

Lexical Density in Age and Gender Variations of Selected Crime-Related Essays by Undergraduates in Southwestern Nigeria

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Abstract

This study was carried out to investigate the characteristics of age and gender in the crime-related essays of selected undergraduates in Southwestern Nigeria, with a view to determining lexical density. M.A.K. Halliday's Systemic Functional Grammar was used as a framework and a descriptive design for the study. With a convenient sampling technique employed, three Universities in Southwestern Nigeria: University of Lagos, Akoka (federal); Adekunle Ajasin University, Akungba Akoka (state); and Crawford University, Igbesa (private), were chosen to represent different types of ownership. Forty-eight students, who were spread across the three Universities (four each from 100-400 levels), were purposively selected to write an essay on any of these four themes: Drug Addiction, Kidnapping, Robbery or suicide. The themes were selected due to their prevalence in Nigeria. Twenty-four (24) females and Twenty-four (24) males with predetermined ages from 16-18 and 19-21 were chosen. The data were subjected to stylometric and descriptive analyses. Findings reveal that female writings were characterised by drug addiction, while male writings were characterised by suicide. The mental process used by males in the 16-18 age bracket revealed that suicide victims react to depression by killing themselves to escape their predicament. Females in the 16-18 age bracket depicted drug addicted victims' illegal use of drugs, resulting in hallucinations and deteriorating health. The study revealed that Nigerian undergraduates' crime-related essays exhibited linguistic characteristics related to the age and gender of the students in terms of lexical density. The study provides data and enriches scholarship on corpus linguistics, forensic linguistics and other related research.

Keywords: Lexical characteristics, lexical density, essays, age and gender.

Introduction

With the advancement in technology and artificial intelligence today, there is a rise in crime rates, and crime related researches are becoming of interest. This study investigates male and female writing styles and differences in language use in essays written by selected undergraduates from

the south-west on designated topics on social crimes. Many empirical studies have been conducted; some have examined phonological and lexical differences (Eckert, 1998), while others have focused on discourse function, such as compliments and apologies. Some other corpus-based research investigated the syntactic and lexical differences between sexes (Argamon et al., 2003). In order to get to know if men and women comprehend things differently and speak distinctively, a few of the findings of such studies have suggested that men and women use language differently, but others contend that the sex of a speaker and/or the hearer may have a greater impact on language behaviour. In order to ascertain how male and female students use language differently when assigned to write an essay of a specific length about a given topic, the primary focus of this study is on essays written by undergraduates of both sexes.

The specific aim of the study is to infer age and gender differences through undergraduate writings on selected crimes. The specific objectives of this study are, therefore, to: identify age and gender differences in students' writings, especially on crime-related themes; examine how students' lexical choice and structure of expressions reveal crime-related issues, and how their description aids the meaning explication process. The research question addressed is: What is the significance of gender and age differences in students' writings, especially on crime-related themes?

While research work on crime issues in the Southwestern part of Nigeria is necessary as crime is still prevalent, not many works on crime have emerged compared to the crime rate in the society. This study attempts to fill this gap against the backdrop of Stylometry and Systemic Functional Grammar (SFG), as it facilitates the application of lexical ingredients in writings on social crimes. Students, through their writings, reveal the environmental implications of the selected identified social crimes of kidnapping, suicide, drug addiction and robbery. Through the mode of discourse, the SFG ideational metafunctions, concerned with the expression of ideas and experiences, duly express the context of situation in order to make writings informative and meaningful simultaneously.

Literature Review

Existing research efforts dwell much on stylometric attribution of written documents, author profiling of age and gender data sets in selected languages. Koppel (2002) studied stylometric differences in blogging for gender and age group variation. The results were based on two mutually independent features. The first feature is the use of slang words, which is a new concept proposed for the stylometric study of bloggers, and it identifies slang as a non-dictionary word that has

evolved with time due to its frequent and popular usage. The second feature focused on variations in sentences of average length across various age groups and genders. The outcome of the experiment demonstrates how well these characteristics detect the demographics of bloggers.

