Tense Usage in Selected Humanities and Science Dissertations

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Abstract

Graduate students are usually not sure of the appropriate tense to use in each rhetorical section of their dissertations in their disciplines. Even style guides provide little information regarding tense usage in academic texts. This paper describes a study in which frequency and usage of types of tense were compared in selected dissertations from the humanities and sciences drawn from Kenyan Public Universities. It was found that graduate research students in both humanities and sciences preferred the simple present and simple past as primary tense forms. It also emerged that authors have to alternate verb tenses even in the same rhetorical section of a dissertation to achieve particular communicative purposes. Suggesting that choices for tense in dissertations are a function of the epistemology and ideology of the disciplines, the paper proposes a genre-based approach to teaching those preparing to write their dissertations.

Keywords: Disciplinary culture, point of reference, primary tense, secondary tense, communicative purpose

Introduction

Hyland (2013) argues that specialist forms of academic literacy are the heart of everything done at the university. As such, postgraduate students and their lecturers must gain fluency in the conventions of academic writing in English to understand their disciplines, to establish their careers or to successfully develop their learning. One such convention is the writer's ability to employ the socially appropriate types of tense in the specific rhetorical divisions of dissertations in their disciplines. Scholars in the humanities and science disciplinary cultures have normative expectations regarding tense usage in dissertations produced under their supervision.

Hyland (2013) adds that students can only marshal support, express collegiality, and negotiate agreement by making use of linguistic features which connect their texts with their disciplines. The tense feature can be defined as the forms of the verb that may be used to indicate the time of the action or state expressed by the verb (Quirk, Greenbaum, Leech, & Svartvik, 1985). Accordingly, a point of reference is a point from which the relative time location of the situation is placed. In spoken discourse, this point of reference is usually the present moment 'now', and the moment of speaking is usually the same as the moment of hearing. In written discourse, the time of writing and reading are not the same, and situations can be considered in relation to either the time of writing or the time of reading (Comrie, 1985; Jackson, 1990). Other terms used interchangeably to refer to the point of reference are point of orientation and reference point. Tense is also seen as a grammatical category, especially in traditional grammar, where conjugations are compared with aspect and modality (Gledhill 2009). Halliday and Matthiessen (2004) see tense essentially in terms of experiential metafunction (verb forms contribute to time-reference in the clause) and the interpersonal metafunction (verb forms signal authorial stance).

Verb tenses present a relationship between the present moment (now) and another moment or period in time (which may be long or short). According to traditional grammar, these moments or periods may be in the past, present or future. Hence, three types of simple tenses can be distinguished: present, past and future. The simple present tense locates a situation at the same time as the present moment (instantaneous present) or over an extended period of time which includes the present moment (unrestrictive present) (Leech, 1987). On the other hand, the simple past tense locates a situation prior to the present moment while the simple future tense locates a situation subsequent to the present moment. The relationship between these various time locations relative to the moment of utterance 'now' is illustrated in the following time continuum (Jackson 1990, p. 77):

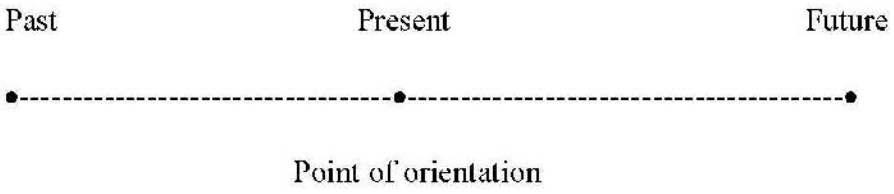

Figure 1 Past, present and future tenses

The tense choice of past, present, or future relative to the time of speech is referred to as the primary tense or absolute tense (Halliday1994; Lock 1996). The time frame of the primary tense can be taken as the reference point for another selection of past, present, or future, resulting in secondary tenses relative to the primary one. Thus, the present perfect locates a situation started prior to the present moment and continues into the present moment. According to Reeves (2009), it describes actions that occurred in the past which either have been completed or form part of an uncompleted whole. It contains an implicit reference to the present, often made explicit by the addition of more information to this effect, or reflects the effects of past events on the present, and even the future, and it cannot be used together with references to specific periods in the past.

This is illustrated in the following diagram:

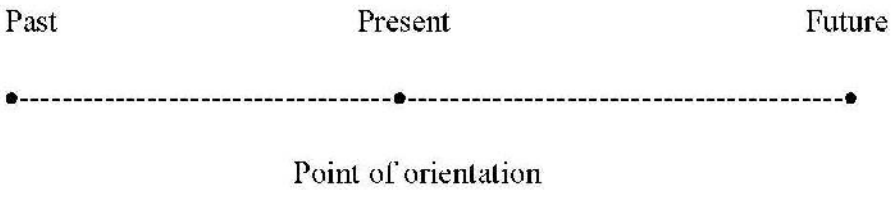

Figure 1 Past, present and future tenses

The present progressive tense places a situation in a time span which includes the present moment and stretches for a limited period into the past and future (Leech, 1987, p.19) as illustrated below:

