

**TRANSITIVITY ANALYSIS OF UNIVERSITY NEWS TEXTS DURING THE  
CORONAVIRUS PANDEMIC****Mohammad H. Alhumsi\***Department of English Language and Translation  
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Saudi Electronic University*(First received: 7.11.2020; final version received 31.05.2021)***ABSTRACT**

Halliday's theory of transitivity can describe the specific linguistic characteristics through which the text can be fully comprehended by readers in a manner that reveals the writer's intention. This study concentrates on the analysis of various process types. It investigates the effectiveness of transitivity theory in the analysis of transitivity processes by comparing two news texts published in the Saudi Electronic University (SEU) website before and during the pandemic. To raise critical awareness of the characteristics of news discourse, this paper employs critical discourse analysis tools. To explore the processes of transitivity, quantitative and qualitative approaches were adopted. The findings revealed that material processes are the most frequent processes in the two news articles produced. The study provides recommendations for further studies.

*Keywords:* Coronavirus pandemic; discourse analysis; news texts; transitivity analysis, transitivity theory

**RESUMEN**

La teoría de la transitividad de Halliday describe las características lingüísticas que permiten comprender un texto de tal manera que los lectores pueden inferir las intenciones del autor. Este estudio se concentra en un análisis de diferentes tipos de procesos. Investiga la efectividad de la teoría de transitividad en el análisis de procesos de transitividad en dos noticias publicadas en el sitio web de la Saudi Electronic University (SEU) antes y durante la pandemia. Para crear conciencia sobre las características del discurso, este trabajo empleó herramientas de análisis crítico del discurso. Para este estudio se adoptaron abordajes cuantitativos y cualitativos. Los resultados revelan que los procesos materiales son los más frecuentes. El estudio provee recomendaciones para futuras investigaciones.

*Palabras claves:* pandemia de coronavirus; análisis del discurso; textos de noticias; análisis de transitividad; teoría de transitividad

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### Introduction

The world has been currently suffering from the Coronavirus Disease (COVID-19) and its dangers have been underestimated (Zahar, 2020). In December 2019, a cluster of cases with unexplained pneumonia was detected in Wuhan, China. The etiology of this disease is attributed to a novel virus belonging to the coronavirus (CoV) family. On February 11, 2020, the World Health Organization (WHO) announced that this new CoV is coronavirus disease 2019 "COVID-19" (Casella, Rajnik, Cuomo, Dulebohn, & Di Napoli, 2020). Due to its rapid international spread, the WHO has announced that the Covid-19 is a public health emergency of international concern (World Health Organization, 2020). Among several countries, Saudi Arabia took the lead internationally to control the spread of the coronavirus (Covid-19) by taking early precautionary measures. For example, the government suspended all religious gatherings and popular events. The suspension also included schools, higher educational institutions, international and national flights, and other economic aspects (Barry et al., 2020).

In order to find out how higher educational institutions tackled this critical issue, the nature of the news discourse used in SEU website, taken as illustrative of higher education institutions, is analysed and discussed. This is probably useful for the audience to raise critical awareness of the characteristics of news discourse as well as to improve the critical analysis of such discourse (Xie, 2018). It is important to indicate that discourse viewed as carrier of news plays a critical role in reporting news content and also in reflecting the attitude of the media toward novel events.

The literature has shown that there is a need to adopt critical discourse analysis on news discourse in order to highlight hidden issues in language (Tian, 2018). This paper employs the transitivity theory included in Halliday's Systemic Functional Linguistics to analyze news texts at SEU website published before and during the coronavirus pandemic. Transitivity analysis is rooted in systemic functional linguistics (Halliday & Webster, 2014) and has been widely used as a tool for critical discourse analysis (Van Dijk, 1993), also as part of our theoretical framework. Transitivity analysis is a useful model for discourse analysis, and a powerful tool that can be used in different genres to explore underlying meaning (Zhao & Zhang, 2017). The application of the transitivity system to discourse analysis has attracted many scholars who have applied this model to different genres, like literary works, political discourse, news discourse, advertisement analysis, and inaugural address analysis (Zhao & Zhang, 2017).

This study explores how content is affected by the coronavirus pandemic as shown by these two texts which represent internal communication within the university, academic staff and students. In addition, this study attempts to gain a better understanding of transitivity process types related to news texts during this critical pandemic. The outcome of this research will be useful to universities administrators, research scholars, supervisors, and academic staff. To the researchers' best knowledge, there is no study addressing the effects of the coronavirus pandemic on the news discourse by using transitivity analysis on news articles.

