brothers and sisters in doggie heaven, and there is someone there who loves you as much as I do. I miss you every day.

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## TABLE OF CONTENTS

	Page
LIST OF TABLES .....	vi
LIST OF FIGURES .....	viii
CHAPTER	
INTRODUCTION.....	1
National Context.....	1
Local Context.....	6
Innovation .....	8
The Researcher’s Role .....	9
Research Purpose and Research Questions .....	11
Summary.....	11
THEORETICAL PERSPECTIVES AND RESEARCH GUIDING THE PROJECT	
.....	13
The Theory of Planned Behavior .....	13
Uses and Gratification Theory .....	22
Previous Cycles of Action Research .....	30
Summary.....	37
METHODS .....	40
Setting and Participants .....	42
Innovation .....	45
Research Plan.....	51
Data Analytical Techniques .....	63

CHAPTER	Page
Summary .....	65
DATA ANALYSIS AND RESULTS .....	66
Results for Research Questions 1 .....	67
Results for Research Questions 2 .....	91
Summary of Chapter 4 .....	105
DISCUSSION .....	106
Summary of Research Findings .....	107
Limitations .....	115
Implications for Practice .....	118
Implications for Research .....	121
Conclusions .....	123
REFERENCES .....	125
APPENDIX	
A HIGHER EDUCATION PROFESSIONAL INTERVIEW .....	132
B NOTETAKING INSTRUMENT FOR WECHAT SERVICE ACCOUNT OBSERVATION .....	135
C FOCUS GROUP INTERVIEW .....	137
D WECHAT SERVICE ACCOUNT IMPACT SURVEY .....	140
E INSTITUTIONAL REVIEW BOARD APPROVAL .....	146

## LIST OF TABLES

Table	Page
1. Timeline of Implementation of WeChat at ASU .....	49
2. Sources of Data and Analysis Methods Aligned with Research Questions for WeChat Service Account for Chinese Student Recruitment .....	54
3. Data Collection Timeline .....	60
4. Total Number of Posts and Frequency of Posting in the 2019-2020 Recruitment Season by Institution .....	76
5. Top Two Popular Posts by Institution .....	77
6. WeChat Service Account Impact Survey Co-efficient-Alpha Estimates of International Consistency Reliability .....	84
7. Survey Response Frequency Analysis of Participants' Experiences with ASU's WeChat Service Account .....	86
8. Survey Response Descriptive Analysis of Participants' Experiences with ASU's WeChat Service Account .....	87
9. Channels for Information Seeking based on Popularity .....	89
10. Survey Response Frequency Analysis of the Impact of WeChat Service Account on the Participants .....	97
11. Survey Response Descriptive Analysis of the Impact of WeChat Service Account on the Participants .....	99
12. Survey Response Frequency Analysis of WeChat Service Account Impact on Family .....	101

Table	Page
13. Survey Response Descriptive Analysis of WeChat Service Account Impact on Family.....	101
14. Survey Response Frequency Analysis of WeChat Service Account Impact on Friends .....	102
15. Survey Response Descriptive Analysis of WeChat Service Account Impact on Friends .....	103



## LIST OF FIGURES

Figure	Page
1. The Theory of Planned Behavior .....	16
2. Examples of WeChat Accounts .....	79

## CHAPTER 1

### INTRODUCTION

Although still the most popular destination for international students, higher education institutions in the U.S. have been experiencing a flattening trend in the overall international student enrollment and a decline in the number of new international students enrolling in the U.S. for the first time. Higher education institutions and practitioners working in the fields of international student enrollment and services have expressed their elevated concerns about the trend. Through the *Fall 2018 International Student Enrollment Hot Topics Survey* by the American Association of Collegiate Registrars and Admissions Officers (AACRAO), nearly half of the institutions reported a drop in their new international student enrollment numbers, and the majority stated their concerns particularly about recruiting international students from Asia, mostly from China (Baer, 2018). This action research, conducted over a three-year period at Arizona State University, was inspired by the current trend in international student enrollment and my efforts to address this challenge as a higher education practitioner in the field of international student services.

#### **National Context**

Issued by the leading not-for-profit educational and cultural exchange organization in the United States – Institute of International Education (IIE), “*Fast Facts*” by Open Doors is an annual snapshot of information on international students and scholars studying or teaching at higher education institutions in the United States, and U.S. students studying abroad for academic credit at their home colleges or universities (IIE, n.d.a). Information reported on “*Fast Facts*” includes new international student

enrollment trends, overall international student enrollment trends, top U.S. institutions hosting international students, top places of origin of international students, primary sources of funding for international students, and top studying abroad destinations for U.S. students. (IIE, n.d.b).

Comparing the information reported on “*Fast Facts*” of the past few years, it can be seen that the growth rate of the overall international student enrollment in U.S. higher education institutions has shown a downward trend since the 2014-2015 academic year, decreasing gradually on a yearly basis from 10.0% of growth in overall enrollment in 2014 to 1.5% in 2017 (IIE, n.d.b). Particularly, following the flattening trend beginning in fall 2015, the number of new international students enrolling at a U.S. postsecondary institution for the first time in fall 2016 decreased from the previous academic year, which was the first time that the number has seen a decline since Open Doors started reporting new enrollments in the 2004-2005 academic year (Baer, 2017; IIE, n.d.b). The population of new international student enrollment at U.S. higher education institutions was on a continuous downward trend in fall 2017 (IIE, n.d.b).

Surveys in the higher education industry have indicated that the trend is likely caused by the current domestic social and political environment, rising tuition and cost of studying in the U.S., visa application issues, and global competition from higher education opportunities in other countries (Baer, 2017; Schulmann & Le, 2018). In addition, it has been reported that the declines in new international student enrollment were higher among public institutions and more noticeable in institutions located in the mountain regions (Baer 2017; Baer 2018; Schulmann & Le, 2018). Moreover, the most evident decline in the enrollment numbers from top places of origin of international

students has been found with students from the Middle East, especially from Saudi Arabia, likely due to the changes in the eligibility requirements of the Saudi Arabian government's scholarship program as well as the new political climate and immigration policies in the U.S. (AACRAO, 2017; Baer, 2017).

As the largest international student population, international students from China comprise almost one-third of the total international student enrollment in the U.S. (IIE, n.d.b). With such a large base number, small changes in the enrollment numbers of Chinese students can have a significant impact on the overall international student enrollment. Echoing the overall trend of international student enrollment, the enrollment of Chinese students has also witnessed a steady decline over the past few years, from 10.8% in 2014 to 3.6% in 2017 (IIE, n.d.b). The major concerns of Chinese students related to pursuing higher education in the U.S. center on post-graduation employment opportunities, program affordability, and visa approval (AACRAO, 2017). Many institutions have reported declines in both applications and enrollments of Chinese students, at 54% and 63% respectively, and expressed their concerns of not having enough Chinese students through various industry surveys (Baer, 2017; Schulmann & Le, 2018). In response, over two-thirds of institutions surveyed have indicated that they have prioritized international student outreach and recruitment in China (Baer, 2017).

Consisting of approximately 5% of total postsecondary enrollment in the U.S., the international student population brings tremendous academic and economic benefits to U.S. universities and colleges. International students facilitate the exchange of academic and professional knowledge, as well as the potential development of business relationships on a global scale (IIE, 2017). In the meantime, international students are

important sources of talent to U.S. programs, particularly in the STEM fields (Hanover Research, 2018a). In addition, international students bring academic and cultural diversity to the American classrooms and campus life. Having international students on campus contributes to the enhancement of intellectual understanding, the promotion of foreign language and culture, and the improvement of students' skills like problem-solving, leadership, and communication (Hanover Research, 2018a). While learning and advancing in U.S. institutions, international students bring in their global perspectives and help prepare their American peers for careers worldwide (IIE, 2017).

Additionally, over 67% of international students rely on non-U.S. financial sources, including funding from personal and family support as well as foreign governments, universities, and private sponsors, accounting for 8% to 10% of tuition revenue for higher education institutions (Hanover Research, 2018a; IIE, n.d.b). International students also contribute to the U.S. economy through the spending on their tuition, room and board, and living expenses. For example, the direct economic contribution from international students constituted around \$42.4 billion in 2017 in the U.S. (Baer, 2018; IIE, 2018). In the meantime, international students support over 455,000 jobs in the U.S. (Baer, 2018).

Universities and colleges in the U.S. have been making considerable marketing and communication efforts to cope with the issues facing international student enrollment, and dedicating more attention to branding and marketing than before (Hanover Research, 2015). International student recruitment practices have traditionally relied on international student recruitment agencies, internal recruiters like faculty and staff travelling to foreign countries for education fairs and recruitment events, passive

marketing through institutional websites, online advertising and brochures, engagement and referrals by alumni, partnerships with institutions and organizations in foreign countries, and word-of-mouth snowballing recruitment (Hanover Research, 2018a; Özturgut, 2013).

Increasingly, recruitment strategies of the institutions have shifted towards online and digital strategies (Hanover Research, 2015). Typical marketing channels include owned media (i.e., website, email campaigns, newsletters, etc.), shared media (i.e., social media sites), earned media (i.e., press releases, U.S. News and World Report, etc.), and paid media (TV, radio and print advertising, digital banners and ads, etc.) (Hanover Research, 2018b). At the intersection of the four types of media is social media advertising (Hanover Research, 2018b). In addition, industry professionals in international student recruitment emphasize the importance of SoLoMo (social-local-mobile) marketing strategy, meaning that prospective students are “using collaborative, location-based, and on-the-go technologies to reach colleges” (Hanover Research, 2015, p.18).

Existing research suggests that utilizing social media platforms is a cost-effective and personalized way for institutions to engage with international audience (Hanover Research, 2018a; Özturgut, 2013). Social media offers four advantages in terms of resource efficiency: relevance, speed, cost effectiveness, and personalization (Choudaha, 2013). Specifically, Choudaha (2013) mentioned that social media can be used as the platform to provide relevant and authentic information to international students. It also transcends the geographic distance to provide information in an efficient and effective manner. Moreover, marketing and communication through social media can be

personalized to local platforms and local languages. For example, the campaign #YouAreWelcomeHere, advanced nationally by Temple University, earned global attention and attracted over 300 higher education institutions and organizations to use this hashtag to express their welcome to international students (Baer, 2017).

### **Local Context**

As the largest public institution in the U.S., Arizona State University (ASU) has over 100,000 students enrolled for the 2019-2020 academic year across its four unique physical campuses in the Phoenix metropolitan area, multiple satellite campus locations, and ASU Online (Arizona State University, n.d.a). With the development of the New American University model, ASU has transformed itself to an institution committed to excellence, access, and impact (Arizona State University, n.d.b). Named as the most innovative school in America for the fifth year in a row by U.S. News and World Report, ASU is recognized as a leader in undergraduate and graduate program excellence, offering more than 350 undergraduate programs and over 400 graduate programs (Arizona State University, n.d.c).

Ranked fifth as a leading U.S. institution for hosting international students, ASU was the destination for over 13,000 international students from 136 countries in 2017, making ASU the top public university in the U.S. for hosting international students (Arizona State University, n.d.c; IIE, n.d.b). Considering that the Chinese student population makes up approximately one-third of the total international student enrollment at ASU, practitioners at ASU working with international students have identified the Chinese market as a key target. The trend of overall international student enrollment, new international student enrollment, and Chinese student enrollment at ASU follows the

national trend and has witnessed a slowdown in the past few years (IIE, n.d.b; Arizona State University, n.d.d).

The current international student recruitment strategies at ASU follow the typical practice in the industry, including utilizing recruitment agents, in-person visits to international students' home countries by internal recruiters and faculty, partnerships with higher education institutions and organizations in foreign countries, active engagement with alumni, and email campaigns. Each strategy has its merits and drawbacks. For example, recruitment agents in foreign countries have been proven to be able to make the sales and have been trusted for their local expertise (Lawton, 2017). However, it can also be challenging to control the practice of agents (Lawton, 2017). Visiting the target markets in person can establish a personal connection between ASU and the prospective students and family members, but can also be costly. Local partnerships are reliable but require significant work to establish and maintain joint programs (Lawton, 2017). Additionally, email campaigns have shown a low open-and-click rate. For example, ASU's email campaigns to international prospects during the 2018-2019 recruitment season had an average open rate of 23.34% and click rate of 1.89% for international transfer students, and an average open rate of 14.5% and click rate of 0.99% for first-year international students (Arizona State University, n.d.e).

To cope with the shifting trend, the marketing and communication teams at ASU identified their key strategies for international communications for 2019-2020, including simplifying the messages about attending ASU, sending relevant information at the correct timing, collaborating with various departments within ASU to streamline communication, emphasizing on ASU's highlights, using inclusive language, paying



attention to the role of family members in international students' education choices, and communicating policy changes in time to prospective and new students as well as their family (Arizona State University, n.d.e). In addition, ASU has rolled out the new initiatives to support its international student enrollment and Chinese student recruitment. These initiatives include a newly-revamped website for international admissions, a continuously growing international admissions team stationed both in the U.S. and in foreign locations like India and Vietnam, new marketing materials in local languages, a newly established representative office in China, and an enhanced social media marketing practice in China, including utilizing diverse platforms and driving readership through various promotional approach (Arizona State University, n.d.e). With the slowdown in the enrollment growth of international students, particularly in students from China, ASU needs to explore new methods to expand and improve its marketing approach in terms of international student recruitment targeting the Chinese market.

### **Innovation**

The innovation proposed for the action research aims to improve the current marketing and communication strategy for targeting international student population from China by integrating an effective social media approach called WeChat (微信, Wēixìn, micro-message). Officially launched in 2011, WeChat by Tencent Holding Limited has become the “super app” in China with more than one billion users worldwide (Montag, Becker, & Gan, 2018). Through its innovative features, WeChat has evolved into the platform that connects users with each other, and with businesses (Tencent, n.d.). For individual users, WeChat has successfully become a lifestyle by integrating various functions and has created the most popular mobile application that fulfills various needs

for social media and mobile users in China (Tencent, n.d.). For corporate users, WeChat functions as an efficient and low-cost operating platform for companies to interact with their followers (Sui, Wang, Yao, Duan, & Ma, 2018). More details of the innovation will be discussed in Chapter 3.

### **The Researcher's Role**

My personal connection with the Chinese student population as well as my professional experience in recruiting and engaging international students from China has led me to research the marketing and communication methods to enhance the interaction between international students from China and U.S. higher education institutions, namely ASU, for the purpose of improving Chinese student enrollment status. Growing up in China, I experienced the K-16 education system and the college entrance exam in China, and I was also once an international student to the U.K. for graduate studies and an immigrant to the U.S. Similar to many other Chinese people, WeChat is the most used mobile application on my phone. I use WeChat on a daily basis for communication, entertainment, information seeking, socialization and utilitarian needs. In addition, I have extensive professional experience working with international students, particularly the Chinese student population, in regard to admissions and preparation for studying at a university or college outside of China. My proficiency in the Chinese language and culture, as well as my understanding of the admissions process for pursuing education outside of China placed me as a potential asset in my office when it comes to international student recruitment and student services.

My professional career at ASU started with Admission Services as an International Admissions Specialist. The department is managed under Enrollment

Services, which is the unit in charge of carrying out ASU's recruitment and marketing strategies to support the University's enrollment goals. In that position, I worked directly with international students and their families, with China as my recruitment territory. Through the position, I have gained a better understanding of the practice and inside knowledge of international student recruitment at ASU. In addition, I was tasked with managing the social media content designed for audience in China through different platforms. I then joined W. P. Carey School of Business (WPC) at ASU as an Admissions Coordinator Senior, supporting the University's enrollment goal through recruitment for this individual college, including first-year, transfer, and international students, through various marketing approaches and recruitment activities.

I have then transitioned to the position of Assistant Director for International Student Engagement (ISE) under the division of Educational Outreach and Student Services (EOSS) at ASU. Other than overseeing the day-to-day operations of the department and other professional staff in the office, I manage the Coalition of International Students and the Global Peer Mentor program (an international student peer mentoring program). In this position, I work closely with the different colleges and schools within ASU, various student services departments at ASU, student organizations and other external community partners to coordinate programs and events to support a global campus environment. In addition, I have been asked to serve on various university-wide committees to support international student recruitment, engagement, and retention at ASU because of my personal and professional background. One of the current committees that I am facilitating is related to improving the overall experience of international students at ASU, including establishing innovative marketing and

communication approach for Chinese student recruitment and service. WeChat is the main platform that the committee has identified to support ASU's marketing and communication efforts in China.

### **Research Purpose and Research Questions**

In response to the challenge of current Chinese student enrollment trend in the U.S. and the opportunity presented by the customer base and the functionality of WeChat, the purpose of this action research is to explore the practice of using WeChat to promote a higher education institution to its prospective international students from China and to influence their behavioral intentions to apply for admissions to the institution. The research questions are:

RQ1: How can a higher education institution in the U.S. effectively utilize its WeChat service account as a marketing and communication tool to improve the recruitment practice by building the brand, promoting the resources, and establishing a sense of community with the institution, targeting prospective international students from China?

RQ2: How can a higher education institution in the U.S. effectively utilize its WeChat service account as a marketing and communication tool to influence the behavioral intentions, attitudes, and normative beliefs of prospective international students from China to apply for admissions to the institution?

### **Summary**

Inspired by the challenge that current declines in international student enrollment has posed for U.S. higher education institutions, this action research intends to explore the effective ways for a higher education institution to utilize WeChat service account as

the innovation to improve its recruitment practice and to influence the behavioral intentions of prospective Chinese students to apply for admissions to the institution, both directly and indirectly through its impact on students' attitudes and normative beliefs regarding the institution. Situated in the local context of Arizona State University as a leading institution in hosting international students, as the action researcher, I am connected to the Chinese student population through both personal backgrounds once as an international student and immigrant, and professional experience working in the field of international student recruitment and services at ASU.

## CHAPTER 2

### THEORETICAL PERSPECTIVES AND RESEARCH GUIDING THE PROJECT

The theoretical frameworks guiding the action research are the Theory of Planned Behavior (TPB) and the Uses and Gratification Theory (U&G). As a popular social-psychological model for explaining, predicting, and changing human social behavior (Ajzen, 2007; Ajzen, 2012), the Theory of Planned Behavior is the overall guiding theory for this action research. The Uses and Gratification Theory is an audience-centered theory in mass communication that explains how individuals use media to satisfy their social and psychological needs and to achieve their goals (Katz, Blumler, & Gurevitch, 1973), used to guide the design of the innovation of the action research. Reviews on both theoretical frameworks will include the key components of the theories, the limitations, related studies, and their connections to this action research. In addition, two previous cycles of action research related to the current research will be presented in this chapter as they have provided important insights for the current cycle of action research.

#### **The Theory of Planned Behavior**

The Theory of Planned Behavior (TPB) is a popular social-psychological model for explaining, predicting, and changing human social behavior (Ajzen, 2007; Ajzen, 2012). According to the theory,

Human social behavior is guided by three kinds of considerations: beliefs about the behavior's likely positive and negative outcomes, known as behavioral beliefs; beliefs about the normative expectations of others, called normative beliefs; and beliefs about the presence of factors that may facilitate or impede performance of the behavior, terms control beliefs (Ajzen, 2007, p. 988).

Aggregated respectively, behavioral beliefs create a favorable or unfavorable attitude toward the behavior; normative beliefs produce subject norm; and control beliefs result in perceived behavioral control (Ajzen, 2019). Attitude toward the behavior, subjective norm, and perceived behavioral control jointly contribute to the formation of a behavioral intention (Ajzen, 2007). When the opportunity rises, people then are expected to carry out their intentions and turn them into behaviors, given a sufficient degree of actual control over the behavior (Ajzen, 2007). The theory is an overall guiding theory for the action research study at hand.

**Extension from the Theory of Reasoned Action (TRA).** TPB is an extension of the theory of reasoned action, which was designed to predict volitional behaviors and help people understand the psychological determinants (Ajzen, 1985). The assumption of TRA is that “human beings usually behave in a sensible manner” (Ajzen, 1985). When individuals carry out a behavior, they consider the available information and the implications of the actions, both implicitly and explicitly (Ajzen, 1985). Therefore, the theory posits that “a person’s intention to perform (or not to perform) a behavior is the immediate determinant of that action” (Ajzen, 1985, p. 12). There are two determinants on an individual’s intention, the personal factor termed as attitude toward the behavior, which is the individual’s positive or negative evaluation on the behavior; and the social factor called subjective norm, which is the perception from the social pressure for an individual to perform or not to perform the behavior (Ajzen, 1985). TRA is a useful model to predict and understand people’s behaviors under volitional control.

However, TRA has its limitations in terms of the intention-behavior relation. Specifically, Ajzen (1985) discussed two conditions that need to be met in order to

predict behavior based on intentions. First, the intention before and after the behavior needs to remain stable. Second, the behavior must be under volitional control. However, the reality is that intentions change in directions and strength with time, caused by the changes in the salience of beliefs, new information, confidence and commitment, and individual differences. In addition, factors beyond one's control can influence the performance of behavior. For example, internal factors like individual differences, information, skills and abilities, power of will, and emotions and compulsions may impact the behavioral goal. Additionally, external factors like time and opportunity, and dependence on other people may also impinge on an individual's control over the successful performance of an intended behavior. Therefore, the theory of planned behavior was introduced by adding a new construct of perceived behavioral control as a determinant of behavior to include considerations of the nonvolitional factors.

**The TPB Model and Key Variables.** According to TPB, human behavior is “a function of salient information, or beliefs, relevant to the behavior” (Ajzen, 1991). The following figure is a schematic representation of the theory (Ajzen, 2019). Human behavior is guided by three kinds of salient beliefs: behavior beliefs, normative beliefs, and control beliefs (Ajzen, 2019). Based on the principle of aggregation, the three considerations create three conceptually independent determinants of intention: attitude toward the behavior, subjective norm, and perceived behavioral control (Ajzen, 1991). Attitude toward the behavior, subjective norm, and perceived behavioral control jointly contribute to the formation of a behavioral intention (Ajzen, 2007).