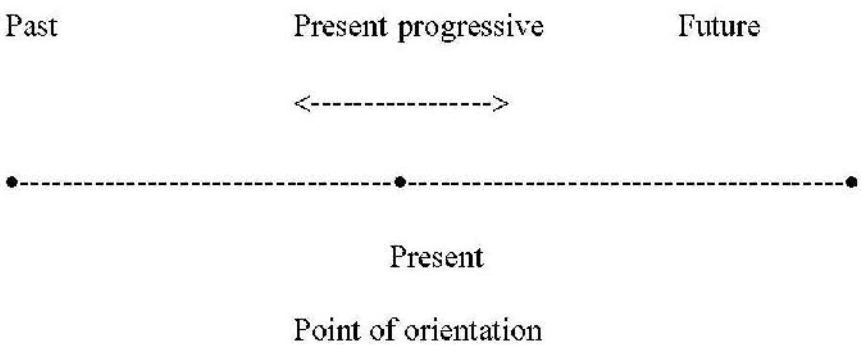

Figure 3 Present progressive tense

As another example, when the past from the first time choice serves as a reference point for further choices, the secondary tenses include the past perfect (past-in-past), past progressive (present-in-past), and past future (future-in-past). The past perfect tense locates a situation prior to a point in the past. It is 'a time further in the past, seen from the viewpoint of a definite point of time already in the past' (Leech 1987, p. 47). The past progressive tense on the other hand locates a situation over a limited time span including the past point of reference. Lastly, the past future locates a situation subsequent to a point in the past. Its common form is *would* followed by the base form of the main verb. See the following illustration:

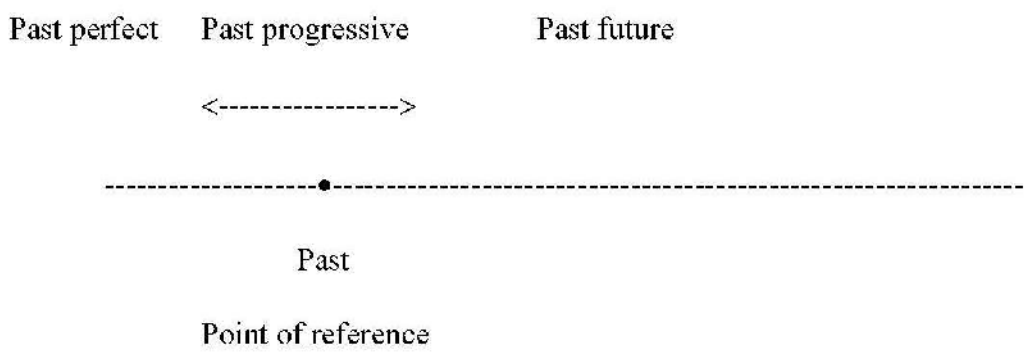

Figure 4 Past future

The point of orientation is typical of narrative texts conventionally written in the past tense and is particularly useful in the analysis of the history texts.

Time frame may also be expressed through modals. On the one hand, modals can express a temporal aspect. Accordingly, the modal verbs *will* and *shall* can be used to form the simple future tense, and *could*, *would, might*, and *should* can be used to express the past time of the related present-tense forms *can, will, may*, and *shall*. On the other hand, modals can express modality, adding to a proposition 'an attitudinal component, giving the hearer (or reader) an assessment of the possibility, likelihood, probability, etc.' of a situation (Jackson 1990, p. 99). When used to express modality, the modals are regarded as tenseless and the time frame is the unrestrictive present.

In summary, there are twelve tenses according to traditional grammar. These are the simple present, simple past, simple future, present perfect, past perfect, future perfect, present progressive, past progressive, future progressive, present perfect progressive, past perfect progressive, and future perfect progressive (Celce-Murcia and Larsen Freeman 1999, p. 110). According to Chen (2009) and Reeves (2009), selecting an appropriate reporting verb and its tense and voice in a particular context is one of the best ways for the writer to present his work appropriately and to communicate effectively with others in the academic community. This is

because tenses manage time by placing moments or periods within particular relationships or 'time frameworks.' It is expected that in dissertation writing, some frameworks are more commonly used than others. Their frequency is likely to be variable from one rhetorical section of a dissertation to another and they may possibly vary between one discipline and another.

However, a look at the dissertation writing manuals and guidelines reveals little or no information on how tenses can be employed in the rhetorical sections of dissertations drawn from the sciences and humanities' domains. Therefore, the question that emerges is: On which benchmarks should dissertation writers base their tense usage when writing dissertations in their disciplines? Put in other words, on which guidelines should research supervisors base their judgments on the appropriateness of tenses in their students' dissertations? As a response to this question, this paper analyses the types of tense that writers use in respective rhetorical sections of their dissertations and the patterns emerging in humanities and science disciplinary cultures. Prior to presenting the literature, the writers should have an idea of what the problem was, and why this study is important.

Methods

Six dissertations were analysed in this study; three were drawn from the humanities field while the other three were drawn from the science disciplines. Becher's (1989) taxonomy that categorises disciplines into soft and hard respectively was used in the stratification and selection. The consideration for including the sciences and humanities is based on the argument by Hyland (p, 194) that academic discourse in the sciences depends on the demonstration of absolute truth, empirical evidence or flawless logic. The humanities on the other hand are known to be based on logical presentation and discussion of knowledge. To illustrate how these contrasting aspects of

knowledge construction are expressed by tense, six dissertations were selected for analysis as summarised in Table 1.

Table 1

Sample of dissertations

Humanities (Soft disciplines)				Science (Hard disciplines)			
Discipline	Institution	Code	# of copies	Discipline	Institution	Code	# of copies
History	Kenyatta University	AHT	1	Chemistry	Moi University	SCH	1
English	Maseno University	AEN	1	Botany	Egerton University	SBT	1
Sociology	University of Nairobi	ASC	1	Agricultural Engineering	Jomo Kenyatta University	SAE	1

The sampling procedure used for the selection of the six dissertations was based on the population of all the MA dissertations produced at Kenyatta, Maseno and Nairobi universities, and all the MSc dissertations produced at Moi, Egerton and Jomo Kenyatta universities during the 2007/2008 academic year. Only 2007/2008 academic year was considered in order to avoid the possible influence(s) of generational and diachronic changes in the nature of this genre. But one critical decision that was made was how to draw a sample of six dissertations from a large 'universe'. In line with the purposes of the study, non-probability sampling, which comprises a series of non-random procedures for selecting the elements of the sample, seemed to be appropriate (Ary, Jacob, & Rzavieh, 1996). To be more specific, a convenience sampling procedure, which includes picking the required dissertations from the total population, was used to select the six texts for this study. Obviously, the success of such procedures depends on the knowledge, expertise, and sound judgement of the expert (Ary et al. 1996).