### Literature Review

#### *Discourse Analysis and Critical Discourse Analysis*

The word "discourse" is defined as "language beyond the sentence" (Yule, 2014, p. 140). According to functional linguists, discourse is defined as "the use of language" (as cited in Zhang, 2017). As for discourse analysis (DA), it studies "the way that people communicate with each other through language within a social setting" (Walliman, 2011, p. 143). In discourse analysis studies, Saldanha and O'Brien (2013) argued that it is necessary that language be analysed using contextual existing texts in terms of reception and production.

It should be noted that critical discourse analysis (CDA) goes a step further than discourse analytical studies in examining how and why a specific discourse is produced (Van Dijk, 1993). Van Dijk (2008) emphasized that the function of CDA is to reveal the relationship between language, power, society, ideology, opinions and values. In discourse analysis process, transitivity can be used as an effective tool for text discourse at the level of clause analysis (Banks, 2002).

#### *Transitivity System and Process Types*

According to Halliday (1967), “transitivity is the name given to a network of systems whose point of origin is the ‘major’ clause, the clause containing a predication” and “transitivity systems are concerned with the types of process expressed in the clause, with the participants in this process, animate or inanimate, and with various attributes and circumstances of the process and participants” (p. 38). Halliday (1967) proposed to analyse lexico-grammar through three meta-functions: ideational, interpersonal and textual. First, the ideational function is used to describe different characteristics of a language expressed in the structure of clauses; it emphasizes the content of discourse, the types of activities that are addressed and how participants in these activities are described and classified. Second, the interpersonal metafunction is related to the ways in which people interact using a language; it involves the association that exists between the speaker and his message and between the speaker and his addressee. Third, the textual metafunction shows the speaker’s text-forming attitude to make language significant and to relate the language to its situational, verbal, and nonverbal environment (Halliday & Matthiessen, 2014).

These three metafunctions are realized by comprehensive semantic systems. They are also realized by transitivity, and transitivity is conveyed by solid semantic components. Therefore, transitivity is made up of different processes (Halliday, 2000) and includes three components: “the process itself; participants of the process; and circumstances associated with the process” (Halliday, 2000, p. 107). These components are semantic categories which describe how events in the real world are shown as linguistic structures. They provide a system for interpreting various types of texts and speeches.

In a nutshell, transitivity has six process types: (1) material process, (2) mental process, (3) relational process, (4) behavioral process, (5) verbal process, and (6) existential process (Halliday, 1967; Halliday & Matthiessen, 2014). The first three processes (material, mental and relational) are classified as the main processes, while the other processes are classified as minor. Material processes represent the concept that an entity “does” something. These processes refer to what someone or something does to whom or what. It primarily includes two participants: actor and goal. The second type is the mental process, which refers to the process of sensing and recognizing what happens in the mind, such as affection processes (*loving, hating, etc.*), cognition processes (*thinking, understanding, etc.*), and perception processes (*seeing, feeling, etc.*). In addition, relational processes refer to the process of being. This relation can be set up between two different entities and can be used in identification and characterization.

Behavioral processes are associated with physiological or psychological actions such as smiling and frowning. The boundaries of behavioral processes are not clearly identified, but the following kinds can be considered as typical: (1) near mental processes such as *look, listen, think, and fear*, (2) near verbal such as *talk and complain*, (3) physiological processes expressing states of consciousness, such as: *laugh, cry, and whine*, (4) other physiological processes, for example, *cough, yawn, and sleep*, and (5) near material bodily postures and pastimes such as: *sing and dance* (Zhang, 2017). Verbal processes refer to the process of “saying” (Halliday, 2000). Hence, there must be someone or something taking the role of the “sayer”. “Saying” refers to any kind of symbolic exchange of meaning; like the report says there is a decline in..., or the watch says it is 10 o’clock, so the “sayer” can be both animate and inanimate” (Halliday, 2000, p.139). One more

participant in this process is the receiver, who is the one to whom the saying is referred. The purpose of analysing verbal processes is to examine the producer of a text and the text itself. Existential processes are somethings occurring or existing. they represent the existence of an entity. Unlike the other processes, existential processes have the verb “*be*” and the “*there be*” clause. For example, *there is a book on the desk*. Other verbs are found in existential processes such as *exist, stay, occur, and take place*. In this process, there is only one participant the existent, which can be a person, an object, an institution, and an incident.