Various author characteristics have been explored in textual datasets during the last two decades. Coupland (2007) and Juola (2007) explore educational background and educational level. Pennebaker (2003) summarises some of the linguistic features that characterise the personality of text authors. Specifically, the authors indicated the significance of articles, auxiliary verbs, conjunctions, particles, prepositions and pronouns in English. Holmes and Holmes (1998) defined features that quantify writing style, and this research approach is described as stylometry. In addition, many types of measures have been proposed: character frequency, sentence length, vocabulary richness functions, word frequency and word length.

Another related research to this study from the perspective of crime is LaGrange and Kenneth (1989). The study examines age and gender differences in perceived risk and fear of crime among selected residents in the United States. Women reported significantly greater perceived risk and fear of crime than men did. However, Steffensmeier and Allan (1996) examined gender and crime and suggested that the gender gap in crime is universal, as women are always and everywhere less likely than men to commit criminal acts. The authors examine patterns of females committing crime and then review the gender equality hypothesis that gender differences in crime converge as male and female roles become similar. Johanssen et al. (2015) present a cross-lingual syntactic variation over age and gender, which shows several age and gender-specific variations across languages. The study revealed that women are more likely to use conjunctions and write more than men. Also, younger users tend to write more than older ones.

The listed researcher's reviews are relevant to the study. From the stylometric view, Koppel (2002) looks at stylometric differences in blogging for gender and age group variation. Holmes (1985) expresses writing styles with a stylometry approach with sentence length, vocabulary functions and word frequency. Johanssen et al.'s (2015) presentation on specific syntactic variation differentiates age and gender writings through treelets (nouns, verbs and pronouns). The selected works reviewed above are relevant to the study in reference to data similarity. However, none of the works identified on age and gender above submitted any research work on undergraduate writings to infer age and gender differences through essays on selected crimes in Southwestern Nigeria.

Nevertheless, the identified research studies on age and gender in Southwestern Nigeria revolve around studies on career choice, mental health and body weight. But only a few studies emerged on crime issues. Examples of such are ‘Stemming the Tide of Violence in Southwest Nigeria: The Role of Yoruba Indigenous Security System’ (Adenuga et al., 2024). The paper investigates the roles played by officials of the Yoruba indigenous security systems in checkmating the rate of violent conflicts in the selected 64 rural communities in Southwest Nigeria. Gender Based Violence in Akungba-Akoko of Southwestern Nigeria: Are Men Victimised? Fayakinnu (2007) also attempts to identify the forms of domestic violence men experience from women (intimate partners), the prevalence rate, and the consequences of the violence on men’s social well-being and psychological health. Research on Gender Disparity in Criminal Behaviour in Ado- Ekiti, Nigeria by Oluwadare and Agboola (2011) looked into disparity in the punishment given to males and females and recommended fair equality and treatment to both. These studies all came up with different approaches. Having reviewed the existing studies, this study adopts the Systemic Functional Grammar as the appropriate linguistic theory for adequate explanations of calculated age and gender for a symmetrical conceptualisation of the essays written by students.

Theoretical Framework

M.A.K. Halliday's Systemic Functional Grammar (SFG) is utilised all over the world, especially in language instruction because it investigates the ways in which language is employed in social settings to accomplish specific objectives. In terms of data, it examines the discourses that people produce, spoken or written, and the circumstances in which these texts are produced, rather than how language is processed or represented in the human brain. Given its focus on language usage, SFG gives language function more weight than language structure, or how a language is put together.

According to Eggins (2011: 206), the experiential function of language is released through the transitivity systems, in terms of participant, process and circumstances, employed by male and female students through the linguistic resources of language. In addition, Thompson (2004:30), in his description of the experiential functions of language, states that language is used to narrate our experience of the world, which includes the worlds in our minds. The exploration of experiential meanings is a major means of accounting for the ideational function of a text. Thus, the representational role of languages experiencing meanings, which enables us to encode the meanings of experience and paint representations of our reality, realises the scope of a discourse.