It should, however, be noted that the use of tense in the selected dissertation from each of the six universities may not be typical of dissertations in the particular university and/or disciplinary culture. Each discipline in a university must still unique ways of using tense though the study showed that disciplines belonging to the same disciplinary culture displayed certain commonalities regarding the feature. As such, the selected humanities dissertations, for example, were not radically different from one another. According to Becher (1989) and Belcher (1994), such an approach simplifies what are, in fact, innumerable disciplinary differences. Therefore, there was need to uncover these general tendencies. Accordingly, as Hyland (2005) argues, a large corpus does not necessarily represent a genre better than a small one, particularly if it is used to study high frequency items.

To elicit the linguistic data for analysis, all the finite verbs were first identified and classified strictly by form with no regard to function and meaning following the forms of the English tense-aspect system, or the twelve 'tenses' as commonly referred to in general grammar. Adapted from Celce-Murcia and Larsen-Freeman (1999, p. 110), these forms are shown in Table 2. The tenses in this table are shown as combinations of tense and aspect. while tense locates a situation in time relative to a reference point, aspect deals with the internal temporal constituency of the situation (Comrie, 1976, p. 5).

Table 2

The English Tense-Aspect System

	Aspect			
	Simple	Perfect	Progressive	Perfect progressive
	ϕ	Have + -en	be + -ing	Have−en be + -ing
Present	*write/writes*	*has/have written*	*am/is/are writing*	*has/have been writing*
Past	*wrote*	had written	*was/were writing*	*had been writing*
Future	*will write*	*will have written*	*will be writing*	*will have been*

This paper uses 'tense' as an overriding term to refer to tense-aspect combinations. Although the 'future tense' is usually not considered to be a tense in English in a form-orientated account of tense, since there is no future inflection of the finite verb stems in English (Celcie-Murcia & Larsen Freeman, 1999), it formed the scope of the present study. For practical use, the future time was expressed as the simple future. This future expression was taken as the periphrastic form *will* or *shall* followed by the base form of the main verb.

The categories for the count included the simple present, simple past, present perfect, past perfect, simple future, past progressive, present progressive. Such categories as the present perfect progressive, past perfect progressive, future perfect, future progressive, and future perfect progressive were not included in the present study because they are generally insignificant in academic texts (Celce-Murcia and Larsen-Freeman, 1999; Malcolm, 1987; Reeves, 2009, Swales, 1990). Based on this classification, all the tense forms were manually counted and marked in the contexts in which they occurred in the selected dissertations. To achieve inter-rater reliability, a colleague also identified all the tense forms in the other set of dissertations and marked them accordingly. Where discrepancies were noted, we discussed them in line with the citeria in Table 2 till we arrived at a consensus.

Results

A manual count of finite verbs yielded a total of 10,021 verbs in the study corpora. These were classified into seven categories as shown in Table 3.

Table 3

Distribution of finite verb forms in the study corpora

Science and Humanities dissertations

Verb forms	# of occurrences	Frequency (%)
Simple present	4247	42.4
Simple past	3943	39.3

Present perfect	561	5.6
Past perfect	168	1.7
Simple future	150	1.5
Present progressive	914	9.1
Past progressive	38	0.3
	N = 10,021	

As can be seen in Table 3, the simple present tense occurred most frequently followed by the simple past. The combined total for the simple present and past tenses is 82 percent. There is an insignificant use of the present and past perfect, the future, and progressive forms with their combined total being only 18 percent. Of the two progressive forms, the past progressive was extremely rare, with only 38 occurrences out of the 10,021 verbs.

The use of the simple present tense implies that the time of writing the thesis coincides with the time of reading. The high incidence of the tense therefore suggests that the work presented in a thesis has significance to the contemporary situation. The researchers probably believe that content in their dissertations continues expresses general truths as supported by research results. In other words, they believe their work to be always true.

The simple past tense, on the other hand, indicates that the research process culminating in the thesis is actually complete and referring to it requires such a tense. The use of the present perfect tense indicates that the events described in the theses only took place prior to the present moment and are therefore of contemporary significance (Reeves, 2009) while the present progressive tense indicates that the work being reported in the dissertations has a link to the past and progresses into the future. In the next section, I look at the distribution of the tense forms per disciplinary culture. The distributions of the finite verb forms for each dissertation in its own disciplinary culture were determined beginning with science dissertations as discussed below:

The corpus for the science disciplinary culture yielded 2850 finite verbs: 927 occurrences in dissertation SCH, 703 in dissertation SBT, and 1221 in dissertation SAE as shown in Table 3. Under each dissertation heading, the first column reports the number of occurrences of each finite verb form while the second column shows the frequencies of the corresponding forms.

Table 4

Distribution of finite verb forms in science dissertations

	Dissertation SCH		Dissertation SBT		Dissertation SAE	
	# of occur	Freq (%)	# of occur	Freq (%)	# of occur	Freq (%)
Simp pres	420	15.79	255	8.95	568	19.93
Simp past	211	7.40	299	10.49	424	14.88
Pres perf	65	2.28	37	1.30	42	1.47
Past perf	6	0.21	13	0.46	2	0.07
Simp fut	34	1.19	14	0.49	4	0.14
Pres prog	191	6.70	85	2.98	178	6.25
Past prog	-	-	-	-	2	0.07

N = 2850

Several trends can be observed from the distributions in Table 4. First, each science dissertation had two preponderant tense forms: simple present and simple past. It can also be observed that the present progressive tense was the third most commonly used in the three science dissertations taking 15.93% of all the tense forms.

