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What is complexity? Grammatical issues in assignment prompts

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ABSTRACT

Student performance on assignments is of growing international concern. Some of the difficulties that students have with crafting their university assignments are due to the demonstrated complexity of academic writing in different text types. Previous work in this area has mostly examined complexity at the sentence and clause level; however, more recent studies indicate that complexity at the level of the group or phrase, in particular the nominal group, may cause more of a problem for students.

In addressing this issue, we take a descriptive approach to examining a corpus of assignment instructions from a Bachelor of Education program at one Australian university. These instructions vary widely in content and style. In order to identify where difficulties of interpretation may lie, we look at these assignment prompts holistically, from the text through to the word level, commencing with Genre and Register, but focusing on the clause and group/phrase levels.

Results demonstrate that it may not be realistic to ascribe 'complexity' to only one level of language. In our data, it does occur at the group level but we also need to take grammatical metaphor and clause-level phenomena into account, as well as the text's purpose and context.

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"Student assessment is a pillar of higher education. It bookends who gets in and gets out, signposts achievement, gatekeeps education standards, and it is in dire need of reform." (Coates, 2018, n.p.)

1. Introduction

Student performance on assignments is of growing concern both in Australia and internationally (Bretag, 2016; Harper et al., 2019). Some of the difficulties that students have with crafting their university assignments may be due to the demonstrated complexity of academic writing in different text types (Staples et al., 2016), including the nature of assignment prompts or questions (Miller et al., 2016; Riccardi et al., 2020) and the source texts used as part of the assignment (Miller et al., 2016). Previous work in this area has mostly examined complexity at the level of the sentence and the clause (Riccardi et al.,

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2020); however, more recent studies indicate that complexity at the level of the group or phrase, in particular the nominal group, may cause more of an issue for students (Ansarifar et al., 2018).

In addressing this issue, we look back to the original work of Halliday (1985) on the differences between spoken and written language. Halliday explains that, compared with spoken language, written language displays a much higher “lexical density” (p.61). Lexical density is “the kind of complexity that is typical of written language” (p. 62), where “the lexical meaning is largely carried in the nouns” (p. 72); hence the use of nominalization (p. 74). Basically, nominalization consists of a meaning that is usually expressed as a verb being coded as a noun; this usually involves what is known as ‘grammatical metaphor’, as in the following example quoted in Halliday and Matthiessen (2014, p. 710): “Slate was once shale. But over millions of years, tons and tons of rock *pressed* down on it. The pressure made the shale very hot...”. Here the verb ‘pressed’ becomes a noun ‘pressure’. This type of structure is considered metaphorical because we would normally expect nouns to refer to people, things or ideas but here the noun group refers to an action.

A nominal group consists of a head noun and any surrounding modification. Pre-modification, and especially post-modification, can cause the nominal group to become quite long, as will be seen from some of the examples below. As lexical density is measured by the number of lexical items per clause (Halliday, 1985, p. 75), it is likely that longer nominal groups will lead to a clause being more lexically dense.

On the other hand, Halliday (1985) considers talk to be more ‘intricate’ than writing (p. 62). It has its own kind of complexity, related to the structure of the clause complex (p. 79). Spoken language can have very long ‘chains’ of clauses, each connected to others. Written language is more lexically dense, being more likely to contain longer nominal groups and nominalizations. Halliday uses the clause complex as a unit for comparing spoken and written language (p. 66).

Halliday’s (1985) observations are supported by quantitative analysis of written academic texts and casual conversation performed by Biber and colleagues (e.g., Biber, 2006), as well as by the work on genre by Martin and others (e.g., Martin & Rose, 2007). However, Biber et al. (2011) point out that much of the analysis of written discourse, particularly in additional language contexts, takes complexity at the clause level as the basis of measuring difficulty. Likewise, it is not unknown for researchers who focus on speech, such as Alexander (2020), to claim that writing has more dependent clauses and is more ‘elaborate’ than talk (p. 85). Biber and colleagues raise the question of whether it is appropriate to use established features of spoken discourse to evaluate complexity in written genres, suggesting that examining “complex noun phrase constituents” and “complex phrases” (p. 5) would be more appropriate. Similarly, Riccardi et al. (2020) demonstrate that “reducing the linguistic complexity” by unpacking nominal groups in multiple choice questions was beneficial for students in their study, who used English as an Additional Language (p. 5). This accords with the views of Dreyfus et al. (2016, p. 65), who describe the complexity of a text as being measured by the depth and amount of embedding in the nominal group and the lexical density (number of content words per clause.)