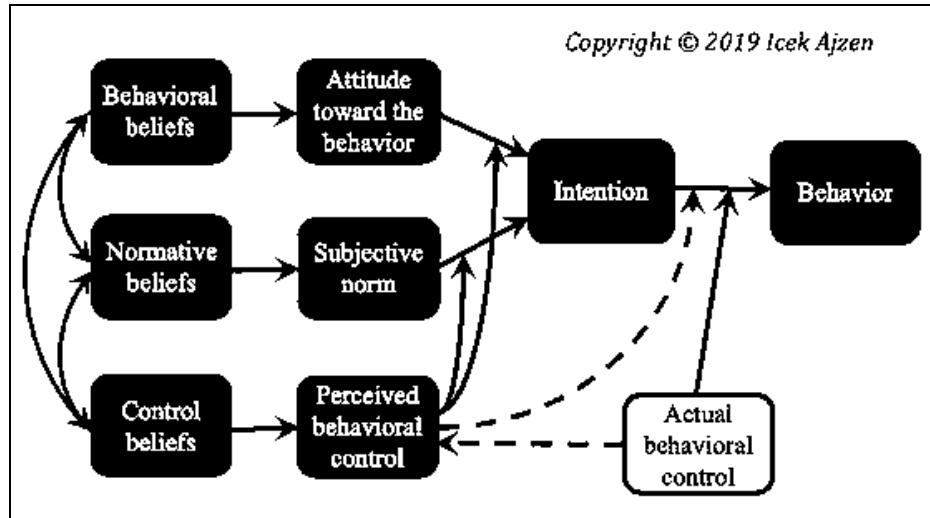


Figure 1. The Theory of Planned Behavior. This figure is a schematic representation of the theory of planned behavior by Ajzen (2019).

**Attitude toward the behavior.** In the TPB model, behavioral beliefs are the individuals' beliefs about the likely outcome of the behavior (Ajzen, 2019). The total set of behavioral beliefs and outcome evaluations form the attitude toward the behavior, defined as an individual's favorable or unfavorable evaluation or appraisal of the behavior in question (Ajzen, 1991). Attitude toward the behavior can be based on instrumental beliefs (the use or cost benefits of performing the behavior) and experiential or affective beliefs (the emotional benefits of performing the behavior) (Sanne & Wiese, 2018).

**Subjective norm.** In the TPB model, normative beliefs are beliefs about the normative expectations of others and social pressure (Ajzen, 2019). In its aggregated form, the subjective norm is developed based on the perceived social pressure to perform or not to perform the behavior in question and the motivation to comply with these expectations (Ajzen, 1991; Sanne & Wiese, 2018). Subjective norm is influenced by both

personal referents (like family and friends), and societal references (like mass media) (Sanne & Wiese, 2018).

***Perceived behavioral control.*** In the TPB model, control beliefs are beliefs about the presence of factors that may facilitate or impede the performance of the behavior in question (Ajzen, 2019). Collectively, these internal and external factors produce perceived behavioral control, defined as the perceived ease or difficulty to perform the behavior (Ajzen, 1991). The concept of perceived behavioral control is built upon the concept of self-efficacy proposed by Bandura (2001), referring to people's beliefs in their capability to exercise some measure of control over their own functioning and over environmental events. Perceived behavioral control influences the attitude toward the behavior and the subjective norm, as well as the behavioral intention (Ajzen, 1991). In addition, it directly influences the behavior itself, as non-volitional factors may obstruct the performance of a behavior regardless of the intention to perform (Ajzen, 1991).

***Behavioral intention and behavior.*** Ajzen (1991) considers intention as a central factor in TPB to understand and predict the performance of a given behavior. It includes the motivational factors that may influence a behavior, and people's willingness to try and efforts they plan to exert to perform the behavior. Behavioral intention is the direct antecedent to behavior.

***The TPB model.*** The strength and direction of these determinants of intention can vary from behavior to behavior and from an individual to another (Ajzen, 2007). Ajzen (2007) pointed out that "as a general rule, the more favorable the attitude and subjective norm are, and the greater the perceived behavioral control is, the stronger is the person's intention to perform the behavior in question" (p. 988). When the opportunity rises,

people then are expected to carry out their intentions and turn them into behaviors, given a sufficient degree of actual control over the behavior (Ajzen, 2019).

**Limitations of TPB.** TPB is one of the most popular models for understanding, predicting, and changing human social behavior (Ajzen, 2012). One of the limitations of the theory is related to its sufficiency, namely whether the determinants of attitude, subjective norm, and perceived behavioral control are sufficient to predict intentions and behavior (Ajzen, 2007). Scholars have proposed that other factors should be added to the formula [i.e., “expectation, desire, and need; affect and anticipated regret; personal or moral norm; descriptive norm; self-identity; and past behavior and habit” (Ajzen, 2012, p. 3)]. Ajzen (1991) addressed some of these additional factors, including personal or moral norms, affect versus evaluation, and past behavior, and agreed that additional research is needed to test the sufficiency of the model.

Another critique challenged the reasoned action assumption of TPB as reasoned action only represents one mode of operation, the controlled mode (Ajzen, 2007). However, people may act in a spontaneous mode when they lack of motivation or cognitive capacity (Ajzen, 2007). In addition, habits or repeated performance may turn behavior into routine and perceived behavioral control may lose its influence over behavior (Ajzen, 2007). Moreover, scholars have questioned the causal directions between different determinants in the TPB model, stating that the relationships between intention and attitude, and between intention and subjective norm are bi-directional (Sussman & Gifford, 2019).

**Related Studies.** TPB is widely used to understand and predict human social behavior, and is therefore a conceptual framework to facilitate designing of interventions

to influence intention and behavior (Ajzen, 2012). The TPB model is prevalently used in predicting and intervening health-related behaviors, i.e., problem drinking, smoking, weight-loss, condom use, etc., and a popular model for predicting social behaviors, like playing video games, shoplifting, political election, and social media consumption (Ajzen, 1991). In addition, the application of TPB has been seen widely in the field of environmental sustainability (i.e., green-buying behaviors) (Ho, Liao, & Rosenthal, 2015; Sussman & Gifford, 2018; Yadav & Pathak, 2016). Moreover, TPB has guided the strategies for companies to engage with their customers and influence purchase behaviors (De Cannière, Pelsmacker, & Geuens, 2009; Lim & Dubinsky, 2005).

Recent research studies focused on utilizing the TPB model to understand and predict purchase intention and behavior, as well as design intervention to influence purchase intention and behavior in the online and social media contexts. Consumers' attitudes toward the purchase, subjective norms, and perceived behavioral control act jointly as the determinants to purchase intention, and purchase intention is a direct antecedent of the purchase behavior (Akar & Dalgic, 2018).

Attitude is identified as the strongest significant predictor of behavioral intention in the social media context (Sanne & Wiese, 2018). Consumers' attitudes can be predicted based on informativeness and creativity of the brand portrayed on a social media platform, fulfilling the utilitarian and hedonic gratifications that consumers seek through social media consumption (Lee & Hong, 2016). In addition, perceived value, information usefulness (including information credibility and quality) have also been considered as influencers of attitude during brands' social media use (Cheah, Phau, & Liang, 2015; Erkan & Evans, 2016). Moreover, brand attachment has been found to

impact consumers' willingness to engage with the brand and maintain a consumer-brand relationship (Chu, Chen, & Sung, 2016). For example, Chu et al. (2016) have pointed out the positive influence of favorable instrumental and affective attitudes on the intention of brand following on Twitter, which may then impact consumers' actual engagement with and purchase behavior of the brand.

Subjective norm is a particularly influential factor to behavioral intention in social media marketing considering users' strong needs to connect and collaborate, socialize, and coordinate through social media (Boyd, 2015). The subjective norm in the social media context can influence purchase intention through consumers' social reference group, meaning that stronger will to comply with the reference group in search of social validation leads to a higher level of behavioral intention (Cheah et al., 2015; Chu et al., 2016). In addition, opinion leaders on social media, especially ones perceived with benevolence and integrity, have been considered as having positive impact on purchase intention (Raghupathi & Fogel, 2015). Moreover, the beliefs of important others and acquaintances can influence consumers' intention to interact with the brand (Lee & Hong, 2016).

Perceived behavioral control is another factor influencing behavioral intention, both directly and indirectly through its effects on attitude and subjective norm (Ajzen, 1991). Studies on the influence of perceived behavioral control in the digital setting provided practical implications on the design of interventions to influence consumers' attitude, subjective norm, and purchase intention (Akar & Dalgic, 2018; Cheah et al., 2015; Lin & Chen, 2017). For example, social media platforms can be used by brands to disseminate information about their service and products (Akar & Dalgic, 2018), create

user-friendly applications to enhance consumer experience (Cheah et al., 2015), and increase consumer awareness of the brands (Lin & Chen, 2017).

Therefore, the TPB model is applicable in the online and social media contexts, meaning that the three determinants of attitude, subjective norm, and perceived behavior control act collectively to influence purchase intention in the online and social media contexts, and the purchase intention may lead to purchase behavior given the opportunity and a sufficient degree of actual control of the behavior (Ajzen, 2019).

The TPB model and its use in understanding, predicting, and intervention design for purchase behavior in the online and social media context can also be applied to the interaction between a higher education institution and its prospective students.

Stephenson, Heckert and Yerger (2015) pointed out that prospective students' intention to apply for admissions to a higher education institution may be influenced by their attitudes toward the institution (i.e., degree programs offered, value of the degree, size and location, the campus aesthetics, the campus atmosphere in terms of friendliness and diversity, etc.). In addition, the authors discussed that the perception of the relevant others of the prospective students plays a particular important role in the students' selections of higher education destinations, which aligns with the impact of subjective norm on students' intention to apply for admissions to a university under the TPB model.

Social media platforms can be effective tools to enhance the perceived behavioral control of prospective students over their awareness of the institution in terms of its brand and resources, and their affinity with the selected university, which can directly impact prospective students' intentions to apply for admissions to the institution (Xiong, Alsadoon, Maag, Prasad, Hoe, & Elchouemi, 2018). In addition, social media platforms

can be utilized to influence prospective students' intention to apply for an institution indirectly through its influence on students' attitudes and subjective norms, which will then impact their intentions to apply (Constantinides & Stagno, 2011). The intention to apply then can be converted into the actual behavior to apply for admissions to a university, given the opportunities and students' sufficient degree of actual control over the college application process.

### **Uses and Gratification Theory**

The Uses and Gratification Theory is an audience-centered theory in mass communication that explains how individuals use media to satisfy their social and psychological needs and to achieve their goals (Katz, Blumler, & Gurevitch, 1973). Essentially, it discusses the agentic role of audience in media consumption, the needs gratified through media, the social and psychological motives for media behavior, the competition among various forms of media, and the functions or consequences created by the needs, motives and behaviors (Rubin, 1993; Shao, 2009). The theory and its related implications play a guiding role in the design of the innovation for the present study.

**Theoretical Components of U&G.** There are a few importance theoretical components of U&G, introduced in this section.

***The active audience.*** According to U&G, members of the audience are active and goal-oriented in the selection and consumption of media to gratify their needs. U&G highlights the role of audience initiative and subjective choice and interpretation in media effects (Rubin, 1993). Blumler (1979) explained the active role of audience through the concepts of utility (mass communication has uses for people), intentionality (media consumption is directed by prior motivation), selectivity (media behavior reflects prior

interests and preferences), and imperviousness to influence (obstinate audience). These variabilities about audience activity influence individuals' communication behavior and outcomes, as well as their attention and involvement with the media choice (Rubin, 1993). Essentially, the audience members are rational and engaged individuals in media use.

***The typologies of uses and gratifications.*** Since audience behavior is rational and motivated by their needs, U&G assumes that the needs of the audience are gratified by different types of media and the media content. Katz, Gurevitch, and Haas (1973) identified thirty-five needs of media consumption and grouped them into five classifications including cognitive needs, affective needs, personal integrative needs, social integrative needs, and tension release needs. Specifically, cognitive needs are related to information and knowledge seeking. Affective needs are related to enjoyment and emotional experience. Integrative needs combine both cognitive and affective elements, and focus on status-seeking for personal integrative needs and interactions for social integrative needs. Tension release creates the opportunity for escape and diversion. The typologies of audience gratification vary depending on the study and the specific media studied.

***The social context.*** The gratifications through media consumptions can be traced back to the media-related needs that are derived from media content, exposure to the media, and the social context that exposes the audience to different media (Katz, Blumler, & Gurevitch, 1973). Blumler (1979) proposed three categories of relationships between the social context and media satisfaction. First, normative situation affects individuals' intention and goal from media consumption. Second, the socially distributed life-chances



may liberate and enable the individuals to be more engaged with media and social situations or compensate individuals for lack of such opportunities and capacities to engage. Last, the subjective reaction calls for individuals to adjust to social situations. Therefore, audience's media choice is socially situated.

**U&G in the digital age.** Individuals' behaviors in media use are situated in different media contexts and at different times in the communication process (Ruggiero, 2000). The changes in media consumption and gratification in the digital age are generated by technology as the medium, particularly with the development of the internet and social media (Sundar & Limperos, 2013). Audience members can gain gratification through the media content, the process of using the media, and the media use situated in the social environment (Sundar & Limperos, 2013). With the availability of new media sources and more active control, the audience members in the digital age are considered as users of media, rather than just an audience.

**Content gratification.** User-generated media (UGM) and user-generated content (UGC) reflects the changes in content gratification in the digital age. The content gratification is impacted by the content accessed, discussed, and created with the new media sources (Sundar & Limperos, 2013). Under the concept of UGM, Shao (2009) considered that users consume, participate, and produce media content interdependently. Specifically, he discussed that user of media may consume the media content by only watching, reading, or viewing it, which gratifies their needs typically in information seeking and entertainment. Participation is sought through user-to-user interaction and user-to-content interaction, which may fulfill the gratification of social interaction and community building. In addition, users can create and publish their own content, and

achieve self-expression or self-actualization. The users actively engage with and construct the content of media through technology (Sundar & Limperos, 2013).

***Process gratification.*** The process gratification is likely to be influenced by the interactions between the users and new technology like the internet and new media sources like social media (Sundar & Limperos, 2013). Ruggiero (2000) discussed the role of the internet in new media consumption. First, internet communication removes the barriers created by geographic locations, time and synchronicity, and provides audience more control over the access and manipulation to media. Second, the internet facilitates the interactivity in individuals' consumption of media in the dimensions of interactivity, playfulness, choice, connectedness, information collection, and reciprocal communication. Moreover, the internet contributes to demassification, which can offer more choices and selectivity in media consumption including multimedia, packet switching, and hypertextuality. Additionally, the internet can function as both mass and interpersonal communication. Essentially, the internet and social media create opportunities for more active involvement with media and more diverse needs to be gratified.

***Social media use in the social context.*** Katz, Blumler, and Gurevitch (1973) summarized the five ways that social factors influence media-related needs based on previous research, including the influence of social situations on audience seeking media for tension release, information, complementary or substitute servicing for impoverished real-life opportunities, affirmation and reinforcement of certain values, and social membership. The social context of media use is particularly relevant to social media as the phenomenon rooted in the social, technical, and business dynamics of the Web 2.0

age, which includes a set of tools, practices, and ideologies that fulfill people's needs in connecting and collaborating, socializing, and coordinating (Boyd, 2015). The intentional consumption of media may lead to more involvement between the audience and the media content, as well as greater affinity between the audience and the perceived realism of the media (Rubin, 1993). For example, the behavior of news-sharing via social media may connect the users to the virtual community and create an environment for potential social relationships (Lee & Ma, 2011).

*New typologies.* Some of the typologies of gratification related to internet use overlaps with traditional media (i.e., entertainment, social interaction, and information seeking) (Sundar & Limperos, 2013). Recent studies have attempted to re-classify the common themes of gratifications related to social media, including social interaction, information seeking, pastime, entertainment, relaxation, communicatory utility, and convenience utility (Whiting & Williams, 2013). Specifically, information seeking, entertainment, and interpersonal utility have been identified to have substantial influence over behavioral usage of digital media, with information seeking as the most salient use (Luo, Chea, & Chen, 2010).

In addition, the media sources are versatile, which means that one and the same set of media materials can satisfy various needs (Katz, Blumler, & Gurevitch, 1973). For example, through the behavior of news sharing through social media, users can fulfill their needs in socializing, status-seeking, and information-seeking (Lee & Ma, 2011). Additionally, the "liking" behavior through WeChat satisfies the hedonic gratification of enjoyment, social gratification of social support, and utilitarian gratification of information seeking (Gan, 2017). Moreover, the typologies in the digital age show that

digital media can fulfill both individualism and community building (Ruggiero, 2000). The emergent of the internet and new media sources like social media has been placing social needs at increasingly important position for media consumption.

**Limitations of U&G.** As a communication theory centered on audience choice and motives, U&G has its limitations. Originated in the 1950s, U&G went through continuous development and conceptual building in the 1970s and 1980s to become the theory today (Ruggiero, 2000). With the development of technology and the internet, the criticism on U&G continues to be present. First, U&G can be too audience-centered, which presents challenges when attempting to generalize the study or to consider the societal implications of media use (Ruggiero, 2000). Second, multiple classifications on typologies are developed in various studies on different media (Gan, 2018). Third, clarifications and uniformities are needed on some of the concepts in U&G (i.e., social and psychological factors, needs, motives, behaviors, and consequences of media use, etc.) (Ruggiero, 2000). Fourth, heavily relying on self-reports of typologies and behaviors, the research methodology of U&G may be too simplistic (Ruggiero, 2000). However, for research related to mass media and communication, U&G functions as a useful theoretical framework in explaining the interdependence among personal factors, media consumption behavior, and the environmental influencers.

**Related Studies.** Some of the related studies of U&G are presented as follows.

***Social media application design.*** Considering the active role of users in media consumption and the functions of social media, the gratification of social media use calls for greater usability and functionality. Great social media application should be easy to use and allows the users to be in control (Shao, 2009). This means that social media

applications should enable users to gain maximum outcome with little input, and to control the usage in terms of interpersonal communication, content, and interface (Shao, 2009). In addition, Korhan and Ersoy (2016) discussed that social media applications should provide the functions that can fulfill users' needs. Specifically, usability includes navigation, interaction, learnability, ease of use, response time, memorability, efficiency, and satisfaction, and functionality refers to the personalization of information, search options, differentiation of the information types, services, and security and privacy. All of these factors should be of consideration when designing and utilizing a social media application from a developer's point of view.

In addition, the interpersonal needs of social media place the social influence factor at an important position in gratifying users' series of needs for social media usage. The social influence occurs when an individual's opinions or behaviors are affected by others, and it can be achieved through processes like compliance (agreeing with others), identification (being influenced by others in the same social group), and internalization (accepting a belief or behavior consistent with personal value system) (Ifinedo, 2016). Under the context of social media, research has shown that identification and internalization have strong influence in motivating users' social media use (Ifinedo, 2016). Therefore, designers and operators of social media applications and social marketers should keep in mind the social influence factors and their impact on motivating individuals' social media use.

***The MAIN model.*** Media consumption can gratify individual needs of the audience in gaining cognitive perceptions and engagement, as well as social needs in the changing society (Katz, Blumler, & Gurevitch, 1973). Individuals' involvement with

media, including their perceptions of and experience with the media, affects their cognition, attitude, and behavior (Rubin, 1993). The emergence and development of new technologies, like the internet and social media, have increased the volitional actions of audience and shifted the role of active audience to active users of media (Sundar & Limperos, 2013). These “actionable properties” are conceptualized as “affordances” in the field of human-computer interaction, which include the users’ ability to interact with media as well as interact through media to achieve communication with other users (Sundar & Limperos, 2013). Therefore, new media studies, like Uses and Grats 2.0 that reflects the evolvement of U&G in the Web 2.0 age, shifted the focus to medium-related factors based on the characteristics of the media themselves and the new platforms of media, rather than simply the social and psychological factors involved in the traditional Uses and Gratification Theory (Rathnayake & Winter, 2018).

In response to the unique characteristics of digital media, Sundar and Limperos (2013) developed the MAIN Model to identify four classes of technological affordances, including modality, agency, interactivity, and navigability. Modality refers to the various methods of presentation of the media content, i.e., pictures, audio, video, that may fulfil users’ different gratifications, perceptually and cognitively. The MAIN Model suggests that multimedia and visual modality enhance users’ experience in media consumption, and lists four possible new gratifications, including realism, coolness, novelty, and being there. The agency affordance is related to user-generated content, which allows users to be the agents or sources of information to create and spread content. The agency-based gratifications, including agency-enhancement, community building, bandwagon,

filtering/tailoring, and ownness, provide users the opportunity to customize their experience and further motivate their media usage.

The interactivity affordance allows users to make real-time changes to the media content via the interaction with and through the medium. Interactivity enhances users' engagement with the media content through interaction, activity, responsiveness, and dynamic control of media. Navigability provides users the means to move through the medium to fulfill the gratifications like browsing/variety-seeking, scaffolding/navigation aids, and play/fun (Sundar & Limperos, 2013).

The MAIN model is a comprehensive approach to understand new media uses and gratifications as it outlines various usage and engagement options based on new technology capacities and new media platform like the internet and social media, and it proposes new platform-based gratifications that have not been discussed in previous research (Rathnayake & Winter, 2018). Essentially, it is a practical model based on U&G to guide the design and improvement of social media application (for example, the innovation for this action research, WeChat service account). Specifically, the theoretical framework of U&G and the MAIN model can contribute to understanding on users' consumption of the social media platform WeChat, identifying factors and affordances that may influence WeChat usage by prospective international students from China and their family, as well as inspiring thinking and design of WeChat service account of a higher education institution based on platform-specific characteristics of WeChat.

### **Previous Cycles of Action Research**

Two cycles of action research have been conducted to guide the current project, Cycle 0 and Cycle 1. Cycle 0 action research was a mixed-methods research study

conducted during the fall 2018 semester that aimed to identify the innovation for the action research project. Carried out during spring 2019 semester, Cycle 1 action research adopted a mixed-methods approach to explore the effective ways to improve the innovation.

**Cycle 0 Action Research.** Conducted in fall 2018, Cycle 0 action research adopted a mixed-methods approach. The research purpose and research questions, research method, research findings, and implications of Cycle 0 action research are presented below.