Table 4 also indicates that the use of the perfective forms, the simple future, and past progressive was low in all the three science dissertations. Lastly, dissertations SCH and SAE appeared to have very high frequencies of the simple present with a combined total of 35.72%. However, they differed in that dissertation SAE had a higher frequency of simple past, while SCH had a higher frequency of the perfective forms, simple future, and the present progressive.

Turning to the three humanities dissertations, the corpora yielded 7171 finite verbs out of which 2171 occurred in dissertation AEN, 2285 in dissertation ASC, and 2715 in dissertation AHT. Table 4 presents the distribution and frequency of these forms per dissertation. Under each

dissertation heading, the first column reports the number of occurrences of each verb form while the second column shows the frequencies of the corresponding forms.

Table 5

Distribution of finite verb forms in humanities dissertations

	Dissertation AEN		Dissertation ASC		Dissertation AHT	
	# of occur	Freq (%)	# of occur	Freq (%)	# of occur	Freq (%)
Simp pres	1602	22.34	875	12.20	526	7.33
Simp past	192	2.68	914	12.75	1903	26.54
Pres perf	126	1.76	206	2.87	85	1.19
Past perf	10	0.14	63	0.88	74	1.03
Simp fut	26	0.36	36	0.50	37	0.52
Pres prog	210	2.93	168	2.34	82	1.14
Past prog	5	0.07	23	0.32	8	0.11
			N = 7171			

A number of patterns of use can be noted in Table 5. First, like science dissertations, each humanities dissertation had the simple present and simple past as the predominant forms constituting 83.84% of all finite verb forms in the corpus. Secondly, the present progressive was relatively high in dissertations AEN and ASC compared to dissertation AHT with an incidence of 1.14%. Table 4 also indicates that the use of perfective tense forms, simple future, and the past progressive was low in all the three disciplines with a combined density of 9.75%. This reflects similarity in the trends of these forms in science dissertations.

It can also be noted that the three dissertations display some similarities in that they all had higher frequencies in simple present and past forms. However, they differ in that AEN had a higher frequency of present progressive forms; ASC had higher frequencies in present perfect and past progressive forms while AHT had a higher frequency in past perfect and simple future tenses.

Discussion

The analysis of tense use based on function types and the nature of content can give some insights into the distributions of tense in the disciplines. Tables 3 and 4 indicate that each discipline has one predominant tense, that is, the simple present in dissertations SCH, SAE and AEN, and the simple past in theses SBT, ASC and AHT. In each case, there appears a correlation between the content area each discipline dealt with and the primary tenses adopted as illustrated in Table 6.

Table 6

Correlation between content area and tense

	Science dissertations			**Humanities dissertations**		
Primary tense	**SCH**	**SBT**	**SAE**	**AEN**	**ASC**	**AHT**
Simple present	Present applications		Present applications	Literary illustrations		
Simple past		Past experiment			Historical events	Historical events

Table 5 reveals that dissertations SCH and SAE on the one hand and ASC and AHT on the other hand are rather consistent in the distributions of the simple present and past tenses respectively. This consistency reflects the homogeneity in content in those disciplines and ensures smooth expression of one's writing (Chen 2009; Reeves 2009; Thonney 2011). On the other hand, dissertations SBT and AEN show a higher level of variability from their counterparts in respective disciplinary cultures. This could be accounted for by the fact that SBT was more concerned with reporting an experiment and focussing less on application to the contemporary situation while AEN was based on a literary text which favours the simple present tense.

In the following discussion, various communicative purposes are explored and the appropriate verb tenses.

Beginning with the *abstract*, a number of communicative purposes are expressed. First, the rhetorical section announces the purpose of the study (Gledhill, 2009; Weisberg and Buker, 1990, p. 192). Examples drawn from this study revealed that the *simple past* and *simple present* tenses are preferred in realising this communicative function as exemplified below:

1. The experiments *aimed* at investigating responses of four cowpea cultivars … (SBT) (Simple past)
2. This study *examines* women's political participation in Kangema … (AHT). (Simple present)

Another communicative purpose expressed in the abstract section has to do with indicating the methodology used in the study. This purpose was signalled by the *simple past* and *present perfect* tenses as examples 3 – 4 indicate.

3. The study *determined* levels of Cd, Co, Ni, and Zn by AAS in pottery clay soils and leachates from pots subjected to different conditions of pH, temperature and contact time. (SCH). (Simple past)
4. This *has been done* by examining how transitivity choices made by the author in terms of process types … (AEN). (Present perfect)

The abstract also indicates the most important results of the study. This communicative purpose was marked by the *simple past* tense as examples 5-6 indicate:

5. Co concentration *remained* constant after the first week of storage. (SCH). (Simple past)

6. Though women *engaged* in independence struggles, the Kenyatta government *did* not recognize their efforts. (AHT). (Simple past)

The abstract also indicates important conclusions and/or recommendations of the study. The communicative purpose was marked by the *simple past* and *present perfect* as examples 7-8 indicate:

7. Therefore, the risk of heavy metals contamination from the earthen pots *was* eminent and *required* precautionary measures. (SCH). (Simple past)
8. Women's voices in political arenas, however, *have remained* ignored by male patriarchs who still believe and perceive women as their property and appendages. (AHT). (Present perfect)

As may be noted from the foregoing analysis, the verb tense chosen for the *abstract* should be based on the rhetorical section of the dissertation to which the sentence corresponds. In other words, the verb tenses occurring in the whole dissertation will be expected in the *abstract* which may be viewed as a dissertation in miniature.