Textual spontaneity: Systemic Functional Grammar is interested in determining the spontaneity of a text by looking at the internal organisation of items used to project the communicative functions of a text. As an element of textual function, the spontaneity of a text is determined by focusing on its lexical density ratio. The potential usefulness of this statistical approach in this study helps to discover the degree to which each writer infuses each essay in his/her presentation with content words (lexical words) in proportion to grammatical words (function words). This helps the analyst to establish the ratio of information-carrying words employed for the realisation of the metafunctions of a text. To determine the degree of lexical density in a text, Halliday (1985:64) offers a hint. He defines lexical density as the ratio of the number of running words to the number of lexical items. Williamson (2014:1) quantitatively expresses this in a formula as shown: LD = Lexical density as a helpful indicator of the amount of information contained in a given text. A low lexical density suggests comparatively few information words, retrieved through a ratio of content words, whereas a high lexical density shows a large amount of information-carrying words (Williamson 2014:3).

Stylometry

Style, which is a product of the writer's unconscious tendency of choosing one form over several to convey the same idea, reflects aspects of the student's writing style. Despite speaking the same language, experimental data reveal that women and men communicate differently (Galasso and Nannicini, 2013). Similarly, female speech tends to have more verbs and shorter sentence structures, while male speech tends to have more lexical density, which frequently comprises longer phrases. This assertion could be confirmed by using the idea of stylometry.

McMenamin (2002:76) proposed quantitative and qualitative analyses in stylometry. Qualitative analysis is applied to describe how the writer's linguistic features are identified while quantitative analysis implies that particular indicators are figured and then evaluated, for instance, by counting the relative frequency at which a feature occurs in a text.

Methodology

The descriptive design was used for the study to accurately and systematically describe the population and the situation, while also focusing on observation and description. Descriptive design is a mixed method that can collect both qualitative and quantitative data. With a review of existing literature, the operational model integrates the components of metafunctions in Systemic

Functional Grammar with aspects of how the stylometry tool evolved for the study. Textual metafunction has to do with the internal organisation and communicative nature of a text, and it is unveiled through textual spontaneity. Investigation into textual spontaneity helps to discover how the writers make their essays informative by calculating the lexical density of their writings. Lexical Density is measured to discover the proportion of lexical words in relation to grammatical words. Therefore, the theoretical approach reflects a view that each of those perspectives captures relevant word meanings in the writings. The appropriate research design for the study is descriptive. It is based on using a range of qualitative and quantitative research methods in gathering, analysing and presenting collected data. The study area was limited to Universities in Southwestern Nigeria. These are: University of Lagos, Lagos State; Adekunle Ajasin University, Akungba, Ondo State, and Crawford University, Igbesa, Ogun State. The lecturers of the participating students were consulted, and the writings were carried out as assignments, so as to get the desired results, since the topics were open-ended. The purpose of the survey and what the information would help to achieve were disclosed to the respondents. The selection of the respondents was motivated by the age brackets (16-18 and 19-21) and their gender (male and female). Essay questions on the following crime themes of kidnapping, suicide, robbery and drug addiction were examined, while essays with the absence of relevant choice of words and expressions were not examined for analysis in the study. From the age section, ages 16-18 from Adekunle Ajasin University (AAU) present 8 essays; 8 essays were gotten from Crawford University and 8 essays from the University of Lagos (Unilag). For Ages 19-21, (AAU) presents 8 essays; 8 from Crawford and 8 from Unilag. The total relevant essays collected from the 3 Universities were 48. On the gender section, males in AAU are 8; Crawford 8 and Unilag 8, and for females, we have 8 essays from AAU, 8 from Crawford and 8 from Unilag. Levels 100-400 essays were arranged in 4 sections, with 4 essays per level and 16 essays from each school. Departments of Business Administration and English in 2 schools produced 16 essays each, resulting in 48 essays.

Data Analysis and Discussion

Students' promotion of themes through lexical density: Age

The table below demonstrates the ratio at which each writer communicates through identifiable numbers of content/lexical items in selected crime titles. The tables below reveal the stylometry tool frequency that displays the information retrieved on suicide. This is relevant to the suicide

theme in the study, as it acknowledges the contributions of the students to the study and shows the age group with the highest frequency.