***Research purpose and research questions.*** Inspired by the current trend of overall and new international enrollment in U.S. higher education institutions, my Cycle 0 action research intended to explore the potential improvements needed regarding the current marketing and communication strategies by ASU targeting international students from China from the perspectives of Chinese students and higher education practitioners working with international students at ASU. Identifying WeChat as a potential innovation, Cycle 0 research questions focused on WeChat postings that Chinese students prefer in terms of topics, modalities, and timeframes (day and time), as well as higher education professionals' opinions and suggestions on ASU's marketing and communication strategy targeting prospective students from China.

***Method.*** Cycle 0 action research project was a mixed-methods research study conducted at ASU during fall 2018, incorporating qualitative interviews and a quantitative survey. There were two groups of research participants, including two higher education practitioners at ASU involved in international student recruitment, services and



marketing selected for the interviews, as well as twenty-three first-year Chinese undergraduate students enrolled at ASU participated in the survey.

The interview questions focused on the practitioners' knowledge and opinion on ASU's current practice in international student recruitment and marketing, particularly social media marketing, aiming at identifying information that can guide ASU's social media marketing strategy and the validity of selecting WeChat as the innovation for the action research. Survey questions focused on participants' WeChat usage habits in general, preferred WeChat content from higher education institutions, and the influence of WeChat on their interactions with the institution, etc., intending to obtain students' perspectives to aid the design of the innovation.

**Findings.** Through qualitative interviews, the interviewees have expressed their doubts on the effectiveness of the current international student recruitment and marketing strategy at ASU in general, focusing mainly on internal recruiters, passive communication, and emails. In addition, it was agreed that WeChat, specifically WeChat service account, should be the tool to consider for facilitating the marketing and communication efforts targeting prospective international students from China considering the current digital media landscape in China and the communication habits of the Chinese population. Moreover, the participants offered practical suggestions on the design of ASU's WeChat account, including changing the account type from a personal subscription account to a public service account, creating content relevant to the Chinese population, adopting a variety of modalities of postings, and exploring additional functions of WeChat, i.e., payment functions, mini programs ("sub-applications" within

WeChat that enable advanced features, such as e-commerce, task management, coupons, etc.) (Graziani, 2019), etc.

Analysis on the quantitative data found that most participants followed service accounts of higher education institutions on WeChat. The majority of the participants logged on WeChat for more than eight times in a day to browse information and communicate with others, and the most popular timeframes for them to use WeChat were during late afternoons and evenings. In addition, it was found that WeChat was the preferred channel for the participants to gather information from and communicate with higher education institutions. Also, preferred topics of posts included admissions requirements, internship and post-graduate employment opportunities, on-campus housing, safety, visa maintenance, and international student support services, etc. Moreover, participants preferred postings in the format of pictures, videos, and short articles, and would like to see mini-programs, a unique feature of WeChat, used by institutions.

***Implications.*** The findings from both inquiry methods were consistent with existing research related to international student recruitment and marketing, and confirmed the findings from each other. First, a WeChat service account is a justified innovation for the research purpose of influencing the behavioral intention of prospective international students from China to apply for admissions to a higher education institution in the U.S. In terms of the design of the innovation, four recommendations were offered. First, ASU needed to switch the account type from a personal subscription account to a public service account, which offers more functions from the administrator's perspective and better tools to track follower data. Second, content building should focus on topics

that Chinese students are interested in and adopt a variety of modalities in visual forms (i.e., pictures and videos). Third, the interface design should be user-friendly and easy to navigate, including updating information in the Chinese language, building frequently-sought information into the landing page of the account (e.g., admissions procedure), etc. Finally, additional functions of WeChat (e.g., mini programs, payment portal, etc.) should be explored by the account administrators.

**Cycle 1 Action Research.** Cycle 1 action research was a mixed-methods research study conducted during spring 2019. The research purpose and research questions, method, findings, and implications of Cycle 1 action research will be introduced in this section.

***Research purpose and research questions.*** Through Cycle 0 action research, I was able to identify WeChat as the innovation for the action research and obtained preliminary feedback on improving ASU's WeChat practice and designing a new WeChat account. During Cycle 0 research, ASU's WeChat account was established as a personal subscription account by a third-party vendor in China in 2017. Based on the feedback from Cycle 0 research and the changing policies in WeChat service account for foreign entities, the International Admission department at ASU was able to register for a new WeChat account as a public service account at the beginning of 2019. The switch in account type will help to promote the account to its followers as the official account representing ASU and offers more functions to ASU's WeChat administrators to update the content, interact with the followers, and track follower data. Research questions of Cycle 1 focused on building the new WeChat public service account through in-depth

exploration of WeChat practice from practitioners' perspectives in relation to the improvements needed on its content, interactivity, usability, and functionality.

**Method.** Conducted during spring 2019, Cycle 1 was a mixed-methods inquiry adopting a triangulation design. Qualitative interviews were conducted with two ASU professionals in the field of international student services and with experience in administering WeChat accounts with newly constructed interview instrument guided by the MAIN model (modality, agency, interactivity, navigability) (Sundar & Limperos, 2013) and Cycle 0 findings. The interview questions focused on their opinions related to the design of the newly-registered WeChat public service account in terms of its content, posting frequency, modalities of postings, engagement methods, landing page of the account, and the additional functions of WeChat, as well as improvements of ASU's WeChat practice in general.

In addition, document analysis was performed on information collected on WeChat accounts of four peer institutions of ASU identified by the Arizona Board of Regents (ABOR) for both quantitative and qualitative data. Data collected were from postings of the selected WeChat accounts starting from the beginning of the past recruitment season in September 2018 to the end of Cycle 1 action research in April 2019. Quantitative data focused on the interactions between the accounts and their followers, and qualitative data explored the modalities and themes of the postings, special campaigns, and additional functions of WeChat utilized by ASU's peer institutions, as well as the landing pages. The intention was to explore popular WeChat practices in the industry and identify practical information after which ASU can model.

*Findings.* Findings from the interviews and document analysis during Cycle 1 confirmed each other and presented some common themes. First, international student recruitment and services required collaborative efforts from all related departments and stakeholders across campus, including International Admissions, International Student and Scholars Center, International Student Engagement, international student organizations, the alumni association, etc. In addition, the postings should incorporate contents created by both staff and faculty, as well as current students, to have different voices represented. Information from staff and faculty showed the trustworthiness and validity of the account, and content from current students was more approachable for prospective students and family.

In terms of content building, it has been agreed that the postings should be culturally sensitive and relevant, and adopt various modalities. In addition, as parents and family played an important role in the college selection process for Chinese students, their perspectives needed to be taken into consideration. Also, the posting content needed to align with the recruitment timeline, with different themes during different stages of college selection and application process. Moreover, the postings needed to be consistent in the frequencies, which were frequent enough to indicate that the account was active but not overwhelming to the followers.

Although the interaction between the ASU WeChat service account and its followers remained mostly as one-directional information posting at the moment, personalized content, timely response, and culturally-relevant practice can improve the engagement between the account and its followers. In addition, navigability of the account needed to be improved, and a user-friendly landing page was needed with rich

content for followers to actively search for information, similar to a mini webpage with essential information. Moreover, forming WeChat groups in addition to the public service account can contribute to the sense of community and improve the interactivity between ASU and prospective Chinese students.

***Implications.*** The findings from Cycle 1 action research provided practical information for improvements needed on ASU's newly registered WeChat service account in terms of the four affordances of modality, agency, interactivity, and navigability based on the MAIN model (Sundar & Limperos, 2013). In addition, a community effort and collaboration within ASU to engage with international students from China was critical, from strategic planning to daily operation. A connection among various stakeholders related to the international student population needed to be built. Moreover, the influence of important others of prospective students (i.e., parents, other family members, peers) needed to be taken into consideration and a plan to engage with the important others needed to be established.

## **Summary**

This chapter introduced the theoretical frameworks and previous cycles of action research that has guided this action research project. The Theory of Planned Behavior (TPB) is a popular social-psychological model for explaining, predicting, and changing human social behavior (Ajzen, 2007; Ajzen 2012). Based on the theory, human behavior is guided by three kinds of salient beliefs, behavior beliefs, normative beliefs, and control beliefs, which can be aggregated respectively to three determinants of intention, attitude toward the behavior, subjective norm, and perceived behavioral control (Ajzen, 1991). The three determinants act collectively to contribute to the formation of a behavioral

intention, which can then be converted to behavior given the opportunities and the sufficient control over the actual behavior (Ajzen, 2007). TPB can be used as a model to understand and predict the intention of a prospective international student from China to apply for admissions to a higher education institution in the U.S. It was the overall guiding theory for the action research, addressing the research questions of the effective ways for a higher education institution in the U.S. to utilize WeChat service account as a marketing and communication tool to improve its recruitment practice targeting prospective Chinese students, and influence the students' behavioral intention to apply for admissions to the institution.

The Uses and Gratification theory recognizes the agentic role of audience in media consumption (Katz, Blumler, & Gurevitch, 1973). According to Sundar and Limperos (2013), the active role is strengthened in the digital age with the emergent of new technology like the internet and new media sources like social media, which successfully transforms individuals from the role of media audience to media user. In the social media context, they added, users seek newer gratifications through the media content, the media consumption process, and the social context of media consumption. The MAIN model based on U&G guided the design of social media application in terms of modality, agency, interactivity, and navigability, to gratify users changing needs, which will entice continuous use of the media by the users. U&G and the MAIN model were used to design the innovation for the action research.

Previous cycles of action research leading to the current research laid the foundation for exploring the problem of practice, identifying potential innovations, and designing and improving the selected innovation of the current action research project.

Both cycles of previous research adopted mixed-method approach integrating the perspectives of international students from China, opinions of higher education professionals experienced in international student services and WeChat administration, and popular WeChat practice in the industry for comprehensive outcomes to inform practice and the new cycle of the action research.



## CHAPTER 3

### METHODS

In Chapter 3, the method for data collection and analysis of this action research is elaborated. The consideration of conducting a practical action research study was based on my dual role as a researcher in a Doctor of Education program at ASU and a practitioner in the field of international student services in higher education. Adopting the methodology of action research allows me to identify a problem in my practice, and to find a solution to address the problem and improve my own practice through a cyclical process that involves planning, acting, developing, and reflection (Mertler, 2016). In this case, my goal through this action research is to identify a social media approach to aid the improvement of international student recruitment practice at my local context.

A brief overview of the research purpose, the research questions and the theoretical perspectives guiding the research will be reviewed at the beginning of the chapter. The methods section will start with an introduction to the setting and participants involved in the research. Then, the innovation selected for the action research, WeChat and WeChat service account, as well as the timeline of implementation will be presented in detail. Next, the research plan, including the research methodology, data sources, instruments for data collection, the timeline for data collection, and the trustworthiness of the data sources will be discussed. Finally, data analysis techniques will be outlined in this chapter.

This action research was inspired by the current trend of international student enrollment in U.S. higher education, specifically the flattening trend in the overall international student enrollment and a decline of new international student population

enrolling in the U.S. for the first time. This problem of practice was identified as the focus of the action research based on my personal background of once being an international student and professional experience in international student recruitment and services in higher education. Guided by the Theory of Planned Behavior, the Uses and Gratification Theory, and previous cycles of action research, the intent of the action research was to explore how a higher education institution in the U.S. can utilize WeChat service account as the innovation to improve its recruitment practice targeting prospective international students from China and to influence their behavioral intentions to apply for admissions to the institution. The research questions were:

RQ1: How can a higher education institution in the U.S. effectively utilize its WeChat service account as a marketing and communication tool to improve the recruitment practice by building the brand, promoting the resources, and establishing a sense of community with the institution, targeting prospective international students from China?

RQ2: How can a higher education institution in the U.S. effectively utilize its WeChat service account as a marketing and communication tool to influence the behavioral intentions, attitudes, and normative beliefs of prospective international students from China to apply for admissions to the institution?

This action research adopted a mixed-methods approach, integrating quantitative and qualitative data for obtaining comprehensive findings to guide future research and practice related to WeChat marketing for Chinese student recruitment purposes by higher education institutions in the U.S. The methods for this action research included one-on-

one qualitative interviews, document analysis, focus group interviews, and quantitative surveys.

### **Setting and Participants**

**Setting.** This action research was conducted at Arizona State University (ASU). Ranked fifth as a leading U.S. institution for hosting international students, ASU attracted over 13,000 international students from 136 countries in fall 2017 (Arizona State University, n.d.c; IIE, n.d.b). Referencing the latest data of fall 2019 enrollment issued by ASU, among the overall international student population, approximately 10,000 international students were in degree-seeking status and more than 3,200 of these degree-seeking international students were from China (Arizona State University, n.d.a). Currently, the main service providers at ASU specific for international students are International Admissions, International Students and Scholars Center, International Student Engagement, and international departments within individual colleges at ASU. In addition, various student services departments at ASU have dedicated staff members or task forces for international students, including career services, counseling services, health services, alumni engagement, etc. Moreover, ASU supports international students on campus through various student organizations.

At the beginning of the fall 2019 semester, ASU's president Dr. Michael Crow proposed a goal of increasing the international student population at ASU from the current 13,000 to 25,000 in the next five years. Therefore, growing the overall international student enrollment and diversifying the international student population has become a priority of the university's leaders and professionals working in the fields of international student recruitment and services at ASU. Various committees involving

different departments and multiple levels of professionals were put together to create and execute action plans to grow international student enrollment and enhance international student support on campus.

**Participants.** There were three groups of participants for the action research: practitioners working with international students at ASU, student organization leaders from China, and first-year international students from China enrolled at ASU. The selection of three higher education practitioners at ASU working with international students were based on purposeful sampling. The intent was to invite professionals at ASU to participate in qualitative interviews to learn about their perspectives regarding the effective ways to utilize WeChat service account. Specifically, the goal was to learn about methods to facilitate the marketing and communication efforts by ASU to prospective international students from China with the purpose of influencing their behavioral intention to apply for admissions to ASU. Therefore, during the selection of these participants, I considered their professional experiences in international student recruitment, international student services, social media marketing, and WeChat marketing. In addition, the interview participants selected were proficient with WeChat operations as individual users and WeChat service account management as administrators. Moreover, the participants all had a good understanding of the change culture and management style within ASU.

Seven student organization leaders at ASU coming from China were purposefully invited to participate in the focus group interviews to examine the design and impact of the innovation. Chinese student leaders were selected because they were connected to the overall Chinese student population and understood the students' needs in terms of

marketing and communication from ASU. Therefore, they could better examine the innovation from a critical perspective representing Chinese students. In addition, since the WeChat platform is written in Chinese, student leaders from China were better fit to evaluate the innovation as typical WeChat users. Two focus group interviews were conducted with three and four participants in each focus group respectively.

First-year international students from China enrolled at ASU were selected based on convenience sampling method and were asked to participate in a survey. First, current students enrolled at ASU were more accessible for the action research compared to prospective international students as they could be reached through their ASU directory emails or their involvement in university events and activities. In addition, first-year students could reflect on their experiences during their college application process more accurately in retrospect than their upper-class peers.

Specifically, the quantitative survey targeted first-year Chinese students enrolled in the W. P. Carey School of Business (WPC) at ASU. WPC is a top ranked business school with over 15,000 students, among whom over 2,000 are international students from 100 different countries (Arizona State University, n.d.a). The original plan was to identify participants based on their enrollment status in the WPC 101 course, titled “Student Success in Business”, a required college success course for all first-year students at WPC (W. P. Carey School of Business, n.d.). However, due to the COVID-19 pandemic and the changes in the learning environments at ASU, the curriculum and delivery of WPC 101 has switched to a mostly asynchronous mode, which created challenges to recruit survey participants. Therefore, I pivoted the outreach plan and engaged potential participants through the newly initiated Global Peer Mentor program

(GPM), an international student peer mentorship program at ASU. Twenty-two first-year Chinese students started the survey, and eighteen of the twenty-two participants completed the survey.

### **Innovation**

Identifying and designing an innovation to address the issues related to the trend of international student enrollment at ASU has been an iterative process. I have taken many factors into consideration for the selection of WeChat as the innovation, including the target population of the innovation, the current media landscape in China, and the large customer base and competitive functions of WeChat, etc. WeChat was selected specifically to address the international student enrollment issue related to the Chinese student population as I have a professional and personal connection to the population. However, a different social media platform could be identified and designed through a similar process for a different target market. More details of WeChat will be introduced in this section.

My involvement with exploring and identifying an effective innovation for improving Chinese student enrollment issues started as solely a practitioner at ASU, and then evolved into a dual role of practitioner-researcher after joining the EdD in Leadership and Innovation program at ASU. My professional responsibilities in practice both before and during the EdD program, as well as the experience gained through conducting two previous cycles of action research has contributed to the overall change effort to advance the ways that ASU market to and communicate with its prospective international students from China. Other than myself, the change process has also involved many stakeholders related to Chinese student enrollment issues at ASU, i.e.,

colleagues at my practice, leadership at ASU, and participants in the previous cycles of action research, etc. My role in this process of exploring and identifying the innovation for change as well as the timeline of WeChat implementation at ASU will also be presented in this section.

**WeChat.** The innovation selected for this action research was WeChat (微信, Wēixìn, micro-message), a social media and multi-purpose application in China. Released by the Chinese multinational company Tencent Holdings Limited in January 2011, WeChat currently has over one billion monthly active users (Montag et al., 2018; Tencent, 2019). As a multi-purpose platform, WeChat incorporates the functions of communication, social networking, mobile payment, and other add-on features connected with third party applications. From the users' standpoint, WeChat has successfully become a lifestyle by integrating various functions and has created the one mobile application that does it all for mobile users in China.

As a communication tool, users can use WeChat to send free instant messages, and make free video and audio calls. A report released by Tencent (2019) indicated that over 45 billion messages were sent and over 410 million calls were made through WeChat each day on average in 2018. As a social networking application, users can share their lives through posting words, pictures, and videos through WeChat *moments* function. Users can also acquire information by browsing posts and news articles shared by friends or trending topics, and search for information proactively. Additionally, there are add-on functions (i.e., *mini programs*) on WeChat that users can choose to customize their application and experience, including mobile games, fitness tracker, online retail stores, etc. (Tencent, n.d.).

In addition, WeChat offers mobile payment services for online and offline purchase (Sui et al., 2018). For example, users can use WeChat for city services, for instance, to pay for transportation services and utility bills. WeChat can also be used to purchase food and merchandise in person and for deliveries. WeChat has reported 4.7 times increase in passengers using WeChat to pay for subways in China and 6.3 times growth to pay for highway tolls in 2018 (Tencent, 2019). Additionally, users making payments at restaurants and retailers through WeChat have grown almost two-fold in 2018 (Tencent, 2019). Moreover, a unique feature related to the Chinese culture is *red envelope* by WeChat, mirroring the Chinese traditions of exchanging monetary gifts among friends and families during holidays and celebratory moments (Montag et al., 2018).

From the perspectives of businesses, WeChat service accounts function as an efficient and low-cost operating platform for companies, universities, and governments to transmit information to specific user populations and interact with their followers (Montag et al., 2018; Sui et al., 2018). Since the functions launched in July 2012, WeChat service account has successfully attracted over 10 million registered organization users (Sui et al., 2018). In addition, *WeChat Work* is an office automation (OA) system with functions of instant messaging, email, office phone, staff check in/out, video conference, daily/weekly/monthly newsletter, payroll, etc. (Tencent, n.d.).

Depending on the needs and its customer base, an organization can choose between a *subscription account* (订阅号) and a *service account* (服务号) (Tencent, n.d.). Targeting individual users, media, corporations, governments, and various organizations, subscription accounts are mainly used as a communication tool to transmit information



and promote brands. The primary function is to convey news and information to users, similar to digital newspapers or magazines. Account holders can choose between a personal subscription account used by individuals, or public subscription account used by organizations. Subscription account users are limited to sending one message a day to their subscribers. Mainly used by corporations, governments, and organizations, service accounts offer more functions for account holders to interact with followers, manage user data, and provide online and offline payment options. Service account users are allowed up to four messages per month. In addition, service account has a landing page similar to a mini-website for followers to browse existing information.

**The Researcher's Role.** Many U.S. higher education institutions, ASU included, have already established service accounts on WeChat to engaged the Chinese audience. ASU currently has three WeChat accounts of different types established by various international student service departments, including International Students and Scholars Center (public subscription account), ASU Alumni (personal subscription account), and International Admissions (public service account). I have been involved in the creation and maintenance of the public service account by ASU's International Admissions department as part of a workgroup consisting of ASU staff members working in international student recruitment and services. The involvement started with my position with International Admissions, and continued with a shift into the current role with International Student Engagement at ASU. Table 1 presents a timeline of the implementation of WeChat by International Admissions at ASU, including both my involvement with WeChat at ASU as a practitioner before starting the action research and

the experience with WeChat as the innovation for this action research as a practitioner-researcher.

Table 1

*Timeline of Implementation of WeChat at ASU*

Month	Key Decisions	Actions
November 2017	International Admissions WeChat account established	Identified a third-party vendor in China to establish a personal subscription WeChat account
November 2018	International Admissions WeChat account temporarily suspended	Cycle 0 of the AR completed
January 2019	New International Admissions WeChat account established	New account established as a service account, and recommendations from Cycle 0 AR were considered
January 2019 - January 2020	Series of committee meetings to discuss WeChat marketing strategy for the 2019-2020 recruitment season	Contributed to the contents of the WeChat service account and offered recommendations for improvements based on Cycle 1 AR
January 2020 – January 2021	Series of committee meetings to discuss WeChat marketing strategy for the 2020-2021 recruitment season	Continued with content building and follower engagement, as well as established new guidelines for the 2020-2021 recruitment season

I was on the social media marketing planning and management committee for ASU’s International Admissions in 2014 and 2015 with a previous position within International Admissions at ASU. During that time, I managed the social media platforms for ASU International Admissions in China, including Weibo (microblog) and Renren (social networking site similar to Facebook), and was asked to lead the process of exploring other social media options targeting the Chinese student population. WeChat was identified as a potential platform. With a job change into WPC in 2015, I transitioned into a participant role in the committee to develop ASU International Admissions’ WeChat account. As shown in Table 1, International Admissions established its first

WeChat account in November 2017 as a personal subscription account and the account was managed by a third-party vendor in China due to the limitations in WeChat policies on foreign entities in 2017.

