

Halliday's Systemic Functional Linguistics (SFL) Approach and Sports Texts of the Postgraduate Students at Universiti Teknologi Malaysia

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Abstract

The purpose of this study is to evaluate the scripts entitled “Sports” in terms of processes used and text type based on (Halliday, 1994) Systemic Functional Linguistic approach. Systemic Functional Linguistics (SFL) is looking into the syntactic structure of a clause based on six processes including material, mental and relational process (major category) and verbal, behavioral, and existential processes (minor category). Forty (40) students of the subject ‘Dynamics of Leadership’ at Universiti Teknologi Malaysia were assigned to write essays about ‘Sports’ in between 300—400 words within thirty (30) minutes and sixteen (16) essays were selected for the analysis. Researchers used mixed-method in order to analyze both quantitative (numerical) and qualitative (descriptive) data. All the collected essays were analyzed and then the percentage of all the six processes has been shown in descriptive statistics and interpreted in tabulations and bar graphs. The findings indicate that the dominant process used in all the scripts was material—doing and happening—and subsequently relational. Focusing more on nominalization, the analyzed manuscripts were found to be wordy.

Keywords: Students’ Writing, Systematic Functional Linguistics, Transitivity, Process Types

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1.0 INTRODUCTION

Trends in various fields found out new ways of looking into different fields through different procedures. Language, as a device of communication and expression of feelings and ideas both in written and spoken forms has also been viewed as a multidimensional phenomenon and it is defining a language more than simply a tool of communication. The way of looking into the linguistic features of a language, whether represented in a written form or uttered orally, has also been changed in recent centuries when compared with its earlier background. The research of Systemic Functional Grammar (SFG) began in the early 1970s and became popular in the late 1980s (Kaffashi et al., 2015).

Halliday, Bloor, Eggins, and other scholars in the field of linguistics viewed Systemic Functional Linguistics (SFL) as a new and in-depth form of analyzing language-related matters in a structural way. In their views, language is represented in SFL as a functional and social phenomenon and as they believe, it covers not only the mechanism of text structure but also the function and meaning related to text (both spoken and written) as well. Among these scholars of linguistics, Halliday is the one who worked on SFL more than others. Steiner (2018) explained Halliday’s SFL as an approach that created the principles that the questions can be asked, and problems can arise in regard to the theoretical development in a socio-cultural context.

Gwilliams and Fontaine (2015) argue that, as SFL focuses on the actions of language use, so they believe that every action of language is not a meaningless action, but an act of meaning. It means that when analyzing a text, the scrutiny needs to be in-depth, multidimensional, and holistic to allow the analyzer to realize the language use beyond the functions and even the meanings of the constituents used in a clause. Coffin and Donohue (2012) further discussed that SFL is a three-dimensional theory of languages clarifying the boundaries between language, text, and context. Gwilliams and Fontaine (2015) explained that the priority in the field of SFL is given to the use and function of the language, which they believe, can be seen as the description of a language including the three meta-functions: experiential, interpersonal, and textual. Such kinds of meta-functions, as (Gwilliams & Fontaine, 2015) mentioned, are multi-functional in the field of SFL. Meaning that each meta-function has its own way of functioning in the description, representation, and analysis of language constituents and language matters. As an example in this regard, the textual meta-function addresses the analysis of the textual; experiential deals with participants’ experiences based on their perceptions about the world and life matters and interpersonal meta-function is concerned with how to interact with other individuals in society.

In addition to the above discussion, Halliday and Matthiessen (2004) explained the meta-functions of ideational (experiential) dealing with the interpretation of the experiences as a semantic system that human beings have. They also discussed that experience is a type of process in the theory of SFL. This forms the basis of analysis, which provides a particular model for interpretation and construction of a particular experience. Hence, Gwilliams and Fontaine (2015) added that whenever we analyze clauses, particularly the analysis of the process types, it needs to focus on two aspects in the process of analysis; semantic and syntactic.