Turning to the *introduction* rhetorical section of the dissertation, there were similarly a number of communicative purposes which were signalled differently by verb tenses. One purpose for this element is to provide background information to the study problem. A background to the study establishes the context, or frame of reference, to help readers understand how the research fits into a wider field of study. The *present simple*, *present perfect*, *present progressive* and *simple past* tense forms were mainly employed in this study as examples 9-12 show:

9. The Luo community *is* a Nilotic group found in the South-Western part of Kenya around the gulf of … (AEN) (Present simple)

10. Man *has suffered* from flood disasters while trying to secure livelihood near water sources (SAE) (Present perfect)
11. However, information *is lacking* on effects of cropping systems on root knot nematode population build-up … (SBT). (Present progressive)
12. Therefore, this study *sought* to identify components of an integrated management package for use in the management of the cowpea root knot diseases. (SBT). (Simple past)

Another communicative purpose of the introduction element is to point out the research problem under investigation and/or objectives. It involves making explicit statements that announce the purpose or nature of the study. Notable tense forms in the study corpora included *simple present* and *simple past* as shown in the examples below:

13. This study *is* a historical investigation of the forces that impact on … (AHT). (Simple present)
14. The study *investigated* whether there occurs some leaching of toxic heavy metals from the earthen pots. (SCH). (Simple past)

Another communicative purpose involves the statement of hypotheses. In this purpose, thesis writers are expected to formulate propositions about the expected outcomes of their studies. This purpose was signalled using the *present perfect, simple past* and *simple present* as expressed in examples 15 – 17:

15. Economic, political and socio-cultural factors *have been* chiefly *responsible* for women's peripheral participation in politics … (AHT). (Present perfect)
16. The single-buyer policy employed by the NIB *contributed* to the unrest at the Mwea Irrigation Scheme (ASC. (Simple past)

17. Some indigenous plants *have* no nematicidal effects on root knot nematodes … (SBT). (Simple present)

The introduction rhetorical section also includes the scope and limitations of the study. In *indicating the scope and limitations*, thesis authors are expected to indicate the areas covered in their studies, any weakness(es) arising from such a scope and ways of mitigating the effect of any exclusion(s) on the outcome. The *simple past* and *simple present* were mainly employed to express this communicative purpose as shown in examples 18 – 19:

18. The study *was* carried out between October, 2002 and February, 2003. (SBT). (Simple past)
19. This study *is* limited to the ideational function of language as identified by Halliday … (AEN). (Simple present)

The *introduction* also spells out the significance of the study. Thesis writers are expected to advance a strong case for studies undertaken and indicate how the outcome will contribute to research, knowledge and practice. This purpose was signalled by such tenses as the *simple past, simple present, present perfect*, and *simple future* as indicated in the examples 20 – 21 that follow:

20. Whereas there *is* a growing body of literature on Kenyan women, still rural women have not received adequate attention from scholars…The study *contributes* to knowledge and literature on the political participation of women in Kangema…The study *will* also open up new avenues for research among …(AHT). (Simple present, Present perfect, Simple future)
21. The study *explored* the feasibility of identifying…Phosphorous and nitrogen *are* essential minerals in the production of…Therefore finding out how their

transportation to the leaves *is* impaired by root knot nematode would justify the need to manage the root knot disease…(SBT) (Simple past, Simple present)

The *literature review* is another rhetorical section and serves three main communicative purposes according to Weissberg and Buker (1990, p. 41), Swales (1990), and Nwogu (1997). First, it gives readers background information needed to understand a study. Second, it assures readers that the writer is familiar with the important research that has been carried out in his/her area. Third, it establishes one's study as one link in a chain of research developing and enlarging in his/her field. When the focus of citation is on the information, Weissberg and Buker (1990, p. 41), Chen (2009) and Nwogu (1997, p. 127) suggest, the writer should use the *simple present* tense. This tense is used when the information being cited is generally accepted as scientific fact. This is confirmed examples 22 and 23: This section reads well and makes it easy to relate your work to that of other researchers. I think you should adopt such a format for each sub section in the discussion.

22. Lumped parameter models rarely *discriminate* between the many intervening processes, which occur between rainfall hitting the ground and … (Weeks and Hebbert, 1980) (SAE). (Simple present)
23. They all *imply* a commitment towards changing the social structure making it less oppressive to women (Mill, 1995:4) (AEN). (Simple present)

The *present perfect* tense is used in citations where the focus is on the research area of several authors (Nwogu 1997, p. 127). Weissberg and Buker (1990:51) call this citation weak author prominent. However, the data in the present study indicated that the present perfect tense may be used with individual authors as well. Data also showed the use of present perfect in citations involving several authors. Examples from the study data include:

24. Klevay and Forbush (1976) *have shown* that high zinc-to-copper ratio in diets causes hypercholesteremia and … (SCH). (Present perfect)
25. Lerner (1986), Kabira (1998), and Ruth (1998) all *posit* that in many patriarchal African communities' women are not supposed to challenge men in the contest for political leadership. (AHT). (Simple present)

The *present perfect* tense is used in general statements that describe the level of research activity in an area (Weissberg and Buker, 1990, p. 51; Chen, 2009; Oster, 1981, p. 77). These statements are often written without citations. The italicised finite verb forms in the texts below confirm this view:

26. Several studies *have found* detectable learning problems in children whose blood lead levels are as low as 5 to 10 micrograms per decilitre. (SCH). (Present perfect)
27. At the micro level however, studies conducted on women's political mobilisation and participation in many parts of Kenya *have remained* few. (AHT). (Present perfect)

Author prominent citations are used to report the findings of individual studies closely related to one's study. In these citations the *simple past* tense is used (Weissberg and Buker, 1990, p. 52; Reeves, 2009; Swales 1990, p. 153). Examples of verb tenses italicised in the texts 27 and 28 confirm this view:

28. Fery and Dukes (1980) *analysed* the resistance in cultivars Iron colossus and Mississippi Silver with F1 F2 F3 … (SBT) (Simple past)
29. Szymon (1969) *observed* that in most parts of the world peasants composed an essential part of the feudal structure of their societies. (ASC). (Simple past)

