CHAPTER I
INTRODUCTION

1.1   Background

Deaf empowerment will be hard to realize if the core of it, community participation, is lacking. Literatures prove empowerment is stimulated from continuous participation (Nikkhah & Redzuan, 2009; Tremblay & Gutberlet, 2012; Cavalieri & Almeida, 2018). Being more participative push Deaf to collaborate and eventually exercise their capacity. There are 3 reasons which press the urge for Deaf to participate more in city/society improvement efforts. First, Deaf graduates from SLB at averagely adult age (20 years old). After graduation, almost all of them will directly find job and engage more with Hearing community. Second, Deaf is a community with invisible disability because hearing is an invisible condition. Unless Deaf speak up, people will not realize they have deafness. This caused them to unintentionally being more marginalized. Third, the rise of BISINDO learners and exposure on Deaf world, are great momentum to stimulate Deaf participation.

Based on interview result, upon graduating Senior High School, Semarang Deaf usually already in adult age (20 years old).

> *"For the older Deaf, it is true (that they graduated at age 20 years old). But for young Deaf like us, we graduated at 18. But still, there are young Deaf who enter school late, so they graduated at age 20 years old…."*
> **(W/YDA/01)**

All of their school years, they usually surround themselves with fellow Deaf. However after graduate at those adult age, Semarang Deaf are expected to be more collaborative with the Hearing community. They should not continue the custom from their previous school life. They should be able to take benefit from engagement with diverse communities. Without getting off from the old customs, they will limit their own chances to have better quality of life. Thus, Deaf participation is crucial issue.

However, Deaf participation is not without challenge. Deaf is a community with invisible disability. Hearing community will easily know someone is disabled if they use wheelchair. However, they will not be able to tell someone is Deaf. This is because hearing is an invisible condition. Unless Deaf are proactive and speak up more, they will remain marginalized. Official organization for Deaf people in Semarang City, GERKATIN Semarang, also highlighted this issue in the interview.

"Many people think that disability group only consist of handicapped and blind people. As Deaf have normal body except good hearing ability, people then think we are not disabled. If we do not speak up, Deaf will not be seen as diffable, so we often being forgotten. But there are also Deaf who refuse to be called as diffable. They tought their body is normal and they do not know the real meaning of diffable."
(W/DW/04)

Fortunately, great momentum arise to motivate more participation from Semarang Deaf adult community. The great momentum is caused by 2 situation, the rise of BISINDO (Indonesian sign language) learners and massive exposure on Deaf world. There are a lot of Semarang Hearing community who want to understand Semarang Deaf World. It is proven by the big interest when GERKATIN Semarang open BISINDO booth in weekly Car Free Day and the fact that there are already 90 BISINDO learners in which some of them can become their interpreter one day. Additionally, Deaf community in Indonesia including Semarang Deaf, currently enjoying massive exposure on their Deaf World. Deaf content are now spread widely on social media and YouTube.

The providement of Sign Language Interpreter (SLI) on national news tv chanels meant to raise people understanding about the importance of inclusive information for Deaf. The exposure also aims to motivate Deaf to be more proactive. Deaf from each city are now easily connected through social media. They can learn from each other. Deaf from Jakarta, Bandung, Jogja, and Solo already set an example for empowerment by the internet (e-empowerment). Long distance connection and collaboration can now easily happend between fellow local SLI and Hearing people who are Deaf enthusiasts.

Despite the chances, if Deaf with their 'invisible disability' reluctant to participate in city/society improvement efforts together with Hearing community, they will remain marginalized in those city. They will continue being marginalized not only by the Hearing community but also from other disability group and local government. However after continous engagement with GERKATIN Semarang since 2018, Author concluded Semarang Hearing community indeed now becoming more open to Deaf as fellow urbanist. Unfortunately, Deaf tend to limit themselves with many reasons such as shy or only attend events which provide financial aid.

With all the explanation above, a chance to study Deaf community participation is opened. Currently there is no Indonesian urban planning literatures which focuses on Deaf participation. Motivating Deaf participation is crucial to make them step outside their old mentality which rarely innitiate progressive movement for their own urban life. Being more collaborative with fellow urbanist will benefit Deaf to support their own life more effectively. Fortunately, there is one foreign urban planning literature which can be used to study how to motivate Deaf participation. Those literature used *community place attachment* (CPA).

Manzo & Perkins (2006) reviewed multidimensional literatures of *place attachment* in their study. They prove CPA is useful to motivate community participation. People who deeply attached to place indeed being more participative. This is because they already has continous concern about those place in mind. People with deep affective bond to the place (*place attachment*) are more motivated to reside longer and improve the place which is meaningful for them. This is how deep CPA motivate more community participation.

Place attachment is derived from a theory in urban planning discipline which is *sense of place*. Hashemnezhad (2013) study which quoted Shamai (1991) stated that *place attachment* is *sense of place* subdivision. From 4-scales *sense of place*, Shamai (1991) placed "*place attachment*" as the 2nd highest level of *sense of place*. The strongest type of *sense of place* is "sacrifice for place". The third is "belonging to a place" and the weakest is "lack *sense of place*".

Altman & Low (1992) concluded *place attachment* is a mutidimensional concept which has been widely discussed in any disciplines and applicable to many practical issues. It is found to be affecting community participation on the context of pro-environmental behavior (Cheung & Hui, 2018; Hernández *et al.*, 2007), tourism development (Strzelecka *et al.*, 2017), disaster mitigation and adaptation (Mishra *et al.*, 2010), as well as social housing policy and displacement (Fullilove, 2004; Manzo *et al.*, 2008). Unfortunately there are no urban planning literature which study whether *place attachment* can motivate marginalized group participation spesifically Deaf.

It is essential to conduct a study which can fill the void in urban planning literatures. The study need to practically prove Manzo & Perkins (2006) CPA study in the context of Deaf CPA and Deaf participation. Deaf with their physically-seen healthy body are better in accessing the city than the handicaped/blind group with physically-restraint body. However their 'invisible disability' might caused Deaf to be unseen if they are blended together in a community full of Hearing people. So people will forget that they perceive and attached to the city differently. Thus, if the findings of Manzo & Perkins (2006) study can be proven in Deaf-focused study, it can give a new practical insight. A deeply attached Deaf community will have the potential to participate more in the improvement efforts of their own place/community. Thus, realizing inclusive city will be easier.

1.2   Problem Study & Research Question

With the limited options for Deaf to have better quality of life, they have to take innitiative and participate more in city/society improvement efforts which affect them. However, to understand their current community participation and then motivate it, first the condition of Deaf *community place attachment* (Manzo & Perkins, 2006) should be understood. The very long time residency of Semarang Deaf adult actually hint they are a deeply attached community. It indicates they are deeply

attached to their hometown, parents, and other social circles. Some of the current Deaf adult whose age more than 35 years old are mostly born in Semarang and attend high school in other cities such as Wonosobo/Magelang. However, right after graduation they came back to Semarang to work, married, and continue living here until now.

There are several reasons why Deaf adult continue reside in Semarang City and how those decision related with their *place attachment*. First, they have limitation on decent job offer so they need to financially depend on their parents who mostly are Hearing people. Thus, even though they find work, married and have children, they still live with/near their parents in Semarang. Second, Semarang Deaf adult usually have trust issue or reluctant to approach new people first, especially if they are Hearing people. Therefore they tend to be attached with their own Deaf fellows who they have been known since a long time. Those reasons then make them become very attached to Semarang as their living place. However we need to prove how these hint of attachment influence their participation in city/society improvement efforts.