On the other hand, Holliday (1970/1976) (as cited by Gwilliams & Fontaine, 2015) explained the transitivity in the field of SFL as the representation of language process not only includes the different processes but there are some other features as well which are associated with such transitivity process namely; participants and circumstances. He further added that all the features that help speakers in regard to the linguistic representation to represent their experiences can be placed under transitivity.

Moreover, Halliday (2008) categorized the transitivity system into six processes, where each process type functions separately; through which humans represent their experiences in regard to not only the physical actions, but physiological, thinking, existing, and other actions too. It means that Halliday divided the processes in English transitivity into two main categories as major and minor categories. The major category then includes; material, mental and relational processes, whereas the minor category includes; verbal, behavioral, and existential processes. In addition, Teich (1999) added that the transitivity system conveys the predicate types of a language and they are combined by the roles of participants in a clause. Likewise, Eggins (2004) viewed the system of transitivity a bit more differently and believes that its selection is related to the dimensions of the field where one can choose not only the different process types, but the participants' roles can also be seen as the encoding of the reality of their experience. Zheng et al. (2014) on the other hand viewed transitivity in the semantic look and added that it is the semantic concept which expresses that how is the meaning expressed in a clause. Looking into the significant role of the transitivity processes in SFL, its vital for linguistic researchers to evaluate different texts using transitivity processes in order to make clear the purpose of that particular text, its organization and some other elements that linguistic researchers are looking for. Therefore, the purpose of the current study is also to analyze 'Sports scripts' of students based on Systemic Functional Linguistics (SFL) approach of Halliday and to find out the usage and frequency of all the six transitivity processes used in students' selected scripts for identifying the dominant process(s) and the reason(s) behind the usage of a dominant process(s). There have been many types of research in this regard conducted analyzing various types of texts in different contexts globally, but with the knowledge of researchers, there is a lack of research on the analysis of students' texts at UTM.

■ 2.0 THEORETICAL BACKGROUND

Halliday's SFL (Halliday, 1994; Halliday & Matthiessen, 2004) focuses on semiotics for identifying the meaningfulness of the produced utterances and texts and they discussed this in social context (Halliday, 1985: 11). Haratyan (2011) discussed in a research study that in SFL, the function is interdependent with the utterances produced and also with the written form of the utterances (texts) and the written structure of the texts to make it clearer for communications in the outside world.

In addition, in regard to SFL is that language consists of meta-functions, and each one has its own ways of functioning in linguistic matters both semantically and syntactically. Halliday's model includes the following three processes through which both a written text or an orally produced utterance can be analyzed; ideation (sometimes called representational and experiential), interpersonal and textual.

Furthermore, Gwilliams and Fontaine (2015) stated that the priority in the field of SFL is given to the use and function of language, which they believe, can be seen as the description of language which is called meta-functional. Each of meta-function is used to represent a typical use of human language. The purpose of using these different meta-functions is to analyze and criticize language in a multi-dimensional way. Kress (1976) stated that through ideational meta-function, individuals can express both experiential and logical contents which are the description of human experiences of the outside world.

Gwilliams and Fontaine (2015) stated that this is modeled representationally by the transitivity system. Transitivity, then, has been defined by language scholars and linguists differently but almost the same purpose. Halliday (1976) stated in regard to the transitivity that it represents the process of language in which not only participants are included but some of the circumstantial elements are also associated with participants. He further adds that the process types then can have transitive verbs, or intransitive, where if we use them in a bit general sense, so it refers to the content or it refers to the factual-notional structure of the clause in its entirety. Eggins (2004) explained the choices of the transitivity to be related to the field of dimensions and the choice of the type or types of the process(s) and the roles of the participants as well which is the encoded reality of their experiences and the actions of the world, relation, participants and circumstances are the ones, that can give their talk the content.