Here we take a holistic approach to examining our corpus of assignment instructions from the text through to the word level in order to identify where difficulties of interpretation may lie. We begin at the text level, with genre and cohesion, but focus mainly on the sentence level and below, which is the location for complexity at the clause and group level. Students need to understand the purpose of the assignment prompt as a whole, as there is a relationship of intertextuality between the prompt and their response (Miller et al., 2016). The cohesion, especially the reference, needs to be clear, so that students can track participants throughout the prompt and understand how they are positioned to respond. The relationship of clauses to each other, as well as “who is doing what”, which can be obscured by nominalization, is also part of the potential difficulty in interpreting the prompt. Therefore, while in previous studies there has generally been more attention paid to complexity at one level of language, it is our contention that a more multi-level approach may provide a more complete picture.

Assignment instructions (‘prompts’) are a genre of academic writing which has an important role to play in student performance on assessment. In this paper, we analyse a corpus of assignment instructions from one university program, with the aim of identifying linguistic elements which could cause difficulty for students. In our analysis, we make use of a functional model of language in context (See, for example, Halliday & Matthiessen, 2014; Martin & Rose, 2007) to examine the features of the assignment instructions from the text down to the word level. Our purpose in doing this is to give feedback to staff composing assignment prompts so that they have increased awareness of potential pitfalls to avoid. As Riccardi et al. (2020, p.2) point out, it is “an unfair assessment of content knowledge if the reading level is beyond the students”.

It is hoped that our findings may be applicable beyond the particular program under focus.

2. Background and data

Assignment instructions analysed in this paper are from all 27 units in the B.Ed. (Bachelor of Education) Primary Program at one Australian university at a specific time in the cycle of course renewal.¹

Our project, “Structuring assessment in the B.Ed. Primary course”, aimed to identify some of the issues in the instructions themselves that have the potential to affect student responses. The assignment instructions form part of each unit’s Unit Plan, a document that represents a contract between the student undertaking the unit and the university. Extra information on the assignments may also be posted on the Learning Management System (LMS), which is called Blackboard.

¹ The texts were obtained in 2016 with permission from unit coordinators, as part of a study of assessment practices in our program financed by a grant from the university’s Strategic Initiative Fund Project 16792 and cleared by the university’s Ethics Committee.

For the purposes of this paper, information from unit plans, including assignment instructions, has been de-identified. Occasionally this results in some words being omitted; however, the grammatical structures that are the subject of the paper remain. Some changes to formatting have also been made where this would make the texts more readable and where the layout is not the focus of discussion.

The content and style of the unit plans examined here vary widely, especially in terms of assignment instructions. It is these instructions that are our focus here. Sadler's argument, while focusing on test items in general, is equally applicable to assignment prompts:

An ambiguous item is unlikely to give rise to good quality data because different students will most likely interpret the item differently. ... Students may or may not be able to do the task well, but at least there is no excuse for not knowing the type of response required. (2016, p. 1083)

Some issues regarding the instructions analysed here include those relating to their length and the number of places in the unit materials in which they appeared, the genre (or 'text type') of the assignment and the way in which the instructions are written. As Miller et al. (2016) have demonstrated, the way in which assignment prompts are written 'conditions' whether students produce the expected type of text. All aspects of the context in which assignment prompts appear, as well as how they are expressed, can impact on students' understanding, performance and attitude.

From our own experience teaching students in this course, we know that they sometimes complain that too much information is given in assignment instructions, that there are too many resources and that they are too difficult to find on the Blackboard LMS. Students are also often confused about genre, e.g., about the differences between an 'essay' and a 'report'. These issues were reflected in some of the unit plans analyzed for this paper.

Problems with text structure and language occurred at the level of genre, register, cohesion, sentence, clause, group and word. Each of these is examined here using illustrative examples. It is our hope that by drawing attention to these concerns we can assist writers to make their instructions more transparent, for the benefit of students. There are several issues to keep in mind that may have a bearing on the quality of assignment guidelines. One is that assignment instructions may be hybrid texts: they are often the result of materials being passed down from one unit coordinator to another and being adapted, sometimes in haste, to meet deadlines, which are often set well ahead of the beginning of semester. Any changes made to an assignment will have implications elsewhere in the unit; it may prove difficult to track down all these implications until the unit is underway, as assignment information is integrated into many places in a unit. Sometimes there is a lag between assessment changes being entered into the course management system and these changes being implemented in unit materials; this may be out of the control of unit coordinators. Often staffing issues mean that it is unclear who the unit coordinator will be until the semester is fast approaching; this results in a lack of time for unit development.

