CHAPTER 1
INTRODUCTION

This section delineates the salience of the investigated issue, the basic concepts, the theoretical and empirical foundation, as well as the scope of the issue. It starts with the study background concerning the territory and importance of the issue, basic existing theories, and basic empirical findings. This section also contains the parts of knowledge that still needs further investigation, the research questions, the purposes of the study, as well as the significance and limitation of the study. The last part of this chapter is the definition of the key terms of the investigated issue.

1.1 The Background of the Study

Recent decades have been characterised by people's growing awareness towards the rights of literacy for all. A particular group that has gained special attention in relation to literacy is individuals with deafness (see Bowers et al., 2018; Desjardin et al., 2009; Dostal et al., 2017; Higgins & Lieberman, 2016; Nodoushan, 2008). Deaf individuals' access to language has even become the issue of human rights, namely the right for effective communication (Higgins & Lieberman, 2016). Deafness according to the online Cambridge Dictionary refers to "the quality of being unable to hear, either completely or partly" (Cambridge University Press, 2020). Further, deafness is defined specifically based on the parameter of dB where hearing losses from 26 to 40 dB refer to *mild* level, 41 to 55 dB to *moderate*, 56 to 70 dB to *moderately severe*, 71 to 90 dB to *severe*, and those above 90 dB to *profound* level (Marschark et al., 2002). Deafness according to Mayberry (2002) is only addressed to individuals with severe limited hearing or those with profound level. Gold & Segal (2017) on their scrutiny of metaphor comprehension in deaf young adults employ the term of deafness to address those with severe-to-profound hearing loss. They instead use hard of hearing to address those with mild-to-moderate hearing loss regardless of the existence of hearing aids.

In general, as individuals with deafness commonly are unable to hear, accordingly they have limitation to use spoken language except for certain individuals (e.g., those completed with cochlear implant since the childhood). The limitation of common deaf individuals to produce spoken language is due to their lack of language inputs (functioning as the model) from the environment. As the effect, different with those of hearing individuals, the most common and feasible ways of making meaning for people with deafness are by means of sign language and written language. However, since deaf individuals live in the world surrounded by hearing people (who commonly do not understand sign language), their means of communication is inevitably needed to be adapted to the communicative channel of the hearing group. Thus, the most plausible means of communication that connects deaf individuals to their hearing world is still via the written mode.

Written language for individuals with deafness plays an important role in making meaning of their outside world. According to Rottenberg & Searfoss (1992), literacy skill in fact assists deaf individuals to enter and learn everything in their environment. Rottenberg & Searfoss (1992) have also argued that written mode for the deaf is the important channel complementing the limitation of their spoken and sign language in making meaning. This has also been underpinned by Terugi & Gutierrez-Caceres (2015) who argue that only via writing can the deaf fully access culture and information. Different with hearing individuals who rely heavily on spoken language for their communication, their deaf counterparts instead depend heavily on the written mode (Maxwell, 1985; Rottenberg & Searfoss, 1992) a part from their sign language.

Being literate in making meaning via the written mode including for the case of deafness is not limited to the ability to construct texts. In the process of meaning making, literacy involves the collaboration between language and context (see Halliday, 1978; Lemke, 1989). This form of contextualized meaning making is required by deaf people to participate in various 'institutions' with their distinct types of genre and register. This implies that different genres of writing demand certain typical vocabulary and

grammatical features. However, while writing functional texts requires contextualized lexico-grammatical features, deaf students especially those between grade 3 and 12 have been shown to encounter problems in contextual language especially vocabulary and syntax (Antia et al., 2005).

To the present time, written literacy for deaf students has been one of the primary communication modes developed in the educational setting especially schools. On the academic and scientific era where language functions not only as the medium of communication but also as the medium of literacy building, again written language for deaf students has become the salient mode of meaning making. Nevertheless, while deaf students have been shown to bring unique language backgrounds impacting their literacy accomplishment (Wolbers, 2009), in the school setting they are challenged by the demand to write the way their hearing counterparts do (Nodoushan, 2008). This claim is also in accordance with what Spencer et al. (2003) have argued that deaf students especially those with pediatric cochlear implant were expected to fulfil the regular classroom expectations.

As the attempt to help deaf students to write in the way their hearing peers have to accomplish, myriad of studies has accordingly scrutinized the writings composed by the former. Existing research has been carried out either from the perspective of linguistic aspect, from the aspect of language instruction, or from the perspective of cognitive processes, as shown by the studies of Bowers et al. (2018), Gunawan et al. (2020), Gutiérrez-Cáceres & Rosa (2014), Kilpatrick & Wolbers (2020), Stamp et al. (2021), Terugi & Gutierrez-Caceres (2015), and Wolbers et al. (2012, 2014).