Likewise, Zheng et al. (2014) added more about transitivity and viewed it through the semantic view and believe it as the concept that semantically examines how the writer represented the meaning in the written clause. They further added that SFG is a system, which is process-centered and can be used to not only encode the knowledge of the experiences that humans have but to decode humans' experiences as well. It means that as there are many constituents in a clause structure, so each constituent functions differently and the way in which a constituent can be represented in a clause can influence not only the meaning of the clause and its constituents but the structure as well. Martínez (2001) stated that the transitivity system focuses on the way clauses are organized to express experiential meanings. Haratyan (2011) explained the transitivity as consisting of options that are inter-related which can represent various types of processes or different experiences be explored not only from the above and below, but from the ground as well including processes and participants too. It is then labeled with playing different roles in the clause as Actor, Goal (in material), Sensor, Phenomenon (in mental), Carrier and Attribute (in relational) and may include different types of circumstances as well as the circumstances of cause, location and so on. Haratyan (2011) further discussed that process refers to the verb/verbs represented semantically with the meaning of doing, happening, feeling, sensing, saying, behaving and existing, and these verbs then express different events, various relations, or mental, emotion status, which are at that point organized in a system semantically in the clause, and then different clauses can be expressed in different categories of processes including; material, relational, mental, verbal, behavioral and existential. Halliday (1976) explained that linguistically, the transitivity processes are the outputs of our perceptions of the real world, which are, as he believes, not only constructed socially but

culturally as well and they have some of the participants in each one which may be animate or inanimate noun phrase and may be followed by circumstances or the phrases of adverb and preposition.

2.1 Interpersonal Process

Gwilliams and Fontaine (2015) explained interpersonal meta-function to find out the relationships in the inner structure of clauses, and they discussed in their paper some grammatical terms used conventionally as subject/complement and finite and predicate. Furthermore, Kaffashi et al. (2015) stated that interpersonal process can be expressed by the structures of the mood.

Taking an overall concept from the above opinions of the researchers, it can be concluded that interpersonal meta-function enables the users of language how language and linguistic features can be used in interactions with other users of the language during their interpersonal usage of language related communications.

2.2 Textual Process

Hasan (2009) explained that humans can understand the context based on the instanced perspective in regard to the situation of context, and to make sure what is in a particular text. Additionally, in a bit broader view of its understanding is the context of culture, which is the context of the language used in the socio-cultural view.

Hodgson-Drysdale (2014) stated that textual process is combined with the meta-functions (ideational and interpersonal) to make coherent oral or written texts. It means that the textual process can consist of both types of the oral discourse of individuals and written ideas, so in order to be able to analyze both of them in a proper way, it needs to analyze them based on textual meta-functional principles. On the other hand, Gwilliams and Fontaine (2015) stated that the textual meta-function is inter-connected not only with the creation of the text but with its relevance as well and pointed out the 'Theme' as the main element of the clause which expresses the experiential meaning of the clause as its first element.

Additionally, Haratyan (2011) asserts that:

“Grammatically, textual meta-function at the clausal level enjoys Theme. The thematic structure is concerned with Theme, and Rheme, or the old and new information structure or topic and comment where any component in a clause like subject, predicator, complement or circumstantial adjunct can be topicalized and be placed in thematic position or the beginning of the clause which is more significant than other locations in a sentence.” (Haratyan, 2011)

2.3 Ideational Process

Ideational meta-function is the last one in SFL which includes experiential and logical meta-functions. The logical strives the relationships of clauses and how the language in clauses is used in order to identify the logical connectivity between various types of elements of the text, whereas experiential explores how the users of language expressed their experiences of their real-life events and the world outside them in the clause level. Matthiessen and Halliday (2014) stated that it is primarily through the notion of the ideational meta-function that experience is expressed through language and knowledge is created. Haratyan (2011) explained that in ideational function, an individual conveys the real-world experiences in the setting of time and place and the author's message and content can be understood from the text written by the author.

While critically analyzing a clause, it is needed to look into it through different dimensions because it is made of some other constituents, processes, participants and circumstances that need to be explored critically. For this reason, Halliday (1976) stated that during analyzing a clause, it is needed to evaluate it based on six ideational processes which he categorized into two main groups as major (includes material, relational and mental processes) and the minor group includes (verbal, behavioral and existential processes).

2.3.1. Material Process

Haratyan (2011) believes that in material process, animate or inanimate performs it intentionally or spontaneously and consisting an action of 'doing or happening' verb, which may also include a performer (doer) labeled as the actor of the action and as a goal. In addition, Sabbachat, Mahdi and Sumantri (2014) further explained that the material process is mostly the one of 'doing and happening' which represents the intention of the actor (participant) and performs something to something/someone else called (goal).