Any of these aspects of the context mentioned above may have influenced many of the texts presented here. Therefore, it is not implied that individual unit coordinators are solely responsible for the issues identified here; the circumstances in which assignment prompts are written cannot be ignored.

3. Methods

Our purpose was to provide a description of the issues and to identify patterns in the data rather than to complete a full quantitative analysis; however, our methodology was mixed in that it did involve some observations of the relative frequency of the identified issues. The first step in the analysis was to read through the set of unit plans. While, as mentioned, there were 27 units in the B.Ed. Primary program, there were actually 32 unit plans in all, taking into account different versions produced for on- and off-campus students. Each instructor in the program was in charge of one or two units. Each unit contained, on average, two assignments.

The initial analysis focussed on the assignment prompts, identifying any issues that made them difficult to understand and would potentially cause problems for students. This analysis was carried out by the first author and discussed with the team. The information was then passed on to our research assistant, who devised a coding scheme identifying the issues and then analyzed their frequency of occurrence in each unit plan. Table 1 displays the coding scheme. Subsequently, the research assistant produced a table showing the comparative frequency of each variable. Please see the Appendix for this table.

4. Analysis and discussion

This section will describe the linguistic variables analyzed and give an indication of how they are realized in our texts.

4.1. Text level

4.1.1. Genre

The term 'genre' refers to the social purpose of a text and the stages it goes through in order to achieve this purpose (Martin & Rose, 2003, p. 7), that is, the different 'types of assignment'. The stages of a genre are ordered in quite a predictable way and have particular characteristics (Derewianka & Jones, 2016, pp. 7–12). Thus, if students understand a genre in depth it

Table 1
Categories and codes used to analyze issues with assignment prompts.

| CATEGORY | CODE |
|---|--|
| 1. Text level | |
| Genre identifying the target genre (TG) or text type of the assignment. | TG1: inconsistently represented TG2: described in a general or vague manner TG3: grammatical expectations not compatible with identified genre |
| Cohesion grammatical and lexical linking within a text or sentence to hold the text together and give it clear meaning. use of pronouns or a phrase e.g., "as stated previously" to avoid repeating | Reference (Ref) Ref1: reader and/or marker referred to in different ways Ref2: unit plan or the unit itself is referred to confusingly Ref3: reference non-specific or difficult to track Ref4: reference incorrect Ref5: order of references is misleading Ref6: repeated noun when pronoun would have been clearer Lexical Cohesion (LexC) the way related words are chosen to link elements of a text Substitution and Ellipsis (SE) Conjunction (Con) LexC: lack of repeated word or synonym (or appropriate synonym) to link elements SE1: not used correctly or accurately thus leading to lack of clarity SE2: not used when use would improve clarity Con1: conjunction not used when use would improve overall clarity Con2: conjunction used but inaccurately or not useful to enhancing clarity |
| 2. Sentence and clause level | |
| Sentence Structure (SS) | SS1: clauses joined incorrectly SS2: long or awkward SS3: unnecessary repetition SS4: sentence fragments SS5: run-on sentence |
| Tenor as determined by aspects of mood, person, modality, voice | Mood (M) declarative, interrogative, imperative Person (P) use of first, second, third person Modality (Mod) degree of obligation, certainty, and choice Voice (V) use of active, passive, impersonal voice M1: combined use of declarative, interrogative, and imperative P: not consistent/varied point of view ModL: low obligation/uncertainty e.g., "usually requires" ModPM: use of a politeness marker which may obfuscate the degree of obligation ModCon: use of conditionals e.g., "if you wish" V1: combined use of active, passive, and impersonal voice V2: unclear who is doing what (agency is ambiguous) |
| 3. Group level | |
| Nominal Groups (NG) words or groups of words that function together as a noun in a sentence. | NG1: awkward structure NG2: too many modifiers presenting elements in inappropriate order NG3: too much information after the head noun N4: comma required to separate two noun groups |
| Verb Groups (VG) a group containing at least one verb (the head), and often other words such as auxiliaries and modal verbs | VG1: incorrect structure VG2: agreement error VG3: too many verbs |
| 4. Word level | |
| Vocabulary (Voc) e.g., incorrect, ambiguous or inconsistent word choice | Voc1: incorrect or ambiguous meaning Voc2: inconsistent use |
| Word Class (WC) issue with word choice within specific word class | WCP: preposition used is incorrect WCA: article missing or incorrect |

will help them with lower-level features of the text they are writing, such as paragraph and sentence structure, appropriate choice of vocabulary, etc. We identified four main problems in our corpus that relate to genre: (1) Lack of student progression in mastery of a genre across the program; (2) The target genre being described in a very general way, such as a 'paper' or an 'assignment', with the assignment prompt therefore not being explicit about the genre of the target text; (3) Inconsistent generic stages in the assignment instructions, e.g., a shift from commands to explanations and back. (4) Some expectations about grammatical realizations appear not to match the target genre, e.g., asking students to write their philosophy of teaching using third person and past tense. A further problem is that some tasks appear very detailed for the word count allocated, with, for example, the whole unit content needing to be reviewed in a short essay.