In late 2018, Tencent changed its policies to allow foreign entities to establish and manage WeChat service accounts independently. During this time period, I started the action research and adopted a dual role as a researcher and a practitioner. With the changing policy of WeChat and research findings from Cycle 0, ASU's marketing team decided to suspend the personal subscription WeChat account for International Admissions and to establish a new service account. Once active in January 2019, the new WeChat service account of International Admissions has been going through continuous improvements, and I was involved as both a member in the broader committee and a researcher for the action research. Through a series of meetings during the 2019-2020 recruitment season, the committee continued to develop WeChat marketing strategies.

With a recent professional development in October 2019, I was expected to take a more active role in the future development of WeChat marketing at ASU and work collaboratively with various international student services departments on campus as a part of a group focusing on international students' pre-arrival and overall experience. In general, it has been an ongoing process to adjust the landing page and content of the WeChat service account to be aligned with the overall marketing strategy of ASU Admissions targeting international students and Chinese students specifically. I have been asked to share the findings learned through the action research and feedback gained through the practitioner position along the way. A new series of committee meetings started in January 2020 to plan for the 2020-2021 season. A new agenda added to the

meeting was to consider the impact and use of WeChat on Chinese student recruitment and services in response to the COVID-19 pandemic.

### **Research plan**

This action research adopted a mix-methods approach by collecting both quantitative and qualitative data through various data sources, including qualitative interviews, document analysis, focus group interviews and quantitative surveys.

**Methodology.** This mixed-methods action research incorporated the methods of qualitative interview, document analysis, focus group interview, and quantitative survey. ASU's practitioners engaged in working with international students and social media marketing were invited to participate in the qualitative interviews, to learn their perspectives in terms of effective WeChat marketing practice for Chinese student recruitment purposes at ASU. Conducted in a conversational form, interviews are a mainstream qualitative research method that serves to produce knowledge through the interaction between an interviewer and an interviewee (Brinkmann, 2012). For this action research, I contacted the participants through emails first with an introduction of the study and a copy of the consent form. The interviews were audio recorded through Zoom with the auto-transcription function on. I then revised the transcripts for any typos and information missed by Zoom.

Document analysis was conducted on WeChat service accounts of ASU and its peer institutions to gain the perspectives of popular practice at and outside of ASU. As a form of content analysis, document analysis is a research method to concentrate on words and phrases, as well as numerical measures of textual expression, and to analyze words to develop notions of grounded theory and thematic coding schemes on a more sophisticated

level (Prior, 2012). Specifically, for this action research, together with ASU's WeChat service account, three peer institutions of ASU with WeChat service accounts and their posts were selected for document analysis. The notes taken during data collection were analyzed for patterns of popular WeChat service account practice. The outcomes of document analysis were used to confirm the results of the interviews. Through the interviews and document analysis, it was the intention to explore effective WeChat practice and to create a plan of further implementation of the innovation.

In addition, focus groups interviews with international student leaders at ASU coming from China were used to examine the design and the impact of the innovation of the action research. Through a researcher-led group discussion, focus group interviews create the opportunity for participants with similar backgrounds to engage in meaningful conversations about the research topics set by the researcher (Morgan, 2012). For this action research, I reached out to Chinese student leaders at ASU through WeChat and audio-recorded the focus group interviews through Zoom. The audio recordings were auto-transcribed through Zoom and I then revised the transcripts from Zoom.

Moreover, first-year Chinese students enrolled in WPC were selected as the participants for the quantitative survey. Survey is an efficient research method to learn about the participants' opinions, attitudes, and behaviors, and to aggregate the findings to provide a statistical profile of the survey population (Ballou, 2011). The purpose of the survey was to learn, in retrospect, the influence of an institution's WeChat service account (i.e., ASU's WeChat service account) on the participants' intentions to apply for admissions to the institution. The goal was to examine the selection of WeChat service

account as the innovation of the action research and its potential use for facilitating Chinese student enrollment.

I reached the participants through the formerly mentioned Global Peer Mentor program, co-hosted by International Student Engagement and International Students and Scholars Center at ASU to support fall 2020 first-year undergraduate international students through affinity building and university resource sharing. The program was created considering many new international students were not able to travel to ASU's physical campuses for fall 2020 semester due to various reasons related to COVID-19, including public health concerns, student visa appointment cancellations, travel restrictions, etc. Under the guidance and supervision of staff members from the two offices, including myself, current ASU students were hired as mentors in this program to support the mentees, first-year undergraduate international students studying in the remote learning mode from their home country. I have enlisted help from the mentors in the program who had mentees from China in business majors. The mentors were asked to share the recruitment advertisement for the survey through WeChat with both a direct link to the online survey and a QR code. Once the participants accessed the survey, they were able to see the consent statement and the survey questions. The findings from the quantitative surveys were used to triangulate with the outcomes of the focus group interviews to evaluate the innovation and to examine the influence of WeChat service account on Chinese student recruitment.

Through these four different methods, the action research intended to assess the use of WeChat service account as a marketing and communication tool to influence the

behavioral intention of prospective international students from China to apply for admissions to a higher education institution in the U.S.

**Data sources.** Table 2 presents the sources of data collected and analysis methods aligned with the two research questions for the action research.

Table 2

*Sources of Data and Analysis Methods Aligned with Research Questions for WeChat Service Account for Chinese Student Recruitment*

Research Questions	Data Sources (Analysis Methods)			
	1	2	3	4
#1: Improvement of recruitment practice in terms of branding, promoting resources, and establishing community	Practitioner interviews <i>(thematic analysis)</i>	WeChat service accounts and posts document analysis <i>(thematic analysis)</i>	Chinese student leader focus group <i>(content analysis)</i>	First-year Chinese student survey <i>(descriptive and frequency analysis)</i>
#2: Influence on the behavioral intentions, attitudes, and normative beliefs of prospective students			Chinese student leader focus group <i>(content analysis)</i>	First-year Chinese student survey <i>(descriptive and frequency analysis)</i>

Research Question 1 (RQ1) focused on using the innovation of WeChat service account to improve an institution’s international student recruitment practice through building the university brand, promoting the resources, and establishing a sense of community. Research Question 2 (RQ2) aimed at examining the influence of the

innovation on the behavioral intentions of prospective international students from China to apply for admissions to the institution both directly, and indirectly through its impact on students' attitudes toward the institution, and their normative beliefs based on the opinions of their families and friends on the institution.

As shown in the table, the interviews with ASU's practitioners and document analysis of the WeChat service accounts of ASU and its peer institutions were conducted to gather data for mainly thematic analysis to answer RQ1. Focus group interviews with Chinese student organization leaders at ASU were used for content analysis targeting both RQ1 and RQ2. Additionally, the survey targeting first-year Chinese students enrolled at ASU were used for descriptive and frequency analysis to address both RQ1 and RQ2.

**Instruments.** Based on the four different research methods (qualitative interview, document analysis, focus group interview, and survey), four different instruments were created for the action research.

**Interview.** I have invited higher education practitioners at ASU with experience in international student recruitment, international student services, social media marketing, and WeChat service account administration for the interviews. A copy of the interview instrument and consent form is included in Appendix A. The interview aimed at collecting qualitative information to explore effective WeChat service account practice from ASU practitioners' perspectives to address RQ 1.

The interview started with questions (Q.1 and Q.2) related to the participants' professional background working with international students and experience with WeChat. The next section (Q.3 to Q.6) focused on the participants' perceptions in



relation to WeChat service account as a marketing and communication tool for Chinese student recruitment, and specifically its impact on branding, resource promotion, and community building with students.

The next section (Q.7 to Q.11) of the interview instrument explored the methods to improve the innovation of ASU's WeChat service account and asked the participants to provide their opinions on the popular topics and modalities of posts, the effective ways to interact with followers, as well as the structure of the account and the landing page for better navigability. In addition, the participants were given the opportunity to share any recommendations they may have regarding effective WeChat marketing practice. Finally, two questions (Q.12 and Q.13) were added to learn about the participants' opinions on implementing change at their practice in general. If a different tool other than WeChat or a different market other than China was selected for another action research, the recommendations for successfully implementing change can provide further insights for practice.

*Document analysis.* I have examined the WeChat service accounts of ASU and its selected peer institutions, and took notes in terms of the overall navigability of the accounts, the landing pages and individual posts (including themes, modalities, reads by followers, etc.) for an entire recruitment season, from September 2019 to August 2020. The peer institutions selected were University of Arizona (UA), Indiana University Bloomington (IU), and University of Minnesota – Twin Cities (UMN). The selection was based on the type and size of the institution, the number of international students at the institution, and the WeChat account type. A copy of the notetaking instrument is included in Appendix B.

Both quantitative and qualitative data were collected through the document analysis process. Qualitative data were the focus, learning the popular topics and modalities of posts, special campaigns, and landing pages of the service accounts. Quantitative information was mainly related to the amount of reads by followers of each post to examine the popularity of different topics and modalities of the posts. The document analysis method targeted at RQ 1, and the findings were used to triangulate with the outcomes from the interviews with ASU practitioners.

*Focus group interviews.* I have conducted two focus group interviews with three and four participants in each respective group. The participants were ASU's international student leaders from China. A copy of the focus group interview instrument and consent form is included in Appendix C. The focus group interview was used as an approach to test the design and impact of the innovation. Through collecting qualitative information from Chinese student leaders' perspectives representing the general Chinese student population at ASU, the focus group interviews aimed at addressing both research questions.

There were two parts to the focus group interview. During part one, the participants were first asked to take a few minutes to browse through ASU's WeChat service account as the innovation, and then discussed their impressions of the account in terms of its modality, agency, interactivity, and navigability based on the MAIN Model (Sundar & Limperos, 2013). In addition, participants were asked to share freely about anything they have observed about the account worth discussing. During part two, the participants were asked prompts based on the Theory of Planned Behavior (Ajzen, 2019), specifically how WeChat service account may directly influence their intentions to apply

for admissions to an institution, or indirectly through impacting their own impressions on the institution and their important others' opinions on the institution.

*Survey.* A complete copy of the survey instrument and consent form is included in Appendix D. The questionnaire was constructed based on the Theory of Planned Behavior (Ajzen, 1991) introduced in Chapter 2. For this action research, the behavior being studied and intervened was the action to apply for admissions to an institution, and the behavioral intention was the intention to apply for admissions to the institution. Chinese prospective students' impressions of the high education institution were their attitudes toward the behavior. The opinions of the students' important others (i.e., family and friends) were the subjective norms. The innovation, WeChat service account, was the perceived behavioral control. The survey was used to collect quantitative data to understand how WeChat service account of a higher education institution may influence prospective Chinese students' intentions to apply for admissions to the institution both directly, and indirectly through its impact on the impressions of the students regarding the institution (attitudes) and the opinions of their important others on the institution (subjective norms).

The survey was then built on the platform of Qualtrics®, and distributed as a mobile-friendly online survey in the forms of weblink and QR code. The purpose of the survey was to address both research questions. There were six sections with 13 questions in the survey. The first section (Q.1 to Q.3) was used to identify the participants' WeChat user status. Specifically, three binary questions were included to ensure that the participants were WeChat users, learn whether they followed WeChat service account of U.S. postsecondary institutions before enrolling at ASU, and whether they were still

following WeChat service accounts of U.S. colleges and universities during the time of the survey administration. The next section (Q.4) focused on the influence of WeChat service account of a higher education institution (i.e., ASU) on the participants' attitudes toward the institution (i.e., brand, resources, and affinity with the institution), and their intentions to apply for admissions to the institution. The six items in this section were created on a four-point Likert scale (strongly disagree, disagree, agree, and strongly agree). The following four questions (Q.5 to Q.8) were formed to learn the influence of WeChat service account on the participants' important others (i.e., family and friends) in terms of their opinions of the institution and the subsequent impact on the participants' intentions to apply for admissions to the institution.

Next (Q.9), the participants were asked to reflect specifically on ASU's WeChat service account and to evaluate the account based on the content and modality of the posts, the interactions between the followers and the account, and the navigability of the account through seven items on four-point Likert scales (strongly disagree, disagree, agree, and strongly agree). In the next section (Q.10 to Q.12), the questions focused on the reasons for the participants' decisions to follow or unfollow ASU's WeChat service account and other channels they may have used to acquire information from ASU. Open space was also provided for the participants to share their opinions in addition to the multiple choices provided for these questions. The last question (Q.13) was to gather the participants' demographic information, i.e., gender. The results from the survey were used to augment the findings from the focus group interviews to answer both research questions regarding effective practice of WeChat service account and its impact on prospective students' intentions to apply for admissions to an institution.

**Timeline for Data Collection.** The timeline for data collection is presented in

Table 3 below.

Table 3.

*Data Collection Timeline*

Month	Action	Participants	Data Type
April 2020	Submitted IRB protocol and research instruments for review		
July 2020	IRB protocol was approved		
September 2020	Conducted 1:1 interview with three ASU professionals	ASU professionals	Qualitative
October 2020	Document analysis; Completed browsing and note-taking for WeChat service accounts of ASU and its peer institutions on the account in general and posts from September 1, 2019 to August 31, 2020	WeChat service accounts of ASU and its peer institutions	Quantitative and qualitative
October 2020	Conducted two focus group interviews	Chinese student leaders at ASU	Qualitative
November 2020	Conducted surveys	First-year Chinese students enrolled at ASU	Quantitative
December 2020	Organized and analyzed collected data		Quantitative and qualitative

I submitted the IRB protocol and the research instruments to ASU’s Research Integrity and Assurance department for review upon the completion of the research proposal defense in April 2020. The IRB proposal went through a few rounds of edits due to new university policies incurred by the COVID-19 pandemic, and was approved in July 2020 (see Appendix E). I then started the data collection process.

All data for the action research were collected during the fall 2020 semester. I first conducted qualitative interviews with three ASU professionals in late September. In October, I have reached out to Chinese student leaders at ASU to schedule the focus

group interviews. As scheduling was in progress, I browsed through four WeChat service accounts, including the accounts for ASU and three of its peer institutions, and took notes on the general structure of the account, the landing page, and posts for the 2019-2020 recruitment season. Both quantitative and qualitative data for each WeChat service account were collected through this method during early October. In the second half of October, two focus group interviews took place and qualitative data were gathered. The last set of quantitative data collected was through the survey targeting first-year Chinese students enrolled at ASU. I then organized and analyzed all the data in December 2020.

**Trustworthiness of the Data Sources.** Both quantitative and qualitative data were collected for this mixed-methods research design. To ensure the trustworthiness of the data, I have adopted various measures.

*Quantitative data sources.* To establish the trustworthiness of the quantitative data source, I have focused on generalizability, internal validity, reliability, and objectivity of the survey instrument (Given & Saumure, 2012). First, the survey instrument for collecting quantitative data can be generalized to research and practice related to social media marketing for student recruitment purpose in the higher education field in general. In addition, a few measures were used to ensure the three main types of evidence of validity, including content-related evidence of validity, criterion-related evidence of validity, and construct-related evidence of validity (Fraenkel & Wallen, 2005). The instrument was developed referencing the instruction for constructing a theory of planned behavior questionnaire by Ajzen (2019), and was examined by professionals in the fields of quantitative research and international student services. I have also had the

instrument tested before administering the survey by a sample of Chinese students at ASU that were not involved as participants during the actual data collection process.

In terms of reliability, the same survey instrument was shared with the participants through WeChat on the same day, and all participants were given the same two weeks to complete the survey. Therefore, the participants were at similar stages in terms of being able to reflect on their experience during college application and evaluate ASU's WeChat service account. Moreover, through the same measures to establish validity, potential bias in the survey instrument was reduced, including referencing published work, receiving feedback from professionals, and piloting the survey before administration.

*Qualitative data sources.* The trustworthiness of qualitative data sources for this action research was represented in terms of transferability, credibility, dependability, and confirmability (Given & Saumure, 2012). This action research and its research design can be transferred to different contexts, both broad and narrow. For example, the research design can be applied to different research related to other higher education institutions in the U.S. and globally, as well as other social media platforms. In addition, the qualitative research instruments for this action research have been reviewed by qualitative research professionals, practitioners in the field, and peers in the doctoral program to ensure credibility. Triangulation was utilized to ensure the data collected can accurately and richly describe the research questions at hand to establish the credibility of the research instruments.

In terms of dependability, the qualitative research instruments of this action research can be used by others to collect data in similar conditions and obtain similar

findings. Similar to credibility, the instruments to collect various qualitative data have been checked by various members related to the research, including qualitative research professionals, practitioners in the field, and peers in the doctoral program. Additionally, through triangulation on the results of the various methods used in this action research, I can ensure the interpretations and the findings match the data collected to reduce bias and to establish confirmability (Given & Saumure, 2012).

### **Data Analysis Techniques**

In this mixed-methods action research, I have collected both quantitative and qualitative data. Three sets of qualitative data were collected, including interviews with ASU practitioners, document analysis on WeChat service accounts of ASU and its peer institutions, and focus group interviews with ASU's Chinese student leaders. One major set of quantitative data were collected through the surveys targeting first-year Chinese students enrolled at ASU. Among the different sets of data, the qualitative data collected through interviews and document analysis were used to triangulate with each other for findings to guide the improvement of the innovation and explore effective WeChat marketing practice (RQ1). The qualitative data through focus group interviews and quantitative data through survey were used to supplement each other to answer both research questions (RQ1 and RQ2). Data analysis techniques for both types of data will be discussed in this section, separated by the data type.

**Qualitative data.** The interviews with ASU's practitioners working in the field of international student services were first transcribed using Zoom's auto-transcription function. I then revised the transcripts generated by Zoom while listening to the recordings multiple times to complete the final versions of the transcripts. A thematic



analysis approach was used to identify the patterns and themes from the interview transcripts in terms of effective WeChat practice from practitioners' perspectives. In the meantime, qualitative data collected through document analysis on WeChat service accounts of ASU and its peer institutions were presented in the form of fieldnotes. Analyzing the fieldnotes through a thematic approach provided information on popular WeChat practice currently in higher education in the U.S. The findings from document analysis and interview analysis were compared to generate common themes for interpretation regarding effective WeChat service account practice to answer Research Question 1.

Qualitative data collected through focus group interviews with Chinese student leaders at ASU were first transcribed by Zoom during the interview and then I revised the transcripts based on the recordings. The transcripts were analyzed through a content analysis technique as a systematic and objective means to link the data analysis results to the context and to make inferences from the data with the goal to describe a certain phenomenon (Bengtsson, 2016). For this action research, the planning for the content analysis process started with outlining the themes of data based on the two theoretical frameworks and their implications that have guided the action research, including the Theory of Planned Behavior and the MAIN model based on the Uses and Gratification Theory. The data collected in the forms of texts through the interviews were then examined through a deductive process to see how they may align with the themes, and were categorized accordingly. Finally, interpretations were made on the results.

**Quantitative data.** Quantitative data collected through the survey were analyzed through frequency and descriptive statistical procedures. Microsoft Excel was the tool

used for reliability analysis (Cronbach's Alpha), frequency analysis, and descriptive analysis (mean, median, mode, and standard deviation). Through the numerical data, the intention was to measure the central tendency and variation of the data in order to understand the potential influence of WeChat service account on a prospective Chinese student's intention to apply for admissions to a higher education institution in the U.S. The findings were used to augment the qualitative analysis from the focus group interviews for answering both research questions.

### **Summary**

Data collection methods were introduced in this chapter. This action research adopted a mixed-methods approach, incorporating four different methods for data collection, including qualitative interviews, document analysis, focus group interviews and quantitative survey. Under the local context of ASU, three groups of participants were involved in the research, ASU's practitioners working with international students and experienced with WeChat, ASU student leaders from China, and first-year Chinese students enrolled at ASU. In addition, WeChat service accounts for ASU and three of its peer institutions were examined. The innovation WeChat service account and the research plan were introduced in detail in this chapter (i.e., the research methodology, data sources, instruments for data collection, timeline for data collection, and the trustworthiness of the data sources). Data analysis techniques were also discussed at the end of this chapter.

## CHAPTER 4

### DATA ANALYSIS AND RESULTS

Chapter 4 presents the results and the analysis of the data collected. In this mixed-methods action research, both quantitative and qualitative data were collected through various data sources, including qualitative interviews, document analysis, focus group interviews, and quantitative surveys, to address two research questions:

RQ1: How can a higher education institution in the U.S. effectively utilize its WeChat service account as a marketing and communication tool to improve the recruitment practice by building the brand, promoting the resources, and establishing a sense of community with the institution, targeting prospective international students from China?

RQ2: How can a higher education institution in the U.S. effectively utilize its WeChat service account as a marketing and communication tool to influence the behavioral intentions, attitudes, and normative beliefs of prospective international students from China to apply for admissions to the institution?

The presentation of data analysis and results will be organized by the two research questions of the action research. In each section introducing the results for the two research questions respectively, the findings will then be further arranged by the data source. Table 2 in Chapter 3 offered an overview of the research questions as well as the data collection and analysis methods aligned with each question.

There were four different data sources for this action research, including one-on-one qualitative interview, document analysis, focus group interview, and quantitative survey. Specifically, I have collected qualitative data through one-on-one interview with

three practitioners at ASU working in the field of international student services. Document analysis was performed through examining the WeChat service accounts of ASU and three of its peer institutions to obtain both quantitative and qualitative data. In addition, two focus group interviews with ASU student leaders from China were conducted for gathering qualitative data. Moreover, the main set of quantitative data were collected through a survey on first-year Chinese students enrolled at ASU. RQ1 (improvement of recruitment practice in terms of branding, promoting resources, and establishing community) was addressed by all four data sources, and RQ 2 (influence on the behavioral intentions, attitudes, and normative beliefs of prospective students) was answered through the results from the focus group interview and quantitative survey.

**Results for Research Question 1: How can a higher education institution in the U.S. effectively utilize its WeChat service account as a marketing and communication tool to improve the recruitment practice by building the brand, promoting the resources, and establishing a sense of community with the institution, targeting prospective international students from China?**

Research Question 1 focused on improving institutions' Chinese student recruitment practice utilizing WeChat through brand building, resource promotion, and community building. The results from the four data sources addressed the research question from two different perspectives, including the perceptions of practitioners, interpreted from the one-on-one interviews and document analysis, as well as the views of students as the target audience, obtained through the focus group interviews and quantitative survey.