#### *Related Previous Studies on Transitivity System*

As mentioned earlier, transitivity analysis is a useful tool that can be used to explore hidden meanings. Most of the past research used the transitivity system to analyze literary works. However, in recent years, there has been also a strong orientation to the use of transitivity analysis in political discourse, news discourse, and inaugural address analysis (Zhang, 2017; Zhao & Zhang, 2017).

Starting with literary works, Afrianto and Zuhud (2014) resorted to the transitivity system to analyze six poems. This study focused on mental processes and relational processes only. The researchers identified sixteen mental processes and twenty-three relational processes. The findings of this study revealed that there were some verbs used to indicate mental process such as: *love, honor, know, think, hear, see, repent, mind, want, fear, and dream*. Also, this study identified four implications that can distinguish attributive relational process from identifying relational process. These implications were: verbs (*have* and *mean*), articles (*a/an*, and *the*), adjectives (*dead, tired, spent, young, bare, cold, joy, happy, and warm*), and circumstance of place. In another study that applied transitivity theory to analyze a literary work, Darani (2014) examined the persuasive style of a short story by examining the distribution of Halliday’s process types in the text. Findings showed that the material process was the most frequent one. Persuasion was expressed through the use of material processes (Darani, 2014).

There is an extensive body of literature on using transitivity theory in analyzing political and news discourse. Many researchers used Halliday’s transitivity system to analyze political articles in Eastern and Western news (Abdulameer & Noor, 2019; Bello, 2014; Cheikh, 2017). For example, Abdulameer and Noor (2019) analyzed 80 political articles in Eastern and Western online news by using transitivity analysis. This qualitative study reported that both verbal processes and material processes were more prevalent than other processes in social actors’ discourse in these Eastern and Western online news and followed by relational, mental and existential processes. Similarly, Bello (2014) analyzed the underlying ideology in news reports about “Operation Cast Lead” in *Arab News* and *New York Times*. The study concluded that news was not value-free, and that the reports were more about opinions than facts. Bello (2014) stated that in the Operation Cast Lead war between Israel and Hamas, the *Arab News* reports were “shown to be very critical of Israel while defending Hamas”. On the other hand, *The New York Times* was “shown as mitigating Israeli assaults and indicting Hamas mostly for the overall negative consequences of the war” (p. 202).

In another study, Cheikh (2017) used the same framework to explore the transitivity patterns in Algerian and U.S. newspaper articles which presented the same Algerian event. The researcher found that the most used process type was the material process. By the use of specific expressions, these newspaper articles attempted to influence their readers in a way that served their ideologies. In his research, Wahyudin (2016) also analyzed a news article entitled “72% of Indonesian people agree with nuclear power plants” by using the transitivity model. The findings of the study revealed that the most dominant process type that occurred in the text to critically persuade the readers was the verbal process. Bin (2005) used critical discourse to analyze news reports. He applied the transitivity system to compare two texts of English news which represented the same event. His

study concluded that social and ideological factors in its production, distribution, and interpretation should be taken into consideration when analyzing a text (Bin, 2005).

Similarly, Teo (2000) used transitivity theory in critical discourse analysis to shed light on the ideological construction of racism embedded within the discourse of two newspapers relating to a Vietnamese gang in Australia. The results revealed evidence of racism against Vietnamese migrants in Australia. Furthermore, by applying transitivity analysis to examine 50 newspaper reports published by UK *Times*, Chen (2005) discussed how writers can affect readers and push them in a particular direction. The researcher in his analysis focused only on the verbal process type.

The last two studies to be mentioned in this review conducted transitivity analysis in discourse related to American president Donald Trump. Zhang (2017) analyzed Donald Trump's first television debate with Hillary Clinton. The researcher examined the distribution and the functions of the six transitivity process types used by the two candidates. The results of this study indicated that material processes, relational process and mental processes dominated both candidates' speeches. The use of these processes was meant to influence the attitudes of their audience. However, Trump tended to use more existential processes than Hillary Clinton. Similarly, Zhao and Zhang (2017) explored the distribution and functions of the six process types in Trump's inaugural address in 2017. The researchers found that material processes (68.6%) highly dominated the speech. President Trump used material processes "to paint a bleak picture of America and to describe new actions the government will take" (p. 31). As for relational processes, they ranked second.