4.1.2. Cohesion

Cohesion describes devices at the text level and below that make it 'hang together'. There are four main types: conjunction; reference; substitution and ellipsis; and lexical cohesion (Halliday & Hasan, 1975). In our corpus, we found that

reference (how participants are tracked in the text) was the system that caused the most problems in the assignment instructions, with the following being the major issues:

1. The reader and/or the marker are referred to in differing ways.
2. The unit plan or the unit itself is referred to confusingly.
3. The referent (what is being referred to) is non-specific or difficult to track.
4. The reference is incorrect; for example, it may not agree in gender and/or number with its antecedent.
5. Order of references is misleading. Normally, a participant is first referred to by a full noun group, which is then picked up by a shorter noun group or a pronoun. If this is not done in the correct order, it is confusing for the reader.
6. A noun is repeated when a pronoun would have been clearer.

While the text-level issues of genre and cohesion are important, for reasons of space we will not go into them here but will focus on grammatical concerns at the sentence level and below. Some of the most challenging aspects of complexity reside at the clause and group level.

4.2. Sentence and clause level

A wide range of potential problems has been identified in the assignment instructions examined at the sentence and clause level; an overview of these appears below.

4.2.1. Sentence structure

Issues are caused when sentence structure is incorrect, long or awkward and therefore difficult to understand, as illustrated in Table 2.

Sentence fragments and run-on sentences are exactly the issues that students have in their own writing. It is very unfortunate that incorrect sentence structure is being modelled to them in assignment instructions.

4.2.2. Tenor: constructing a relationship with the reader

A second issue concerns the relationship constructed with the audience; the relationship among participants is known as Tenor in functional linguistics (Martin & Rose, 2003, p. 243). This is problematic when the relationship is somewhat inappropriate (e.g., too informal) and/or inconsistent (e.g., the student is addressed in a variety of ways). In constructing a relationship with the audience, the writer of assignment instructions makes use of the resources of Mood, Person, Modality and Voice, among others. That is, they decide (not necessarily consciously) whether to use Statements or Commands, whether to express these directly or indirectly, whether to address their audience as 'you' or in the third person (impersonal), what degree of obligation to impose on the audience and whether to use active or passive voice. All of these choices have implications for the meaning of the assignment instructions and for how easy they are for students to unpack. To add to the confusion, the same meanings are not always communicated by the same linguistic selections. Table 3 gives an overview of some of the linguistic resources that are at stake here; we will consider some of the most relevant ones below.

An illustration of an unusual relationship constructed with the reader is found in Examples (1) and (2) below, which are very informal in their Tenor.

Table 2
Errors at the sentence and clause level.

| TYPE OF ERROR | EXAMPLE/COMMENT |
|--|---|
| Structural error | This is where you tell us the story of what happened <i>with</i> the emphasis <i>is</i> on you describing what happened. Clauses joined incorrectly. |
| Unnecessary repetition | <i>This assignment is carried out in groups of three or four and marks and feedback are shared by all group members for this assignment.</i> This looks like a proof-reading error. |
| Sentence fragments | Assessment 1, the reflective journal will not only help to document your developing understanding of [the topic] it will also provide you with the opportunity to develop skills in critical reflection and the use of meta-cognitive processes (thinking about thinking) when analysing learning, learning theories and implications for children's learning. <i>Both of which are essential to becoming an effective teacher.</i> A dependent clause has been used as a sentence. Referent of "both of which" is not clear. |
| Sentence fragment followed by run-on sentence | This will mean that Assignment 1: Action Learning Project will be completed first, followed by Assignment 2: My Management Plan. Though, it is important to understand that both assignments will run alongside each other with the focus initially on the planning of the Action Learning Project before you head out on [prac] and opportunity for Assignment 2 Management Plan being completed throughout the whole unit. (From part of the unit plan: "How the Assessments Work"). The subordinating conjunction 'though' is used to start a sentence rather than a clause. |
| Agency is unclear | Have you selected some different types of tasks to provide opportunities for your student to learn and demonstrate the learning goal which is the focus of the learning program in different ways? Who or what demonstrate the learning goal? |