Overall, the findings from all data sources have indicated that WeChat service account should be built referencing the MAIN Model (Sundar & Limperos, 2013) to improve its role as a tool for recruiting prospective international students from China through building the university brand, promoting the university resources, and establishing a sense of community between the university and its prospective students. Specifically, WeChat service account administrators should focus on developing content that is relevant and updated for the target audience using creative designs and diverse modalities. In addition, the service account should engage with its followers through timely response and interactive approach. Moreover, in terms of navigability, the account administrators need to keep university official branding guidelines in mind, and create a landing page that is easy for followers to navigate. The findings will be introduced in detail in the following section, divided by the data sources.

**One-on-one Interviews with ASU Practitioners.** Three ASU practitioners working in the field of international student services were invited to the interview. All interview participants were experienced with WeChat, both as individual users and administrators for service accounts. In addition, all three participants were familiar with the cultural differences between China and the U.S., as well as the change culture and management style at ASU. The interviews were conducted in September 2020 through Zoom, and were audio recorded using Zoom with the auto-transcription function on. Afterwards, I revised the transcripts of the interviews generated by Zoom. Thematic analysis was conducted as I went through the transcripts to summarize themes of the participants' opinions and recommendations to contribute to RQ 1.

***WeChat service account as a marketing and communication tool for student recruitment.*** First, all participants emphasized that WeChat service account was an effective marketing and communication tool for recruiting international students from China, referencing its strong customer base and competitive functions. One participant said: “I think it’s because basically everyone in China who has a smartphone has a WeChat account,” and “technically you can reach to, like most, like all the applicants, potential applicants, high school students and parents through this one platform.” In addition, WeChat was considered particularly effective for reaching out to parents “who do not have the English proficiency,” and made “resources more accessible” and information easier for forwarding and sharing with family and friends.

***Branding building.*** When discussing the use of WeChat service account to build an institution’s brand, all participants emphasized the importance of branding guidelines and content building. Specifically, with many different platforms in mass media for students and parents to seek information regarding studying abroad in China, and various WeChat accounts referencing the same institution, one participant noted that “it’s easier for students to recognize like ‘oh, this is real information directly coming from the school’” when official branding standards were incorporated into an institution’s WeChat service account (e.g., school official colors, logos, mascots, professional images, etc.). In addition, the contents of the service account were of utmost importance. An institution needed to convey the message of “what the university is” to its target audience, by “conveying what students can learn by introducing course offerings, quality of our faculty members, research advancement, and excellent, excellent alumni.”

**Resource promotion.** In terms of promoting the resources available at an institution through its WeChat service account, the participants considered it more effective than emails. The first step would be to identify the target audience, to understand the target audience, and then to build the content around them. It would also be important to engage the followers through interactive ways like polling or rewards. Additionally, messages from peer perspectives could be an effective approach to promote the resources at the institution. One participant also provided some insights from the public relation building perspective regarding influencer campaign and advertisement purchasing on WeChat, and recommended “on top of building the content in its own channel, one of the other channels and avenue that we can utilize is to amplify the message, the content, the articles, through other influencers.” “So, through other influential accounts, they could be personal, by re-sharing it with another account. So, it's sort of a PR tactic,” the participant added.

**Community building.** When asked about the means to build communities through WeChat service accounts, all participants stressed the importance of content and engagement with followers. For building contents that creates a sense of community, “first of all, is to hear what your followers are saying,” one participant commented. The participants then reiterated the importance of understanding the target audience through the demographic information collected by WeChat, i.e. location, gender, age, etc., and then providing timely updates and relevant information through the service account. “By providing the content that interests them, we will be able to connect with them and to interact with them more,” a participant added.

The key recommendations for engaging the followers included incorporating ways to resolve students' issues and answer students' questions, creating chat groups, allowing followers to comment on and reply to posts, etc. By enabling these features, "we can get more authentic voice and feedback," commented by a participant. Overall, an interactive and conversational approach would contribute to community building. Particularly, the participants considered peer-sharing a great tactic for delivering interactive content, which allows followers to "tell your and others' story at ASU."

***Topics of content for WeChat service accounts.*** The next question focused on the topics that a higher education institution should include in its WeChat service account. The topics suggested were academic programs, application procedure, visa and immigration related information, campus life and surroundings, campus safety, university official updates (e.g., updates related to COVID-19 management on campus and policy changes), campus events, alumni connection, etc. Delivering contents on these topics through peer-sharing perspectives was brought up again by the interview participants. One participant elaborated that the posts can be "at the end of two spectrums, one is like super official communication from, from the university, and the other end of the spectrum is very personal specific experience sharing." Another participant specifically pointed out that story sharing by outstanding Chinese students and alumni should be considered by WeChat account administrator of institutions.

***Modalities of content for WeChat service accounts.*** Still focusing on the content, the next question asked about the modalities that these practitioners would consider effective and engaging. The consensus was to increase the use of short videos, as well as graphics like emojis, gifs, memes and pictures. The key here was to create content that



could resonate with the followers through eye-catching design and creative assets that were diverse and interesting, “something quick and easy,” which would make it easier for the audience to follow the content and entice them to engage with the content. Attractive titles were important as well to “get more attention” of the audience from the beginning. One participant also discussed the use of WeChat video account (similar to a YouTube account) and WeChat mini programs (the function to create an application within WeChat to deliver content in diverse ways).

*Creating interactions through WeChat service accounts.* The participants then shared their opinions on how an institution could interact with its followers through its WeChat service account. The first recommendation was to enable the auto-reply function, which would allow followers to type a keyword in the chat box, and WeChat would automatically reply with a previous post about this topic to the followers. In addition, allowing followers to comment on and reply to posts, as well as responding to these comments and replies in a timely manner could help followers feel the interactions between them and the account because WeChat users “are used to getting instant, pretty instant replies.” Additional interactive and engaging approach included games like trivia, surveys, and rewards, etc. to incentivize “followers interact with you,” which could be achieved through the service account itself or through mini programs, according to one interview participant. For example, “if you are marketing the university program, you can put some relevant content into the trivia question.” Moreover, an additional WeChat function to consider was Admin Assistant (Wēixìn Xiǎo Zhùshǒu, 微信小助手), a plugin that administrator for an official account could use as an automated tool for customer service.

***Structure and landing page of a WeChat service account.*** When designing the landing page of a WeChat service account, the account administrator should keep the target audience in mind. For example, an account for prospective students should focus on application-related information, while an account for alumni should center around building connections and career development. Regardless, “having an overarching consistent messaging is important,” and “it’s also important to coordinate editorial calendar,” especially for institutions with multiple accounts for different target audience. In addition, account administrators need to follow the branding guidelines of the institution. In terms of information that should be included on the landing page, other than the information specific for the target audience, the participants also suggested contact information for key service providers of international students on campus, their business hours considering the impact of COVID-19 on work locations and hours, keyword search, and an FAQ section.

***General recommendation on effective WeChat marketing.*** The last question related to WeChat was about any general recommendations that the participants may have regarding effective WeChat marketing practice. The participants reiterated some of the key points already discussed, i.e., timely response, interactions with followers, relevant and up-to-date contents, peer perspectives, official branding, creative and effective design of the landing page and the posts, etc. In addition, other recommendations included hosting live chat sessions to interact with students and parents, creating a posting schedule to consistently engage the followers, providing incentives for WeChat users to follow the institution’s account, trusting the feedback from practitioners and experts with local knowledge and cultural background, etc.

Another feedback was related to expanding the follower pool through strategic planning of incorporating the QR code leading to the WeChat account in various communications to students and parents, e.g., emails, university website, etc., as well as purchasing leads from various sources, like the TOEFL registrant lists. It is important to “provide incentives to, for, our target audiences to share and to follow” the account and to “create this referral program” among prospective followers.

***Recommendations on implementing change.*** The last set of questions for the interview was related to implementing change at the participants’ practice, specifically about the process of change and the collaboration among various stakeholders. A major feedback was based on the typical management structure in higher education. Decisions were often made from top-down. It would be important for leadership to first understand the impact of WeChat on the everyday life of the Chinese population, and to trust staff with in-country insights and the cultural background to connect with the target audience independently. One example provided was when one of the participants was managing a WeChat service account, the participant was asked to translate everything scheduled to be posted on WeChat back to English for the managers to review. However, sometimes it was difficult to translate to show both the content and the context due to the writing styles for native Chinese speakers or the use of Chinese idioms, and the posts were therefore not approved by the managers. Instead of focusing on the content word-by-word, managers should determine on the “strategic message,” and “designate that decision maker to the Chinese speaking staff members,” the participant commented. In addition, another participant expressed the frustration that leadership often sought feedback for change from staff members, but would not act on it.

To create more opportunities for collaborations among various stakeholders for change, open communication was identified as the vital element. Collaborations can make the change process more efficient. Take marketing through WeChat as an example, a participant suggested that there could be a central messaging from the university, and then each unit or department can customize the message according to their target audience. But it would be important for all units and departments to coordinate and collaborate in the process to ensure that everyone was on the same page. Another participant mentioned that getting buy-ins from leadership and colleagues in individual settings could be a good starting point to create a collaborative culture and promote change in practice.

*Summary.* The interview participants offered many insights on how to improve the current WeChat marketing practice in terms of brand building, resource promotion, and community building. Strategies that were discussed mainly included diverse modalities of posts, relevant and up-to-date content, interaction with followers, creative design of the landing page and the posts following university official branding standards, and incorporation of peer perspectives. Additional functions of WeChat were also discussed, e.g., mini programs, Admin Assistant, chat groups, auto reply, keywords search, etc. Moreover, the participants offered their opinions on the process of implementing change and improve collaboration in the change process based on their professional experience in higher education.

**Document Analysis on Selected WeChat Service Accounts.** For the document analysis process, I have explored the WeChat service accounts of ASU and three of its peer institutions, including University of Arizona (UA), Indiana University Bloomington

(IU), and University of Minnesota – Twin Cities (UMN). When browsing through the accounts and the posts for the last recruitment season from September 2019 to August 2020, I took notes on the date, topic, modality, and the number of reads of each post separated by month, the information on the landing page of the account, and any additional observation worth recording. Both quantitative and qualitative data were collected during this step, with a focus on the qualitative information. The second step was to thematically analyze the notes with the goal to examine the frequency of postings (the number of posts on a monthly basis), the most popular posts (including the date, topic, modality, and the number of reads), the landing page design, and additional elements that made the account stand out. Targeted at RQ 1, the purpose of this analysis was to understand the popular WeChat service account practice currently in higher education.

*Frequency of posting.* Table 4 below presents the total number of posts, and posting frequency on a monthly basis for the four accounts examined.

Table 4.

*Total Number of Posts and Frequency of Posting in the 2019-2020 Recruitment Season by Institution*

Institution	Total Number of Posts	Frequency of Posting
ASU	30	0-6 posts per month
UA	49	0-8 posts per month
UI	69	4-8 posts per month
UMN	79	0-14 posts per month

Overall, four to six posts per month was the most popular practice. UMN occasionally had a good number of posts in a month, but the majority of the posts were part of a series with a central theme. For example, in March 2020, UMN posted 14

articles, and 11 of them were part of a series of updates regarding COVID-19 management on campus. In addition, some accounts had zero posts for a certain month.

**Popular posts.** Table 5 shows the two most popular posts from each account, including information on the posting date, the topic, the modality, and the number of reads. The least popular post of the account is also listed as a reference.

Table 5

*Top Two Popular Posts by Institution*

Institution	Date	Topic	Modality	Number of Reads	Number of Reads of the Least Popular Post
ASU	January 6, 2020	Campus update: 2019 Year in Review	Series of posters	1472	83
	February 12, 2020	Campus update: COVID-19 (first announcement)	Video	1248	
UA	May – July, 2020	Campus resources: in-China services (Global Campus) – series of posts	Varies, including long article, short article, picture, video, etc.	218 - 1910	72
IU	January 28, 2020	Campus update: COVID-19 (first announcement)	Long article	1078	77
	March – April, 2020	Campus update: COVID-19 – series of posts related to the university’s research and achievements related to COVID-19	Long articles and pictures	4554-13800	
UMN	July 8, 2020	Campus update: immigration policy	Long article and pictures	4457	107
	November 24, 2019	Campus resource: dining options	Long article and pictures	5418	
	March 10, 2020	Campus update: COVID-19 (first announcement)	Long article	3702	

***Landing page navigability.*** For the landing page, ASU's account had a section to introduce the basic information of the university. UA included three sections, "About UA", "Admission" with information on undergraduate admission, graduate admission, and I-20 related issues, as well as "Campus" with information on on-campus housing, campus resources, campus life, and information about Tucson. Some of the subsections were linked to the university official website in English, and others used auto reply function for readers to retrieve previous posts on this topic.

IU's page was separated into three sections as well, including "About IU" to introduce the university regarding history, campus, colleges, and research, "New Student Orientation" with information on application, life on campus, orientation session, arrival, and videos, and "More" for followers to reply with keywords to receive auto reply. Admin Assistant function was also included in the "More" section by IU. UMN outlined the landing page with "Admission" for information on undergraduate admission, graduate admission, exchange, visiting scholars, and fall 2020 new students, "About UMN" with information on training, alumni, gopher talk (international student peer experience), UMN Wiki, campus update, and "About Us" with the contact information of the UMN China office.

***Other observations.*** Some popular practices shared among the studied accounts were observed as creating a series of posts of the same topic and adding links of other posts in the series as well as relevant campus resources at the end of each post, including QR codes for event registration, linking the original source if the message was translated from English, etc. In addition, some accounts used diverse modalities and creative design to attract readership, i.e., frequent use of graphics, emojis, and memes, bolded and

colored texts, subtitled videos, etc. Moreover, some accounts offered timely updates on trending topics like COVID-19 and immigration policy changes, which became some of the most read posts. A few accounts have also used the function of Admin Assistant to provide more user agency and service. Additionally, surveys and raffles have been used to create interactions between the account and its followers.

**Examples.** Figure 2 below provides a few examples of different designs and strategies utilized by the four WeChat accounts examined.

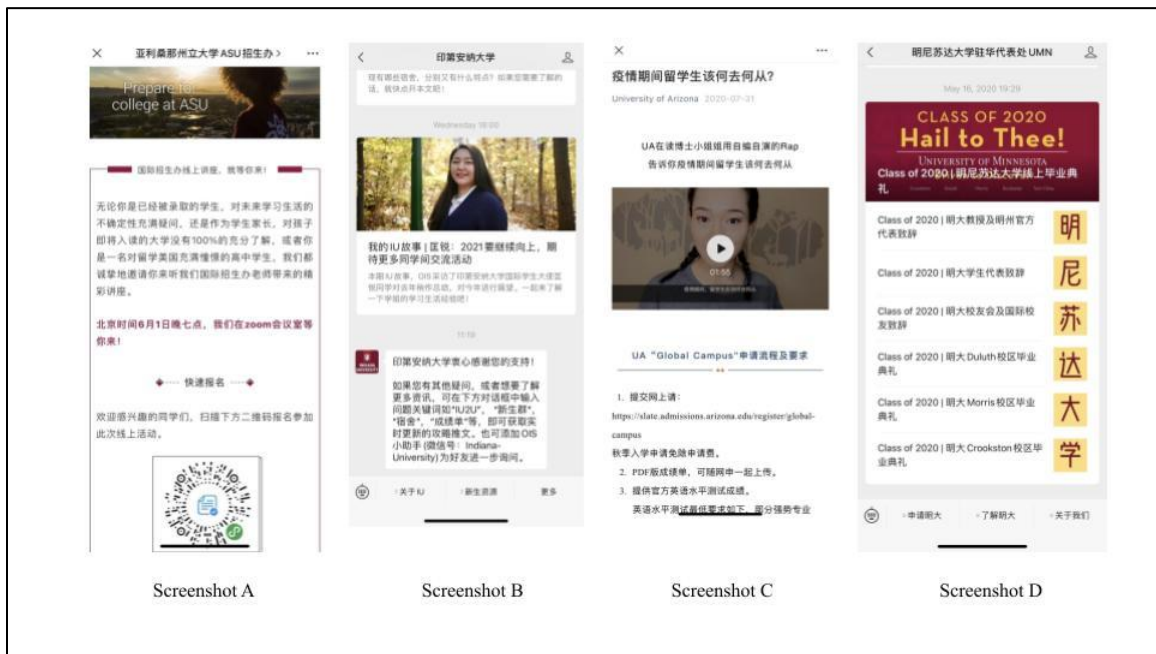


Figure 2. Examples of WeChat Accounts. This figure is a compilation of different designs and strategies utilized by the WeChat accounts examined. Screenshot by author.

Screenshot A is a post on ASU’s WeChat service account with the QR code to register for a Zoom webinar about preparing for college at ASU (Arizona State University, 2020). Screenshot B is to show the auto-reply function and landing page on WeChat account of Indiana University – Bloomington (Indiana University, n.d.). Screenshot C indicates how University of Arizona introduced its Global Campus



initiative in response to COVID-19 restrictions in the form of a video (University of Arizona, 2020). Screenshot D is from University of Minnesota – Twin Cities using creative designs to congratulate class of 2020 for their graduation (University of Minnesota, 2020). The images on the series of posts spelled out University of Minnesota in Chinese characters.

**Chinese Student Leaders Focus Group Interview.** Two groups of student leaders from China were involved in the focus group interview, with three and four participants in each group, respectively. The focus group interviews were conducted through Zoom, and were audio recorded using Zoom with the auto-transcription function on. I then revised the transcripts by Zoom, and analyzed the themes of the student leaders' opinions. There were two parts of the focus group interview, with part 1 focusing on RQ 1 and part 2 on RQ 2. The results for RQ 1 will be presented in this section, and for RQ 2 later in this chapter under the heading for RQ 2. During part 1, the participants were asked to browse through ASU's WeChat service account first and then comment on the modality of the posts, content, interaction, and navigability of the account, drafted based on the MAIN model (Sundar & Limperos, 2013). The results were analyzed using content analysis technique.

**Modality.** Overall, the participants liked the fact that the posts looked professional and official by using ASU colors and pictures. However, most participants have commented that many posts seemed too "wordy" and too much text, which made some of them "not really want to read it." On the other hand, other posts may be too brief, and the readers were not able to find the weblinks for additional information. In addition, the

participants would like to see more attractive titles, more graphics, and more eye-catching designs of the posts.

**Agency.** Agency is represented by the content of the posts. On one hand, the participants liked that the messages were from official university sources. On the other hand, the posts were more like announcements, and therefore “too serious” and “scholarly.” Some participants mentioned again about some posts being too long, which became less attractive even with a good title. In one group, “I think it may be tiresome to read them,” one participant commented. Another participant immediately agreed. In the other group, participants suggested more posts on campus life and the surroundings of campus. Both groups agreed that campus life information from peer perspective would be interesting and attractive for prospective students and parents.

**Interactivity.** When asked about the interactivity presented by the account, both groups felt like “maybe not too much” or “I don’t feel no interaction.” When asked to elaborate, some participants mentioned that most posts focused on information sharing, which was hard for prospective students to “have more connection with ASU” through this service account. The announcement-style of the posts was not “fun” and it was “like newspaper.” Some participants suggested more use of emojis and memes, attractive titles, and more importantly, enabling the comment and reply function to create interactions with followers.

**Navigability.** Participants were asked to explore the landing page in relate to its navigability. One group would like to see posts and information being organized into various sections based on the themes, e.g., about ASU, about AZ, application, career planning, campus life, trending topics like COVID-19, etc. With a menu like this,

followers could easily find the information they needed. The other group specifically pointed out that the keyword auto reply function would have been useful.

***Other feedback.*** Overall, the participants liked how professional and official the account looked, and agreed that the audience would naturally trust the information from this account. But some fun elements could be added to the professionalism of the account to attract more readership. In addition, more work would be needed on creating contents that were relevant, updated, and with creative designs. Moreover, the participants would like to see more interactions between the institution and the followers through this platform, for example, organizing live Q&A sessions through WeChat, etc.

**First-year Chinese Students Survey.** First-year international students from China enrolled at ASU were recruited to participate in the quantitative survey. The survey instrument included thirteen questions separated in six sections. Section one focused on the participants' WeChat user status. Section two examined the impact of WeChat service account on the participants' impression of the university and their intentions to apply for admissions to the university. Section three was related to the influence of WeChat service account on the opinions of the participants' families and friends, and how that may have impacted their intentions and decisions to apply for admissions to the university. Section four asked for the participants' feedback on ASU's WeChat service account. Section five looked into the reason for the participants to follow or unfollow ASU's WeChat service account, and other channels that they may have used to collect information about ASU during their college application process. The last section asked about the participants' gender.

An online survey was created on the platform of Qualtrics®, and a weblink and QR code for the survey was generated through the platform. The weblink and QR code, together with a brief survey participant recruitment advertisement, was then shared with current ASU students as mentors in the Global Peer Mentor programs through WeChat. The mentors helped distribute the surveys to their mentees (first-year international students) who were from China and were enrolled in the W. P. Carey School of Business at ASU.

A total number of twenty-two surveys were filled out, with four participants only completing the informed consent form. The four entries with only informed consent form completed were excluded from the data analysis process as they did not provide any information to answer the survey questions. Quantitative data collected from the eighteen complete surveys were analyzed to address both research questions ( $n = 18$ ). The data collected through Qualtrics® were first exported into a Microsoft Excel spreadsheet as raw data. I then created separate tabs of cleaned data – all (included all 22 survey results), cleaned data – complete (included only the 18 completed survey results), and the codebook. I have used Microsoft Excel for reliability analysis, frequency analysis, and descriptive analysis on the data collected.