As this paper deals with news discourse in an educational institution, it is important to focus on educational contexts. It is necessary for university authorities to be well equipped to confront university-wide crisis (Sasot et al., 2020; Werner, 2014). Furthermore, Smith and Riley (2012) have stressed that powerful university leadership can tackle events, emotions, consequences, and actions in order to mitigate possible harm on individuals and on the structural organization of the university community. Werner (2014) affirmed that more preparation by university authorities leads to a more effective response that may carefully address crisis training experiences and preparedness. In a study conducted by James, Logan, and Davis (2011), it has been found that university authorities' presence in pandemic times provides students with assistance relating to their own emotional priorities.

It should be noted that there is an absence of research related to applying transitivity theory to the analysis of news texts concerning coronavirus crisis. Hence, this study will fill the gap in the literature by exploring the effect of the coronavirus pandemic on the discourse structure used in the SEU news texts. To be more specific, this study explores the distribution and the function of Halliday's transitivity system types in SEU news articles. The research questions of the study involve:

- 1) According to transitivity theory, what are the types of processes that are more frequently used in the SEU news texts published in the website before and during coronavirus pandemic?
- 2) What is the effect of the coronavirus pandemic on the discourse structure used in the SEU news texts?

### Methodology

The current study adopts a combination of quantitative and qualitative methods. The quantitative approach is able to determine the frequency of certain language clause types, whereas the function of the second approach is to simultaneously accomplish detailed enquiry into the manner in which

language patterns are utilized in context and the intentional usage of meanings of texts is originated (Bartley, 2018).

The text is a form of data deployed for analyzing linguistic features; grammar awareness offers noticeable assistance in text analysis and interpretation (Halliday & Matthiessen, 2014). The data provided by two news texts taken from the official website of the university during two different periods were analyzed in order to compare verbal processes before and during the coronavirus pandemic. The first text, entitled “The University Council holds its sixth session for the academic year 1439/1440 H,” was published before the coronavirus pandemic, on April 22<sup>nd</sup>, 2019. The second one, entitled “Saudi Electronic University Issues a Number of Precautionary Measures to Prevent Spread of Coronavirus,” was published during the coronavirus pandemic, on March 21<sup>st</sup>, 2020, in the same SEU website. It is crucial to note that the two news texts selected for the analysis of processes are matched in particular features: both are news texts found on SEU website, and they are interested in providing critical instructions such as tips and precautions issued before and during the pandemic.

To analyse the data, the texts were divided into clauses in order to gauge the number of transitivity patterns deployed. The clauses were classified into categories based on Halliday and Webster’s (2014) transitivity system. Table 1 below shows the types of processes, participants’ roles, and circumstances as indicated by transitivity system.

**Table 1**

*Types of Processes, Participants' Roles and Circumstances*

<b>Process Types</b>	<b>Participants' Roles</b>	<b>Circumstances</b>
Material	Actor + Goal	Extent Location (time, place)
Mental	Senser + Phenomenon	Manner Cause
Relational	Carrier + Attribute	Accompaniment Matter
Verbal	Sayer + Target	
Behavioral	Behaver	
Existential	Existent	

### **Findings**

**Text 1: “The University Council holds its sixth session for the academic year 1439/1440 H”**

It should be noted that there are three transitivity process types identified on the first news text entitled “The University Council holds its sixth session for the academic year 1439/1440 H”. These patterns include material, mental, and verbal processes. Table 2 shows the distribution of three process types in this part.

**Table 2**

*Distribution of Three Process Types in the 1<sup>st</sup> News Text*

<b>Process types</b>	<b>Frequencies</b>	<b>Percentage</b>
Material	20	76%
Mental	3	12%

Verbal	3	12%
<b>Total</b>	<b>26</b>	<b>100%</b>

Figure 1 below shows the results related to the use of the three types of transitivity process in the first news text.