From the perspective of language aspect and instruction, for example, the study conducted by Bowers et al. (2018) has found that deaf students produced grammatical errors in their narrative texts. Based on the study, errors in students' narrative writings were found to cover T-unit (independent or dependent clauses), phrases, and vocabulary. Even students grouped as bilingual in Spoken English and American Sign Language encountered difficulties in terms of those mentioned errors.   In addition, a comparative study conducted by Terugi & Gutierrez-Caceres (2015) has also revealed

that students with hearing disability encountered difficulties especially in incorporating subordinate clauses into complex clauses, compared to their hearing counterparts. The narratives of deaf students using spoken language in comparison with the hearing peers were also reported to contain not only fewer subordinate clauses but also articles, conjunction, preposition, and verb inflection (Jones et al., 2016).

From the aspect of language instruction alone, a study carried out by Wolbers et al. (2012) scrutinizing the relationship between the writing instruction and the texts of narrative, exposition, and persuasion has also exposed that the deaf participants of their study had problems in applying subordinate clauses. In the context of Indonesia, a L1 study conducted by Hamidah (2013) has investigated the demonstration method in teaching Indonesian sentence to students with deafness. The study has revealed that in its preliminary research the students were reported to encounter difficulties in constructing a grammatically correct sentence lacking either a predicate or subject.

In general, some aspects of written language composed by deaf students are associated with irregularities including in structure, as revealed by Favero et al. (2007) in the conclusion of their study. Strong & Prinz (1997) in their study of ASL (American Sign Language) and literacy have also pointed out that students with hearing disability showed unique linguistic characteristics on their texts. This phenomenon was underpinned by Andrade et al. (2010) who has reported in their study that oral cues as a means of cohesion were traced from deaf students' writings.

To the present time, theoretically and empirically, existing knowledge has shown that students with deafness were found to lag behind their hearing counterparts especially in terms of language employment in writing. Some studies (see Arfe et al., 2016; Lund & Dinsmoor, 2016; Spencer et al., 2003) have even argued that despite various efforts ranging from approach to technology have been taken to assist the language competency of deaf students, the fact is that they are still delayed in terms of vocabulary, reading, and writing knowledge.

In line with the issue of deaf students' struggle to approach the writings of their hearing peers, so far most language studies on the written texts produced by the group

of students have also increasingly made use of the language employed by hearing students (see Gunawan et al., 2020; Gutiérrez-Cáceres & Rosa, 2014; Jones et al., 2016; Kilpatrick & Wolbers, 2020; Rusell & Lapenda, 2012; Terugi & Gutierrez-Caceres, 2015). This has been commonly practiced to give the insight into the gap between both. Hence, any further language treatment can be formulated and provided for the latter. In accordance with this issue, it has been pointed out by Bowers et al. (2018) that the provision of optimal and suitable language learning for deaf students depends initially on the assessment on their comprehension of language and literacy skills. In other words, prior to the provision of pedagogical language treatments for students with deafness or hearing limitation, initial studies on their nature of linguistic features are needed.

To date, a lot of studies on the texts produced by deaf students have benefitted from narrative texts as the data sources (see Bowers et al., 2018; Jones et al., 2016; Kilpatrick & Wolbers, 2020; Lintangsari et al., 2019; Safitri, 2014; Teruggi & Gutierrez-Caceres, 2015). First, this choice is believed to be related with the notion that students with hearing disability encounter challenges in employing language to share their experiences. It has been claimed by Jones et al. (2016) that even oral deaf children have problems to narrate due to their insufficient input of language acquisition.

Second, the issue is linked to the nature of narrative genre pertinent to the needs of students with deafness. Although narrative texts do not require deep explanation or discussion, they in fact demand students to solve problems as the writers are expected not only to tell problematic events but also to construct the resolution following the case and then to establish values at the end. Writing narratives according to Rottenberg & Searfoss (1992) in their finding section has been claimed as the stimulation to assist in how to socially interact with other people. It plays a role as the strong force for social interaction. In line with this, the genre of narrative has been associated with a medium not only to deliver a message but also to motivate students and enhance social interaction (MacNamar, 1982, as cited in Guimarães et al., 2018). The salience of narrative skills for developing social skills was also emphasized by Miller (1994).