***Reliability analysis.*** Before performing frequency and descriptive statistical analysis on the survey data, internal consistency of the survey was first examined. Reliability is an important criterion to examine the quality of a survey instrument (Fraenkel & Wallen, 2005). Reliability refers to “the consistency of the scores obtained,” meaning “how consistent they are for each individual from one administration of an instrument to another and from one set of items to another” (Fraenkel & Wallen, 2005,

p.160). Cronbach’s alpha ( $\alpha$ ) is a popular way for calculating the internal consistency of a survey instrument (Fraenkel & Wallen, 2005). In order to analyze the reliability of this survey, I have performed Cronbach’s alpha ( $\alpha$ ) calculations in Microsoft Excel on section two, two constructs of section three, the overall reliability of section two and three, and section four, utilizing the formula below. The results are presented in Table 6.

$$\alpha = \frac{N\bar{r}}{\bar{V} + (N - 1)\bar{r}}$$

Table 6

*WeChat Service Account Impact Survey Coefficient-Alpha Estimates of Internal Consistency Reliability (n = 18)*

Section	Coefficient Alpha Estimate of Reliability
WeChat impact on participants	0.858
WeChat impact on families	0.773
WeChat impact on friends	0.875
Overall Alpha of section 2-3	0.875
Feedback on ASU’s WeChat	0.727

The eighteen completed questionnaires were used for data analysis ( $n = 18$ , valid = 100%). The internal consistency for section two about WeChat’s impact on the participants ( $\alpha = 0.858$ ), and second construct of section three about WeChat’s impact on friends ( $\alpha = 0.875$ ) were measured very good (Salkind, 2010). The internal consistency for WeChat’s influence on families as the first construct for section three ( $\alpha = 0.773$ ) and for section four of participants’ feedback on ASU’s WeChat ( $\alpha = 0.727$ ) appeared adequate (Salkind, 2010). The overall alpha for section two and three about WeChat’s impact was also interpreted as very good ( $\alpha = 0.875$ ) (Salkind, 2010). The score of

coefficient alpha estimate of reliability indicates reliable internal consistency of the different sections measured, meaning the consistencies of this survey instrument were very good or adequate for each individual participant from one set of items to another.

*Descriptive statistical analysis.* There were six sections of the survey instruments and thirteen questions. The first section included three binary questions to understand the participants' WeChat user status. Based on the data collected, all participants were active WeChat users and followed WeChat service accounts of U.S. universities before enrolling at ASU ( $n = 18$ ). Among the 18 participants, 16 were still following WeChat public accounts of U.S. universities during the time of the survey. Section six asked about the participants' gender. Ten of the 18 participants have selected male (55.6%,  $n = 10$ ), and 8 have identified as female (44.4%,  $n = 8$ ). Sections two and three included five questions aimed at exploring how WeChat service account may have impacted the participants' intention to apply for admissions to the institution both directly, and indirectly through influencing the participants' impressions of the university and the opinions of their families and friends on the institution. Results for this section will be presented later in this chapter under the heading for RQ 2.

*Participants' experience with ASU's WeChat service account.* The fourth section of the survey specifically looked into ASU's WeChat service account, and the participants were asked to provide their feedback on a four-point Likert scale ranging from "strongly agree" (scored as 4) to "strongly disagree" (scored as 1). Two items were related to the content of the WeChat service account in regard to its relevancy and timeliness. One item was about the modalities of the content. Three items explored whether the participants would comment, click on "reading" (a WeChat function, similar

to “like” on Facebook), or forward the posts. The last item was about the navigability of the account.

Table 7 below displays how the survey participants may agree or disagree with the statements about ASU’s WeChat service account in terms of the content, the modalities, the interactivity, and the navigability, indicated by the number of participants selecting each scale. Frequencies of each scale were calculated in Microsoft Excel.

Table 7

*Survey Response Frequency Analysis of Participants’ Experiences with ASU’s WeChat Service Account (n = 18)*

	Response Frequency Percent			
	Strongly Disagree	Disagree	Agree	Strongly Agree
The content was relevant to me.	0.0%	16.7%	66.7%	16.7%
The content was up to date.	0.0%	22.2%	61.1%	16.7%
I prefer content with diverse modalities, i.e. articles with pictures.	0.0%	5.6%	72.2%	22.2%
I sometimes comment on posts.	0.0%	50.0%	38.9%	11.1%
I sometimes click on “reading” posts.	11.1%	44.4%	38.9%	5.6%
I sometimes forward posts.	5.6%	22.2%	66.7%	5.6%
The account was easy to navigate, i.e. able to search for previous postings, find contact information, etc.	0.0%	16.7%	77.8%	5.6%

As indicated in Table 7, most participants considered the content on ASU’s WeChat public relevant and up-to-date. Approximately 95% of the participants preferred content delivered in diverse modalities. In addition, the participants were more likely to forward the posts than to comment or click on “reading” the posts. Only half of the participants indicated that they sometimes comment or let others know that they were

“reading” posts from ASU’s WeChat service accounts. Moreover, over 80% of the participants said ASU’s WeChat service account was easy to navigate.

Table 8 includes the descriptive statistics, including mean, median, mode, and standard deviation, for the same seven items related to the participants’ experience with ASU’s WeChat service account.

Table 8

*Survey Response Descriptive Analysis of Participants’ Experiences with ASU WeChat Service account (n = 18)*

	Descriptive Statistics			
	Mean	Median	Mode	Standard Deviation
The content was relevant to me.	3.000	3	3	0.577
The content was up to date.	2.944	3	3	0.621
I prefer content with diverse modalities, i.e. articles with pictures.	3.167	3	3	0.500
I sometimes comment on posts.	2.611	2.5	2	0.678
I sometimes click on “reading” posts.	2.389	2	2	0.756
I sometimes forward posts.	2.722	3	3	0.650
The account was easy to navigate, i.e. able to search for previous postings, find contact information, etc.	2.889	3	3	0.458

The results from descriptive analysis showed similar outcomes as the frequency analysis. Specifically, most participants agreed that the current content on ASU’s WeChat service account was relevant and updated, and they preferred posts presented in different formats and using creative designs. In addition, the participants were less likely to comment on or click on “reading” the posts in comparison to forward the posts. Also, most participants considered the account easy to navigate. Moreover, the standard deviation for all items were below 1, indicating that there were some variations in terms



of the participants' experience with ASU's WeChat service account, specifically the topic and modality of the content, their interactions with the posts, and the navigability of the account, but were most in agreement with one another.

*Decision to follow or unfollow ASU's WeChat service account.* Section five included three questions. For the first two questions, the participants were asked about the reasons why they decided to follow ASU's WeChat service account in multiple choices, and the reasons if they have unfollowed the account. Thirteen (72.2%) of the participants have selected the reason that they were interested in applying for ASU. Seven (38.9%) of the participants were influenced by their families or friends. Two participants have also filled out the open-ended question indicating that they followed ASU's WeChat service account with the intention to learn more about ASU campus, culture, and events.

Among all the participants, 15 (83.3%) were still following ASU's WeChat service account during the time of the survey. Some of the reasons provided for unfollowing the account were related to irrelevant content, lack of diversity in modalities, few interactions between the account and its followers, and difficulty in finding the information needed on the account, etc.

*Other channels to obtain information about ASU.* Another question in section five of the survey was about other channels the participants may have used to acquire information about ASU during their college application stage.

Table 9 ranks the channels other than WeChat based on popularity selected by the participants.

Table 9

*Channels for Information Seeking based on Popularity (n = 18)*

Channel	Participants used this channel in percentage
University website	94.4%
Search engine	55.6%
Education agents	44.4%
Alumni	38.9%
Email	27.8%
Phone call	22.2%
Friends	16.7%
In-person visits by university staff	5.6%
Family	0.0%

As shown in Table 9, University website was the most popular channel for participants to acquire information about ASU when they were applying for admissions to ASU, followed by search engine, education agents and alumni. Emails and phone calls were somewhat utilized by the participants as well. In addition, a few participants have chosen to ask their friends or obtain information during in-person in-country visits by ASU staff. None of the participants have asked their families for information related to ASU.

**Summary.** Data collected from all four data sources were analyzed in this section, and the results were presented by the data source to answer Research Question 1 regarding the use of WeChat service account to improve the recruitment practice by building the university brand, promoting the university’s resources, and creating a sense of community with its prospective international students from China. Specifically, thematic analysis was performed on data collected from the one-on-one interview with ASU practitioners working with international students and the document analysis for the

WeChat service accounts of ASU and its peer institutions to answer Research Question 1 from practitioners' perspectives. Additionally, I have analyzed the themes of the transcripts from the focus group interview with Chinese student leaders at ASU using a content analysis approach, and conducted frequency and descriptive analysis on the quantitative data collected through the survey for first-year Chinese students enrolled at ASU to address Research Question 1 from the perspectives of Chinese students as the target audience of WeChat service account.

From the practitioners' perspectives, the interview participants agreed that WeChat service account should incorporate relevant and up-to-date content in diverse modalities. In addition, sharing information through students' peer perspectives would be a great way to enhance content and create user agency. In terms of interactivity, the participants commented that more efforts should be placed on timely response and creative ways to engage with followers through WeChat service account, e.g., polls, trivia, etc. Moreover, in addition to designing a landing page that is easy to navigate, the account should comply with institution's official branding guidelines and use creative assets to attract readership.

Analysis on the data collected through document analysis confirmed the findings from the interviews. For example, the most popular posts of selected WeChat service accounts were mostly relevant and timely university updates. Many institutions have created posts in a variety of modalities, used created designs, and incorporated institutions' branding standards. In addition, some institutions have established a user-friendly landing page and used some interactive methods to engage the followers through surveys.

From the students' perspectives, they were looking for WeChat service account that was "professional but fun." Participants from the focus group interviews have also expressed their preferences on interesting contents delivered in diverse modalities. Specifically, they would like to see posts with eye-catching titles, with information on campus life and surroundings, and contents created using peer perspective. In addition, the participants discussed that the current ASU WeChat service account was not being very interactive, and the landing page needed some improvements in terms of dividing contents into different sections for followers to navigate more easily on their own.

From the survey responses, it can be seen that the participants followed ASU's WeChat service account because they were interested in applying for ASU, and were interested in learning about the campus life, culture, and events at ASU. Most of them have considered the current content on ASU's WeChat service account "relevant and updated," and the landing page "easy to navigate." Similar with the focus group interview participants, students responded to the survey also preferred a variety of modalities, and have indicated that they typically did not interact with the account by commenting or clicking on "reading" the posts.

**Results for Research Question 2: How can a higher education institution in the U.S. effectively utilize its WeChat service account as a marketing and communication tool to influence the behavioral intentions, attitudes, and normative beliefs of prospective international students from China to apply for admissions to the institution?**

Research Question 2 intended to examine how an institution's WeChat service account may impact a prospective Chinese student's intention to apply for admissions to

the institution both directly, and indirectly through influencing the students' impressions of the institution and the opinions of their families and friends on the institution. Data collected from part 2 of the focus group interview with ASU's Chinese student leaders and the quantitative survey with first-year Chinese at ASU were analyzed to answer this research question.

Overall, WeChat service account has been considered as a great marketing and communication tool for the institution to convey information to and connect with its prospective students and family members. Specifically, WeChat service account has a stronger impact over the prospective Chinese students' impressions of the institution, in comparison to its influence over the students' important others' opinions of the institution. In addition, the participants have expressed mixed feelings about how WeChat service account may influence their decisions to apply for admissions to the institution. The findings will be introduced in detail in the following section, organized by the data source.

**Chinese Student Leaders Focus Group Interview.** Part 2 of the focus group interview with Chinese student leaders focused on the impact of WeChat service account on a prospective student's behavioral intention to apply for admissions to the institution. The questions were drafted based on the key variables in the Theory of Planned Behavior model, including the attitudes, normative beliefs, perceived behavioral control, behavioral intentions, and behavior (Ajzen, 2019). Specifically, the participants were asked whether an institution's WeChat service account (perceived behavioral control) has influenced their impressions of the institution (attitudes), their friends' and families' impression of the institution and how that may have influenced their intentions to apply

for the institution (normative beliefs), and their actual intention to apply for admissions to the institution (behavioral intention). Content analysis technique was adopted to analyze the results.

*Attitudes.* Participants from both groups have agreed that following an institution's WeChat service account has influenced their impressions of the institution. Particularly, the service account presented a convenient way for the applicants and their parents to gather useful information about the institution from an official channel. One participant shared the story about her struggles when she was applying for universities in the U.S., and wished there was a WeChat service account back then that she could have referenced. "There's so many information out there, and I really want to reach out but there's so many different accounts, there's so many organizations, and they all say its ASU account," she said. She listed the various channels she had used to collect information and get her questions answered, and pointed out the trustworthiness of the information from an official WeChat service account would have been helpful, because "because it's a very direct way for the student to just use their phone and scan the account." She then further suggested promoting the account through various communication channels, e.g., embedding the WeChat account QR code in every email sent to prospective students by the institution.

In addition, both groups have praised the use of Chinese language in the WeChat posts, which has created connections with the followers. A participant was delightfully surprised when she had received emails from ASU written in Chinese before, which made her and her parents felt more connected with the institution. "It would be similar with WeChat," she added. Especially when many Chinese students and parents were

focusing on the topic of COVID-19, posts on WeChat with information on how the university “helps international students in this current tough time” would make them more “willing to pick this university” because they would feel like the students would get “the guarantee of their health.”

*Normative beliefs.* The participants agreed that following an institution’s WeChat service account may have influenced the impressions of their friends and families on the institution. However, to what degree the friends’ and families’ opinions would influence the applicants’ intentions to apply for the institution may depend on the applicants. One participant mentioned that his parents’ perspectives contributed a lot to his intention to apply for ASU. Therefore, it would be important to include parents as target audience of the account as well. Another participant gave his own example of how he made the decision to apply for ASU because one of his friends who was an ASU alumnus recommended him to apply.

In the meantime, a participant thought it would be easy to get information on WeChat and it would be “cool to share with friends on the same platform.” Another participant agreed that this would be a great way to “show off” to friends about the news and achievements about the institution, which gave students “the sense of pride,” and these topics may become “a topic between students and students.” Additionally, there was the act of peer competition involved when friends were comparing the universities and programs they were enrolled in respectively through sharing different WeChat posts. “We just like to compare. This kind of thing is like cliché, but we do that all the time,” one participant commented.

**Behavioral intention.** The last question was about whether following an institution's WeChat service account would influence their behavioral intention to apply for admissions to the institution. The answers were "absolutely" and "probably." WeChat has been largely used as a platform to promote different brands and organizations. The use of WeChat service account and with posts written in Chinese instead of English would be a great way for student recruitment. "The fact that ASU is actually using WeChat, it's a lot more than other colleges," a participant answered. In the meantime, participants have expressed that they would like to see more contents. One participant also pointed out that with different WeChat accounts available associated with ASU, it was challenging to identify which one was official. In this case, the university's official website was also useful for getting information about the university.

**Summary.** Overall, the participants considered WeChat service account as a great source of official information from an institution, and the use of WeChat platform and Chinese language created connections between the university and its prospective students and parents. These factors have contributed to the impressions of prospective students as well as their families and friends on the university. Some students may be more susceptible to the influence of their families and friends, while others may not. Regardless, WeChat has been a great platform to share information with families and friends about the university that the students were interested in or enrolled in. WeChat service account has been helpful in terms of building the connections between the university and the followers of the account, creating a sense of community among the followers, and offering an official channel for followers to receive information and updates.



**First-year Chinese Students Survey.** As presented earlier in this chapter, 18 completed surveys from first-year Chinese students enrolled at ASU were collected ( $n = 18$ ). The data were collected through the survey built on Qualtrics®, and reliability analysis, frequency and description analysis of the data were performed using Microsoft Excel. There were six sections of the survey with thirteen questions. Data collected in sections one, four, five, and six were analyzed and presented earlier in this chapter. Section two and section three (Q4 – Q8) were targeted at RQ 2. Specifically, section two included questions to explore how WeChat service account may have impacted the participants' intentions to apply for admissions to the institution directly, and indirectly by influencing the participants' impressions of the institution in terms of the university brand, the resources available, the sense of community, as well as the ease to search for information through the service account. Section three focused on the impact of WeChat service account on the participants' families and friends, and how that may have indirectly influenced the participants' intentions to apply for admissions to the institution.

**Reliability analysis.** As introduced earlier in this chapter, Cronbach's alpha ( $\alpha$ ) calculations for overall reliability of section two, reliability for the two separate constructs of section three, and overall for section two and three were calculated using Microsoft Excel and presented earlier in Table 6. The internal consistency for all four calculations were measured very good or adequate, ranging from 0.727 to 0.875 (Salkind, 2010), meaning the consistencies of the survey instrument were very good or adequate for each individual participant from one set of items to another.

*Frequency and descriptive analysis.* Data for section two and section three were analyzed for frequencies and descriptive statistics using Microsoft Excel to answer RQ 2 regarding the impact of WeChat service account.

*WeChat service account impact on the participants.* Section two of the survey included one question with six items aimed at examining the impact of following an institution’s WeChat service account on a participant’s impressions of the institution as well as on their intentions and decisions to apply for admissions to the institution. Specifically, question one asked about whether they thought following WeChat service account of universities was a good decision. Three items were related to whether following an institution’s WeChat service account has helped the participants to know more about the institution’s brand, resources, and feel connected to the institution. The last two items were about the direct impact of WeChat service account on the participants’ intentions and decisions to apply for admissions to the institution. The questions asked for the participants’ level of agreement based on a four-point Likert scale ranging from “strongly agree” (scored as 4) to “strongly disagree” (scored as 1). Table 10 presents frequencies of each level of agreement for the items.

Table 10

*Survey Response Frequency Analysis of the Impact of WeChat Service Account on the Participants (n = 18)*

	Response Frequency Percent			
	Strongly Disagree	Disagree	Agree	Strongly Agree
Following WeChat service accounts of U.S. universities was a good decision.	0.0%	0.0%	72.2%	27.8%
By following WeChat service accounts of U.S. universities, I was able to receive	0.0%	11.1%	55.6%	33.3%

	Response Frequency Percent			
information about university achievements (e.g. rankings, awards, etc.)				
By following WeChat service accounts of U.S. universities, I was able to receive information about resources for students (e.g. scholarships, admissions, tutoring, etc.)	0.0%	22.2%	55.6%	22.2%
By following WeChat service account of U.S. universities, I felt like I was part of the university community.	0.0%	33.3%	33.3%	33.3%
Following ASU' WeChat service account influenced my intention to apply to ASU.	0.0%	44.4%	44.4%	11.1%
Following ASU' WeChat service account helped me make the decision to apply to ASU.	0.0%	55.6%	33.3%	11.1%

As seen from Table 10, all (100%) of the participants have agreed or strongly agreed that following WeChat service accounts of U.S. universities were good decisions. Most of the participants considered the WeChat service account helpful for them to receive information about the university's achievements (88.9%), obtain information about the resources available at the university (77.8%), and feel like they were part of the university community (66.6%). In the meantime, about one-third of the participants did not feel the sense of community by following an institution's WeChat service account. Additionally, the opinions on WeChat service account's impact on their intentions and decisions to apply for an institution varied. Over 44% and 55% of the participants indicated that WeChat service account did not influence their intentions and decisions to apply for admissions respectively. On the other hand, over 55% and 44% of the participants respectively agreed that the WeChat service account had impacted their intentions and decisions to apply for admissions to the institution.

Descriptive statistical analysis was also performed on the same six items included in Q4. The mean, median, mode, and standard deviation of each item is displayed in

Table 11.

Table 11

*Survey Response Descriptive Analysis of the Impact of WeChat Service account on the Participants (n = 18)*

	Descriptive Statistics			
	Mean	Median	Mode	Standard Deviation
Following WeChat service accounts of U.S. universities was a good decision.	3.278	3	3	0.448
By following WeChat service accounts of U.S. universities, I was able to receive information about university achievements (e.g. rankings, awards, etc.)	3.222	3	3	0.629
By following WeChat service accounts of U.S. universities, I was able to receive information about resources for students (e.g. scholarships, admissions, tutoring, etc.)	3.000	3	3	0.667
By following WeChat service account of U.S. universities, I felt like I was part of the university community.	3.000	3	4	0.816
Following ASU' WeChat service account influenced my intention to apply to ASU.	2.667	3	2	0.667
Following ASU' WeChat service account helped me make the decision to apply to ASU.	2.556	2	2	0.685

Similar results as the frequency analysis were shown from the descriptive analysis on the survey data. Most participants indicated that following an institution's WeChat service account were good decisions, and it helped them to learn about the university's brand and resources, and to feel included in the university community. In the meantime, the impact of WeChat service account on the participants' intentions and decisions to

apply for admissions to the institution were not as strong, indicated by a mean below 3 for both items. The standard deviation calculations all less than one signified some variations in the participants' opinion, but were mostly consistent.

*WeChat service account impact on families and friends.* Families and friends were considered as the participants' important others, and their opinions were the normative beliefs that may impact the behavioral intention of the participants to apply for admissions to an institution. The first part of section three focused on the participants' family members. Specifically, Q5 asked the participants whether their families were following ASU's WeChat service account. To their knowledge, 9 (50%) of the participants indicated that their family members were following ASU's WeChat service account during the time of the survey, and 4 (22%) selected unsure. Skip logic was added to the online survey so that only participants who have selected "yes" or "unsure" were directed to Q6.

Thirteen participants answered Q6, asked to share whether they thought following ASU's WeChat service account may have influenced their family members' opinions on ASU, and if those opinions had influenced the participants' intentions and decisions to apply for admissions to ASU. Q6 included three items on a four-point Likert scale ranging from "strongly agree" (scored as 4) to "strongly disagree" (scored as 1). The results of frequency analysis and descriptive analysis are presented in Table 12 and Table 13.

As shown in Table 12, approximately 85% of the participants considered that following an institution's WeChat service account has influenced their family members'

opinions on the institution. Table 13 presented similar results, and fairly low variations among participants' selections ( $SD = 0.555$ ).

Table 12

*Survey Response Frequency Analysis of WeChat Service Account Impact on Family (n = 13)*

	Response Frequency Percent			
	Strongly Disagree	Disagree	Agree	Strongly Agree
I think that following ASU's WeChat service account influenced my family members' opinion on ASU.	0.0%	15.4%	69.2%	15.4%
My family members' opinion of ASU influenced my intention to apply for ASU.	0.0%	46.2%	38.5%	15.4%
My family members' opinion of ASU influenced my decision to apply for ASU.	0.0%	38.5%	46.2%	11.1%

Table 13

*Survey Response Descriptive Analysis of WeChat Service Account Impact on Family (n = 13)*

	Descriptive Statistics			
	Mean	Median	Mode	Standard Deviation
I think that following ASU's WeChat service account influenced my family members' opinion on ASU.	3.000	3	3	0.555
My family members' opinion of ASU influenced my intention to apply for ASU.	2.692	3	2	0.722
My family members' opinion of ASU influenced my decision to apply for ASU.	2.769	3	3	0.697

In addition, over half of the participants agreed that their family members' opinions on the institution has impacted their intentions (54.9%,  $n = 13$ ) and decisions (57.3%,  $n = 13$ ) to apply for admissions to the institution, as seen in Table 12.