In conclusion, Deaf adult community prefer to continue their living and attachment to Semarang City. A study on how to motivate Deaf participation is needed by focusing on those fact. Thus this study uses Manzo & Perkins (2006) findings. On their study about *community place attachment* (CPA), they found community with deep CPA will be easily motivated on community participation. Thus, if the condition of Deaf CPA is understood, the explanation of their current community participation will be understood as well. If the current Deaf participation in city/society improvement efforts are still not effective, then the CPA need to be improved. Therefore a research question arises on "**How community place attachment motivates Deaf participation?**".

1.3 Goal & Objectives of Study

Below are the goal and objectives of this study.

1.3.1. Goal

The goal of this study is to understand how to motivate Deaf participation using *community place attachment* (CPA). This study focus on the life of Deaf adult whose age 20 years old/older. This is because Deaf adult are expected to be able to empower themselves more with the momentum which continously arise.

1.3.2. Objectives

Three objectives are used to guide this study.

1. To measure Deaf *community place attachment* (CPA) level to their living place.
2. To identify demographic predictors of Deaf *community place attachment* (CPA).
3. To understand how to motivate more Deaf participation using CPA.

1.4 Scopes

There are two scopes in this study. First is contextual scope. Second is geographical scope where the study are focused. The contextual scope of this study mainly focused on *Deaf community place attachment.* The geographical scope is Semarang City as the living place where Deaf are attached.

1.4.1. Contextual Scope

This study have contextual scope to keep focus on the main issue of Deaf *community place attachment.* Below are the detailed issues which discussed:

a. Deaf subject in this study are Semarang Deaf adult whose age are 20 years old and older (average age of Deaf Senior High School graduates);
b. Semarang Deaf World and their current community participation;
c. Deaf *place attachment* towards the city, both individual and community level;
d. Relationship between *community place attachment* (towards city as the spatial range) and Deaf participation.

1.4.2. Geographical Scope

Cuba & Hummon (1993), Hidalgo & Hernández (2001), and Lewicka (2010) found how among 3 spatial ranges (home, neighbourhood, city), attachment towards city is the strongest. Attachment to city is easier to assess than neighbourhood scope which usualy choosen in previous studies because of researchers' bias (more explaination in **sub chapter 2.2.4**). For that reason, this study focus on Deaf adult attachment towards Semarang City as their living place. Thus the geographical scope for this study is Semarang City (see **Figure 1.1** on the following page). Below are the borderline of Semarang City:

Western boundaries   : Kendal
Northern boundaries   : Java Sea
Eastern boundaries   : Demak
Southern boundaries   : Semarang Regency

SEMARANG CITY ADMINISTRATION MAP
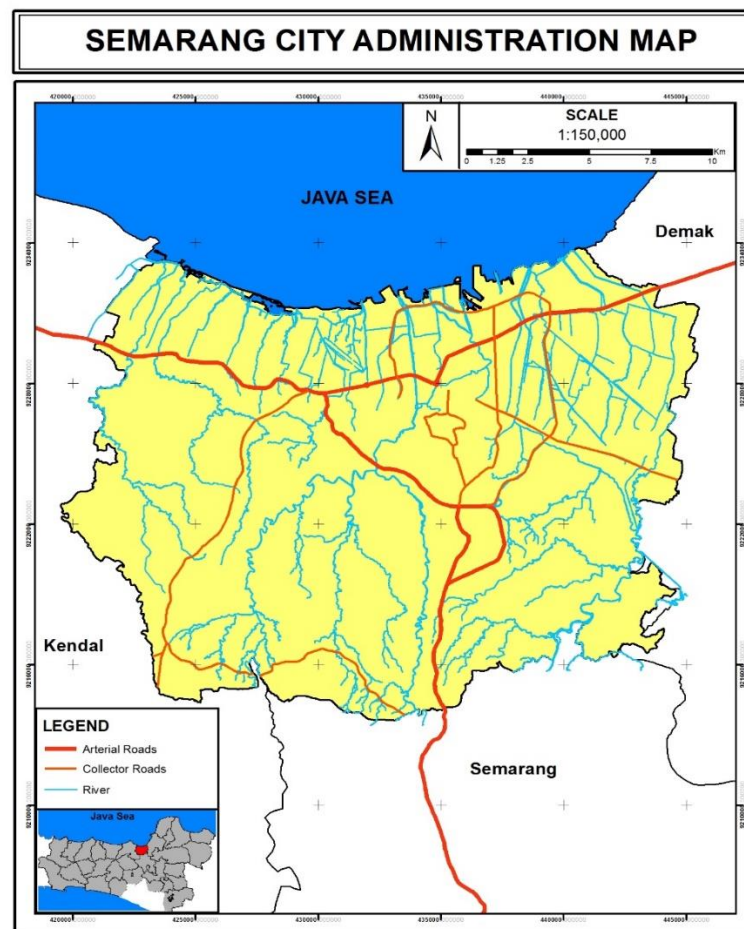
Source: *Bappeda Semarang City, 2014*
Figure 1. 1 Semarang City Administration Map

1.5.   Benefits of Study

1.5.1.   Theoritical Benefit

Hopefully this study contributes a new insight for Urban and Regional Planning disciplines specifically on how a subdivision of *sense of place,* which is *place attachment*, can motivates community participation. Therefore in the future, whenever community participation is being discussed, the talk will no longer limited to *sense of community* and *social capital* issue but also *community place attachment*. Not only that, Author hope this undergraduate thesis can be a stepping stone for more disability-related study in Urban and Regional Planning (URP) discipline. Hopefully in the future, URP researchs about disability group can elaborate more on their community participation, not continously discussing urban design.

1.5.2. Practical Benefit

Practically, this study give a good knowledge for anyone whose work highly associated with Deaf empowerment issue. The related stakeholders are government, NGO, social mover, disability activists, and GERKATIN as the legal Deaf organization in Indonesia. As Author is sometimes work as sign language interpreter, hopefully fellow interpreter can use the knowledge too.