Another reason why narratives have been frequently used for evaluating the language of deaf or hard of hearing individuals is associated with the notion that the genre can stimulate the social mental states. In telling a story, there is a demand for a storyteller to position their mental state not only as the characters in a story but also as the readers. The writers are expected to think and feel what the characters think and feel. They need to understand how the characters will deal with their mental states. A very recent study entitled "Reduced neural selectivity for mental states in deaf children with delayed exposure to sign language" carried out by Richardson et al. (2020) has made use of narratives as the medium to evaluate Theory of Mind (ToM) of deaf children. The study has claimed that via the narrative channel participants were found to successfully execute false belief tasks. They have further argued that by means of linguistic narratives, complex mental concepts can be encoded, manipulated mentally, and retrieved by deaf children. Shortly speaking, the use of narratives as a way of evaluating the language of deaf individuals not only stimulate the linguistic skills alone, but also the social mental state or social cognitive skills. In the broader sense, it can be emphasised that narrating experience is not only an academic need or matter, but also a socio-cultural action where students need to fulfil outside the school context.

The genre of narrative, from the aspect of functional perspective, has a purpose to entertain readers by introducing an event and exposing its problem which leads to a crisis demanding a resolution (see Gerrot & Wignell, 1994). In line with the typical purpose of narrative genre, the texts of narratives have specific lexico-grammatical features in comparison with other genres. Even different parts in a narrative text namely orientation, complication, resolution may need different types of lexico-grammatical features as well (see Gerrot & Wignell, 1994). As underpinned by Golden (2000), classroom events like story texts have been claimed to be rule-depended on social and cultural contexts. The study of Ko (2010), to illustrate, has found that the adoption of transitivity system in students' narrative texts correlates with the different function of each narrative section as well as with students' comprehension towards the nature of narrative. From the context of schooling, it has been also argued that different genres

have their own ways of meaning making realized in the form of linguistic phenomena (see Schleppegrell, 2008).

The narrative genre viewed from the functional perspective has been positioned as an important medium in assisting students in the academic setting (Lee, 2016). Unfortunately, among linguistic studies attempting to depict the characteristics of linguistic features in the narrative texts produced by deaf students, only few even none have made use of the functional perspective.

Few studies that have evaluated the linguistic features of deaf writers with the Systemic Functional Linguistic framework refer to the work of Anderson, (1989), Gunawan et al. (2020), and Kilpatrick & Wolbers (2020). The first one has scrutinized the register of deaf students in comparison with the hearing counterpart and found that there was a gap between both data sets as shown by the different employment of lexico-grammatical features. The second one, conducted by Gunawan et al. (2020), has attempted to understand the textual meanings especially theme-rheme in the recounts composed by low and high achiever students of various education levels from elementary to senior high schools. The study reported that topical and textual themes were employed by all groups of deaf participants while interpersonal themes were only used by deaf senior high school students. The last one, the SFL study of Kilpatrick & Wolbers (2020), has hinted that one of written aspects in the writings of deaf students in their study was characterised by simple nominal groups, verbal groups, and prepositional phrases.

By means of Systemic Functional Linguistics (SFL) framework, further insight into deaf students' linguistic nature that has not been known before is exposed (Kilpatrick & Wolbers, 2020). The insight provided by functional analysis should be taken into account by language teachers to comprehend the linguistic nature of deaf individuals (Anderson, 1989). It is expected that an SFL study on the linguistic features produced by deaf students can portray the insight into their functional language difficulties.

Further, the language problems in the case of deaf students need to be explained with the co-existence of another perspective apart from the functional view. As it has been known, the linguistic difficulties of deaf language users (especially those with hearing parents since childhood) are commonly associated with their delayed access to the natural language used for encoding experience. This lack of exposure to linguistic experience is believed to affect the process of meaning making that involves advanced cognitive tasks. The relationship between language and cognition has been accordingly linked to the issue of linguistic challenges faced by deaf students. This phenomenon is reflected by the language use in the productive mode. As claimed by Richardson et al. (2020), the insight into thinking and feeling can be explained by the use of language.