Table 4.1: Text 1 Writings on Suicide Ages, 16 -18

Word Class	No. of content/function words	Total No. of words	Lexical density in percentage %
Nouns	183	1,219	15.0
Verbs	175		14.3
Prepositions	126		10.3
Pronouns	54		4.4
Suicide: 19 -21			
Nouns	151	998	15.1
Verbs	89		8.9
Prepositions	108		10.8
Pronouns	30		3

Table 4.1 above shows the total number of words of respondents aged 16 -18 to be 1, 219 and the total number of words for respondents aged 19-21 as 998. These figures communicate the number of content and lexical items in the selected essays on the reasons people commit suicide. The nouns and verbs sections on the tables are important to the topic under discussion, because unique words associated with suicide, relating information about the topic, were realised and presented as content words in the word class sections. Pronouns relate to personal pronouns through which personalisation analysis was realised. Prepositions act as grammatical ties for connections within expressions, for meaning realisation in various expressions in each essay. However, the total number of words is more relevant when the content words are higher than the lexical words in each group. In Table 4.1, the following words were discovered in the essays gathered on suicide for respondents aged 16-18: Nouns, 183 words; verbs, 175 words; prepositions, 126 words; and pronouns, 54 words. In the lexical density section, the total number of nouns was 15 %, verbs 14.3%, prepositions 10.3% and pronouns 4.4%. Data on respondents aged 19-21 has the following sections: nouns, 151 words; verbs, 89 words; prepositions, 105 words; and pronouns, 30 words. The total number of all the words in the essays in this group is 998. The lexical density on nouns is 15.1%, verbs 8.9%, prepositions 9.8% and pronouns 3%. In the writings of respondents aged

16-18 years, the content words, which are information carriers, are higher with the addition of content percentage at 29.3% than the function words at 14.7%, expressing various reasons why suicide practices increase, therefore making their writing style more enlightening. Respondents aged 16-18 have higher lexical density than the respondents aged 19- 21. The next sections show columns for the selected themes.

Table 4.2: Text 2 Writings on Kidnapping, Ages 16-18

Word Class	No. of content/function words	Total No. of words	Lexical density in percentage %
Nouns	253	955	26.4
Verbs	155		16.2
Prepositions	03		0.31
Pronouns	27		2.8
Kidnapping: Ages 19-21			
Nouns	385	1,977	19.4
Verbs	213		10.7
Prepositions	220		11.1
Pronouns	49		2.4

Table 4.2 above reveals the total number of words for respondents aged 16-18 as 955, while the total number of words for respondents aged 19-21 is 1, 977. The nouns and verbs sections on the tables are key information carriers in the essays, because distinguishing words associated with kidnapping were realised and presented as content words in the word class sections. Pronouns relate to personal pronouns, through which personalisation analysis was realised. Prepositions act as grammatical ties for connections within expressions for meaning realisation in various expressions in each essay reviewed in this study. =In Table 4.2, the following words were extracted from kidnapping essays for respondents aged 16-18: nouns, 253 words; verbs, 155 words; prepositions, 03 words; and pronouns, 27 words. In the lexical density section, the total number of nouns is 26.4%, verbs 16.2%, prepositions 0.31% and pronouns 2.8%.

Respondents aged 19-21 have the following sections: nouns, 385 words; verbs, 213 words; prepositions, 220 words; and pronouns, 49 words. The total number of all the words in the essays in this group is 1,977. Nouns have 19.4%, verbs 10.7%, prepositions 11.1% and pronouns 2.4%.

In the writings of respondents aged 16-18 years, the content words, which are information carriers, are higher with the addition of content percentage at 42.6% than the function words at 3.11%, while respondents aged 19-21 presented a lower percentage of 30.1% on content words addition and 13.5% on function words addition in the essays. Respondents aged 16-18 have a higher percentage of content words, which are the information carriers that determine linguistic elaborateness and syntactic sophistication. Therefore, respondents aged 16-18 demonstrated higher lexical density in their essays on kidnapping in this section.