1.6. Research Framework

To sum up what have been stated so far in **Chapter 1** and to better understand the overall design map of this study, below is the research framework for this study (see **Figure 1.2).**
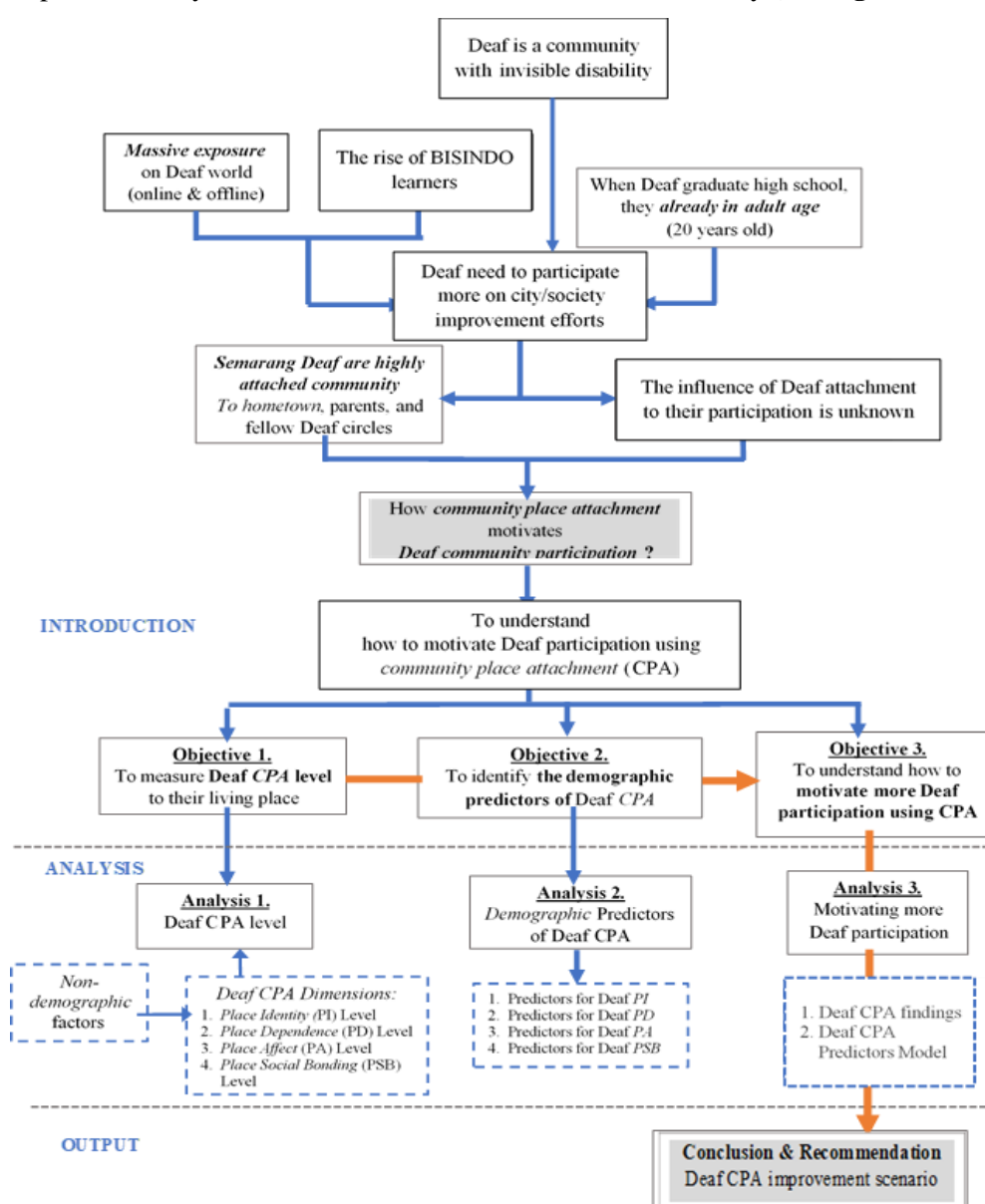
Source: *Author analysis result, 2019*

Figure 1. 2 Research Framework

1.7.   Research Authenticity

This Deaf CPA study is influenced by previous researchs and become a more developed version. However, there are distinct differences such as object study, location, variables, method, as well as the findings. Here are the authenticity proof of this Deaf CPA study as compared to previous researchs which used as reference.

Table I. 1
Previous CPA Researchs

Researchers	Year	Research Title	Goal	Methods	Important Findings
Gustavo S. Mesch, Orit Manor	1998	Social Ties, Environmental Perception, And Local Attachment	To investigate the contribution of place satisfaction to the understanding of attachment to the local community	Quantitative methods: • Descriptive statistics • Multivariate analysis • Regression test • Reliability analysis (Cronbach α)	• *Place dependence* & *place social bonding* are important to the development of *place attachment* (PA)*;* • There are demographic predictors for PA; • Deeper PA influences more social participation.
Lynne C. Manzo, Douglas D. Perkins	2006	Finding Common Ground: The Importance of Place Attachment to Community Participation and Planning	To propose an ecological model of *place attachment* to be used as source on motivating community participation	Qualitative methods: • Literature review	• Previous researchs from each discipline (*environmental psychology, community psychology, urban planning)* always worked alone. They should have collaborate to gain holistic understanding of CPA; • After drew connection from literatures across disciplines, a common ground is found that CPA indeed motivate community participation.
Charis E. Anton, Carmen Lawrence	2014	Home is Where The Heart is: The Effect of Place Residence on Place Attachment and Community Participation	To explore the relationship between place of residence, living in a threatened place, place identity, and *place dependence*	Quantitative methods: • Descriptive statistics • MANOVA • Spearman's rho • Regression test	• Place of residence did have effect on individual PA; • People will become more aware of their PA if the place they attached to is threatened; • There are socio-demographic variables which also influence PA level.
Lewis T. O. Cheung, Dennis L. H. Hui	2018	Influence of Residents' Place Attachment on Heritage Forest Conservation Awareness in A Peri-Urban Area of Guangzhou, China	To explore residents environmental behavior towards heritage forest in the suburban area of Guangzhou;	Quantitative methods: • Descriptive statistics • Reliability analysis (Cronbach α) • Regression test	• 4 PA dimensions (*place identity, place dependence, place affect, place social bonding*) are important to measure PA level; • Deeper PA will increase positive perception towards conservation efforts and

Researchers	Year	Research Title	Goal	Methods	Important Findings
			To measure their PA level		intention on pro-environmental behaviors.
Dea Zahara Lutviana	2020	Motivating Deaf Participation Through Community Place Attachment	To understand how to motivate Deaf participation using *community place attachment*	Explanatory-sequential mixed methods: • Descriptive statistics • Reliability analysis • Spearman's rho • Key-informant interviews with use of both sign language and orally	• Deaf are deeply attached to their city/hometown, parents, and their longtime social circles; • CPA has 4 CPA Dimensions, non demographic and demographic factors; • Demographic factors and deafness-related factors do not have any correlation with Deaf CPA level; • The deep CPA is predicted by CPA dimensions and the non demographic factors which become the most prominent issue in each dimension.

Source: *Author analysis result, 2019*

1.8.   Research Position in URP Discipline

Understanding the position of this research in the discipline of Urban and Regional Planning (URP) is important. It can show the relationship of the main theme of research to a theory of urban planning and other topics. Below is the positional scheme.
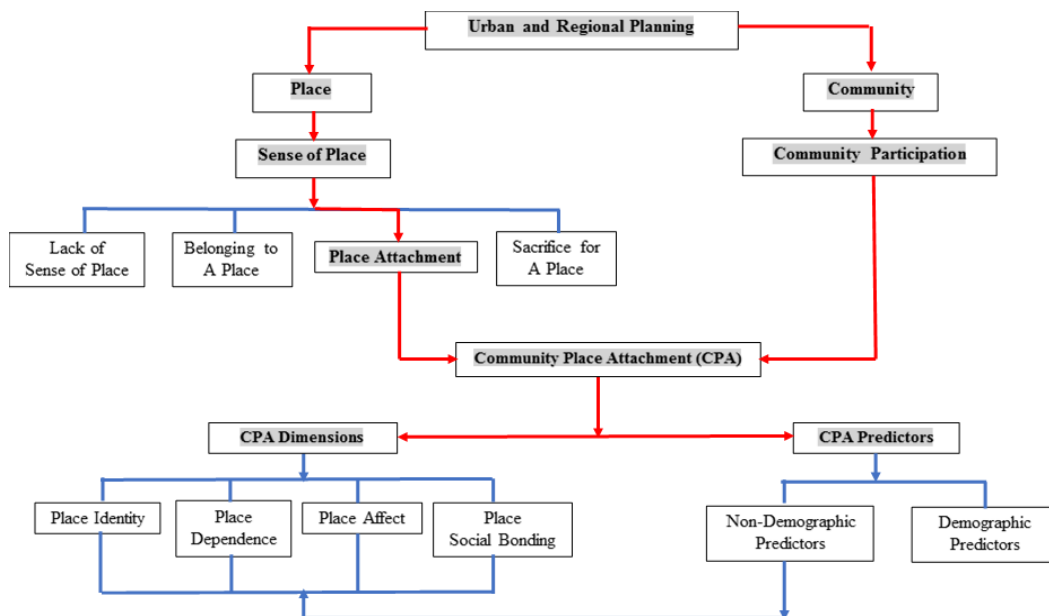
Source: *Author analysis result, 2019*