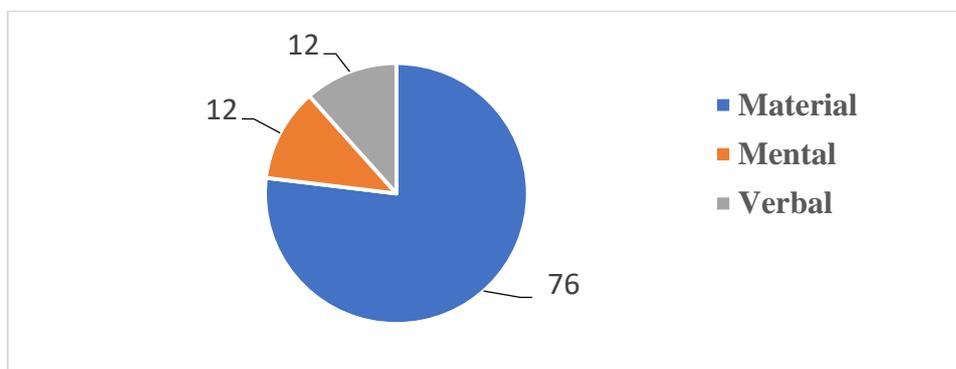


Figure 1. The Distribution of Transitivity Process Types for the 1<sup>st</sup> News Text

As shown on Figure 1, the material process type has been deployed more than the other process types (76%). The mental process and the verbal process have the same percentage (12%). It should be noted that the relational and existential process types have not been used in the first news text.

*Material Process:*

This process type is the most frequent process utilized in the first news text. This process is illustrated in Table 3

**Table 3**

*Transitivity Analysis of Material Process Existing in the News Text*

Participant	Process	Participant	Circumstance	Clause
Actor (His Excellency the Minister of Education)	Material (presided over)	Goal (the President of the Saudi Electronic University)	On behalf of His Excellency the Minister of Education	His Excellency the Minister of Education Presided over the President of the Saudi Electronic University
Actor (His Excellency the Rector)	Material (welcomed)	Goal (the members of the Council)		His Excellency the Rector welcomed the members of the Council
	Material (contribute)	Goal (to the university)		to contribute to the university's global reach
	Material (provide)	Goal (a distinctive educational environment)		To provide a distinctive educational environment
Actor (environment)	Material (helps)	Goal (creativity and excellence)		that helps creativity and excellence
	Material (contribute)	Goal (to the achievement)		to contribute to the achievement of the national transformation program 2020

Actor	Material (achieve)	Goal (scare the Kingdom's vision 2030)		and achieve scare the Kingdom's vision 2030
	Material (serve)	Goal (its orientation)		and serveits orientation
Actor	Material (building)	Goal (a distinguished generation)	scientifically, academically and culturally	in buildinga distinguished generation scientifically, academically and culturally
	Material (continue working)	Goal (working)	in the various colleges	to continue working in the various colleges
	Material (works to overcome)	Goal (the obstacles)		and works to overcome the obstacles
	Material (stand)		in the wayof the aspirations	that stand in the wayof the aspirations
	Material (achieved)	Goal (achievements)	for the University	the achievements achieved for the University
	Material (achieving)	Goal (academic accreditation)		achievingacademic accreditation
	Material (reaching)	Goal (quality in teaching)	in accordance with the latest international tools	and reaching quality in teaching in accordance with the latest international tools
	Material (provide)	Goal (an integrated academic environment)		to provide an integrated academic environment
	Material (serving)	Goal (the interest of the student)	in the first place	serving the interest of the student in the first place
	Material	Goal (to the advancement of education)		and contributing to the advancement of education
	Material (keep pace with)	Goal (the country's trends and future aspirations)		to keep pace with the country's trends and future aspirations
	Material (was achieved)	Goal (achievements)	in the academic year 1439/1440 H	was achieved in the academic year1439/1440 H

*Mental Process:*

The finding of the mental process analysis shows that it is less frequent than the material process and that its percentage represents 12%. It should be noticed that three verbs represent the mental process, namely 'thanking', 'ensure', and 'aimed'. Table 4 shows the mental process existing on the first news text.

**Table 4**  
*Transitivity Analysis of Mental Process Existing in the News Text*

Participant	Process	Participant	Circumstance	Clause
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Senser (His Excellency)	Mental (thanking)	Phenomenon (outstanding efforts of everyone)		thanking everyone for their outstanding efforts
	Mental (ensure)	Phenomenon (quality)	in the output	in order to ensure quality in the output
	Mental (aimed)	Phenomenon (achieving academic accreditation)		aimed at achieving academic accreditation

*Verbal Process:*

Like the mental process, the verbal process shares the same percentage (12%). It has been found that three verbs, namely ‘stressed’, ‘stressing’ and ‘discussed,’ represent the verbal process in the first news text. Table 5 shows the verbal process existing in the first news text.