Until this point, an SFL and cognitive linguistic study is needed to portray and interpret how meanings in narrative texts of deaf and hearing students are represented. By employing cognitive linguistic and Systemic Functional Linguistic perspective, it is expected that the insight into the language nature of deaf student writers can be revealed cogently and holistically. Whereas the functional framework helps in revealing the linguistic characteristics of deaf students based on the social expectation of the discourse community of narratives, the cognitive framework plays a role in explaining the mechanism of the mind in relation with linguistic choices and with the causes that trigger them. The functional and cognitive perspective of the present study is holistically portrayed in the following conceptual scheme.
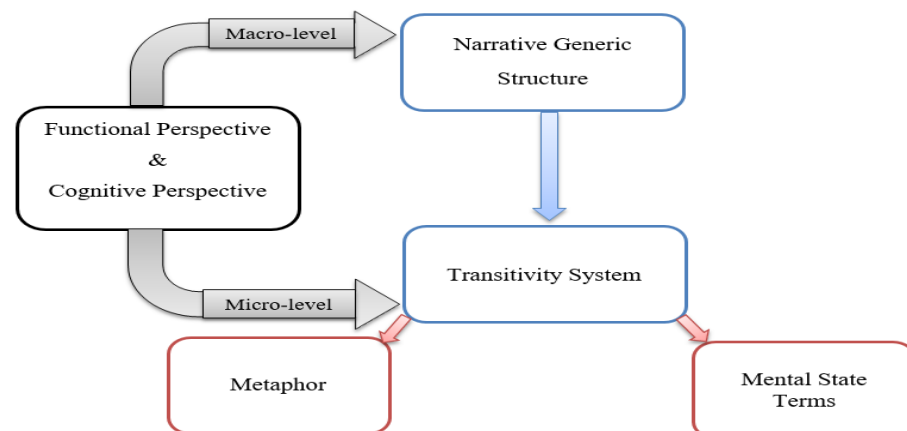
Figure 1.1 The Basic Concept of Meaning Making in the Present Study

Based on the basic concept of meaning making of the present study above, the functional perspective is realised in the forms of narrative generic structure and the transitivity system employed in the narrative. Further, the cognitive perspective is manifested in the forms of the metaphor and mental state terms. The meeting area of both perspectives is the evaluation of the metaphor and mental state terms within the framework of transitivity system. Apart from as framework, the functional and cognitive perspective is also adopted in examining the findings on the narrative generic structure, the transitivity system, and metaphor, and the mental state terms. Briefly speaking, the functional and cognitive linguistic perspective in the present study serve not only as a descriptive but also an interpretive tool.

In the further phase, it is expected that based on the functional and cognitive insight offered by the current study any pedagogical treatments can be formulated to decrease the linguistic gap between deaf and hearing students. As pointed out before, the insight into the nature of linguistic aspect of deaf students is more holistically understood when it is evaluated in reference to those of the hearing counterparts. Though it has been commonly perceived that theoretically and empirically the writings of hearings students have been also characterised by linguistic difficulties in comparison to the target writings, still their writings have been commonly known to outperform their deaf peers.

Again, the ideal and final goal of this functional-based cognitive linguistic study is to provide the inputs for language teachers or practitioners to assist their deaf students write more functionally especially under the genre of narratives. Related with this issue, Li et al. (2016) has argued that the results of studies on the written language of deaf writers in comparison to those of their hearing peers plays a role in providing the guidance for teaching written language for the former.

Until now, one of functional aspects studied prominently under the theory of SFL has been the transitivity system (lexico-grammatical features based on context). In line with this, the study of Antia et al. (2005) has previously long found that deaf writers have difficulties in terms of contextualized vocabulary and syntax. Besides, the

empirical scrutiny of Kilpatrick & Wolbers (2020) has revealed that younger deaf children have more problems with the transitivity system in comparison to the older group.

Based on the findings of context-based linguistic studies of Antia et al. (2005) and Kilpatrick & Wolbers (2020), as well as other linguistic studies that have employed formal grammar, deaf students compared to the hearing group are believed to have more difficulties in functional linguistic aspect especially the transitivity system. The plausible notion behind this is that writing with a purpose under certain community of discourse especially the narrative genre needs socio-cognitive lexio-grammatical features that are context-based.

Under the case of Indonesian language or Bahasa Indonesia, to the best of my knowledge, there has been no functional and cognitive linguistic study on deaf students' written narratives. Written Bahasa Indonesia has been commonly perceived as the lingua franca connecting deaf Indonesian individuals to their hearing peers. On the other side, the narrative genre as elaborated earlier has been viewed as a basic medium of literacy skills either inside or outside the academic context. Understanding the linguistic difficulties in deaf students' Indonesian written narratives based on the functional and cognitive linguistic perspective will provide reliable feedback for the pedagogical practices of Bahasa Indonesia based on context. To conclude, the present study generally believes that deaf Indonesian student writers compared to their hearing peers tend to have linguistic difficulties in making meaning of their narrative experiences.

Finally, all types of students apart from their limitations deserve the rights for good literacy skills as a way of participating in the advanced literate society. Like ordinary students, students with hearing disability deserve to have equal right and opportunities for functional written literacy. This need for making meaning functionally is obtained by fulfilling the linguistic rights of the deaf group. Last but not least, this study is only a small fraction accompanying other attempts of previous researchers to give contribution to the world of deafness.