Figure 1. 3 Research Position in URP Discipline

1.9.   Research Methods

1.9.1.   Research Design

This study aspire to have holistic view on how *community place attachment* (CPA) influences Deaf Adult participation. Although CPA has been studied in many context of urban planning discipline, there is no literature which spesifically focus on Deaf. With different ability, their understanding ability and customs are likely different as well. Thus, the research design and approach need to be able to minimize the misperception/wrong information. It need to make sure the study focus on research problem and get comprehensive view of Deaf CPA. *The pragmatic paradigm* were used along with all approach available (Rossman & Willman, 1985). Finally, to avoid Deaf respondents missinterpreting the questions and to solve barriers from both the Deaf and Author, thus *mixed methods approach* were used. With this approach, the obtained data, both quantitative and qualitative, can contradict, complement, and explain each other.

To get the overall knowledge about Deaf demographic information and CPA, thus the first step were quantitative phase (questionare). To make sure Deaf adult respondents can easily answer the questions, the answer options were provided in 5-point Likert scale ranging from strongly disagree (1) to strongly agree (5). The initial questionare result were used as basis for open questions which then asked to key informants in qualitative phase (interview). The quantitative phase was followed by qualitative phase to have complete explanation of the questionare result. This type of design is called *explanatory sequential mixed methods*. This way we got additional insight and revised information about Deaf CPA issue.

To understand how CPA motivate Deaf Adult community participation (the goal of this study), 3 objectives are needed. The first objective want to measure Deaf Adult CPA level to Semarang City as their living place. Therefore measurement to all 4 PA variables were conducted. The overall score then show their CPA level. The second objective want to identify the demographic predictors of CPA. Each CPA variable, which composed of non demographic factors, then used together with the demographic data, to find its correlation with the newly found attachment level. Finally, to understand how to motivates more Deaf participation, the result from questionare, interview and observation were combined. They were being compared and complement. CPA literature were also used to explain the justification and argument. See **Table I.2** in the following page.

Table I. 2
Data Analysis

Objectives	Instrument Measurement Framework	Input		Number of Questions	Analysis		Output	Goal
					STEP 1	STEP 2		
Objective 1 To measure Deaf CPA level to their living place	**Cheung & Hui (2018)**	**Analysis 1. DEAF COMMUNITY PLACE ATTACHMENT (CPA) LEVEL** *(22 CPA questions)*					**Deaf CPA level**	To understand how to motivate Deaf participation using *community place attachment* (CPA)
		Sub-variables **Non Demographic**: 1. Self identity 2. Sense of place 3. Length of residence 4. Memories & experiences 5. Satisfaction in social environment 6. Satisfaction in physical environment 7. Loyalty towards place	8. Physical factors 9. Social factors 10. Sense of belonging 11. Sense of well-being 12. Public safety 13. Intention in *pro-environmental behaviour* 14. Involvement in community/ organization activities					
		CPA Dimensions/Variables:	Place Identity (PI)	5	Descriptive Statistics	Reliability Analysis (Cronbach α)		
			Place Dependence (PD)	6	Descriptive Statistics			
			Place Affect (PA)	6	Descriptive Statistics			
			Place Social Bonding (PSB)	5	Descriptive Statistics			
Objective 2 To identify demographic predictors of Deaf CPA	**Anton & Lawrence (2014**	**Analysis 2. DEMOGRAPHIC PREDICTORS OF DEAF CPA**					**Deaf CPA predictors:** 1. Predictors for Deaf PI 2. Predictors for Deaf PD 3. Predictors for Deaf PA 4. Predictors for Deaf PSB	
		Demographic Variables 1. Gender 2. Age 3. Income 4. Length of residence **Deaf CPA Score** 1. PI score 2. PD score	5. Housemate type 6. Home ownership 7. Education level 8. Lip reading skill 9. Hearing aids usage 3. PA score 4. PSB score	9	Spearman's rho analysis	**+ Crosstab analysis** *(additional)* **+ Open ended questions** **+ Qualitative interview result**		

Objectives	Instrument Measurement Framework	Input		Number of Questions	Analysis		Output	Goal
					STEP 1	STEP 2		
Objective 3 To understand how to motivate more Deaf participation using CPA	-	**Analysis 3. MOTIVATING MORE DEAF PARTICIPATION USING CPA**		-	Compare and combine		1. Deaf CPA findings 2. *Deaf CPA Predictors Model*	
		Statistical result: 1. Deaf CPA Level 2. Deaf CPA Predictors						
		Interview result : 1. HiMIKS (DINSOS) 2. GERKATIN Semarang 3. Deaf adult respondents						
		Observation findings from direct involvement						

Source: *Author analysis result, 2019*

1.9.2. Sampling Methods and Population

There are no reliable sources stating the exact numbers of Deaf adult population in Semarang City. To resolve the differences in ability and with no exact data of Deaf population, thus *accidental purposive sampling* was used. *Purposive sampling* means the number of respondents has been decided beforehand because of some reasons. While *accidental sampling* means, whoever the Author meet on the spot, as long as they meet the criteria, then they can be the respondent. Therefore, with this sampling approach, 36 Semarang Deaf adults (age 20 years old or above) who is willing to participate in the questionare session, will become respondents. Author met them at a disability event (International Disability Day Celebration), then recontact them to meet up again. Most Deaf which attend the event were members of GERKATIN Semarang. However some others, especially the young adult, were introduced to Author through mutual Deaf friend.

Semarang Deaf population are a lot, but there is no data about them. The best way to get respondents was asking the member of GERKATIN Semarang. They stated there are at least 100 members but only around 25 of them are truly proactive. Thus the respondents are set to be 30 Deaf Adult at minimal. 37 Deaf participated, but 1 of them are under the minimum age set for this research (20 years old). Thus only 36 Deaf were qualified as respondents. Finally, on the second phase which was qualitative phase. The key informants who will be interviewed are head and secretary of GERKATIN Semarang and a Semarang sign language interpreter. They explained about Deaf world which used to give insight on Deaf CPA development.

An interview session was also conducted to advisor of HiMIKS. HiMIKS is a special body under Social Services Agency (Dinas Sosial) of Semarang City which focused on disability empowerment. It is an umbrella body consist of all disability organization/community in Semarang. The HiMIKS advisor explained about the condition of Deaf participation in Semarang as well as their advocacy about Deaf rights. Those explanation was used to concluded how Deaf CPA level related with their current participation. This way their current level of Deaf participation can be understood (using Arnstein's Ladder of Participation Theory).