Descriptive statistics in Table 13 also have shown the differences in the participants

opinions on these two questions, with the mean of each question under 3. Similarly, there were some variations in the participants’ choices, but the spread was not significant.

*WeChat service account impact on friends.* The next set of questions focused on the participants’ friends. Q7 asked whether the participants’ friends were following ASU on WeChat. Among all the participants, 15 (83.3%) said that their friends were following ASU on WeChat during the time of the survey, and 3 (16.7%) said no. Similar to the questions on family members, a skip logic was added and only participants selected “yes” or “unsure” were directed to Q8 about the impact of WeChat service account on their friends, and how that may have impacted their intentions and decisions to apply for admissions to the institution.

The questions and scale used for this question was the same as Q6 about family members, and the results can be seen in Table 14 below.

Table 14

*Survey Response Frequency Analysis of WeChat Service Account Impact on Friends (n = 15)*

	Response Frequency Percent			
	Strongly Disagree	Disagree	Agree	Strongly Agree
I think that following ASU’s WeChat service account influenced my friends’ opinion on ASU.	6.7%	33.3%	46.7%	13.3%
My friends’ opinion of ASU influenced my intention to apply for ASU.	0.0%	46.7%	40.0%	13.3%
My friends’ opinion of ASU influenced my decision to apply for ASU.	0.0%	53.3%	40.0%	6.7%

Reviewing the data presented in Table 14, 9 (60%) of the participants have agreed that following ASU’s WeChat service account influenced their friends’ opinions on ASU,

which 6 (40%) disagreed. There was a split opinion on whether their friends' opinions on the institution have influenced their intentions and decisions to apply for admissions to the institution. Of those who responded, 8 (53%) of them agreed that there was an impact on their intentions to apply, while 7 (47%) disagreed. In the meantime, 7 (47%) of the participants indicated that their friends' opinion on the institution has influenced their decisions to apply for admissions to the institution, while 8 (53%) said there was no impact.

Descriptive statistics of each item, including mean, median, mode, and standard deviation, were also analyzed for this question, with the results displayed in Table 15. Similar to the results from the frequency analysis, the descriptive analysis has shown a division on all three items for this question as well, indicated by the mean below 3. In addition, some variations of the selections were witnessed, indicated by the standard deviation of each item listed.

Table 15

*Survey Response Descriptive Analysis of WeChat Service Account Impact on Friends (n = 15)*

	Descriptive Statistics			
	Mean	Median	Mode	Standard Deviation
I think that following ASU's WeChat service account influenced my friends' opinion on ASU.	2.571	3	3	0.789
My friends' opinion of ASU influenced my intention to apply for ASU.	2.571	3	2	0.699
My friends' opinion of ASU influenced my decision to apply for ASU.	2.500	2	2	0.618



**Summary.** Data collected from the focus group interview with ASU's student leaders from China and quantitative survey involving first-year Chinese students enrolled at ASU were analyzed for both quantitative and qualitative information to answer Research Question 2, which intended to examine how an institution's WeChat service account may impact a prospective Chinese student's intention to apply for admissions to the institution (behavioral intention) both directly, and indirectly through influencing the student's impression of the institution (attitude) as well as the opinions of the student's families and friends of the institution (normative beliefs). Content analysis technique was used to analyze the transcripts for the focus group interview, and reliability analysis, frequency analysis and descriptive analysis were performed on the quantitative data collected through the survey.

Through the analysis on the data collected, it can be seen that WeChat was considered as a great source of official information from an institution by the focus group interview participants, and most survey respondents have agreed that it was a good decision to follow ASU's WeChat account. Both groups of participants viewed WeChat as a platform to learn about the university brand, know more about the resources available at the university, and feel included in the university community, which have influenced the participants' impressions of the university. However, the participants have revealed mixed views regarding the impact of WeChat service account on the opinions of their families and friends about the university, and how that may have influenced their intentions to apply for admissions to the institution. Similarly, WeChat service account has been shown to have varying direct influence over the participants' behavioral intention to apply for admissions to the institution. Overall, WeChat service account has

been seen as a platform for prospective students and their important others to receive information from and build connection with a higher education institution to which they were interested in applying.

#### **Summary of Chapter 4**

In chapter 4, the results for both quantitative and qualitative data collected through the four different data sources were presented. The chapter was organized first based on the two research questions, and were then divided by the data sources of 1:1 interview, document analysis, focus group interview, and quantitative survey. In the next chapter, I will summarize and interpret the findings of the action research, outline the limitations of the action research, and present the implications of the research on future practice and research.

## CHAPTER 5

### DISCUSSION

This action research was inspired by the current trend of international student recruitment in U.S. higher education, and intended to explore the effective ways that a higher education institution in the U.S. can utilize WeChat service account, the innovation for the action research, as a marketing and communication tool to influence the behavioral intentions of prospective international students from China to apply for admissions to the institution. Incorporating findings from four different data sources, including one-on-one interview, document analysis, focus group interview, and quantitative survey, this mixed-methods action research addressed two research questions:

RQ1: How can a higher education institution in the U.S. effectively utilize its WeChat service account as a marketing and communication tool to improve the recruitment practice by building the brand, promoting the resources, and establishing a sense of community with the institution, targeting prospective international students from China?

RQ2: How can a higher education institution in the U.S. effectively utilize its WeChat service account as a marketing and communication tool to influence the behavioral intentions, attitudes, and normative beliefs of prospective international students from China to apply for admissions to the institution?

In this final chapter, I will first summarize the research findings from all four data sources to present the answers to the research questions, and how these findings are aligned with the theoretical perspectives outlined in Chapter 2. Then, the limitations of

the study will be discussed. Next, I will discuss the implications of the action research, both on future practice and research. Finally, I will include a conclusion on the action research.

### **Summary of Research Findings**

This mixed-methods action research adopted four different data collection strategies, including one-on-one interview, document analysis, focus group interview, and quantitative survey. Three sets of qualitative data were collected through the first three data sources, and one main set of quantitative data were gathered from the survey. I have utilized thematic and content analysis approach to analyze the qualitative data, and frequency and descriptive analysis were performed on the quantitative data. Findings from all four data sources were studied to answer Research Question 1, with 1:1 interview and document analysis focusing on practitioners' perspectives and focus group interview and quantitative survey on target audience's standpoints. Research Question 2 was addressed by the findings from the focus group interview and quantitative survey.

**Findings for Research Question 1.** RQ 1 intended to explore how a higher education institution in the U.S. can utilize WeChat service account to improve its recruitment practice targeting prospective international students from China. Through the interactions with the participants in the one-on-one interview and focus group interview, both ASU practitioners and student leaders have suggested that WeChat service account would be an effective recruitment tool, and the institution need to first understand its target audience of the WeChat service account in order to build one that tailors to the audience's needs and interests. Once the target audience is determined, the WeChat

service account can be established and managed referencing the MAIN model (Sundar & Limperos, 2013) to improvement its impact on Chinese student recruitment.

*Connection of the findings with U&G Theory and the MAIN model.* The MAIN model is a practical model built on the Uses and Gratification Theory (U&G) as a comprehensive approach to facilitate the understanding of new media and the design of new media platform (Rathnayake & Winter, 2018). For this action research, the new media was social media, and the new media platform was WeChat. Specifically, the four affordances of the MAIN model refer to modality, agency, interactivity, and navigability (Sundar & Limperos, 2013). U&G Theory and the MAIN model were introduced in detail in Chapter 2.

*Modality.* Overall, WeChat service account needs to integrate diverse methods to present the media content, including videos, pictures, and other types of graphics, and use creative designs. From the practitioners' perspectives, ASU practitioners from the interviews have suggested the use of diverse modalities for content delivery. For example, institutions should consider increasing the use of videos and graphics like pictures, memes, gifs, etc., in addition to text. Additionally, attention-grabbing designs and creative assets would attract more readers. The results from document analysis on various WeChat service accounts coincided with the suggestions from the interviews. Many posts on the WeChat service accounts examined used a variety of modalities, with pictures embedded in posts being the most popular one. Moreover, some accounts have included creative typesetting, like bolded or colored fonts, to make the texts easier to read and follow.

The student participants as the target audience have provided similar feedback through the focus group interview and the survey. Specifically, participants in the focus group interview mentioned that some of the posts on ASU's WeChat service account were "too wordy" and some were "too short." They would prefer more videos, graphics, and eye-catching designs. Participants from the quantitative survey have also responded that they would prefer posts with diverse modalities.

*Agency.* Since WeChat service accounts are managed by institutions, providing relevant and up-to-date contents, as well as delivering contents using peer perspective was considered as effective approaches to increase the sense of agency of the audience. The practitioners asked for more attractive titles of posts, and outlined some topics that should be included in a university's WeChat service account for student recruitment purposes, i.e., academic programs, application process, visa and immigration information, campus events, alumni resources, etc. In the meantime, the most popular posts on the sampled WeChat service accounts were observed as the ones providing updates on trending topics like COVID-19 announcements and immigration policy updates. In addition, some posts sharing information from students' peer perspectives were also well received in terms of the number of reads by the followers.

Student participants in the focus group interview have also stressed the importance of attractive titles and posts sharing peer experience. Other than the topics also suggested by the practitioners, the students specifically pointed out their interest in learning more about campus life and the surroundings of the campus. The participants agreed that effective titles, relevant content and timely announcements would entice them

to read more information posted on the WeChat service account, and it seemed like ASU has been on the right track according to the results from the survey.

***Interactivity.*** ASU practitioners have listed a number of strategies to increase the engagement with account followers, including enabling the function of keyword auto reply (followers can type the keyword in the text box, and a post with relevant information will be sent to the followers), enabling the comment and reply function and providing timely response, providing rewards for following the account, interacting with followers through activities like trivia, polls and surveys, as well as offering live chat sessions, etc. Some of the accounts observed were already using some of these strategies, like keyword auto reply and polling, etc.

The student participants would like the service account to be more “fun.” They would also like to be able to comment or reply to posts on ASU’s WeChat service account, and have suggested live Q&A as a great way for an institution to interact with its followers through WeChat. In addition, they have asked institution to again consider and understand the students as the target audience, and use “their language” to make the content delivery more fun and relatable. This suggestion aligned with the formerly mentioned creative design and use of graphics regarding modalities of posts. The use of pictures, memes, and gifs that were popular among students can also create a connection with them and make them feel engaged. Moreover, most respondents of the survey have indicated that comparing to comment or click on “reading” the posts, they were more likely to share, which would be another way for audience to interact with the information at their pace.

*Navigability.* In terms of navigability, the consensus mainly included two points. The first was the use of branding guidelines, and the second was to establish a menu with posts filed into different sections based on themes. The practitioners emphasized that the landing page and all posts should adhere to branding guidelines of the university, for example, the font, the color schemes, the logo, the pictures, etc., to send the message that this account is official with accurate information. In addition, other than the specific sections students would be interested in, contact information for various international student service providers on campus and office hours should also be included. Moreover, institutions could also add a section for Frequently Asked Questions. Browsing through a few universities' WeChat service accounts, similar results were found.

The students have also commented that they liked the professionalism of the official branding, but would like to see the content and design to be more fun. For the menu, they have specifically asked for sections about ASU, about Arizona, application process, career resources, campus life, trending topics, etc. In addition, similar to the Frequently Asked Questions, the students suggested the keyword auto reply function by WeChat again. Moreover, most survey participants have considered the current ASU's WeChat service account "easy to navigate."

*Other suggestions.* Other than the findings regarding modality, agency, interactivity, and navigability, some other suggestions brought up by the practitioners and student leaders were related to add-on functions of WeChat and the promotion of WeChat service account. First, some practitioners have recommended the use of video account to increase visual content delivery, the use of mini-programs to enhance follower engagement, and the use of admin assistant as a means for customer service. It seemed



like admin assistant has already been use at some universities. In addition, both the practitioners and student leaders suggested that the institutions should promote their WeChat service accounts through various channels, i.e., emails, to establish its official standing representing the university and increase its followership. This was particularly important considering the various sources available for information in mass media today, and the challenges the audience have been facing in identifying official and accurate information. Based on the survey results, other than emails from the university, university website, search engine, education agents, and alumni network would be other information channels where a university can promote its WeChat service account.

*Summary.* The four affordances of modality, agency, interactivity, and navigability may interact with one another through the platform of WeChat service account to achieve the goal of improving recruitment practice by building the brand, promoting the resources, and establishing a sense of community by a university. For example, following the branding guidelines and creating contents about the university's achievements can establish the brand of the university. The university resources can be promoted through the various posts in different modalities, with some shared through peer perspective, as well as live on the landing page as existing information for the students and their parents to explore. Additionally, the modalities, the content, and the efforts to engage its followers can all contribute to the sense of community among students. In general, if used effectively, WeChat service account can be an impactful marketing and communication tool targeting prospective international students from China for student recruitment purposes.

**Findings for Research Question 2.** RQ 2 focused on how a university's WeChat service account may impact the behavioral intention of a prospective Chinese student to apply for admissions to the institution both directly, and indirectly through its influence on the student's impression of the institution as well as the student's important others like families and friends. The research question was constructed based on the Theory of Planned Behavior (TPB), introduced in Chapter 2. Data collected from the focus group interview and quantitative survey were analyzed to answer RQ 2.

*Connection of the findings with TPB.* The TPB model indicates that “as a general rule, the more favorable the attitude and subjective norm are, and the greater the perceived behavioral control is, the stronger is the person's intention to perform the behavior in question” (Ajzen, 2007, p. 988). When the opportunity rises, people then are expected to carry out their intentions and turn them into behaviors, given a sufficient degree of actual control over the behavior (Ajzen, 2019). For this action research, the WeChat service account was the perceived behavioral control, the student's impression of the university was the attitude, the opinions of the student's friends and families was the subjective norms, and the intention in question was the intention to apply for admissions to the institution.

*Attitudes.* In the focus group interview, the student leaders considered WeChat service account as a convenient way to seek official information. In fact, the use of WeChat and Chinese language by an institution was greatly appreciated by the students and their family. They have expressed that it made them feel connected to the university. The use of WeChat for information seeking as the primary reason coincided with Luo et al. (2010) considering information seeking as the most salient use of digital media.

Similarly, all respondents of the survey agreed that following ASU's WeChat service account "was a good decision," which helped most of them to know the university's brand and learn about the resources available, and established a sense of community for more than half of them. The findings aligned with the studies regarding TPB introduced in Chapter 2, identifying attitude as the strongest significant predictor of behavioral intention in the social media context (Sanne & Wiese, 2018).

**Subjective norms.** Participants of the focus group interview had different opinions regarding the impact of WeChat service account on their family members and friends, and how that may have consequently influenced their intentions and decisions to apply for admissions to the institution. Most agreed that WeChat service account have influenced the opinions of their families and friends on the institution. But whether their important others' opinions would impact their intentions to apply for the institution, it varied for individuals. Some participants applied because of their parents' recommendations or friends' referrals, while others have made the choice independently.

An interesting finding was that WeChat service account may contribute to affinity building by providing students the information about the institution they were enrolled in that they can brag about to their families and friends. This finding showed agreement that social media users' intentions to interact with a brand may be influenced by the beliefs of their important others and acquaintances (Lee & Hong, 2016). Survey results have shown similar findings with participants having mixed responses regarding this question.

**Behavioral intentions.** Most of the focus group interview participants identified WeChat service account as an influential recruitment tool if used effectively by the institutions. It can be used to enhance the followers' experience (Cheah et al., 2015) by

increasing the awareness of the university brand among prospective students and their families (Lin & Chen, 2017), disseminating information about the programs and services (Akar & Dalgic, 2018), and creating the affinity between the institution and its WeChat account followers. The participants have also provided useful feedback on improvements needed in practice, outlined in the previous section of this chapter. Specifically, the keywords were official branding guidelines, diverse modalities, relevant and updated content, interactive approach, and improved navigability. However, the survey participants have shown mixed opinions on the impact of WeChat service account on their intentions to apply for admissions to an institution.

*Summary.* Overall, a university's WeChat service account as the perceived behavioral control, seemed to have stronger influence over the attitudes of prospective Chinese students on the university. In addition, an institution's WeChat service account may exert some impact over students' behavioral intentions to apply for admissions to the institution directly, or indirectly through influencing their subjective norms. This finding is connected to the results for RQ1. Institutions should continue to improve its WeChat service account practice with prospective students as the primary target audience, but also include students' important others in the audience pool to gain maximum impact. In the meantime, institutions need to continue building on other marketing and communication channels to diversify their recruitment approach, i.e., university website, search engine, education agents, and alumni networks, etc.

### **Limitations**

A few limitations of the action research may have impacted the validity or reliability of the research findings, including the sample size and sampling process,

restrictions due to the change culture at the local context, as well as the limitations and opportunities brought by COVID-19 in this unprecedented time.

**Sample size and sampling process.** Three groups of participants were included in the action research process, including higher education practitioners working in the field of international student services, Chinese student leaders, and first-year Chinese students enrolled at ASU. Specifically, three practitioners, seven student leaders, and eighteen first-year students were involved in the research process. I have selected the participants for the interview and focus group interview purposefully as full participation required experience with WeChat and understanding of the Chinese language and culture. The selection of quantitative survey participants was based on convenience sampling. Participants were current students instead of true prospective students, and the survey only included students enrolled in W. P. Carey School of Business, rather than the entire university. Although sufficient for this action research under the local context, the small sample size and the sampling methods may have impacted the validity of the research or potentially led to bias. Additionally, with all participants under the same local context, the generalizability of the research needs to be further examined.

**Change culture.** Although I have been working on the action research project for about three years, some improvements needed on the innovation came slowly under the change culture and management structure at the local context. Reflecting on the experience of building and improving the innovation, the slow change process may be resulted from the multiple-level reporting structure and the affiliations of committee members with different departments. There are still many areas of developments needed on the content and landing page of ASU's WeChat service account, which was pointed

out by both the 1:1 interview and focus group interview participants. The current version of WeChat service account examined in this action research may have impacted how the participants have reacted to the innovation, and the research findings.

In addition, the constant changes in the media landscape in China, the policy changes of the WeChat products, and the political environment in the U.S. have also influenced the design and improvements of the innovation. For example, with Tencent allowing foreign entities to establish and manage their own WeChat service account in 2018, the innovation was re-built to better fit the followers' needs for an official source of information and the institution's needs to independently manage the account by internal staff rather than third-party vendors. Additionally, the different policies that the U.S. administrations have on social media applications like WeChat has, at one point, created the conversation of a replacement for WeChat and paused the development of WeChat service account. These unexpected factors have also impacted the improvement of the innovation.

**Limitations and opportunities brought by COVID-19.** The unprecedented time of the COVID-19 pandemic has created both challenges and opportunities for this action research project. First, the research plan was adjusted, and data collection methods for the one-on-one interview, focus group interview, and survey were changed from in-person formats to virtual. The change to virtual format has made the data collection process smoother for the one-on-one interview and focus group interview considering the audio recording and auto transcription functions of Zoom. However, changing the original plan for distributing and collecting survey data through in-person in class visits to online survey may have resulted in smaller amount of completed surveys. In addition, with

institutions trying to stay connected with students under the overall virtual learning environment, there was the concern of students being overly surveyed and therefore having lost interest in participating in research studies.

In addition, the focus on COVID-19 from institutions, students, and the students' family members has made COVID-19 related announcements the most popular posts on WeChat in general. In this case, it was challenging to identify other topics that students and parents would have been interested in. However, restrictions on travel has put a pause on some of the traditional international recruitment methods, including in-person visits by university staff to the students' locations, in-person recruitment activities by education agents, in-person education fairs, etc. Therefore, WeChat has become an even more popular platform under this condition for institutions to convey messages to and build affinity with their students and families.

### **Implications for Practice**

The outcomes from the action research have several implications for practice. Specifically, the feedback from the participants can guide further improvements of the innovation, especially with the fast pace of development in social media. Additionally, the learnings can help create an information network through promoting collaboration among various stakeholders in local practice. Moreover, I was able to reflect on the challenges that I have encountered in this change process, particularly when cultural differences were in place at the local context.

**Further improvements of the innovation.** The findings from the action research can provide guidance on how ASU's WeChat service account can be further improved. Practitioners need to continue working on studying the target audience of the WeChat

account, establishing the university brand and sense of community through WeChat, and building the modality, content, interactivity, navigability of the account referencing the MAIN model. New functions of WeChat should also be explored and tested to aid the marketing and communication efforts of the institution.

**Create an information network through collaboration.** One feedback provided by both practitioners and student participants of the research was related to the challenges brought by the variety of information sources and the number of WeChat accounts with information about ASU available in the market. Various international student services providers at ASU have their own marketing teams and WeChat accounts, and many Chinese student organizations have created their WeChat accounts and chat groups. In this case, it is important for the providers to communicate and coordinate on the messages to be distributed, and collaborate in the process to promote the university to their respective target audience. In addition, staff members working closely with Chinese student organizations should continue to build the relationships with student leaders to make sure information can be distributed through their channels, and feedback from students can be learned through the student organizations. Essentially, a network can be connected for information sharing among various stakeholders.

For example, the messages related to the subject of COVID-19 management on campus sent to prospective students and parents, current students, and alumni would be very different as the target audience has different interests. Prospective students may be more interested in knowing the impact of the pandemic on their visa application process and the potential start date for travelling to the U.S., while current students may want to learn more about public health safety measures on campus and what the virtual classroom



would be like. In the meantime, alumni may want to know what research the institution have been engaging in combatting the pandemic, and career resources available if their jobs were impacted by the pandemic. Also, student organizations are great channels to convey important information from the university as they have established readership, and can provide feedback to the university on the questions and concerns from the students and parents in their networks.