**Table 5**

*Transitivity Analysis of Verbal Process Existing in the News Text*

Participant	Process	Participant	Circumstance	Clause
Sayer (His Excellency)	Verbal (stressed)	Verbiage (keenness of his Excellency the Minister of Education)		His Excellency stressed the keenness of his Excellency the Minister of Education
Sayer (His Excellency)	Verbal (stressing)	Verbiage (keenness of the University)		stressing the keenness of the University
Sayer (The Council)	Verbal (discussed)	Verbiage (what was achieved)	in the academic year 1439/1440 H	The Council then discussed what was achieved in the academic year 1439/1440 H

**Text 2: “Saudi Electronic University Issues a Number of Precautionary Measures to Prevent Spread of Coronavirus”**

Like the analysis of transitivity in the first news text, there are only three transitivity processes identified on the second news text, entitled “Saudi Electronic University Issues a Number of Precautionary Measures to Prevent Spread of Coronavirus”. These patterns include material, mental, and relational processes. Table 6 shows the distribution of three process types in the second news text.

**Table 6**

*Distribution of Three Process Types in the 2<sup>nd</sup> News Text*

Process types	Frequencies	Percentage
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Material	19	79.17%
Mental	2	8.33%
Relational	3	12.50%
<b>Total</b>	<b>24</b>	<b>100%</b>

The results related to the use of the three types of transitivity process in the second news text are provided in Figure 2.

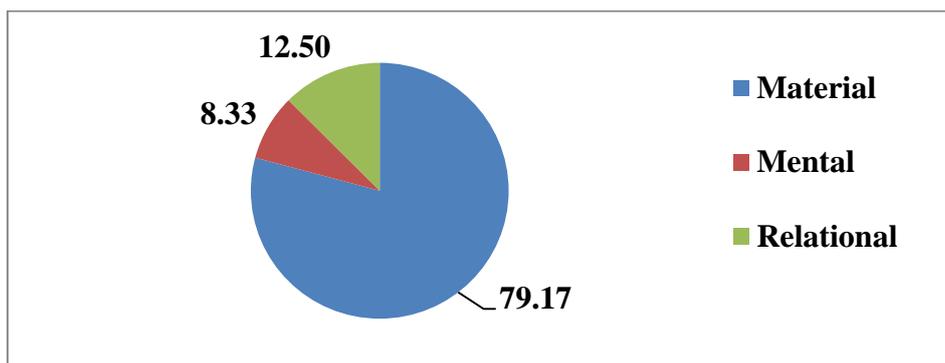


Figure2. The Distribution of Transitivity Process Types for the 2<sup>nd</sup> News Text

As shown in Figure 2, the material process type (79.17%) has been used more than the other process types. The relational process occupies the second rank with 12.50%. Finally, the mental process ranks third with 8.33%. It has been also found that the verbal and existential process types have not been used.

*Material Process*

Like the transitivity analysis of material processes in the first news text, the material process type represents the most frequent one in the second news text. An illustration of this process is provided in Table 7.

**Table 7**

*Transitivity Analysis of Material Process Existing in the News Text*

Participant	Process	Participant	Circumstance	Clause
Actor (Prof)	Material (approve)	Goal (a number of precautionary procedures)		the Rector of SEU Prof. Ibrahim Almuaiqel, approved a number of precautionary measures
Actor (precautionary procedures )	Material (prevent)	Goal (the spread of novel coronavirus)		to prevent the spread of novel coronavirus
	Material (preserve)	Goal (the safety of all university employees)		and preserve the safety of all university employees