1.9.3. Quantitative Data Collection

Two phases of data collection were conducted. Quantitative sampling in the first phase which then followed by key-informants interview in qualitative phase *(explanatory sequential mixed methods)*. However, this study was heavily focused on its quantitative phase. Even the qualitative interview aims to explain and complement the questionare result. In the quantitative data collection, there are 2 type of data collected. As stated in Chapter 2, there are 2 measurement framework which used in this study. The first data aims to understand Deaf CPA level. The second data were used as

input to discover the demographic predictors of Deaf CPA. Therefore in the quantitative phase, 2 datas are collected.

A.   Deaf CPA Level

Detailed instrument (questionare) to measure community place attachment (CPA) already used in Cheung & Hui (2018). There are 4 CPA variables to be collected (*place identity, place dependence, place affect, place social bonding*) in which each has different purpose (Williams, 1992; Ramkissoon *et al.*, 2013; Cheung & Hui, 2018). Each CPA dimension was formed by non demographic factors. Below are the explanation for each variable.

1)   Place Identity (PI)

Place identity (PI) variable aims to understand how place become important part of people identity. The non demographic factors in PI are *sense of place*, *length of residence*, *memories and experiences*. Therefore, the PI questions strongly related to those sub variables.

2)   Place Dependence (PD)

PD variable aims to understand how a place can satisfy people needs which then caused them to depend to those place. Therefore the questions will be about their *satisfaction in both physical environment*, *satisfaction* in *social environment*, *length of residence*, and their *loyalty towards those place*.

3)   Place Affect (PA)

PA variable want to understand how people develop their emotional ties to the place. As this variable heavily related with their ties caused by physical environment, the questions will be related on the settings of place. The non demographic factors are *memories and experiences*, physical factors, sense of well-being, public safety, sense of belonging, intention to cooperate on pro-environmental behaviors.

4)   Place Social Bonding (PSB)

PSB variable aims to understand how place facilitate interpersonal relationship between the people live within and foster their group-belonging. Therefore the questions will mainly aboout social factors and involvement in community/organization activities.

To measure those 4 variables, there are 22 questions in total for the questionare. The answer options consist of 5 points-Likerts scale answers (from very disagree to very agree). *Place identity* (PI) consists of 5 questions, *place dependence* (PD) 6 questions, *place affect* (PA) 6 questions, and *place social bonding* (PSB) with 5 questions. In those study, questions for *place identity* and *place dependence* from Williams & Roggenbuck (1989) framework remain unchanged. Further, there are additional questions for *place affect* and *place social bonding* following Ramkissoon *et al.* (2012) framework. Details are described on **Table IV.1** in the following pages.

B.   Demographic Predictors for Deaf CPA Level

The second part of the questionare contains 11 questions of respondent's demographic information. Name and occupation were asked but not included in analysis. Both full name and nickname were asked to make it easier if Author need to recontact the respondent. Nickname is needed to make Author easily tracking the respondent again through *name signs* (*signs* which used as people's *names). A*fter reviewed related literatures (Hashemnezhad *et al.*, 2013; Anton & Lawrence, 2014; Mesch & Manor, 1998), 7 demographic data were collected. 2 additional questions related with their deafness were asked as well. So in total, there are 9 datas which spesifically collected for the analysis of demographic predictors for Deaf CPA. On the following page, **Table IV.1** explained all 11 demographic information which asked in the questionare.

As the quesionare is Likert-scale, below are the detail justification for each demographic variables and their ordinal coding of the answer options (coded based on literatures). Ordinal number 1 represent the least affecting condition to CPA level. The bigger the ordinal, the deeper its condition will affect CPA.

1)   Length of Residence
1.   Moved at adulthood

They have the shortest residency and their attachment might be the weakest.

2.   Moved at childhood

Their residency period is shorther than people who still reside in their hometown. But staying in the place until current adult age caused them to have deep attachment.

3.   Since they were born

Their residency is similar with their age, thus their attachment is the deepest among people in other options.

2)   Sex
1.   Male

They are people with the weakest attachment.

2.   Female

They have deeper attachment because female especially wife tend to interact more with their community.

3)   Age
1.   Age 20 – 30

This age group mostly consist of Deaf who just enter adulthood, newly recruited Deaf worker, Deaf who tend to change work a lot to get better income, and newlyweds. Deaf adult migh be more fluctuative and everything migh be not stable yet around this ages. Their *place attachment* might be unstable as well.

2. Age 31 – 40

> Male Deaf adult usually married around this age. They start to have stable job and income. The female Deaf adult start to have baby/young children. The focus of Deaf adult around this age are fulfilling their household needs. Therefore they might rarely participate on most events.

3. Age 41-50

> Around this ages, Deaf adult usually already have a settled living. They are married, have stable income and their children are big enough. They like to participate on a lot of family-related activities. Their attachment can deeper than above age group.

4. More than 50 years old

> On this older age group, decreasing physical ability/longer residency will make them have more interaction with their living place and thus attached deeper.

4) *Income*

1. Below minimum wage rate/under UMR (Rp0 – Rp2.000.000)

> Financial limitation caused people to have limited choice in choosing where to live. Thus it can cause 2 conditions, either they push themselves to feel okay with the place then have deeper attachment, or they have weak attachment because they wish to move out to place which offer better living.

2. Rp2.000.000 – Rp3.000.000

3. More than Rp3.000.000

> The biggest income group tend to have settled life so they can interact more and have deeper attachment.

5) *Housemate Type*

1. Alone

2. Siblings only

> Living with siblings can caused 2 conditions. First, if both Deaf adult and their siblings have work, they can financially support each other and their parents. However, their Hearing siblings might be the one who continuously give financial support to their parents. Second, if their sibling have not working, there might be a competition to get financial support from parents. Likely their attachment will be weak.

3. Parents

> Living with parents will guaranteed their wellfare will be supported. Thus they can do more things, interact more, and then have deeper attachment to the place.

4. Spouse & children

Deaf adult who choose this option means they own a private house. They tend to have deeper attachment especially family with young children. They will interact more because their children are in the age of socialization.

6) ***Home Ownership***

1. Siblings

    The house used to be owned by their parents. However in Semarang Deaf world, after parents died, their Hearing siblings usually become the next owner. As conflict between the siblings can happened anytime, and Deaf adult can move out anytime, thus their attachment might be weak.

2. Mine, rented house

    People who live in rented house can move out anytime. They will continously need to divide some portion of their income to pay for rent and thus limiting their interaction with people in their living place. Their *place attachment* is the weakest.

3. Parents' house

    Living with parents can also means the Deaf are living with their siblings only or also with their parents. As they shared household, they will guaranteed to support each other then caused them to interact more and attached more to the place.

4. Mine, bought house

    People who own their house currently have long residency or will one in the future. Long residency means they will likely develops deeper attachment.

7) ***Education Level***

1. Elementary School

    Deaf adult with this education level will have fewer options/limitiation to move out from their current living place. they need people to supported them thus they will push themselves to feel okay about those place and develop *place dependency*.

2. Junior High School

3. Senior High School

4. College

    Higher educated people usually choose comfortable neighbourhood to live and their neighbors usually people with similar income (middle to high).