Table 4.3: Text 3 Writings on Drug Addiction, Ages 16-18

Word Class	No. of content/function words	Total No. of words	Lexical density in percentage %
Nouns	109	556	19.6
Verbs	53		9.5
Prepositions	25		4.4
Pronouns	5		0.8
Drug Addiction: Ages 19-21			
Nouns	328	1,635	20
Verbs	145		8.8
Prepositions	168		10.2
Pronouns	71		4.3

Table 4.3 displays the total number of words for respondents aged 16-18 to be 556 and the total number of words for respondents aged 19-21 as 1,635. Nouns and verbs associated with drug addiction were realised and presented as content words in the word class sections in the table above. Pronouns relate to personal pronouns through which personalisation analysis was realised. Prepositions act as grammatical ties for connections within expressions for meaning realisation in various expressions in each essay analysed in the study. In Table 4.3, the following words were gathered from drug addiction for respondents aged 16-18: nouns, 109 words; verbs, 53 words; prepositions, 25 words; and pronouns, 5 words. In the lexical density section, the total number of nouns gives 19.2 %, verbs 9.3%, prepositions 4.4% and pronouns 0.8%.= Respondents aged 19-21 have the following sections: nouns, 328 words; verbs, 145 words; prepositions, 168 words; and pronouns, 71 words. The total number of all the words in the essays in this group is 1,635. Nouns

are 20%, verbs 8.8%, prepositions 10.2% and pronouns 4.3%. In the writings of respondents aged 16-18 years, the addition of content words percentage produced 29.1% and the function words 5.2%. For those aged 19-21, the content words addition gives 28.8% and 14.5% on function words addition. The presentations on drug addiction are didactic, advisory and relevant. Nevertheless, respondents aged 19-21 have a higher lexical percentage of 29.1% in the content words.

Table 4.4: Text 4 Writings on Robbery, Ages 16-18

Word Class	No. of content/function words	Total No. of words	Lexical density in percentage %
Nouns	67	413	16.2
Verbs	86		20.8
Prepositions	52		12.5
Pronouns	54		13
Robbery: Ages 19-21			
Nouns	180	1,254	14.3
Verbs	137		10.9
Prepositions	123		9.8
Pronouns	106		8.4

Table 4.4 above reveals information on robbery. The total number of words for respondents aged 16-18 is 413, while the total number of words for those aged 19-21 is 1,254. The nouns and verbs sections on the tables are salient to the study because distinctive words associated with robbery were realised and presented as content words in the word class sections. Pronouns relate to personal pronouns through which personalisation analysis was realised. Prepositions act as grammatical ties for connections within expressions for meaning realisation in various expressions in each essay reviewed and analysed in the study.

In Table 4.4, the following words were extracted from writings on robbery by respondents aged 16-18: nouns, 67 words; verbs, 86 words; prepositions, 52 words; and pronouns, 54 words. In the lexical density section, the total number of nouns (67) divided by the total number of words (413) multiplied by 100 gives 16.2 %. The total number of verbs (86) divided by the total number of words (413) multiplied by 100 gives 20.8%. The total number of prepositions (52) divided by the total number of words (413) multiplied by 100 is 12.5%. And the total number of pronouns (54)

divided by the total number of words (413) multiplied by 100 gives 13%.

The following words were retrieved from robbery for ages 19-21: nouns, 180 words; verbs, 137 words; prepositions, 123 words; and pronouns, 106 words. In the lexical density section, the total number of nouns (180) divided by the total number of words (1,254) multiplied by 100 gives 14.3. The total number of verbs (137) divided by the total number of words (1,254) multiplied by 100 is 10.9. The total number of prepositions (123) divided by the total number of words (1,254) multiplied by 100 is 9.8. The total number of pronouns (106) divided by the total number of words (1,254) multiplied by 100 gives 8.4.

In the writings of respondents aged 16-18 years, the content words, with the addition of content percentage, produced 37%, and the function words at 25.5%. For those aged 19-21, the content words addition gives 25.2% and 18.2% for function words addition.

Respondents aged 16-18 have more content words through lexical patterns that are distributed adequately across their writings. Respondents aged 16-18 have more experiences with robbery issues, with 37%, than those aged 19-21, with 25.5% on content words in the study, presented through their experiential writing styles. The next section is about the gender analysis in the study.

Gender

The most researched social component in several fields that look at the relationship between language use and the social environment is gender. According to Bergvall (1998), sex and gender are both examples of socially constructed classifications. Indeed, it is said by many scholars that males and females differ in the usage of language (Tannen, 1990, Coates, 2007 and Smith, 2008). The tables below are representations of male and female writings from three different universities in Southwestern Nigeria.