	Material (reducing)	Goal (attendance of administrative staff)	at the Main headquarters' in Riyadh	reducing attendance of administrative staff
Actor (attendance of the administrative staff)	Material (rotating)		with the remaining 50% teleworking	rotating with the remaining 50% teleworking
Actor (Employees)	Material (telework)		at all branches	Employees at all branches telework
Actor (branches' supervisors)	Material (manage)	Goal (the work)	to the Vice-Rector	while branches' supervisors manage the work
Actor (branches' supervisors)	Material (submit)	Goal (reports)	to the Vice-Rector	submit reports to the Vice-Rector
	Material (is limited)	Goal (Female employees' attendance)	to supervisors and managers	Female employees' attendance is limited to supervisors and managers
Actor (those)	Material (are required)			those who are required
Actor (those)	Material (work)			To work
Actor (the rest)	Material (telework)		in coordination with higher management	the rest telework in coordination with higher management
	Material (are divided)	Goal (tasks)	within the staff at the workplace and home.	where tasks are divided
Actor (the university)	Material (contribute)			to contribute
Actor (precautionary measures)	Material (preventing)	Goal (spread of the novel coronavirus)		preventing the spread of the novel coronavirus
Actor (precautionary measures)	Material (protecting)	Goal (the health and safety of the University staff)		protecting the health and safety of the University staff
Actor (the university)	Material (reduce or cancel)	Goal (attendance)		reduce or cancel attendance
	Material (provided)			Provided that
Actor (the educational and administrative processes)	Material (function)		at the University, properly	the educational and administrative processes at the University properly function.

Findings related to mental process analysis shows that this process ranks third. It should be noticed that only two verbs represent mental processes, namely 'aim' and 'decide'. Table 8 shows the mental process existing in the second news text.

**Table 8**

*Transitivity Analysis of Mental Process Existing in the News Text*

Participant	Process	Participant	Circumstances	Clause
Senser (the university)	Mental (aims)		through these precautionary measures	The University aims through...
Senser (it)	Mental (decided)			it decided to reduce.

### *Relational Process*

Relational processes represent 12.50% and are placed second in rank. Table 9 shows the analysis of the relational processes in the second news text. The verbs used include 'are', 'include' and 'is'.

**Table 9**

*Transitivity Analysis of Relational Process Existing in the News Text*

Participant	Process	Participant	Circumstance	Clause
Carrier (These measures)	Relational (are)	Attribute (in line with the recommendations)	at the university	These measures are in line with the recommendations
Carrier (The precautionary measures)	Relational (include)	Attribute (reducing attendance)	at the Main headquarters' in Riyadh	The precautionary measures include reducing attendance at the Main headquarters
Carrier (Attendance of colleges)	Relational (is)	Attribute (in coordination with the deans)	at the workplace and home.	Attendance of colleges and supporting deanships' staff is in coordination with the deans

## **Discussion**

This study used the transitivity analysis of systemic functional grammar theory introduced by Halliday (1978) to analyse process types in news articles produced by SEU before and during the coronavirus pandemic. The aim of the study was to investigate how this situation affected the discourse of the internal technical communication within SEU. To assess the effect of the coronavirus pandemic on the discourse structure, this study compared the process types –mainly the verbs– in the clauses found in the news text produced before the outbreak of the coronavirus disease in December 2019 (covid-19) and the news text that was produced after this date. The analysis concentrated on identifying the process types as expressed by the verbs in the news texts. As it has been described in transitivity theory, verbs are crucial elements of a clause because they are connected with the semantic aspect of the clauses. In addition, verbs indicate the participants' roles and the function of the situation where a discourse is produced and processed (Renkema, 2004). Thus, the effect of this exceptional situation on the discourse of internal communication within the SEU has been highlighted. For example, the second news text employs relational processes; this implies that the theme suggested by the second text is descriptive. It is important to

note that that descriptive text often uses the relational process to render meanings in order to describe precautionary measures.

In answering the study's first question –*what are the types of processes that are more frequently used in the SEU news articles announced before and during the coronavirus pandemic*–, findings disclosed that three types of processes, namely material, mental and verbal, appeared in the first news text, with the dominance of material process (76%) over the other two types –mental (12%) and verbal (12%). In the second news text, also three types of process occurred, namely material, mental and relational, and again with the dominance of material process (79.17%) over the other two types –mental (8.33%) and relational (12.50%). This predominance of material processes, with a proportion of 40 examples out of the total of 50 in the two news articles, which represents 80% over the other types of processes, indicates that the two texts were concerned with actions and events, since they were announcements that communicated specific information to a specific audience –employees at the SEU. As a result, in such communication situations the material process has been frequently used. This implies that some action is required and should be undertaken (Egins, 2004) by the educational institution.