Table 3
Some resources at stake in constructing a relationship with the audience.

| VARIABLE | CHOICES | | |
|----------------|---|---------------------------|------------|
| Mood | Declarative | interrogative | imperative |
| Person | 1st | 2nd | 3rd |
| Modality | low obligation/certainty | high obligation/certainty | |
| Voice | Active | passive | impersonal |
| Nominalization | May be chosen over congruent selection. | | |

Example (1)

We can hear people asking does my reflective journal stop in Week 7. What about journal entries for Weeks 8–12? I am glad you asked.

Example (2)

The tutorial presentation will last for 15 minutes (yes, this is short so think carefully about the key information ...)

Examples (1) and (2) are quite discursive and could be considered inappropriately interactive for assignment prompts. They present as a dialogue, whereas assignment instructions are generally overwhelmingly monologic. At the opposite end of the spectrum of formality are Examples (3) and (4):

Example (3)

Please be ready to share your work.

Example (4)

Please save it as a PDF document.

These examples show use of a politeness marker, which could be considered inappropriate and also obfuscates the degree of obligation because within the same assignment some instructions contain politeness terms but others do not. Connected to the relationship constructed with the reader are issues when the degree of obligation is unclear, as shown in Table 4. The combination of these two factors (inappropriate or inconsistent relationship and unclear degree of obligation) means that what the marker values is less than transparent.

Example (5) illustrates three instances of modalization within the one sentence:

Example (5)

You *should* aim for a minimum of three references but *may* include more *if you feel this is important*.

Conditionals such as *if you wish* (Table 4) and *if you feel this is important* (Example 5) potentially add to the difficulty of interpreting the degree of obligation. Unfortunately, these can add to students' uncertainty, as they imply further decision-making about what is needed. The student is given the additional burden of deciding whether something is appropriate or not, or whether there is an implied judgement based on the choice they make.

4.2.3. Issues to do with agency

Third, issues arise when Agency is not clear due to: (i) choices in the Voice system (e.g., use of passive), (ii) nominalization, (iii) embedding of items within the structure of the clause (iv) impersonals and/or (v) unclear reference (e.g., see Table 5). The lecturer may be included in the choice of Agent. This means that basically it is not clear who is doing what; obviously, from the point of view of the student, it is essential to know this in relation to an assignment.

Table 4
How obligation is expressed.

| | CONGRUENT | INCONGRUENT |
|------------------------|--|---|
| LOW OBLIGATION | You <i>may</i> concentrate on one particular element, <i>if you wish</i> . | <i>usually</i> requires a number of edits Expensive resources <i>are unnecessary</i> (impersonal) <i>this must include ...</i> (impersonal) |
| HIGH OBLIGATION | Upload <i>both</i> documents at the same time | <i>your analysis must be included</i> (passive) <i>be sure</i> to describe ... (active) |

Table 5

Changes in voice.

| | |
|---|------------|
| <i>The analysis will include</i> background information ... and identify a learning need that is a priority Preferred form: <i>Your analysis will include...</i> | impersonal |
| In order to do this, <i>you will analyse</i> performance data Preferred form: As is. It is active and personal. | active |
| Reliable information ... <i>will need to be used</i> Preferred form: Use Reliable information | passive |
| Your analysis <i>must be included</i> Preferred form: You must include your analysis | passive |

Table 5 illustrates how the Voice changes from impersonal with a nominalization, 'the analysis', to active voice ('you will analyse') and then to passive voice ('will need to be used' and 'must be included'). Agency could be considered unclear in all but the active clause; that is, the role of the student in the action is more obvious when they are directly addressed as 'you'.

The juxtaposition of impersonal followed by active voice and later followed by passive, as shown in Table 5, makes it less than straightforward to ascertain who is actually doing the mentioned analysis. Example (6) is a good illustration of the issues that can arise from a combination of an impersonal clause with Modality. Students need to decode the reference to themselves and to their own actions in relation to the assignment:

Example (6)

Expensive resources *are unnecessary*.

Note that there are no human participants in this sentence, and no grammatically coded action, only a verb of being. The sentence requires a great deal of unpacking by the reader. For example, they need to work out the Agency (that the sentence refers to them and their own actions) and the degree of obligation: if the resources are unnecessary does it imply that their use will be regarded negatively by the marker, or perhaps that the student will be viewed positively for going beyond the call of duty?