It means that the material process is most of the time, consisting of the verbs (doing) and (happening) processes, where both types of processes (doing) and (happening) should have actors and goal/range.

2.3.2 Mental Process

Haratyan (2011) explained it as consisting not only of our cognitions but our perceptions and affections as well which are of the internalized and conscious type and the participants taking place in the mental process are senser and phenomenon. Halliday (2008) added that the mental process is made of thinking actions. It means that all the actions that are internally created from the mind of humans, through perceptions, cognitions, and affections are all under the category of mental process.

2.3.3 Relational Process

Haratyan (2011) explained the relational process that has intensives, attributives and identifiers and they all together representing the description of the abstract relation in a clause.

Senjawati (2016) explained in a research study that the relational process is that has the verbs of 'being' and 'having' plays a role in finding out the relationships between different elements of experience. The participants of this process are 'carriers' which is mostly noun or noun phrase and 'attribute', and sometimes 'identified' and 'identifier' which consists of two nominals as participants which are 'Token holder' and a 'Value meaning'.

2.3.4 Verbal Process

Halliday (1985) explained that it is one of the processes close to relational and mental processes, and it is the message of conscious humans that consists of the linguistic labels as 'sayer' and 'receiver', which is then labeled as 'target' and 'verbiage'. Senjawati (2016) explained that the verbal process is one of the processes of 'saying' and 'meaning'.

2.3.5 Behavioral Process

Halliday (1985) stated that this process is in-between the two other processes as material and mental, which expresses physiological and psychological behaviors include; breathing, coughing, smiling, dreaming, and staring. Senjawati (2016) similarly viewed the behavioral process as the one that expresses not only physiological actions and behaviors but psychological as well.

It means that sometimes, the border of separating behavioral and (material and mental) gets very close to each other, where even it is difficult for the analyzer to identify whether the process is in one category or the other.

2.3.6 Existential Process

Haratyan (2011) explained that it shows an existing phenomenon, which is most of the time expressed by using 'there' which may point out an existent that might be an 'entity', 'event' or 'action'. To add more, using existential process in written or oral communications indicate the location and phenomenon of someone/something.

For this reason, the processes of the transitivity into the selected scripts of the students have been analyzed based on the Halliday's SFL approach in order to find out appropriate answers to the following research questions.:

- How did the students use processes in their scripts?
- Which one is the dominant process used by students in their scripts?
- How are the use of the dominant process and the purpose of the text linked?

■3.0 METHODOLOGY

The current study used Halliday's SFL approach in order to analyse the processes used in all the scripts selected by the researchers. However, the sampling methods of the participants, data collection, and data analysis both (numerical data and descriptive data) have been explained in the following sections. To explain the process of the current study in in-depth details, the first step was that the lecturer of the Dynamics of Leadership was contacted by the researchers to give a chance to them to assign the students in the class and to write an essay inside the classroom individually. After that, on the exact date, which was agreed through contact between the researchers and the lecturer, students were given a topic under the title of 'Sports' to write their views and experiences.

3.1 Research Design

This study is conducted using mixed-method of research using Halliday's SFL approach for analysis which consists of both qualitative (script analysis) and quantitative (descriptive statistics). As Senjawati (2016) stated that one of the ways of finding out students' ability in their written texts is to analyse the texts written by them. The main purpose of the current study is also the analysis of the selected texts descriptively and quantitatively. After counting the numbers of the clauses and processes used in the scripts, some of the quantitative (statistical procedures) were applied in order to find out the percentage of the clauses and of the processes used in all the scripts.

3.2 Sampling

The scripts of around 40 students have been chosen through a purposeful sampling method, and 16 scripts have been selected for analysis and further descriptions based on Halliday's SFL approach. The respondents of the current study were (40) students enrolled in the class Dynamics of Leadership, Faculty of Social Sciences and Humanities, UTM, who were mixed of different departments in the above-mentioned faculty. The lecturer was contacted earlier in order to give the researchers 30 minutes to collect the scripts of the students.