**Reflections on leading change with cultural differences in practice.** I have selected to conduct an action research with the intention to improve my own practice and lead change. In this process, I have learned valuable lessons and knowledge in terms of designing and conducting an action research, being a change leader, and working collaboratively with stakeholders involved in the change efforts. In the meantime, multiple levels of report structure and involvement of stakeholders from different departments may have hindered the progress of change. In addition, some change efforts may be stopped at the first step as others may not see a need for change. More importantly, leading change becomes challenging when people do not have the same cultural background and understanding as the change leader, and when the change leader does have full control in the process of change.

After this action research process, I started pondering a few questions. How do I push through change in a timely manner to align with the dynamic changes happening outside of the higher education realm when decision-making is often made top down? How do I convince others when I see a need for change and obtain support from stakeholders of all levels? How do I establish a trustworthy reputation for others to trust my cultural background and professional experience when it comes to services for a

specific student population, e.g., Chinese students, and then further offer the autonomy for me to create innovations and lead change in practice?

### **Implications for Research**

There are also several possible related research topics that may have sparked my interest upon completion of this action research, including further research on the adaption of the innovation for different markets and target audience, research on the use of the Theory of Planned Behavior and the Uses and Gratification Theory to guide international student mobility, and reflection on promotion of effective change process in a context with cultural differences.

**Adaption of the innovation.** The overall innovation of the action research was the process of identifying a social media application and creating an account on the application that fit a target market for the purpose of international student recruitment. WeChat service account was the actual applications studied in this research considering the target market of China and the competitive functions of WeChat. A similar process can be used to discover social media applications to aid student recruitment for a different market. For example, Facebook and WhatsApp can be studied as a tool for the India market, and a new design of the innovation based on the audience's needs and interests, as well as the applications' functions can be explored.

**TPB, U&G and research about international student mobility.** The Theory of Planned Behavior is the overall guiding theory of this action research. Through the literature review process and the data collected, I wonder if the key variables of TPB may exert different levels of influence over international students in comparison with their domestic peers in the context of higher education admission. For example, do parents

have a stronger voice in Chinese students' selections of universities comparing to American parents? What factors may influence Chinese students' attitudes about the university, and are these factors different from the ones that may impact an American student's impression of a university?

U&G and the MAIN model was used to guide the design and the improvement of the innovation. Many participants have responded that they prefer more visual modalities for contents on WeChat, and would like to have information on the WeChat account ready for browsing without having to reach out to a staff member. Does cultural difference and language proficiency play a role here? Do Chinese students prefer more pictures and videos because they can understand the gist of the content through these visuals without having to read into the texts? Do Chinese students prefer browsing information on their own to avoid conversations with staff members because of their concerns in their English proficiency level? Do Chinese students prefer not to ask questions because they are used to being independent learners?

### **Reflections on change processes considering cultural differences in place.**

During the data collection process for the action research, some participants have shared their struggles of promoting change where cultural differences existed, and their change efforts may be hindered by the management style at their local practice. Practitioners as the experts with local knowledge and cultural background in working with certain international student population may not be able to give full autonomy by their leadership with a different cultural background. The practitioners may not always be able to successfully translating and interpreting the cultural references to their leadership to receive the approval for proposed change. How can practitioners effectively promote change with

cultural differences in place? How can practitioners gain trust from their leadership to promote change with the cultural differences in mind?

## **Conclusions**

This action research was inspired by the current flattening trend of overall international student enrollment and the slowdown in new international student enrollment in the U.S. for the first time. Through a mixed-methods approach, the action research explored the effective ways for a higher education institution in the U.S. to utilize WeChat service account as a marketing and communication tool to influence the behavioral intentions of prospective international students from China to apply for admissions to the institution. The innovation of the action research essentially was the iterative process of identifying and designing a social media application to address the issues related to the trend of international student enrollment in U.S. higher education. Selection of the specific social media application to facilitate international student recruitment may depend on the target market and the application itself, e.g., the target market's overall media landscape, target audience's media consumption habits, the features of the application, etc.

WeChat was selected as the innovation for this action research because of the target population of China, as well as WeChat's wide customer base and competitive functions. Higher education institutions in the U.S. have increasingly witnessed the impact of having a presence on WeChat for the purposes of recruiting and supporting international students and alumni from China, whether through WeChat public accounts or chat groups. Therefore, it is important for practitioners supporting Chinese students to continuously improve their WeChat practice by learning about their target audience,

creating contents based on the audience's needs, as well as staying connected with the current trend of social media marketing in China and new features of WeChat.

In addition, it is important for higher education institutions to examine inward about the change culture in place, and the support provided to practitioners promoting change. Supporting improvement of practice may call for leadership to trust practitioners who are more connected with certain student populations through their backgrounds, and to allow these practitioners to make autonomous decisions based on their experience and knowledge. In addition, when multiple stakeholders are involved in the change process, collaboration and coordination is critical. There needs to be a consistent centralized messaging, but also localized efforts to fit the specific contexts during the actual implementation of change. This action research has only explored the surface of the challenges that practitioners may face when implementing change with cultural differences in place in the higher education setting.

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APPENDIX A

HIGHER EDUCATION PROFESSIONAL INTERVIEW

## Higher Education Professional Interview Consent Letter

Dear colleague:

My name is Mi Wu and I am a doctoral student in the Mary Lou Fulton Teachers College (MLFTC) at Arizona State University (ASU). I am working under the direction of Dr. Craig Mertler, a faculty member in MLFTC. We are conducting a research study on how the action of prospective international students from China applying for a higher education institution in the U.S. is influenced by their behavior of following the WeChat service account of the institution. The purpose of this interview is to provide guidance to improve the WeChat service account practice of U.S. higher education institutions for international student recruitment purposes.

We are asking for your help, which will involve your participation in an interview to discuss your opinion on effective WeChat service account practice via Zoom. We anticipate this interview will take 30-40 minutes. Your participation in this study is voluntary. I would like to audio record this interview through Zoom. The interview will not be recorded without your permission. Please let me know if you do not want the interview to be recorded; you also can change your mind after the interview starts, just let me know.

The benefit to participation is the opportunity for you reflect and provide feedback on ASU's current WeChat service account practice. Thus, there is the potential to improve ASU's WeChat marketing services to international students from China and your work with international students. There are no foreseeable risks or discomforts to your participation. You must be 18 years of age or older to participate.

Your responses will be anonymous. Results from this study may be used in reports, presentations, or publications but your name will not be used. If you have any questions concerning the research study, please contact the Principal Investigator (PI) Dr. Craig Mertler at [Craig.Mertler@asu.edu](mailto:Craig.Mertler@asu.edu) or (602)543-2829 or the research team member Mi Wu at [Mi.Wu@asu.edu](mailto:Mi.Wu@asu.edu) or (740)706-0655.

Thank you for your time and consideration of this interview request. Please let me know if you wish to be part of the study and will let me audio record your responses by verbally indicating your consent.

Mi Wu, Doctoral Student

-----  
MI WU  
Doctoral Student  
Educational Leadership & Innovation EdD Program  
Arizona State University | Mary Lou Fulton Teachers College  
Mi.Wu@asu.edu | (740) 706-0655

If you have any questions about your rights as a participant in this research, or if you feel you have been placed at risk, you can contact the Chair of Human Subjects Institutional Review Board through the ASU Office of Research Integrity and Assurance at (480) 965-6788.

### **Higher Education Professional Interview Instrument**

- Q1. Please describe your experience working with international students.
- Q2. Please describe your experience with WeChat, both as a user personally and as an account manager professionally.
- Q3. Do you think WeChat service account is an effective marketing and communication tool for higher education institutions to recruit international students from China? If so, in what ways?
- Q4. From your perspective, how can an institution (i.e., ASU) use WeChat service account to build its brand?
- Q5. From your perspective, how can an institution (i.e., ASU) use WeChat service account to promote its resources?
- Q6. From your perspective, how can an institution (i.e., ASU) use WeChat service account to create a sense of community with its followers?
- Q7. Based on your experience, what are the popular topics of posts Chinese students are interested in seeing through WeChat service accounts?
- Q8. Based on your experience, what are the popular formats of posts Chinese students are interested in seeing WeChat service accounts?
- Q9. Based on your experience, how can an institution interact with its followers through WeChat service accounts?
- Q10. Based on your experience, how should the structure of an institution's WeChat service account be like?
- Q11. Please provide some recommendations on effective WeChat service account marketing practice.
- Q12. Please provide some recommendations on the process of implementing change based on the change culture and management style at your practice.
- Q13. Please provide some recommendations on how different stakeholders can collaborate to implement change at your practice.

APPENDIX B  
NOTETAKING INSTRUMENT FOR WECHAT SERVICE ACCOUNT  
OBSERVATION



<b>Institution:</b>		<b>Month:</b>	
Total # of posts:	Theme	Format	Reads #
Post #1			
Post #2			
Post #3			
Post #4			
Post #5			
Post #6			
Post #7			
Post #8			
Post #9			
Post #10			
Post #11			
Post #12			
Post #13			
Post #14			
Post #15			
Post #16			
Post #17			
Post #18			
Post #19			
Post #20			
Post #21			
Post #22			
Post #23			
Post #24			
Post #25			
Post #26			
Post #27			
Post #28			
Post #29			
Post #30			
Summary (Most popular)			
Special campaign			
Navigability			
Additional notes			

APPENDIX C  
FOCUS GROUP INTERVIEW

## Focus Group Interview Consent Letter

Dear Student:

My name is Mi Wu and I am a doctoral student in the Mary Lou Fulton Teachers College (MLFTC) at Arizona State University (ASU). I am working under the direction of Dr. Craig Mertler, a faculty member in MLFTC. We are conducting a research study on how the action of prospective international students from China applying for a higher education institution in the U.S. is influenced by their behavior of following the WeChat service account of the institution. The purpose of this focus group interview is to provide guidance to improve the WeChat service account practice of U.S. higher education institutions for international student recruitment purposes.

We are asking for your help, which will involve your participation in a focus group interview via Zoom to assess the current ASU WeChat service account and to learn your perspectives in relate to its influence on prospective Chinese students' intentions to apply for admissions to ASU. We anticipate this focus group interview will take 25-30 minutes.

Your participation in this study is voluntary. If you choose not to participate or withdraw from the study at any time, there will be no penalty whatsoever and your choice will not affect your standing at ASU. You must be 18 years of age or older to participate.

The benefit to participation is the opportunity for you to examine the current WeChat service account of ASU and provide feedback for improvements of the account, as well as to reflect on your experience of following a WeChat service account of U.S. colleges and universities and its influence on you and your important others during your application process. Thus, there is the potential to enhance the experiences of prospective international students from China during their college application process and improve ASU's WeChat marketing services to international students. There are no foreseeable risks or discomforts to your participation.

The focus group interview will be audio recorded through Zoom. The recoding will be saved in a password-protected computer, and only the researchers will have access to the computer file. Results from this study may be used in reports, presentations, or publications but your name will not be collected or used. However, due to the nature of focus group interviews, complete confidentiality cannot be guaranteed. You may use an alias to join Zoom. If you have any questions concerning the research study, please contact the Principal Investigator (PI) Dr. Craig Mertler at [Craig.Mertler@asu.edu](mailto:Craig.Mertler@asu.edu) or (602)543-2829 or the research team member Mi Wu at [Mi.Wu@asu.edu](mailto:Mi.Wu@asu.edu) or (740)706-0655.

Thank you for your time and consideration of this interview request. Please sign below to indicate your consent to participant in the focus group interview.

Print Name:

Signature:

Mi Wu, Doctoral Student

-----  
MI WU

Doctoral Student

Educational Leadership & Innovation EdD Program

Arizona State University | Mary Lou Fulton Teachers College

Mi.Wu@asu.edu | (740) 706-0655

If you have any questions about your rights as a participant in this research, or if you feel you have been placed at risk, you can contact the Chair of Human Subjects Institutional Review Board through the ASU Office of Research Integrity and Assurance at (480) 965-6788.

### **Focus Group Interview Instrument**

The focus group interview includes two parts. Part 1 focuses on ASU's WeChat service account, and part 2 discusses your opinion on the influence of WeChat service account on prospective Chinese students' intentions and decisions to apply for admissions to ASU.

Part 1: Please open WeChat on your phone and search for ASU or Arizona State University in the search box. The account you will be looking for is "Arizona State University ASU Admission Services". Please take a few minutes to browse the account, and pay close attention to the structure of the account, the content and format of the posts, the frequency of the posts, etc. Let's discuss your impression of the account:

- Modality (format of posts)
- Agency (relevant content)
- Interactivity (interaction between the account and its followers)
- Navigability (landing page and ability to search for information)

Part 2: Let's talk about the use of WeChat service account for Chinese student recruitment:

- Do you think following an institution's WeChat service account influences your impression of the institution (brand, resources, sense of community, etc.)?
- Do you think following an institution's WeChat service account influences your friends' and families' impression of the institution?
- Does your friends' and families' opinion of the institution influence your intention to apply for admissions to the institution?
- Do you think following an institution's WeChat service account influences your intention to apply for admissions to the institution?

APPENDIX D

WECHAT SERVICE ACCOUNT IMPACT SURVEY

## WeChat Service account Impact Survey Informed Consent

Dear Student:

My name is Mi Wu and I am a doctoral student in the Mary Lou Fulton Teachers College (MLFTC) at Arizona State University (ASU). I am working under the direction of Dr. Craig Mertler, a faculty member in MLFTC. We are conducting a research study on how the action of prospective international students from China applying for a higher education institution in the U.S. is influenced by their behavior of following the WeChat service account of the institution. The purpose of this survey is to provide guidance to improve the WeChat service account practice for the U.S. higher education institutions for international student recruitment purposes.

We are asking for your help, which will involve your participation in a brief survey concerning your attitudes and the beliefs of your significant others on the WeChat service accounts of U.S. universities and colleges that you follow, as well as its impact on your behavioral intention to apply for the institution(s). We anticipate this survey will take 10-12 minutes.

Your participation in this study is voluntary. If you choose not to participate or withdraw from the study at any time, there will be no penalty whatsoever and your choice will not affect your standing at ASU. You must be 18 years of age or older to participate.

The benefit to participation is the opportunity for you to reflect on and think more about the WeChat service accounts of U.S. universities and colleges that you followed, e.g. ASU, as well as your experience in receiving marketing information from these institutions via WeChat. Survey responses will also inform future iterations of this work and improvement of WeChat marketing practice for international student recruitment by ASU. Thus, there is the potential to enhance the experiences of prospective international students from China during their college application process and improve ASU's marketing services to international students. There are no foreseeable risks or discomforts to your participation.

Your responses to the survey will be anonymous. Results from this study may be used in reports, presentations, or publications but your name will not be collected or used.

If you have any questions concerning the research study, please contact the Principal Investigator (PI) Dr. Craig Mertler at [Craig.Mertler@asu.edu](mailto:Craig.Mertler@asu.edu) or (602)543-2829 or the research team member Mi Wu at [Mi.Wu@asu.edu](mailto:Mi.Wu@asu.edu) or (740)706-0655.

Thank you for your time and consideration of this survey request.

Mi Wu, Doctoral Student

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MI WU  
Doctoral Student

If you have any questions about your rights as a participant in this research, or if you feel you have been placed at risk, you can contact the Chair of Human Subjects Institutional Review Board through the ASU Office of Research Integrity and Assurance at (480) 965-6788.

### **WeChat Service account Impact Survey Instrument**

1. Are you a WeChat user?

Yes  No

2. Did you follow WeChat service accounts of U.S. universities before enrolling at ASU, i.e. ASU?

Yes  No

3. Are you still following WeChat service accounts of U.S. universities now, i.e. ASU?

Yes  No

4. Please reflect on the WeChat service accounts of U.S. universities you follow when you were applying for universities in the U.S., to what extent you agree with the following statements. Please select ONE answer that best applies to your situation.

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>
Following WeChat service accounts of U.S. universities was a good decision.	1	2	3	4
By following WeChat service accounts of U.S. universities, I was able to receive information about university achievements (e.g. rankings, awards, etc.)	1	2	3	4
By following WeChat service accounts of U.S. universities, I was able to receive information about resources for students (e.g. scholarships, admissions, tutoring, etc.)	1	2	3	4
By following WeChat service account of U.S. universities, I felt like I was part of the university community.	1	2	3	4
Following ASU' WeChat service account influenced my intention to apply to ASU.	1	2	3	4
Following ASU' WeChat service account helped me make the decision to apply to ASU.	1	2	3	4

5. My family member(s) followed ASU's WeChat service account.

Yes     No     Unsure

***Please skip Question 6 if your family members do not follow ASU's WeChat service account.***

6. Please reflect on ASU's WeChat service account, to what extent you agree with the following statements. Please select ONE answer that best applies to your situation.

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>
I think that following ASU's WeChat service account influenced my family members' opinion on ASU.	1	2	3	4
My family members' opinion of ASU influenced my intention to apply for ASU.	1	2	3	4
My family members' opinion of ASU influenced my decision to apply for ASU.	1	2	3	4

7. Some of my friends followed ASU's WeChat service account.

Yes     No     Unsure

***Please skip Question 8 if your friends do not follow ASU's WeChat service account.***

8. Please reflect on ASU's WeChat service account, to what extent you agree with the following statements. Please select ONE answer that best applies to your situation.

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>
I think that following ASU's WeChat service account influenced my friends' opinion on ASU.	1	2	3	4
My friends' opinion of ASU influenced my intention to apply for ASU.	1	2	3	4
My friends' opinion of ASU influenced my action to apply for ASU.	1	2	3	4



9. Please select your level of agreement with the following statements relating to your experience with ASU’s WeChat service account. Please select ONE answer that best applies to your situation.

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>
The content was relevant to me.	1	2	3	4
The content was up to date.	1	2	3	4
I prefer content with diverse modalities, i.e. articles with pictures.	1	2	3	4
I sometimes comment on posts.	1	2	3	4
I sometimes click on “reading” posts.	1	2	3	4
I sometimes forward posts.	1	2	3	4
The account was easy to navigate, i.e. able to search for previous postings, find contact information, etc.	1	2	3	4

10. Why did you decide to follow ASU’s public WeChat account? Please select all that apply or share your opinion in the open space.

- I was interested in applying for ASU
- My family members recommended me to follow
- My friends recommended me to follow
- Others, please specify:

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11. If you decided to unfollow ASU’s WeChat service account, please select your reasons for doing so. Please select all that apply or share your opinion in the open space.

- I am still following ASU’s WeChat Service account
- Irrelevant content
- Outdated content
- Using one format (i.e. articles only or videos only)
- No interaction
- Difficult to find information
- Decided to attend other universities
- Others, please specify:

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12. Before following ASU's WeChat service account, I used the following ways to acquire information about the university. Please select all that apply or share your opinion in the open space.

- University website
  - Phone call
  - Email
  - Other online resources (i.e. Baidu)
  - Asking my family members
  - Asking my friends
  - Asking ASU alumni
  - Asking Education Agents
  - In-person visits by university staff and faculty
  - Others, please specify:
- 

13. What is your gender?

- Male
- Female
- Other
- Prefer not to answer

Thank you for participating in the survey!

APPENDIX E  
INSTITUTIONAL REVIEW BOARD APPROVAL



EXEMPTION GRANTED

[Craig Mertler](#)  
[Division of Educational Leadership and Innovation - West Campus](#)  
 602/543-2829  
[Craig.Mertler@asu.edu](mailto:Craig.Mertler@asu.edu)

Dear [Craig Mertler](#):

On 4/2/2020 the ASU IRB reviewed the following protocol:

Type of Review:	Initial Study
Title:	Effectively Utilizing WeChat Service Account to Influence the Behavioral Intention of Prospective International Students from China to Apply for a University in the U.S.
Investigator:	<a href="#">Craig Mertler</a>
IRB ID:	STUDY00011768
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	<ul style="list-style-type: none"> <li>• clarifications to questions, Category: Other;</li> <li>• Focus Group Interview Consent Letter.pdf, Category: Consent Form;</li> <li>• Focus Group Interview Instrument.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);</li> <li>• Higher Education Professional Interview Consent Letter.pdf, Category: Consent Form;</li> <li>• Higher Education Professional Interview Instrument.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);</li> <li>• Mi Wu IRB protocol.docx, Category: IRB Protocol;</li> <li>• WeChat Public Account Impact Survey Consent Letter.pdf, Category: Consent Form;</li> <li>• WeChat Public Account Impact Survey Instrument.pdf, Category: Measures (Survey</li> </ul>

	questions/Interview questions /interview guides/focus group questions);
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The IRB determined that the protocol is considered exempt pursuant to Federal Regulations 45CFR46 on 4/2/2020.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

Sincerely,

IRB Administrator

cc: Mi Wu  
Mi Wu



APPROVAL: MODIFICATION

[Craig Mertler](#)  
[Division of Educational Leadership and Innovation - West Campus](#)  
 602/543-2829  
[Craig.Mertler@asu.edu](mailto:Craig.Mertler@asu.edu)

Dear [Craig Mertler](#):

On 7/29/2020 the ASU IRB reviewed the following protocol:

Type of Review:	Modification / Update
Title:	Effectively Utilizing WeChat Service Account to Influence the Behavioral Intention of Prospective International Students from China to Apply for a University in the U.S.
Investigator:	<a href="#">Craig Mertler</a>
IRB ID:	STUDY00011768
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	<ul style="list-style-type: none"> <li>• Focus Group Interview Consent Letter.pdf, Category: Consent Form;</li> <li>• Focus Group Interview Recruitment email.pdf, Category: Recruitment Materials;</li> <li>• Higher Education Professional Interview Consent Letter.pdf, Category: Consent Form;</li> <li>• Mi Wu IRB protocol.docx, Category: IRB Protocol;</li> <li>• WeChat Posting for Survey Participant Recruitment.pdf, Category: Recruitment Materials;</li> <li>• WeChat Public Account Impact Survey Consent Letter.pdf, Category: Consent Form;</li> <li>• WeChat Public Account Impact Survey Instrument.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);</li> </ul>

The IRB approved the modification.

When consent is appropriate, you must use final, watermarked versions available under the “Documents” tab in ERA-IRB.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

Sincerely,

IRB Administrator

cc: Mi Wu  
Mi Wu