1.2 The Research Problem and Questions

As it has been explained in the background of study, written language has been one of main modes of communication for individuals with deafness apart from their sign language. It has been elaborated as well that their writings have been characterised with uniqueness or challenges in comparison with the writings of their hearing counterparts. Despite their limitation, deaf individuals are expected to write like the ways of the 'regular' writings expected by the community of discourse. This is due to the fact that they live in the same 'world' surrounded by hearing people who commonly do not understand the sign language.

So far, as elaborated in background of study, there has been a plethora of studies scrutinizing the written language of deaf students. Nevertheless, most studies on their linguistic aspect have tended to employ the conventional or formal linguistic framework. There have been quite rare linguistic studies on deaf people's language based on the functional perspective especially Hallidayan ideational meta-function. Though there have been a few, most have addressed the language other than Indonesian especially English. The knowledge about the functional linguistic features of deaf students in Indonesian language needs to be explored. Written Bahasa Indonesia as the lingua franca of Indonesian deaf and hearing individuals plays a fundamental role in assisting the former to succeed either in or outside the school setting. On account of this, there is a demand to investigate the Indonesian language of deaf students by employing Systemic Functional Linguistics.

Further, the functional perspective needs to be supported with the cognitive linguistic framework. The inclusion of cognitive linguistic framework is due to the notion that making meaning will be easily mediated by contextualized rich linguistic resources in the cognition. The existence of sufficient linguistic resources in the cognition helps in making meaning explicitly. On the case of individuals with hearing disability, the linguistic resources in their cognition might not be as sufficient and contextual as in that of the hearing individuals. Thus, the functional linguistic

perspective needs cognitive linguistic approach to holistically investigate and understand the linguistic nature of deaf students especially under the genre of narratives.

The genre of narratives, as stated before, has been the common medium for evaluating the linguistic aspect of deaf students due to its nature and benefit compatible with the case of deafness. To the present time, there have been rare even absent functional and cognitive linguistic studies making use of the narratives composed by deaf students in reference to their hearing counterparts. This has been specifically delineated in the background section. In line with the problems of this SFL and cognitive linguistic study, four research questions have been formulated as follows.

(1) What narrative generic structures are employed by deaf and hearing students to make meaning?

(2) What transitivity systems are employed by deaf and hearing students to make meaning?

(3) What types of metaphoric strategies are employed in the transitivity system of deaf and hearing students to make meaning?

(4) What types of mental state terms are employed in the transitivity system of deaf and hearing students to make meaning?

1.3 The Purpose of the Study

This functional and cognitive linguistic study aims to investigate the characteristics of Indonesian narrative texts written by students with hearing disability based on the perspective of Systemic Functional Linguistics (SFL) and cognitive linguistics. In particular, it analysed Indonesian narrative compositions written by deaf senior high school students in reference to those produced by hearing students of the same grade in terms of the narrative macro and micro levels. The macro feature refers to narrative generic structure. The micro one is limited to the transitivity system, the language metaphor under the transitivity system, and the mental state terms under the transitivity system. The specific purposes of the present study are to figure out

(1) the generic structures of narratives between deaf and hearing groups;

(2) the transitivity systems employed by both groups in their narratives;

(3) the types of metaphoric strategies employed in the transitivity system;

(4) the types of mental state terms employed in the transitivity system.

Again, the final goal of this study is to give the insights into the linguistic difficulties encountered by the deaf group. In the further phase, it is expected that any teaching and learning treatments can be formulated to mitigate the gap between both. Finally, deaf students are expected to be able to write towards the writings that meet the social purposes of narrative texts.

1.4 The Significance of the Study

In general, as revealed by previous form-based linguistic studies on the educational discourse, the linguistic features of deaf or hard of hearing students have been found to be characterized by difficulties. Their linguistic aspect viewed from the formal linguistic perspective has been found to be delayed compared to that of their hearing counterparts. On the case of hearing students' narratives alone, either the form-based or function-based linguistic studies have even shown that their linguistic features lag behind the target writings. Briefly speaking, previous studies on the linguistic aspect of narrative writings produced by hearing students have shown their difficulties either from the form-based or function-based perspective. On the other side, most studies on the data sets of deaf students in general have tended to rely on the perspective of form-based linguistics. There has been the lack of reliable knowledge on the narratives of deaf students based on the functional point of view.