Table 4.5: Text 5 Writings on Suicide: Males

Word Class	No. of content/function words	Total No. of words	Lexical density in percentage %
Nouns	209	944	22.1
Verbs	123		13.0
Prepositions	127		13.4
Pronouns	33		3.4
Suicide: Females			

Nouns	154	1,113	13.8
Verbs	108		9.7
Prepositions	110		9.8
Pronouns	86		7.7

Table 4.5 shows male writers with 994 total words and female writers with 1,113 words. The nouns and verbs presented in the tables above are key to the study because distinguishing words associated with suicide were realised and presented as content words in the word class sections. Pronouns related to each essay were analysed through personalisation. Prepositions act as grammatical ties for connections of various expressions in each essay analysed in the study.

In Table 4.5, the following words were recovered from male writers' presentations on suicide: 209 nouns, 123 verbs, 127 prepositions and 33 pronouns. In the lexical density section, nouns had 22.1%, verbs 13.0%, prepositions 13.4% and pronouns 3.4%. The following words were retrieved from female writers' presentation on suicide: nouns, 154 words; verbs, 108 words; prepositions, 110 words; and pronouns, 86 words. In the lexical density section, the nouns have 13.8%, verbs 9.7%, prepositions 9.8% and pronouns 7.7%. Both males and females revealed salient points, which are referred to as environmental stress, such as poverty, health challenges (e.g. HIV/AIDS), unemployment and low self-esteem, among others. It is noted, however, that male writers' choices of words reflected more content words, which are the information carriers. Thus, the lexical density of the content words' addition is higher in males (35.1%) than in female writers (23.5%). Hence, males have higher lexical density in this section on suicide.

Table 4.6: Text 6 Writings on Kidnapping: Males

Word Class	No. of content/function words	Total No. of words	Lexical density in percentage (%)
Nouns	220	964	22.8
Verbs	88		9.1
Prepositions	100		10.3
Pronouns	15		1.5
Kidnapping: Females			
Nouns	274	1,584	17.2

Verbs	181		11.42
Prepositions	182		11.48
Pronouns	51		3.2

In Table 4.6 above, male writers have 964 total words, while female writers have 1,584 words. The nouns and verbs presented on the tables above are essential parts of the study, because unique words associated with kidnapping were realised and presented as content words in the word class sections. Related pronouns were portrayed through personalisation examination. Prepositions, as grammatical ties for connecting various expressions, were assessed in the study.

In Table 4.6, the following words were recovered from male writers' presentation on kidnapping, with 220 nouns, 88 verbs, 100 prepositions and 15 pronouns. In the lexical density section, the nouns have 22.8%, verbs 9.1%, prepositions 10.3% and pronouns 1.5%. The female writers have a higher lexical density percentage in verbs, which is important in relating information about the essay. Also, pronouns and prepositions, which are used to provide grammatical ties among the content words, are also higher in female writings than in male writings. In Table 4.6, the following words were retrieved from female writers' presentations on kidnapping: nouns, 274 words; verbs, 181 words; prepositions, 182 words; and pronouns, 51 words.

The content words addition is higher in males, with 31.9%, than in female writers, with 28.6%. Hence, the male writers have higher lexical density in their styles of presentation on the issue of kidnapping.

Table 4.7: Text 7 Writings on Drug Addiction: Males

Word Class	No. of content/function words	Total No. of words	Lexical density in percentage %
Nouns	131	81	16.7
Verbs	71		9.0
Prepositions	66		8.4
Pronouns	22		4.4
Drug Addiction: Females			
Nouns	191	769	24.8
Verbs	73		9.4
Prepositions	53		6.8