3.3 Methods of Data Collection

Students of the Dynamics of Leadership class have been assigned in the classroom to write an essay of 300-400 words individually. They were instructed to write about the topic under the title of (Sports), and they were guided to finish it in 30 minutes. After all the (40) students finalized their essays, researchers then selected (16) essays for the in-depth analysis.

3.4 Methods of Analyzing Data

After collecting the data, qualitative and quantitative procedures were applied in order to find out suitable answers to the research questions. The scripts were then analysed clause by clause to identify all the six transitivity processes of ideational meta-function in in-depth details.

4.0 RESULTS AND DISCUSSION

Based on the findings of the current study, the following figure sums up the types of the processes and the percentage of their usage in all the 16 scripts of the students. Figure 1 indicates the extent of the scriptwriters used the processes to convey their purposes. The results show, the material process is used in a higher amount than others. It means that the writers used the verbs of ‘doing’ and ‘happening’ in a great amount to express their views in regard to sports and sports-related activities. In addition, the second process is relational that the scriptwriters used a lot in their scripts. Likewise, the mental process is in the third category used by the scriptwriters. Moreover, the processes; verbal, behavioral, and existential are rarely used by the scriptwriters in their scripts.

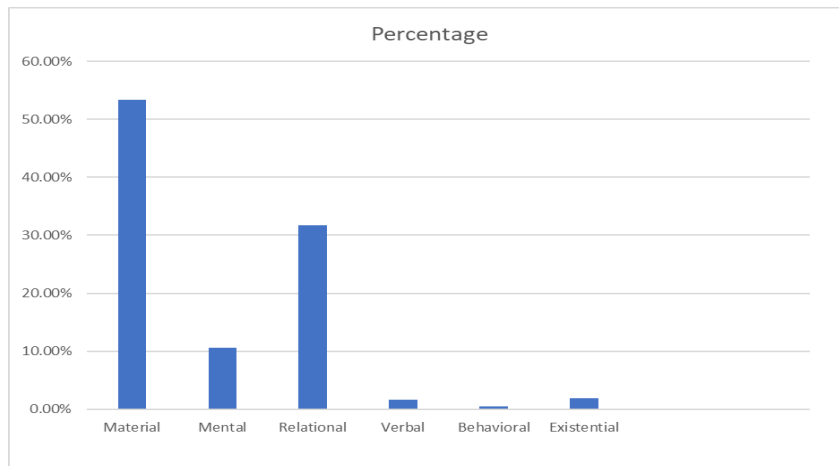


Figure 1. The distribution of the process types in all the scripts.

The following Figure 2 shows the frequency of all the processes in all the (16) scripts by the students. As can be seen in all the scripts of the students that the material process is the dominant process they mostly used in their scripts, thus, it can be added that the frequent usage of the material process shows that the writers mostly talked about the ‘happening’ and ‘doing’ verbs.