To the present time, as stipulated earlier, the lexico-grammatical features in the narrative texts of deaf students have been less investigated and understood. In particular, the extent to which their transitivity system has approached that of their hearing counterparts has been little known. More important is that the lexico-grammatical features in the narrative compositions of deaf students will be holistically understood when they are also evaluated based on the cognitive linguistic perspective especially

metaphor and mental state terms. This idealism is due to the fact that students with hearing disability tend to have limited access or exposure to the verbal language (Hall et al., 2019; Hall, 2017; Stamp et al., 2021) that helps in constructing concept in the cognition. Thus, there is a need for understanding the narratives of deaf students based on the functional and cognitive paradigm.

In line with the elaborated language issue of deaf students above, this research theoretically contributes to the state-of-the-art theory of linguistic field related to the case of deafness especially viewed from the functional and cognitive linguistic perspective. Practically, it is expected to provide contribution to the world of deafness, that is, by providing the insight for the practices of Indonesian language teaching and learning or to the design of material and curriculum for Indonesian deaf students.

It has been previously claimed by Bowers et al. (2018) that evaluating deaf students' written literacy plays a salient role in providing the optimal language learning for them. In particular, the generic structure of narratives and the linguistic features defined as the transitivity system, metaphor, and mental state terms in this study can be used as an input for developing deaf students' writings to be closer to the more functionally developed writings (see Hyland and Tse 2007, cited in Hancioglu et al., 2008). Last but not least, again it is expected that the rights of deaf students for acquiring functionally sufficient literacy skills compatible with their needs can be fulfilled.

1.5 The Scope and Limitation of the Study

The scope of the current study is on the case of Indonesian narrative writings of year-ten and year-eleven senior high school students in three different state schools. The deaf students are from two different special-need schools while the hearing ones are from a public school. For the narrative compositions alone, the scope is on the real-life stories about the most disappointing experiences. In terms of the scrutinized narrative aspects, the area is in macro and micro levels. Both terms are adapted from the formal-grammar study of Jones et al. (2016) analysing the narrative of deaf students. In the present study, the use of both terms are for easily addressing and classifying the

language aspect. The macro-level in the current study refers to the narrative generic structure while the latter is associated with the transitivity system, the metaphor under the transitivity system, and the mental state terms under the transitivity system.

Both the macro and micro levels of narratives in the present study are viewed based on the functional and cognitive linguistic point of view. Whereas the former contributes to examine the language choices in reference to the discourse community (social purposes) of narratives, the latter plays its complementary role by evaluating the language choices in terms of the cognitive linguistic perspective. In the practical sense, whereas the functional view of the present study is realised in the forms of narrative generic structure and the transitivity system, the cognitive perspective is manifested in the forms of metaphor and mental state terms. In the broader sense, both are used to interpret the findings on the narrative generic structure, the transitivity system, the metaphor, and mental state terms.

Further, since the case of the present study is specific based on the participants, the types of writing, and the language aspects, there are no ways to avoid some limitations. At least, four types of drawback under the present study have been successfully categorised. The limitations lie in the characteristics of study participants, in the numbers of the participants, in the situation of data elicitation, and in external validation.

The first limitation of this study lies in the participant characteristics in relation to their language features in narratives. The factors apart from being deaf and hearing are beyond the focus of study. In other words, the language aspect of deaf and hearing student writers were not analysed and interpreted in reference to their levels of Indonesian language proficiency, their levels of writing skill, gender, and other variables. This study has only focused on evaluating the written narratives produced by both types of students in terms of their macro and micro levels. The similarities between the groups of hearing and deaf students participating in writing their stories are that both have no defect on basic intelligence and both are able to produce narratives. In the deaf students alone, the similarities among them are their same level of deafness (profound

deaf), their same family background of hearing parents, and the absence of cochlear implants (except one student).

The second limitation of the present research exists in the case and numbers of participants. The hearing participants are limited to thirteen students from a state senior high school while the deaf ones are only eleven students from two different state special education schools. Eight participants of the deaf group are year ten and eleven students studying in a state special school for the deaf. The other three students are from a different special school that is also run by the Indonesian government. The limited numbers of participants in the present study is based on the contextual nature of qualitative study where there is no tendency to draw absolute conclusion on the deaf population in general.

Another consideration that needs to be noted is the situation when the study was conducted. The process of data elicitation was carried out via live virtual meetings during the peak of Covid-19 pandemic. The elicited data, nevertheless, are considered valid and reliable since the writing tasks were carried out for five times with a distinct topic on each episode. Besides, all participants were instructed to activate the cameras of their laptops or smartphones. In the last data elicitation, all participants wrote their stories with on-cam mode. Due to the specific context of the data elicitation, especially taken via Zoom Application during the pandemic of Covid-19, the nature of students' writings in the current study can or cannot be exactly the same with that during the normal situation.