8) ***Lip Reading Skill***

1. No

2. Yes

    The ability to read lip move as Hearing people speak, will caused Deaf to not be shy away on interacting with them. Thus the chance for them to participate more and be

innitiative are higher. This is because this ability will be used to pursue better wellfare/good opportunities. Their *place attachment* will be deepen as well.

9) ***Hearing Aids Usage***

1. No
2. Rarely
3. Yes

The use of hearing aids means those Deaf adult have lip reading skill and they also communicate through speech. So they will be proactively participate and interact more with the Hearing society. Thus their *place attachment* will be deeper.

Table I. 3
Quantitative Data Collection

Original Framework & Instruments	Variable	Purpose	Number of Questions	Keywords	Data Collected & Checklisted Options in Questionare
	PART 1.	**DEAF COMMUNITY PLACE ATTACHMENT (CPA) LEVEL**			*(22 questions with 5-point Likert scale)*
Community Place Attachment instrument by **Cheung & Hui (2018)** *adopted from* framework of **Williams & Roggenbuck (1989)** and **Ramkissoon et al. (2013)**	**Place Identity**	To understand how place becomes part of their identity	5	1. **Self-identity** 2. **Memories & experiences** 3. **Sense of place** 4. **Length of residence**	PI1. X is part of me PI2. Living in X remind me of my past experiences PI3. I can identify X physiscal attributes PI4. I lived here for a long time, so now X is special for me PI5. Living in X say a lot about who I am
	Place Dependence	To understand how place can satisfy people need then caused them to depend	6	1. **Satisfaction in physical environment** 2. **Satisfaction in social environment** 3. Length of residence 4. **Loyalty towards the place**	PD6. I get more satisfied in X than move out PD7. I choose to live here because its affordable living PD8. I choose to live here because the location is convenient PD9. I am proud of this community and the place PD10. I choose to live here because the community has a good living environment PD11. This community is the best place for the activities I like to do
	Place Affect	to understand how people develop emotional ties with the place	6	1. Memories & experiences 2. **Physical factors** 3. **Sense of well being** 4. **Public safety** 5. **Sense of belonging** 6. **Intention on pro-environmental behaviors**	PA12. The place and community here make me feel safe PA13. When I am away, I miss the place PA14. I have to make this place comfortable and livable for everyone PA15. I have a sense of belonging to this place PA16. I have a lot of memories of the place PA17. I feel general sense of well being while living in this place
	Place Social Bonding	to understand how place facilitates interpersonal relationship and foster group-belonging	5	1. **Social factors** 2. **Involvement in community/organization activities**	PSB18. My personal connections in the community means a lot to me PSB19. I have a strong kinship networks in this place PSB20. I have a lot of friendship networks in this place PSB21. My friends/family will be dissapointed if I move out from this community PSB22. I have participated in some community organizations, groups or activities

Original Framework & Instruments	Variable	Purpose	Number of Questions	Keywords	Data Collected & Checklisted Options in Questionare
	PART 2. DEMOGRAPHIC PREDICTORS OF DEAF CPA				
Demographic Predictors of Place Attachment by **Anton & Lawrence (2014); Hashemnezhad et al. (2013); Mesch & Manor (1998)**	*1. Name**	to find which demographic *factors* significantly affects Deaf place attachment	11 (only 9 will be used in analysis)		1. Full name 2. Nickcame (to track their namesigns)
	2. Occupation*				*blank space to fill in answer*
	3. Length of residence				1. Moved at adulthood 2. Moved at childhood 3. Since they were born
	4. Sex				1. Male 2. Female
	5. Age				1. Age 20-30 3. Age 41-50 2. Age 31-40 4. More than 50 years old
	6. Income				1. Below minimum wage rate/under UMR (Rp0 – Rp2.000.000) 2. Rp2.000.000 – Rp3.000.000 3. More than Rp3.000.000
	7. Housemate Tyoe				1. Alone 2. Siblings 3. Parents 4. Spouse & children
	8. Home ownership				1. Siblings 2. Mine, rented house 3. Parents' house 4. Mine, bought house
	9. Education level				1. Elementary school 2. Junior high school 3. Senior high school 4. College
	10. Lip reading skill				1. No 2. Yes
	11. Hearing aids usage				1. No 2. Yes

Source: *Author analysis result, 2019*

P.S :   *X is Semarang as their living place;*

bold keywords in Part 1 Deaf CPA level are the 13 non demographic sub variables;

* in Part 2 are the demographic variable is not included in analysis

1.9.4. Qualitative Data Collection

The qualitative phase was conduct by asking open-ended questions to 3 parties. They are head and secretary of GERKATIN Semarang, Semarang main sign language interpreter, and an advisor of HiMIKS (special body under DINSOS Semarang City focusing on disability empowerment). Therefore, the interview was conducted in sign language as well as orally. This interview result is not going to be analyzed differently but being used to explain/revise the result of questionare findings.

The questions were not necessarily predetermined. The items were decided after CPA level analysis has been done analyzed. The questions which asked to Gerkatin Semarang were about the result of Deaf CPA level and its relation with Deaf demographic condition. While the question which asked to HiMIKS advisor were about Deaf community participation from the perspective of DINSOS Semarang City. Detail about the interview question are attached in **Appendices**. Interesting findings which Author found from direct involvement and observation with Semarang Deaf community, were also presented to give direction on the best ways to motivare more Deaf participation.

1.9.5. Analytical Methods

The analytical methods which discussed in this sub chapter are the frameworks used in quantitative phase. Two measurement framework are used for this study. First, the statistical analysis used in Cheung & Hui (2018) to measure *community place attachment (CPA)* level. Second, analysis methods in Anton & Lawrence (2014) to understand demographic predictors of CPA. Below are the explanation of each statistical analysis.

A. Deaf CPA Level

The analysis of Deaf CPA level used 4 CPA dimensions/variable. It was analyzed using descriptive statistics as it followed Cheung & Hui (2018) study. The questionare items are derived from Williams & Roggenbuck (1989) framework which has been widely used as questionare in other studies as well (Moore & Graefe, 1994; Williams & Vaske, 2003; Devine-Wright, 2009). The additional questions about *place affect* and *place social bonding* were derived from Ramkissoon *et al.* (2012).

However, as the questionare items used well-known questionare from Williams & Roggenbuck (1989) and Ramkissoon *et al.* (2012), Cheung & Hui (2018) then did not do validity test. This was because they already sure all of those items were valid to be used on obtaining data. While in this study, despite focusing on Deaf CPA, Author will not changed any of the questionare items but paraphrase them into Deaf-friendly language. This was meant to make the questions could be easily understood by Deaf respondents. Hence the validity test was not done but reliability analysis was performed. The cronbach's alpha score was used to make sure this questionare can be used in

the following analysis (demographic predictors for Deaf CPA) or future studies. Moreover, this questionare have been reviewed by GERKATIN and declared as easily understood.

a) **Descriptive Statistics**

Analysis used: Simple descriptive statistics

This part consist of questions about 4 CPA dimensions which are *place identity* (PI), *place dependence* (PD), *place affect* (PA), *place social bonding* (PSB). Each variables was answered by 5-point Likert scale range from very disagree (score 1) to very agree (score 5). Each variable was analyzed by descriptive statistic to get the mean of each question, mean of each variable, as well as which question has maximum and minimum mean.