Example (7) shows high Modality and an impersonal. The Agent ('each individual') is reduced to a prepositional phrase.

Example (7)

this must include a paragraph statement from each individual.

Preferred form: You *must include* a paragraph statement.

The student's actions are downgraded by these devices as well as by being placed at the end of the sentence. At the same time, they must realize that 'each individual' refers to them specifically.

In Example (8) the Agent is not referred to and it contains a nominalization ('consideration') with an impersonal Modal.

Example (8)

It is important to give due consideration as to how an appropriate and interactive class session can be structured.

It is questionable how 'giving due consideration' can be expressed in writing; indeed, even if the congruent 'consider' were to be used, such a Mental process is not normally advised in assignment prompts or outcome statements.

4.2.4. Degrees of certainty and reality

The fourth issue is when the degree of certainty and/or reality are unclear. This is related to Modality and the use of conditionals. The relationship of the task to reality is not specified, as illustrated in Example (9). This example is from an assignment in which case study data from a particular child was presented and students needed to write about that child and their community. From our experience in teaching this unit, even though the focus case was based on genuine data, students thought that the case study was hypothetical, and they found this concept challenging.

Example (9)

- the needs you *would anticipate* a student with that particular history *may* have
- the (student's) *likely* experiences
- the information you *believe could* impact on learning

A related issue is when there is inconsistency of tense and an unclear sequence of events.

One or more of the above issues are sometimes present in any given example. For instance, Example (10) shows confusing combinations of Modality and Voice within the one assignment.

Example (10)

- (i) the analysis *will include*
- (ii) you *will analyse*
- (iii) your research ... *will include*
- (iv) the statement *needs to consist* of three parts
- (v) reliable sites ... *will need to be used*
- (vi) your analysis *must be included*
- (vii) the scope of your learning goals *should be* narrow and focused

When Modality is expressed in different ways, as it is in Example (10), students assume that there are varying degrees of obligation; in fact, in this example, all of the instructions are compulsory. Overall, the two interlinked issues related to Modality were the difficulty of interpreting how compulsory the instructions were and what was most valued by the marker. The use of passives and impersonals in combination with Modality creates quite complex grammatical structures where the relationship constructed with the students is difficult to unpack.

4.2.5. Grammatical congruency

Fifth, many of the assignment instructions are not presented in the most 'congruent' or straightforward way. For instance, Example (11ii), 'you *will analyse* ...' is very clear; however, Example (11v), 'reliable sites ... *will need to be used*' would be easier to decode in the active voice. Example (12), 'with *attention to correct referencing*', is nominalized and coded as a prepositional phrase. This serves to downgrade the importance of the information and distance it from the reader, again making it harder to ascertain to what extent this aspect is valued by the marker.

4.2.6. Issues to do with location in time

The sixth issue is inconsistency of tense and unclear sequence of events. For instance, in Example (13) the tense and sequence of events are unusual and the order of events does not make it clear at what point the essay writing begins.

Example (13)

The issue explored or the iconic nature of the *speech* and its meaning for Australian society *becomes the focus of your essay*. You should then write an essay that develops your own considered and informed position on the ideas expressed in the *speeches*.

To illustrate complexity at the clause level resulting from a number of linguistic variables, we show Example (14). It contains a variety of Modal choices and a combination of impersonals, actives and passives, as well as a sentence fragment and a nominalization ('Submission'). As well as this, the order of events is not chronological and it asks students to do an impossible action: submitting two documents at the same time.

Example (14)

Submission of the two tasks *must be* by 8.00am on Monday 4th April. *To be submitted* electronically through Turnitin via the link in the Assessments folder on Blackboard. Late penalties *will* apply. Once you have completed Task 1 and 2, *it is recommended that* you save them both as one PDF document. *Upload both documents at the same time* when you submit through Turnitin. *Please* include a (university) cover page, own title page and one reference list for both tasks.

All in all, the above section has demonstrated that the clause-level resources of Mood, Modality, Person and Voice (among others) are crucial in the construction of assignment instructions and that there are many consequences of combinations of these choices which can affect the understandability of the assignment prompts.

4.3. Group level

Group level errors occurred in both nominal (noun) and verbal groups. Some examples of these are shown in [Tables 6 and 8](#). Issues with nominal groups include leaving out essential elements, awkward structure, providing too many modifiers and presenting elements in an inappropriate order. These are briefly discussed here and examples are given in [Table 6](#).