The last limitation of this study is the absence of external researchers as the validators. To cope with this limitation, however, this study emphasises the depth of data analysis and interpretation. The analysis and interpretation were conducted in repetitions until they were considered saturated. They were not carried out in a single time only but there were always reviews and revisions through the time. There was always improvement during the analytical and interpretative stages until the consistency was achieved by the researcher. When the final check agreed with the data analysis and interpretation, it was considered that the consistency was achieved.

In general, due to the various constraints of this study, its findings can or cannot be generalizable to other cases of deaf students. Although there is the possibility that the results of this study cannot be generalizable to other contexts, at least the tendency of deaf students' language phenomena in narratives can be viewed and understood deeply based on the functional and cognitive linguistic point of view. By nature, the aim of this qualitative study is not to ideally achieve the absolute truth about the language of deaf and hearing individuals, but rather to get closer to the truth. This relative truth will contribute to forming the holistic knowledge about deaf students' language with the accompaniment of previous and future related studies.

1.6 The Clarification of the Terms

The title of the present research is "*A Functional and Cognitive Perspective of Meaning Making in the Written Narratives of Deaf and Hearing Students: A Comparative Study*". The term *meaning making* in the context of this study refers not only to the narrative generic structure and the transitivity system, but also to the metaphor and mental state terms. The narrative generic structure under the present study is understood as the functional sections of narratives, constructed to achieve the goal of narrative genre. The most basic generic structure of narrative text according to Knapp & Watkins (2005) and Suhartini (2016) refers to orientation, complication, and resolution.

The genre of narrative itself is understood as the genre of story that has a conflict. As underpinned by Knapp & Watkins (2005) on their book entitled *"Genre, Text, Grammar: Technologies for Teaching and Assessing Writing,* what makes the genre of narrative different from the genre of recount is that in the former there is the presence of problem or problems to be resolved. The stories of narratives can be told in the form of spoken or written forms. The latter is selected as the medium of the present study. Another characteristic of narratives is that the event and characters can be real or imaginary. In this research, the narratives are constrained to real-life personal

experiences of deaf and hearing students. The topic was about the most disappointing experience in their life.

In terms of the transitivity system, the process of meaning making is addressed to representing experiences with certain choices of processes along with participants and circumstances. Ideally, the choices of processes are not randomly selected but they are adapted to the social purposes or context of texts. The system of transitivity according to Halliday & Matthiessen (2004, p. 170) "construes the world of experience into a manageable set of process types". The use of transitivity system in the current study is interpreted based on the social expectation (functional goal) of narratives and based on the cognitive functions. In particular, the transitivity system in the case of this research is limited to representing real-life experiences about the most disappointing stories in the form of written narratives. The selected experiences are only the most disappointing personal real-life stories that have a conflict, a case, or a problem.

Another fundamental concept of meaning making of the current study is associated with the language metaphor. Metaphor according to Lakoff & Johnson (1980, p. 486) is defined as "understanding and experiencing one kind of thing or experience in terms of another". It is not only as a matter of tool for rhetoric meaning-making, but more important as a matter of thinking patterns and language actions (Lakoff & Johnson, 2017). Hence, it reflects thinking, reasoning, and imagining (Gibbs, 2006). Language metaphor in general according to Richards & Schmidt (2002) is perceived as a linguistic way of construing something with another thing through comparison. By allowing to see one entity in terms of another (see Zhang, 2009) or by enabling one semantic area to be mapped onto another (Lakoff & Turner, 1989), the metaphor in written language creates not only aesthetic but also meaningful impact to the readers or hearers.

The verbal metaphor under the present study is viewed as the linguistic feature of analogizing a thing in terms of another different thing under the framework of transitivity system. It is evaluated to explain the written meaning making of narratives based on the social function of narratives and based on the mechanism of the mind. In particular, the selected metaphorically linguistic features are only limited to the 'living'

metaphor. 'Dead' metaphor is excluded from the present analysis. Dead metaphor is understood by the current study as the linguistic metaphor that has been conventionally taken for granted, for example, "the time keeps going".

Another concept of meaning making under the present study refers to the mental state terms. Mental state in cognitive linguistics is often viewed in terms of the Theory of Mind (ToM). ToM according to Premack & Woodruff (1978, p. 515) is defined as the ability to "impute mental states to self and others" and to "make predictions about the behaviour of self and others". In Garfield et al. (2001, p. 494), it is viewed as "the cognitive achievement that enables us to report our propositional attitudes [thoughts], to attribute such attitudes to others, and to use such postulated or observed mental states in the prediction and explanation of behaviour". The simpler definition of ToM can be the version of Marschark et al. (2019). They view ToM as the ability to understand that other people have thoughts, wants, and beliefs where all of these traits interpersonally affect their behaviour.