The next rhetorical section is *methods*. This section is a report of what was done during the course of the study. One of the communicative purposes of this section is to the study was designed. For this purpose, the thesis writers are expected to describe the framework that was employed to relate the important elements of the study. To signal this purpose, the *simple present*, and *simple past* tense forms were used as texts 29 – 30 indicate:

30. Filstead (1970:6) *defines* qualitative methodology as those research strategies … (ASC). (Simple present)
31. This study *used* the atomic absorption spectrometry method to determine six metal elements … (SCH). (Simple past)

In the *methods* section, one is also expected to describe the research site. This communicative purpose requires thesis writers to present the details of the study areas including physical location, the size, and other physical characteristics. To express this purpose, the *simple present* was used as indicated in examples 31 – 32:

32. Mwea Irrigation Scheme *is* in Kirinyaga district (ASC) (Simple present)
33. The locality of the study *is* the former Kangema Division (AHT) (Simple present)

Another communicative purpose of the *methods* section is to describe the sample and sampling procedures. This rhetorical function requires thesis writers to state their sample size and indicate the procedure(s) adopted in selecting it from the general population. The dominant tense for this purpose was the *past simple* as the following examples indicate:

34. I *elicited* a total of 46 clauses from the text representing the … (AEN) (Past simple)
35. Six divisions *provided* the sample of root knot nematode infected cowpea plants. (SBT). (Past simple

Researchers are also expected to describe the data collection procedures adopted in their studies in the *methods* section. One should describe the data collection instruments adopted in the study and how they were used to collect the data for the study. To signal this function, the *simple past* tense was used as examples 35 – 36 indicate:

36. The procedure *involved* the extraction of data comprising clauses in which three female characters … (AEN). (Simple past)
37. The Ministry of Water resources and Development *provided* discharge data for five gauging stations. (SAE). (Simple past)

Lastly, the *methods* sections presents the procedures employed to analyse data collected. To signal this function, the *simple past* tense was used as illustrated in examples 37-38:

38. I *used* descriptive statistics to analyse the data obtained through the survey method. (ASC). (Simple past)
39. The interfaced computer *analysed* the raw data using ChemTech 2000 software to print out absorbance and the respective concentrations … (SCH). (Simple past)

Another important rhetorical section of the dissertation is *results and discussion*. According to Weissberg and Buker (1990, p. 138), and Nwogu (1997, p. 129) the section usually consists of three main information steps:

Element 1: a statement that locates the figure(s) where the results can be found

Element 2: statements that present the most important findings

Element 3: statements that comment on the results.

In Element 1, Weissberg and Buker (1990, p. 148) and Swales (1990, p. 160) recommend the use of the *present simple* tense to locate data in a figure. This was confirmed in this study as examples 39-40 can attest.

40. This trend *is* illustrated in Table 5.2. (SCH). (Present simple)

41. Figure 4.1 *shows* the 32 sub-basins. (SAE). (Present simple)

Swales (1990, p. 161), Nwogu (1997, p. 130), and Weissberg and Buker (1990, p. 149) recommend the *past tense* when reporting findings (Element 2). Because the experiments or investigations described in the text were completed before the dissertation was written, one would expect this rhetorical section to be written in the *past tense*. However, data in this study indicated that apart from the *simple past* tense, the *simple present* may also be employed to report findings as examples 41 – 42 indicate:

42. There *was* no significant difference between the means of cultivars KVU 419 and M66 and also the means of cultivars KVU 27-1 and K.80 (Table 6). (SBT). (Simple past)

43. Of the 46 processes, 24 *are* material while the remaining 22 *are* mental … (AEN). (Simple present)

When commenting on the findings (Element 3), it is conventional to use the *present tense* (Weissberg and Buker 1990, p. 149; Nwogu 1997, p. 130). It is in Element 3 that the author points out if the results were expected or not, whether the results compare or contrast with theirs, and what important conclusions may be drawn from such comparisons. In other words, this is where the authors are expected to interpret their findings. The data in the present study indicated that in addition to the prescribed *simple present* tense, the *simple past* is used as evidenced in examples 43-44.

44. It was concluded from the sensitivity analysis exercise that the water holding capacity of the soils *was* the most sensitive parameter … (SAE). (Simple past)
45. This *implies* that Akoko was not just asking for her toy back … (AEN). (Simple present)

Weisberg and Buker (1990) advise that when the comment gives a possible explanation for the results, a *modal auxiliary* should be used. Though modals do not form the scope of the present study, the following examples confirm Weissberg and Buker's advice:

46. This *could* be due to confinement of the root knot nematode juveniles in the pots compared to … (SBT) (Modal)
47. It *should* be mentioned here that once a husband was accorded more respect, he was perceived as … (AHT) (modal)

Weissberg and Buker (1990) also advise that when the comment generalises from the results, the modal auxiliary *may* should be used. This was generally noted in the study corpus although the copular verb *seems* was used for the same function in some cases as exemplified in texts 47 – 48 below:

48. The lack of significant effects of plant extracts …*might* have been due to not having reached an injurious threshold. (SBT). (Modal)
49. The unit hydrograph used to determine the excess rainfall resulting to runoff in this case *seems* to have been developed based on high rainfall. (SAE). (Present simple)

The last rhetorical section of the dissertation comprises of *conclusions and recommendations*. In this rhetorical section, the authors are expected to summarise the main findings and the major implications of the study, point out the limitations, and offer suggestions for future research. This section begins by referring to the main purpose or hypothesis of the study (Weissberg and

Buker, 1990, p. 162; Nwogu 1997, p. 131 and Swales 1990; 2004). In this study corpus, the tense that signalled this function was predominantly the *simple past*. However, the *present perfect* tense as was not noted as a signal of this function in the corpora. Consider examples 49 and 50:

50. This study *evaluated* the performance of a GIS-based USGS Streamflow Model for flood simulation (SAE). (Simple past)
51. Our analysis *featured* material and mental processes in which three female characters are involved (AEN). (Simple past)

Next, researchers are expected to present a review of the most important findings. In this communicative purpose, writers are expected to give a summary of the most important findings whether or not they support the original hypothesis or agree with the findings of other researchers. This study revealed that the *simple past* and the *present perfect* may be used as indicated in examples 51 – 52:

52. The pH of the content solution during boiling *affected* the extractability and solubilities of most leached heavy metals. (SCH). (Simple past)
53. Our analysis *has revealed* that the transitivity choices made by the author in terms of participants, process and voice indeed reflect gender roles … (AEN). (Present perfect)

Another communicative purpose involves a discussion of the conclusions of the study. In this function, thesis writers are required to make broader, more general statements about the importance of the study as a whole. This study revealed that the *present perfect*, *simple past* and the *simple present* may be used to signal this purpose as illustrated below:

54. These results *have been able to show* that our indigenous pottery *requires* some fine-tuning in terms of the quality of raw material as well as … (SCH). (Present perfect, simple present)
55. The findings *showed* that *Croton megalocarpus* roots and *Azadirachta indica* leaves *had* high nematicidal properties. Hence pesticide companies *could* use the two plants to manufacture nematicides … (SBT). (Simple past)
56. The nominated women also *indicate* that the government has probably finally recognised the significance of women … (AHT). (Simple present)

Lastly, *conclusions and recommendations* section indicates practical applications and proposes areas for future research. This function requires researchers to indicate how the findings of their studies may be used to address existing challenges and areas related to their studies they would propose for further investigation. The *simple present* tense and *modal auxiliaries/tentative verbs* expressing future tense were employed as exemplified below:

57. This study *recommends* that clays from such sites be comprehensively studied on adsorption dynamics of metals before and after baking to … (SCH). (Simple present)
58. An analysis of transitivity choices in relation to male characters *could* be undertaken to test the validity of this assertion. (AEN). (Future tense)

It can be deduced from the analysis presented here that the primary tenses (simple present, simple past, and future) and the secondary tense (present perfect) are critical in academic discourse. It can be noted that the simple present applies when information presented is generally accepted as scientific fact (Weissberg and Buker 1990, p. 41; Nwogu 1997, p. 127). The choice of the simple past tense forms served the function of referring back to the research activity that was done earlier. The simple past describes the situation as complete at some point

in the past. It conveys a sense of remoteness; that is, the situation is 'done and over with' (Celce-Murcia & Larsen-Freeman, 1999, p. 114). Referring to the simple past as the preterite, Reeves (2009, p. 99) echoes these words when he avers, 'the preterite describes actions completed in the past with no implicit reference to the present (time of writing), and may also be accompanied in a sentence by explicit references to specific periods in the past.'

On the other hand, the present perfect describes what is known or has been done in the field on a similar or related topic up to the present moment (Oster, 1981). The tense indicates that previous research is considered as part of a growing body of knowledge, subject to debate and further development. The present perfect tense is used to indicate the continued discussion of some of the information in the sentence in which the present perfect occurs. It contains an implicit reference or link to the present, often made explicit by the addition of more information to this effect, or reflects the effects of past events on the present, and even the future (Reeves, 2009). It can also be added that the present perfect communicates 'recency' or 'currency' in academic discourse.

Where the simple future tense is used, further research possibilities are implied, indicating that research in a particular line of knowledge is progressing step by step, in a linear time sequence. The future tense is used if directions for additional research or scholarship are brought up.

It also emerges that the distribution of tense presents a complex picture. In fact, there is not a one-to-one correspondence between tense and communicative function and/or rhetorical section of a dissertation although some commonalities can be detected along communities of practice (see also Wenger 2004). This observation is also made in Geldhill (2009) and White (2004). For a given function or rhetorical move, researchers must be prepared to alternate mainly the

primary tenses of English. It is therefore significant that transition from one verb tense to another in different rhetorical sections is couched in terms of proximity to the author's message or communicative purpose. Swales and Feak (1994, p. 184) put it as follows:

> The difference among…tenses are subtle. In general, a move from past to present perfect and the to present indicates that the research reported is increasingly close to the writer in some way: close to the writer's own opinion, close to the writer's own research, or close to the current state of knowledge.

Arising from Swales and Feak's view, Gledhill (2009) argues that tense usage is a result of mental computation, complete and invariable in its reference, irrespective of context.

Conclusions

This paper has indicated that primary tenses are high frequency items in dissertation writing. It has also emerged that type and frequency to some extent varies according to the discipline and/or rhetorical section of the dissertation. In other cases, tense usage is not a straight jacket but a feature characterised by alternations in order to achieve various rhetorical purposes.

Secondly, given the correspondence between a given discipline and a particular verb tense as evidenced in this study, it can be concluded that tense usage is a socially constrained feature. The influence of a community of practice in which the writing takes place is evident. Patterns of use do not exist in isolation but are part of the communicative routines of academic disciplines. This means that tense usage is apparently intimately connected to the different epistemological frameworks of the disciplines and the way they understand the world.

Thirdly, the various types of tense discussed above are purposeful in the dissertation genre. Thus, cultivating the best tense usage will entail an understanding of the communicative purposes associated with each type and the relevant propositions where it occurs. Also, given the

disparities even within the same disciplinary culture, tense options are not only influenced by the conventions of a disciplinary culture in which the dissertation is being written, but also are creations of the writer. Writers make personal choices deviating from any available disciplinary norms to probably meet their own rhetorical purposes. This could also be a pointer to students' lack of expertise needed to alternate verb forms in order to fulfil the normative expectation in their disciplines.