Pronouns	28		3.6
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Table 4.7 reveals that male writers have 781 total words, while female writers have 769 words on drug addiction. The nouns and verbs presented on the tables above are germane to the study because individual words associated with drug addiction were obtained and presented as content words in the word class sections. Pronouns associated with personalisation were realised in the essays. Prepositions, as grammatical ties for connecting expressions in each essay, are reviewed in the study. In Table 4.7, the following words were gathered from male writers' presentations on drug addiction: 131 nouns, 71 verbs, 66 prepositions and 22 pronouns. The table also shows their lexical density. Female writers' presentation on drug addiction has the following figures in word classes: nouns, 191 words; verbs, 73 words; prepositions, 53 words; and pronouns, 28 words. All facets of female writers' expression were present. While men tend to think about problems in a more detached manner, women are more sensitive to the immediate social and physical context (Heylighen and Dewaele, 1999:30). This would account for the social nature of a conversation and the simultaneous use of formal, in-depth speaking by women. There is, therefore, a wide justification that the writing styles of female writers are more explanatory of drug addiction than those of male writers. The content words addition is higher in females, with 34.2%, than in male writers, with 25.7%.

Table 4.8: Text 8 Writings on Robbery: Males

Word Class	No. of content lexical words	Total No. of words	Lexical density in percentage %
Nouns	115	865	13.2
Verbs	119		13.7
Prepositions	82		9.4
Pronouns	69		7.9
Robbery: Females			
Nouns	114	721	15.8
Verbs	80		11.0
Prepositions	81		6.8
Pronouns	61		3.6

Table 4.8 above presents male writers with 865 total words and female writers with 721 words on

robbery. The nouns and verbs presented in the tables above are important to the study because distinguishing words associated with robbery were discovered and presented as content words in the word class sections. Pronouns relate personal pronouns, relative pronouns and demonstrative pronouns, among others, through which personalisation characteristics were realised. Prepositions, as grammatical ties for connecting various expressions in each essay, were reviewed in the study. In Table 4.8, the following words were gathered from male writers' presentations on robbery, with 115 nouns, 119 verbs, 82 prepositions and 69 pronouns. In the lexical density section, the total number of nouns is .2%, verbs 13.7%, prepositions 9.4% and pronouns 7.9%.

Female writers' presentations on robbery have the following figures in the word classes: nouns, 114 words; verbs, 80 words; prepositions, 81 words; and pronouns, 61 words. In the lexical density section, the total number of nouns is 15.8%, verbs 11.0%, prepositions 6.8% and pronouns 3.6%. The approach attempted by the two groups shows that experiencing robbery attacks in Nigeria is not in favour of either gender. Presentation of higher lexical density in males with 26.9% than the female writers with 26.8%.

Findings

Respondents aged 16-18 have more information and are loaded with expressions revealing more content words through lexical patterns that are distributed adequately across their writings. Respondents aged 16-18 have more experiences with robbery issues, with 37%, than those aged 19-21, with 25.5%, on content words in the study, presented through their experiential writing styles. The next section is about stylometry gender analysis in the study. The writings of students on gender revealed differences through presentations on suicide, kidnapping, drug addiction and robbery. The group with higher percentages of content words and function words are revealed through each table. We can decode the gender with a higher percentage of content and function words in each title. Lexical words (Nouns and Verbs) and grammatical words (Prepositions and Pronouns) were the basis for the percentage analysis. The identified gaps in scholarship, which the study has pursued, revealed that previous studies used Profiling-UD, Universal dependencies, syntactic relations, lexical varieties and with algorithms obtained 80% accuracy and writing styles growing increasingly with males. This study advances with the application of metafunctions (textual spontaneity) and stylometry word-frequency as the driving force for linguistic analysis of the students' writings. Through the analysed data, it is established that we can infer age and gender differences through writing.

Conclusion

The study systematically and functionally explores stylometry and Systemic Functional Grammar in written essays presented by students to encode meaning in selected crimes. The study demonstrates the relationship between linguistic resources and word frequency in the various writings through the application of relevant linguistic tools. The presentations reveal that male students are more explorative and expressive, and their essays are more objectively written than female students do. Through stylometrical text evaluation, it is established that we can infer age and gender differences through writing. This study has examined students' essays from three Universities in Southwestern Nigeria. The study is, however, essentially descriptive. Further studies can consider writings on Suicide Notes using other analytical tools to investigate certain aspects of the writings and reasons people commit suicide. Furthermore, researchers can make theoretical constructs and conduct comparative analyses of the lexicogrammatical peculiarities of different notes.

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