When essential elements are omitted, such as in "We do not have *prescribed text book* for this unit.", where an article or a plural are needed, it provides an inappropriate model for students and, more importantly, can make the instructions difficult to understand. If elements of the nominal group are not presented in the optimum order the description is not tied closely enough to the noun it is describing (the head noun), as in the instances in [Table 6](#), such as "discuss the *changes* in yourself and the students in your classroom of your planned actions". Here the whole structure of the noun group needs to be rearranged to indicate that the anticipated changes are both **in** the people concerned and **resulting from** (rather than 'of') the planned actions. Long nominal groups, usually caused by a great deal of information being given after the head noun, make it difficult for the reader to follow what is being referred to. For example:

Example (19)

Table 6

Errors in the nominal group.

| TYPE OF ERROR | EXAMPLE/COMMENT |
|--|--|
| Element omitted The article (or the plural marker) has been left out. The plural marker 's' has been omitted. | We do not have <i>prescribed text book</i> for this unit. Preferred form: <i>a prescribed text book</i> , OR <i>prescribed text books</i> Following <i>each of the presentation</i> in the small groups Preferred form: <i>each of the presentations</i> |
| Awkward nominal group structure Simply too many conjunctions. Elements not in optimum order The postmodifier does not link appropriately to the head noun, 'changes'. | the time <i>and</i> date and venue of the exam Preferred form: the time, date and venue of the exam [comma inserted] ... discuss the <i>changes</i> in yourself and the students in your classroom of your planned actions. Preferred form: ... discuss the <i>changes</i> caused by your planned actions, and how they affected both yourself and the students in your classroom |
| The description (in italics) should be next to the compound head noun, 'strategies and skills'. | The practical teacher strategies and skills you will use <i>that reflect your philosophy in the classroom</i> . Preferred form: The practical teacher strategies and skills <i>that reflect your philosophy in the classroom</i> and that you are intending to use. |
| Here a complex noun group is interrupted. This is a clear case of where the dependent clause, 'to substantiate your argument' should come at the beginning of the sentence. | It is also important to make links to McDonald (2014) Positive Learning Framework in your essay <i>and other research related to behavior management theories and practices</i> to substantiate your argument. Preferred form: To substantiate your argument, in your essay it is also important to make links to McDonald's (2014) Positive Learning Framework <i>and other research related to behavior management theories and practices</i> . |
| Over-modification Nominal group is too long. [Head nouns are in italics and embedding is marked with square brackets.] The postmodifier for the head noun, 'feedback' is too long and renders the group difficult to understand. | you will provide verbal <i>feedback</i> [about what supported your spoken language learning and what inhibited it] to these peers at the end of their lesson Preferred form: at the end of the lesson conducted by your peers, you will provide them with verbal <i>feedback</i> [about what supported your spoken language learning and what inhibited it] See Example 20 below for further discussion. |
| Postmodifier for the head, 'links' is too long, itself consisting of a complex noun group. | the <i>links</i> [between the analysis, the contextualisation of learning (context), the specific learning goal, the teaching and learning activities and the monitoring/assessment of the learning] Preferred form: the <i>links</i> between these items: <ul style="list-style-type: none">• the analysis• the context• the specific learning goal• the teaching and learning activities AND• the monitoring and assessment |
| Postmodifier is too long and contains an embedded clause. | a strong <i>relationship</i> between the aspect of your student's learning (as demonstrated in their analysed performance data) that you are reflecting on, the teaching program you planned and delivered, your experience in the unit and the broader field of learning Preferred form: a strong <i>relationship</i> between: <ul style="list-style-type: none">• the aspect of your student's learning that you are reflecting on• the teaching program you planned and delivered• your experience in the unit AND• the broader field of learning |

you will provide *verbal feedback* [about what supported your spoken language learning and what inhibited it] to these peers at the end of their lesson.

Examples of over-modification given in Table 6 include many nominalizations and many elements that are abstract (such as 'contextualisation'); this can make the noun groups more difficult to unpack and therefore to understand. Nominalization, as in 'your assignment submission', has already been mentioned above. Introduction of any incongruence like this adds to the complexity of the instructions and when nominalizations are part of a long nominal group they make it harder to decode. (See below).

In Table 7 the clause itself is not overly 'complex' in that it is in active voice and addresses the student directly. Although 'feedback' is a nominalization, it is a very common one that students would readily understand. However, the clause has three participants and a circumstance, and one of the participants needs a lot of unpacking. Table 7 shows the processes the reader needs to go through to unpack the second participant; to describe the difficulty in interpreting this assignment prompt we need to take into account both clause-level and group-level grammar: the reader needs to work out the meaning of the second participant in relation to the other participants in the clause, for example. We also need to concern ourselves with the related aspect of nominalization, not to mention reference.