Lastly, tense usage is highly versatile. Several levels can be established that give the tense feature its character. For instance, at the disciplinary cultural level, there are a number of common practices regarding tense usage. Narrowing the focus, a dissertation produced in a particular discipline reveals peculiar tense usage characteristics. This means that to understand the verb usage in dissertations, the various levels must be included in the picture.

Implications of the study

Writing an empirically based dissertation for the first time requires a clear understanding of verb tenses which are appropriate not only for each rhetorical section but the rhetorical purposes of the text. Empirical evidence from this study shows that tense usage relates to the discipline, the rhetorical section and the communicative purposes. In order to raise the consciousness of those working on their dissertations, this paper proposes a genre-based approach. According to Bitchener (2009), Kwan (2006) and Swales (2004), the genre approach provides an effective means of addressing the issues that students encounter as they approach the task up their theses or dissertations. To begin with, the categories of tense emerging in the present analysis can be used by supervisors and their supervisees to inform themselves of the options characteristic of their disciplinary culture and/or disciplines. In other words, they will be able to understand the choices one can draw from to most effectively express their intended meanings.

In a follow-up activity, the supervisees could take partial or complete authentic texts from their own disciplines and identify the categories of the feature, occurrences in each rhetorical section, and communicative purposes. Through this exercise, the supervisees will be able to determine the variation, in usage, of tense. For practice, learners may rewrite propositions in an article, term paper, or section of a dissertation from another discipline so that it reflects the style in their field of expertise. This exercise will raise the consciousness of the students to the tense types appropriate to their communities of practice.

The study reported in this paper also has implications for further research. In terms of corpus size, what was examined in this study represents an infinitesimal portion of the whole. For instance, dissertations from the health sciences were not included in this study. At the same time, the six dissertations examined in this study are not enough to bring out typical patterns of verb tense in the disciplines studied. However, the scheme of analysis proposed in the present study can be extended to the investigation of a larger corpus and to test the quantitative results of the present study, perhaps using computer corpus-based methods where resources permit. Secondly, the present analysis focused mainly on the primary tenses (simple present, simple past, and simple future) and a few secondary tenses (notably present perfect and present continuous). Further research could focus on other features associated with the verb such as aspect, modality and voice and how these apply to academic writing.

References

Ary, D., Jacob, L. C., & Rzavieh, A. (1996). *Introduction to research in education*. New York: Harcourt Brace College College Publishers.

Becher, T. (1989). *Academic tribes and territories: intellectual enquiry and the cultures of disciplines*. Milton Keynes: The Society for Research into Higher Education and the Open University Press.

Belcher, D. (1994). The apprenticeship approach to advanced academic literacy: Graduate students and their mentors. *English for Specific Purposes*, 13 (1), 23-34.

Bitchener, J. (2009). *A genre approach to understanding empirically based thesis writing*. New Zealand: GPPG.

Celce-Murcia, M., & Larsen-Freeman, D. (1999). *The grammar book: An ASL/EFL teacher's course (2nd ed.)*. Boston, Massachusetts: Heinle & Heinle Publishers.

Chen, M. (2009). Tense of reporting in dissertation literature reviews. *Journal of Cambridge Studies* 4(2): 139-150.

Comrie, B. (1976). *Aspect*. London: Cambridge University Press.

Comrie, B. (1985). *Tense*. London: Cambridge University Press.

Halliday, M.A.K. (1994). *Introduction to Functional Grammar*, 2nd Ed. London: Edward Arnold.

Halliday M.A.K & Matthiessen, M. (2004). *An introduction to Functional Grammar*. 1st Edition. London: Arnold.

Hyland, K. (2005). Representing readers in writing: Students and expert practices. *Linguistics*, 16 (4), 363 – 377.

Hyland, K. (2013). Writing in the university: education, knowledge and reputation.

Language Teaching, 46.1, 53-70.

Jackson, H. (1990). *Grammar and meaning: A semantic approach to English grammar*. New York: Longman Inc.

Kwan, B. S. C. (2006). The schematic structure of literature reviews in doctoral theses of applied linguistics. *English for Specific Purposes*, 25, 30-55.

Leech, G. N. (1987). *Meaning and the English verb* (2nd Ed.). London & New York: Longman.

Lock, G. (1996). *Functional English grammar: An introduction for second language teachers*. New York: Cambridge University Press.

Malcolm, Lois (1987). What rules govern tense usage in scientific articles? *English for Specific Purposes*, 6: 31-44.

Nwogu, K. N. (1997). The medical research paper: structure and functions. *English For Specific Purposes* 16, 2: 119-138.

Oster, S. (1981). The use of tenses in reporting past literature. In Selinker, Tarone and Hanseli (eds.): 76-90.

Quirk, R., Greenbaum, S., Leech, G., and Svartvik, J. (1985). *A Comprehensive grammar of English language.* London and New York: Longman.

Reeves, A. (2009). Tense matters: The preterite and present perfect in scientific texts. *The Journal of the European Medical Writers Association* 18(2): 99-101.

Swales, J. (1990), *Genre analysis: English in academic and research settings*. Cambridge: Cambridge University Press.

Swales, J. (2004). *Research genres: Exploration and applications*. Cambridge: Cambridge University Press.

Swales, J. & Feak, C.B. (1994). *Academic writing for graduate students: A course for non-native speakers of English*. Michigan: University of Michigan Press.

Thonney, T. (2011). Teaching the conventions of academic discourse. *TETYC*: 347-362.

Weissberg, R. & Buker, S. (1990). *Writing up research*. London: Prentice-Hall International (UK) Limited.

Wenger, E. (2004). *Communities of practice: Learning, Meaning, and Identity*. Cambridge. Cambridge University Press.

White, H.D. (2004). Citation analysis and discourse analysis revisited. *Applied Linguistics*. 25(4): 89-116.