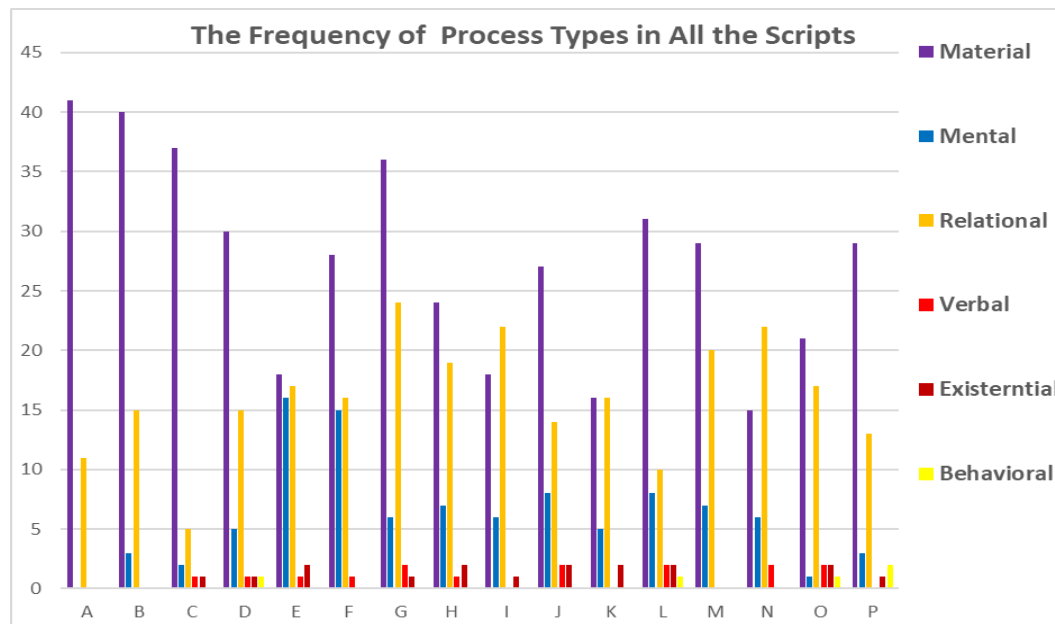


Figure 2 The frequency of process types in all the scripts

After the analysis of all the (16) scripts, the data reveal that the scriptwriters used their opinions frequently to talk about the selected topic so there is the material process typically used by the writers in their scripts. As the above Figure 2. indicates that the processes used in all the scripts are in different frequencies. The material and relational processes were used in higher percentage, and they are in the top of frequency. Mental process is in the third frequent use in these scripts. The remaining verbal, existential, and behavioral processes were used rarely in all the scripts.

Looking into the scripts with vivid examples from the scripts, all the six process types will be explained with the constituents and participants of the clause in the following section in paragraphs and tabulations.

1. **Material Process:** as the material process is consisting mostly of the verbs 'doing' and 'happening', they can be understood not only through changes in the material world but also in abstract phenomena (Martin & Matthiessen, n.d.). In the text, there were clauses containing motion in space and change in physical make-up E.g., Abstract phenomena.

Table 1 Examples of material process

Sports		is divided		into two categories
Range		Pro: material		Circ: role
Previously	I	have gone	to snorkeling	with my friends.
Circ: location-time	Actor	Pro: material	Circ: cause-purpose	Circ: accompaniment

2. **Relational process:** The relational process involves the states of being and the process of having (Afrianto & Seomantri, 2014). Analyzing the relational process in the text, it has been found 'Carrier-Attribute, Identifier-Identified' and at the same time, they were either intensive, possessive or circumstantial (Halliday et al., 2014; Thomas & Meriel, 2001: 122-123).

Table 2 Example of relational process

This	is	the easiest sport	to do.
Identified	Pro: relational-intensive	Identifier	Process
a: Extended			b: Extending

The above clause is of the identifying ones in the analyzed essays since it has the characteristics of 'identifying'. It has a common noun as Head, with a definite article 'the', the lexical verb is from 'equative' classes and the clause is reversible (Halliday et al., 2014: 278-309).

Table 3 Example of qualitative attribute

I	am	very afraid of water.
Carrier	Pro: Relational-Intensive	Qualitative Attribute: Circumstantial

The above relational clause is one of the examples of quality attribute because it has epithet (afraid) as head, very as a pre-modifier, and circumstantial element (of water) as a post-modifier. Also, the clause is not reversible (Halliday et al., 2014: 270, 271, 291; Hannay & Vester, 2013:169; O'Halloran, 2004:178-181).

Table 4 Example of attribute possessive

Those who play sports (They)	will have	a healthy body.
Carrier: Possessor	Pro: Relational-possession	Attribute: possessed

In this relational clause, one entity possesses another (possessive) and it has a common noun preceded by an indefinite article which are the characteristics of the attribute (Halliday et al., 2014: 296; Hannay & Vester, 2013: 177-185; Isti'anah, 2014; O'Halloran, 2004: 181).

3. **Mental Process:** There are some processes in the text that involves no material action, but the phenomena are best described as states of mind or psychological events (Bloor & Bloor, 2013: 116).