In short, the findings revealed that the material process is the most frequent process used in the two news articles produced by SEU. While the frequency of material process in the second news text is lower (19 examples out of 24) than in the first news text (20 examples out of 26), it has an approximate similar percentage (76%) to the examples provided in the second news text (79.17%). This proves that material processes have been frequently used in the two news articles. Thus, the finding of the current study goes in line with the studies conducted by Cheikh (2017), Darani (2014), and Zhao and Zhang (2017). All these studies showed that the material process was the most frequent one among the processes emerging in the text.

In answering the study's second question –*what is the effect of coronavirus pandemic on the discourse structure used in the SEU news articles*–, this study analyzed and compared the verbs in the clauses that appeared in the processes types in the two news texts by applying transitivity analysis in critical discourse analysis. It is important to notice that the verb selection influences the semantic and grammatical relations in the clause (Croft, 2001; Dixon, 2010), the type of a process as well as the function of the participants in a clause (Halliday, & Webster, 2014). Thus, the findings of this study showed that the verbs in the first news text are normally used in a discourse of internal technical communication in the workplace, since they refer to the work nature of the institution, which is a university in this case. Thus, the verbs in the material process are: [**welcomed** the members of the council], [**contribute** to the university outstanding efforts], [**provide** a distinctive educational environment), [**contribute** to the achievement], [**serve** its orientation], [**building** a distinguished generation], [**works** to **overcome** the obstacles], and [**achieving** academic accreditation]. As for the mental process, it can be described by the printed words in bold [**ensure** educational quality], [**thanking** everyone for their outstanding efforts], and [**aimed** at achieving]. Lastly, the verbal process can be indicated by words in bold as follows: [**His Excellency stressed** the keenness of his Excellency the Minister of Education] and [**discussed** what achieved in the last academic year]. This implies that the verbs in bold are all common and distinct of this kind of discourse.

The findings also showed that the verbs in the second news text, produced in March 2020, after the outbreak of the novel coronavirus disease (Covid-19), prove the effect of this exceptional situation on the discourse of internal communication within the SEU. The title of the second news text shifted from a normal university discourse circulating news to adapt (precautionary measures) through which the SEU announced certain procedures pertaining the administrative and educational process and the health of all employees as well. Thus, the title of second news text proves this fact

(Saudi Electronic University Issues a Number of Precautionary Measures to Prevent Spread of Coronavirus, 21-03-2020).

The analysis revealed that there was a change in lexical unit selection, especially related to the purpose [*precautionary measures*] and to the audience [*all university employees*]. The clauses provided in the second news text contained verbs and circumstantial phrases that prove a shift in the choice of lexical units due to the new situation. The 24 transitivity process types, involving 19 material, 2 mental, and 3 relational processes in the second news text, encompass verbs that are not used in normal situations. Notice the verbs in bold: [*prevent novel coronavirus*], [*preserve the safety of all university staff*], [*preventing the spread of the novel coronavirus*], and [*protecting the health and safety of all university staff*], which are used to indicate health measures (Beare, 2020), whereas the verbs highlighted in bold in clauses such as [*approve a number of precautionary measures*], [*reducing the attendance of administrative staff*], [*is limited to (attributive)*], [*dividing the tasks*], and [*manage work, telework*] are used to accentuate administrative measures (Cambridge English, 2006). Finally, the process indicating procedures concerned with the educational aspect can be found in the following clause: [*reduce or cancel the attendance*].

In terms of relational process, the function of the second news text is an attempt to help the readers identify and recognize the issue of the pandemic. In a nutshell, the findings proved that all processes are expressed in declarative forms, describing and identifying the procedures undertaken in the real context both inside and outside of SEU. Also, the percentages of different process types are to some extent similar when comparing the two news texts.

### Conclusion and Further Studies

The present study was an attempt to assess the effect of the coronavirus pandemic (covid-19) on the discourse of news articles produced by Saudi electronic university by applying the transitivity theory. In the light of the outcome of this study, it can be said that the frequent use of material processes in educational discourse within a workplace is a salient feature, since the roles of the participants is to communicate messages containing tangible actions. This type of discourse is subject to any situational circumstances that may affect its structure and orientation at all levels. The close percentages of different process types in the two news texts provided by SEU suggest that the university did not fully describe the exceptional situation, despite the selection in the second news text of lexical units relevant for this particular condition.

This study has some limitation regarding the small size of the sample material used, only two texts, and the method of analysis, which focused only on process types without analyzing in detail the participants' roles and the circumstances, which are the other two significant components of the transitivity theory. However, this could be an inspiration for other researchers to further investigate this topic.

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