Questions which become the main concerns in each can be known as shown by the highest and the minimum mean. Mean from each question represented their overall perception in the condition asked. This way it can also hints about the non demographic factors which is the most concerning in each CPA dimension. Finally, Deaf CPA level will be considered as deep if the mean of each variable or better from all questions, are scored above 3.

Below are the steps to conduct descriptive analysis in SPSS:

1) Input data of Deaf respondents answer on all 22 *community place attachment* questions;
2) Click Variable View on the bottom left → on column Name type all the 22 items name (for exampe PI1, PD8, PA14, PSB22) → on column Decimal change the number to 0 → in column Measuree choose Scale → neglect the rest of colums as default;
3) Click Data View on the bottom left → input answer of 22 questions from all respondents;
4) Click Analyze on the upper toolbar → Descriptive statistics → Descriptives;
5) Input all the 22 items in the Variable (s) box → click Options;
6) In the Descriptives: Options dialog box then checklist Mean, Sum, Std. Devation, Minimum, Maximum → on the Display Order checklist Variable List → Continue → Ok;
7) The output table will be shown.

b) **Reliability Analysis**

Analysis used: Cronbach's alpha

This analysis aims to see whether questions in each variable (which has been paraphase into Deaf-friendly language), were reliable and can be used in the next analysis. The analysis was not done in each variable as what has been donein the descriptive analysis above. Instead, the Cronbach's alpha was scored from all 22 items accumulatively. Spesifically, there are two ways to measure whether the variables are reliable. First, if the Cronbach's alpha is above the minimum Cronbach's alpha value which is 0.6, then those variable will be considered as reliable. Second, if the Cronbach's alpha is bigger than the r table then the it will

considered as reliable as well. According to Sugiyono (2001) the r table for sample of 36 (N=36) and Significance of 5% (the findings has 95% chance of being true) is 0.855.

Below are steps to discover the Cronbach's alpha value in SPSS:

1) Use the same data from descriptive analysis before;

2) Click Analyze on the upper toolbar → Scale → Reliability Analysis;

3) Input all the 22 items in Item box → make sure the Model choosen is Alpha → Statistics;

4) Reliability Analysis: Statistics dialog box will be shown → on the Descriptives for checklist Scale if item deleted → neglect the other as default → Continue → Ok;

5) Then two output table will be shown. The first is Case Processing Summary which will show the validity. Second, Reliability Statistics which show the Cronbach's alpha value.

B. **Demographic Predictors of Deaf CPA**

Analysis used: Spearman's Rho correlation

The second analysis used Anton & Lawrence (2014) as its guide. In those study, they analyzed demographic predictors of *community place attachment*. Spearman's Rho correlation will was used to analyze which among 9 demographic factors actually affect Deaf CPA. The 9 demographic factors were gender, age, income, length of residence, housemate, home ownership, education, lip reading skill, and hearing aids usage. However to be analyzed easily, the data will be convert into ordinal data (1,2,3,4) with bigger ordinal indicating the condition which caused deeper place attachment.

Here are the complete list of the ordinal numbering for all 9 variables.

Variable X1) Sex

1. Male

2. Female → female interact more (mom/not) and tend to has deeper attachment

Variable X2) Age

1. 20 – 30

2. 31 – 40

3. 41 – 50

4. More than 50 → *older group*

Variable X3) Income

1. Below UMR (0 – 2.000.000)

2. 2.000.000 – 3.000.000

3. More than 3.000.000 → *biggest income group*

Variable X4) Length of residence

1. Move at adulthood

    2. Move at childhood

    3. Since I was born → *longer residency*

Variable X5) Housemate Type

    1. Alone

    2. Siblings

    3. Parents

    4. Spouse & children → *own private house so will interact more causing deeper attachment*

Variable X6) Home ownership

    1. Siblings

    2. Mine, I rent it

    3. Parents

    4. Mine, I bought it → *home owner without long residency plan*

Variable X7) Education level

    1. Elementary school

    2. Junior high school

    3. Senior high school

    4. College → *higher educated peopl*

Variable X8) Lip reading skill

    1. No

    2. Yes → *bridge to communicate easier with non-Deaf community*

Variable X9) Hearing aids usage

    1. No

    2. Yes → *bridge to help heard their own voice and others*

However, as Spearman's Rho analysis work by computing 2 ordinal data, therefore the overall score from each variable were converted to ordinal number as well. As *Place Identity* (PI) and *Place Social Bonding* (PSB) sections consist of 5 questions with 5-point Likert scale, hence the highest possible score is 25 and the lowest is 5. While *Place Dependence* and *Place Affect* which consist of 6 questions have highest possible score 30 and the lowest is 6. If converted into 5 levels, below are the ordinal numbering for CPA dimensions score.

Variable Y1) Place Identity (PI) Score

    1. Score 5

    2. Score 6 – 10

    3. Score 11 – 15

    4. Score 16 – 20

    5. Score 21 – 25

Variable Y2) Place Dependence (PD) score

1. Score 6
2. Score 7 – 12
3. Score 13 – 18
4. Score 19 – 24
5. Score 25 – 30

Variable Y3) Place Affect (PA) Score

1. Score 5
2. Score 6 – 10
3. Score 11 – 15
4. Score 16 – 20
5. Score 21 – 25

Variable Y4) Place Social Bonding (PSB) Score

1. Score 6
2. Score 7 – 12
3. Score 13 – 18
4. Score 19 – 24
5. Score 25 – 30

Below are steps to conduct Spearman's Rho analysis in SPSS:

1) Convert the data X (demographic informations) and Y (PI/PD/PA/PSB scores) into ordinal number in Microsoft Excel by using the guide as written above;

2) Open SPSS → Clik Variable View on the bottom left → for each Variable X and Y, type it on column Name such as X1 or Y4 → At column Label write down the description of the variable for example Place Social Bonding Score for Y4 → do these steps for all the variables (X1-X9 and Y1-Y4) while neglect the other columns as default;

3) Click Data View on the bottom left → Input the data from X1 until X9 and Y1,Y2,Y3,Y4 to the respective column;

4) After that click Analyze on the upper toolbar → Correlate → Bivariate;

5) Bivariate Correlations window will be shown, so the next steps is to compute the correlation between 9 demographic factors (X1-X9) with each place attachment variable (Y1,Y2,Y3,Y4). Noted that we will be analyzed 9 variables X with Y1, and then do the same with Y2. So we will know the correlation of all X variables with each Y;

6) Input X1 until X9 into Variables box as well as Y1 → checklist Spearman on the Correlation Coefficients → checklist Two-tailed on Test of Significance → Checklist Flag Significant Correlations → then click Options;

7) Bivariate Correlations: Options dialog window will be shown → on the section Missing Values checklist Excluded Case Pairwise → Continue → Ok.

8) Finally the output table will for correlation between all X variables and Y1 will be shown, so repeat step 6-7 for Y2,Y3, and Y4.