Table 5 Example of mental process

I	will learn	swimming	in the future.
Senser	Pro: mental	Phenomena: act	Circ: location

In the text, there were both phenomena fact and phenomena act. For instance, in this mental process, actions occur with the mental processes of perception: seeing, hearing, noticing, learning, etc. (Eggins, 2005: 228).

Table 6 Example of conscious being

I	believe	this Chinese saying.
Senser	Pro: mental	Phenomena: fact

In this mental process, it seems that the participant is a conscious being and the fact is being perceived (Eggins, 2005: 226-229).

4. **Behavioral Process:** There were very few behavioral processes in the text, Halliday describes them semantically as a ‘halfway house’ between mental and material processes. They are in part about actions, but it is an action that has to be experienced by a conscious being (Eggins, 2005: 223).

Table 7 Example of behavioral process

Next,	We	like	to watch	television	before	sleeping.
	Behavior	Pro: mental	Pro: behavioral	phenomena		Pro: behavioral

The majority of behavioral clauses have only one participant. However, it can also contain a second participant referred to as behavior or phenomena depending on its function (Eggins, 2005: 234).

5. **Verbal Process:** As verbal is considered a minor process, few examples were found in the texts. Verbal is certainly a kind of action, and it has some features of the mental process, especially if we believe that verbalization of thoughts is a kind of inner speech. So a case can be made for postulating a new category of the process that is a verbal process (Bloor & Bloor, 2013: 122) as in the following table.

Table 8 Example of verbal process

My friend	told	me	that jogging is not enough.
Sayer	Pro: verbal	receiver	reported

6. **Existential Process:** Existential clause resembles relational since the participant is involved in the process of being but different because there is only one participant (Martin & Matthiessen, n.d.: 109,110).

Table 9 Example of existential process

There	are	many advantages of sports.
	Pro: existential	Existent

In the above example, there signals the process type, but does not function as a location circumstance; nor does it represent a participant (Bloor & Bloor, 2013: 125).

■5.0 CONCLUSION

After the analysis of all the (16) scripts written by the participants, all the six process types, based on Halliday’s SFL approach have been found but they vary in numbers and frequency. These processes are Material Process, which is mostly known and defined as the one with mostly using the ‘happening’ and ‘doing’ verbs for expressing ideas. Relational Process: defined as the process of being and having. It means that it mostly uses ‘to be’ and ‘to have’ verbs. Mental Process: defined as the process of thinking, which is mostly to be expressed by sensations. Behavioral Process: the process defined as its names suggest, the behaving process, mostly the behaving of physiological and psychological behaviors. Verbal Process: it is defined as the process of verbally saying something. And Existential Process: is the process, expresses the location or existence of something. The results of the current study reveal that the dominant process used in all (16) scripts of the students is the material process, makes around 53.40%, relational is second and it is around 31.70% and the rest of the percentage is of all the other four processes used in all the scripts. Consequently, the transitivity process types used in the scripts of the students reflect the purpose of the text, which is under the title of ‘Sports’. Due to the repetition of the verbs of ‘happening’ and ‘doing’ in

the scripts for clarifying the meaning of the sentences related to sports, the writers used the dominant process (Material), in order to deliver the main purpose of the text. As sports is mostly the activity of happening and doing, so scriptwriters correctly used their words associated with the purpose of the text and the type(s) of the process(s). This shows the potential of Halliday's SFL approach that lets linguistic researchers to analyze all types of texts and their processes and to find out the alignment of different purposes of different texts with the frequencies of the process type(s) authors use in these texts. As an interesting discipline, SFL is growing faster in the field of linguistics and providing new ways of textual analysis to linguists to investigate different texts and to identify the purpose(s) of authors. This study will significantly help linguistic researchers to analyze sports texts in different contexts globally.