Mental state terms of the current study are perceived as the words reflecting the comprehension about mental state. Like the language metaphor, the mental state terms are also analysed under the framework of transitivity system. They are evaluated to explain the meaning making of written narratives in relation with the social function of narratives and with the mechanism of the mind. To be specific, the selected linguistic features reflecting the mental state under the present study are only limited to explicit mental state terms. Besides, the mental state terms are only confined to the cognitive and emotive domains.

Another fundamental key term of this research is addressed to deafness. The term *deaf* is associated with the attributes addressed to individuals without the ability to hear. To date, there has not been precise convention about the concept of being deaf. However, the concept of deafness has been commonly differentiated from that of hard of hearing. Deafness according to Mayberry (2002) refers to people with severe limited hearing (70-80 dB loss) or those with profound level (more than 90 dB loss). Whereas the concept of deafness is confined to the hearing loss with severe to profound level,

the concept of hard of hearing is addressed to mild-to-moderate levels (see Gold & Segal, 2017). Deafness in a simple way can be seen as the rather 'total' inability to receive sounds aurally while hard of hearing can be addressed to being 'half' deaf. In another extent, deafness is also understood as the hearing limitation regardless of their levels of severity. Despite the various definitions of deafness, the key point is that the level of profound deafness is commonly considered as being deaf. The levels of deafness from the most serious to the mildest are *profound, severe, moderately severe, moderate*, and *mild*. In the present study, all cases of deafness belong to the profound level.

The next key term of the present study is hearing, the attribute of study participants used as the 'reference' for data comparison. Hearing in the current study refers to the ability to hear speech sounds normally without certain levels of limitation. While being able to hear enables to produce spoken utterances due to the 'unlimited' resources of language input, deafness commonly results in the inability to produce speech sounds because of the absent or delayed model of spoken language. Another salient key concept of this research refers to students selected as the participants of study. The students are on the grade ten and eleven of public senior high schools. Both groups of deaf and hearing students studied in different schools run by the Indonesian government. The majority of the students are female. In particular, the deaf group consists of eight female students and three male participants (eleven students in total) while the hearing group comprises eleven female students and two male participants (thirteen students in total).

Other key terms used in the title of the present research are 'a comparative study'. The one being compared is not between functional and cognitive views. Rather, the term 'comparative' under this study refers to the way of analysing and understanding the language choices of narratives between the deaf and hearing group. This is carried out to reveal the language problems of the deaf group as an initial effort to provide insight for the pedagogical practices.

The most basic key terms of this research are functional and cognitive. The functional perspective in the context of this study is associated with Systemic Functional

Linguistic especially the narrative generic structure and the transitivity system while the cognitive one refers to the linguistic metaphor and mental state terms. In addition, the perspective of functional and cognitive linguistics is also adopted to interpret the findings of the present study. While the cognitive linguistic examines the language 'choices' of the deaf and hearing groups in relation with the mechanism of the mind, the functional framework tends to evaluate the language choices in terms of social functions of narratives. Overall, the current functional and cognitive perspective views language as a 'tool' in the mind for achieving the social communicative goals (determined by the discourse community) of narrative texts. In particular, the 'tool' is viewed as something that is not embedded in the cognition, but as something constructed.

The last two key terms that are not included in the titles and research questions but are frequently used in the present research are macro-level and micro-level. Both terms have been employed by Jones et al. (2016) as the criteria for examining deaf children's narratives in English. Their terms have been also adapted by Lintangsari et al. (2019) for evaluating the deaf students' narratives in Indonesian. In the current study, both terms are also adapted from the work of Jones et al. (2016). In their work, however, the macro-level refers to the content and generic structure of narratives while in the present study the macro-level is limited only to the latter. More important is that the generic structure as the macro-level of the current research is eclectic, namely not only based on the theory of narrative genre but also based on the data (data driven).

Further, whereas the micro-level in the study of Jones et al. (2016) is associated with the formal linguistic features (e.g., clauses, parts of speech, morpho-syntax, etc.), in the present research it encompasses transitivity system, metaphor within the transitivity system, and mental state terms within the transitivity system. Last but not least, both terms of macro and micro levels in this study are used for easily classifying the four research questions (main findings). The emphasised issues are the narrative generic structure, the transitivity system, metaphor within the transitivity system, and mental state terms within the transitivity system.