In the output table, notice the Correlation Coefficients and Sig. (two-tailed) between each X variables towards the Y variable. The Sig. number is the *p*-value result for those variable. Below are the guide for analysis.

a) The magnitude of correlation between Xs and Y
- correlation coefficients between 0,00 – 0,25   → very weak correlation
- correlation coefficients between 0,26 – 0,50   → weak correlation
- correlation coefficients between 0,51 – 0,75   → strong correlation
- correlation coefficients between 0,76 – 0,99   → very strong correlation
- correlation coefficients 1,00   → perfect correlation

b) The direction of correlation between Xs and Y (linear/opposite)
- correlation coefficients has positive value   → linear correlation
  Positive correlation means if X has bigger value then Y will be bigger as well.
- correlation coefficients has negative value   → opposite correlation
  Opposite correlation means if X increased then Y will be decreased instead.

c) The significance correlations between Xs and Y
- If *p*-value or Sig. (2-tailed) < 0,05 or < 0,01 → significance correlation
- If *p*-value or Sig. (2-tailed) > 0,05 or > 0,01 → insignificance correlation

Although the output table can provide 3 result at once as described above, Anton & Lawrence (2014) only used the *p*-value or Sig. (2-tailed). The *p*-value will show which among the 9 demographic variables used (Xs) are actually have significance correlation with Deaf *place identity* (Y1). This also the same for Deaf *place dependence* (Y2), *place affect* (Y3) and *place social bonding* (Y4). The *p*-value can also show correlation between each demographic variables used (Xs) and correlation between each CPA dimensions (Ys). However the direction of correlation might give more insight for us on the correlation, whether its positive or negative correlation.

1.9.6.   Analytical Framework

Below is the analytical framework to study how *community place attachment* (CPA) motivates Deaf community participation spesifically on Deaf Adult (see **Figure 1.1**).
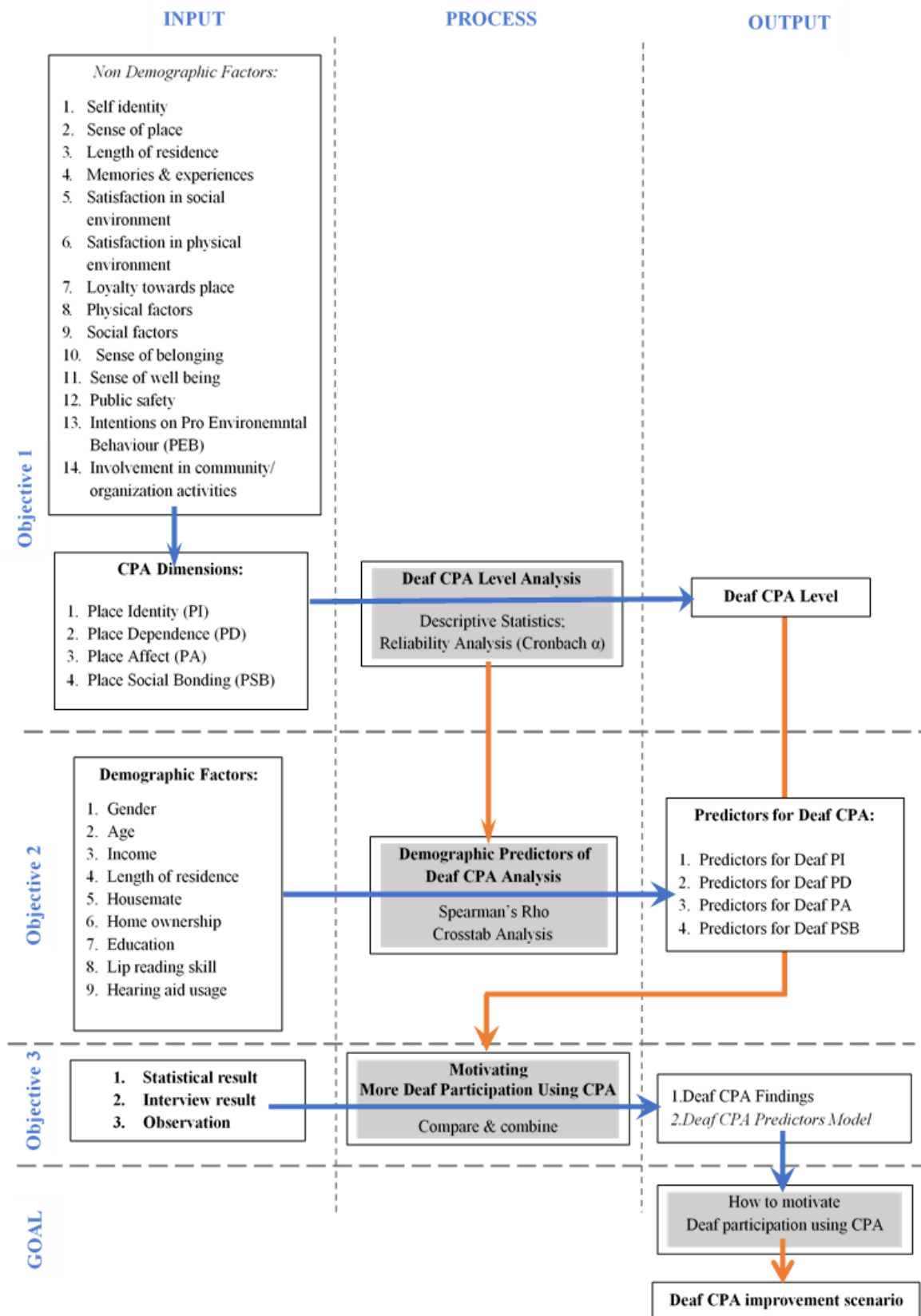
Figure 1. 4 Analytical Framework

Source: *Author analysis result, 2020*

1.10. Systematical Writings

This study consist of 5 chapters with contents are described below:

CHAPTER I - INTRODUCTION

This chapter explained about the introductional flow of the study. It start from background of the study, problem study, research question for this mixed methods study, goal and objectives, along with its contextual and geographical scope. Benefits of the study either theoritical and practical benefits are also stated. Then to better explain the research design map of this study, a research framework are attached in this chapter. Research authenticity, research position in URP discipline, research methods along with its analytical framework are also presented. This chapter then closed by systematical writings of this undergraduate thesis proposal.

CHAPTER II - LITERATURE REVIEW OF DEAF COMMUNITY PLACE ATTACHMENT

This chapter reviewed literatures which will be helpful to this study. Therefore many theories are explained such as *place attachment* which derived from *sense of place*, *community place attachment* (CPA), Deaf, as well as how those attachment motivates Deaf participation. Relevant CPA measurement frameworks are explained in this chapter to better help us conduct the study thus the findings will be valid and reliable. Finally in the end of this chapter, there is synthesized literature.

CHAPTER III – OVERVIEW OF SEMARANG DEAF ADULT COMMUNITY PLACE ATTACHMENT

This chapter opened with short explanation about the regional condition of our geographical scope which is Semarang City. The main focus of Chapter 3 are overview about Semarang Deaf community and demographic condition of Semarang Deaf Adult respondents, and detailed condition from each Deaf CPA dimension.

CHAPTER IV - DEAF CPA ANALYSIS

This chapter mainly discuss 3 analysis result of this study, 2 statistical analysis result and the urban planning analysis. The statistical analysis will answered 2 objectives of this study. First, to measure Deaf CPA level. Second, to identify predictors for Deaf CPA. Then at last analysis, to produce the ground base on how to motivate more Deaf participation using CPA, compare and combine method was done. Interview result (from respondents, GERKATIN, sign language interpreter, HiMIKS advisor) will complement the statistical result. Sn analysis using URP and CPA theories are presented as well along with the important findings. Finally, the output of Chapter 4 is *Deaf CPA Predictors Model*.

CHAPTER V - CONCLUSION & RECOMMENDATION

This chapter contains conclusion and *Deaf CPA Improvement Scenario* as recommendation.