References

- Afrianto, L. M. I., & Seomantri, Y. S. (2014). Transitivity Analysis on Shakespeare's Sonnets. *IOSR Journal of Humanities and Social Science*, 19(1), 78–85. <https://doi.org/10.9790/0837-19117885>
- Bloor, T., & Bloor, M. (2013). *The functional analysis of English: A Hallidayan approach*. Routledge.
- Coffin, C., & Donohue, J. P. (2012). Academic Literacies and systemic functional linguistics: How do they relate? *Journal of English for Academic Purposes*, 11(1), 64–75.
- Eggs, S. (2004). *Introduction to systemic functional linguistics*: A & C Black.
- Gwilliams, L., & Fontaine, L. (2015). Indeterminacy in process type classification. *Functional Linguistics*, 2(1), 1-19. <https://doi.org/10.1186/s40554-015-0021-x>
- Halliday, M. A. K. (1985). Dimensions of discourse analysis: grammar. van Dijk (ed). *Handbook of Discourse Analysis*, 2, 29–56.
- Halliday, M. A. K. (1976). Types of process. *Halliday: System and Function in Language*, 159–173.
- Halliday, M. A. K. (1994). Language as social semiotic. *Language and Literacy in Social Practice*, 23–43.
- Halliday, M. A. K., & Matthiessen, C. (2004). *An Introduction to Functional Grammar* (3: e uppl.). London: Hodder Education.
- Halliday, M. A. K. (2008). *An introduction to functional grammar* (3rd ed.). London: Edward Arnold/ Beijing: Foreign Language Teaching and Research Press.
- Halliday, M. A. K., & Matthiessen, C. (2014). *An introduction to functional grammar*. Routledge.
- Hannay, M., & Vester, E. (2013). *Working with Functional Grammar: descriptive and computational applications*, 13. Walter de Gruyter.
- Haratyan, F. (2011). Halliday's SFL and social meaning. *2nd International Conference on Humanities, Historical and Social Sciences IPEDR*, 17, 260–264. <http://www.ipedr.com/vol17/49-CHSS2011-H10074.pdf>
- Hasan, R. (2009). The place of context in a systemic functional model. *Continuum Companion to Systemic Functional Linguistics*, 166-189
- Hodgson-Drysdale, T. (2014). Concepts and language: Developing knowledge in science. *Linguistics and Education*, 27(2), 54-67.
- Isti'anah, A. (2014). Transitivity Analysis in Four Selected Opinions about Jakarta Governor Election. *Journal of Language and Literature*, 14(2), 163–175.
- Kaffashi, M., Gowhary, H., Jamalinesari, A., & Azizifar, A. (2015). A Contrastive Study of Relational attributive Clauses in Narrative Texts in English and Persian Based on Halliday (2004). *Procedia-Social and Behavioral Sciences*, 192, 156–165.
- Kress, G. (1976). Halliday: System and function in language: Selected papers. London: Oxford UP.
- Martin, J. R., & Matthiessen, C. (n.d.). MIM & Painter, C (1997). *Working with Functional Grammar*. London, Arnold.
- Martínez, I. A. (2001). Impersonality in the research article as revealed by analysis of the transitivity structure. *English for Specific Purposes*, 20(3), 227–247. [https://doi.org/10.1016/S0889-4906\(00\)00013-2](https://doi.org/10.1016/S0889-4906(00)00013-2)
- O'Halloran, K. (Ed.). (2004). *Multimodal Discourse Analysis: Systemic-Functional Perspectives*. Open Linguistics Series. Continuum International Publishing Group.
- Sabbach, A., Mahdi, S., Sumantri, Y. (2014). Material process in transitivity of the English clauses: A functional grammar approach. *International Journal of Language Learning and Applied Linguistics World*, 3(5), 58.
- Senjawati, D. (2016). Transitivity Analysis of Tenth Grade Students' Recount Texts. *Journal of English and Education*, 4(1), 1-22.
- Steiner, E. (2018). A tribute to MAK Halliday. *Lingua*, 216, 1–9.
- Teich, E. (1999). *Systemic Functional Grammar & Natural Language Generation*. A&C Black.
- Thomas, B., & Meriel, B. (2001). *The functional analysis of English: A Hallidayan approach*. Beijing: Foreign Language Teaching and Research Press.
- Zheng, S., Yang, A., & Ge, G. (2014). Functional Stylistic Analysis: Transitivity in English-Medium Medical Research Articles. *International Journal of English Linguistics*, 4(2), 12. <https://doi.org/10.5539/ijel.v4n2p12>