Table 7
Complexity in clause and group structure.

| CLAUSE AND GROUP STRUCTURE IN EXAMPLE 19 | | | | |
|--|--|---|-----------------------|----------------------------|
| The clause structure is shown below. | | | | |
| Participant (who) | Process | Participant (what) | Participant (to whom) | Circumstance (when) |
| You | will provide | verbal <i>feedback</i> [about what supported your spoken language learning and what inhibited it] | to these peers | at the end of their lesson |
| The second Participant (what) is unpacked below. | | | | |
| Premodifier | Head noun | Postmodifier: prepositional phrase | | |
| Verbal | <i>Feedback</i> | about what supported your spoken language learning and what inhibited it | | |
| The Postmodifier is unpacked below. | | | | |
| Preposition | Nominal group (nominalized clause) | | | |
| About | what supported your spoken language learning and what inhibited it | | | |

Table 8
Errors in the verbal group.

| TYPE OF ERROR | EXAMPLE/COMMENT |
|---|---|
| Incorrect verb group structure The correct verb form is 'assist someone to'. | The purpose of the Program is to: <i>Assist (university) pre-service teachers develop</i> a better awareness and understanding of the needs of people with diverse abilities Preferred form: <i>Assist (university) pre-service teachers to develop</i> what current theorists and theories <i>supports</i> your philosophy Preferred form: <i>support</i> your philosophy |
| Agreement error Incorrect ending on the verb. Agreement was also noted as an issue with noun groups, under 'element omitted'. | Preferred form: <i>support</i> your philosophy |
| Too many verbs Difficult for the reader to process due to the number of verbs, including the prepositional verb, 'become competent in'. Nominalization ('use','execution') also involved. | Keep a record of before during and after the use of these strategies and how you <i>developed, practised and became competent in</i> the execution of these four (4) Low Key Responses. Preferred form: Keep a record of: |
| | <ul style="list-style-type: none"> • what happened before, during and after you used these strategies • how you <i>developed, practised and mastered</i> these four (4) Low Key Responses. |

Another issue related to nominal groups involves punctuation. When two noun groups are not separated by a comma it makes the instructions more difficult to interpret, such as in Example (20):

Conclude the assignment by showing how you would apply the curriculum by including a copy of Task 3 a visual representation/mind map of one learning activity.

This example could have been improved by the inclusion of a comma after the nominal group 'Task 3'. Lack of a semi-colon, as shown in Example (21), can also make nominal group structure harder to read. Here a semi-colon after 'issues' would have been very helpful.

Example (21)

It is important to address the following issues safety (online and in class), copyright, budget, sustainability and responsible use of resources.

Some problems with verbal groups include incorrect verbal group structure, as in "*Assist (university) pre-service teachers develop*", and verbal group complexes where the length of the group causes difficulties, e.g., "how you *developed, practised and became competent in*". These issues are exemplified in Table 8.

It can be seen from the above examples and discussion that there is a range of issues at the group level. If the groups are part of compound or complex sentences, then this adds to the difficulty of interpreting the assignment instructions.

4.4. Word level

Issues at the word level include vocabulary, problems with particular word classes (such as prepositions), spelling and punctuation. Layout is also a problem; this covers all levels of the text, e.g., page breaks, use of colour, font and spacing. APA Referencing conventions are not always used correctly, e.g., in quotations given without page numbers.

Vocabulary is not always consistent across units; for example, there are various words for genre (e.g., text type, 'style') and common terms such as 'strategy' are used in many different ways. Spelling and punctuation are not always accurate. There are some spelling errors that should have been identified by a spell-checker and others, such as homophones, which are not as

easy to identify. These errors occur elsewhere in the unit plans as well as in the assignment descriptions. An example of one of these issues is given below.

4.4.1. Prepositions

In some instances, such as Example (22), the writer chooses an incorrect preposition.

Example (22)

I look forward to working with you all *in* this innovative and exciting unit *in* your undergraduate journey *in* becoming an effective teacher.

The first 'in' is not inaccurate but could be more appropriately phrased as 'as part of' or a similar expression. The final 'in' is not grammatically correct and should be substituted by the prepositions 'towards' or 'to'.

As mentioned above, as well as vocabulary and problems with prepositions, there were also issues with spelling, punctuation and format. However, as our focus is on meaning and understandability in the assignment prompts, we will not go into these items here.

5. Discussion

Here we have attempted to demonstrate that complexity is not only to be found at one level of language, for example clause or group; we need to take a holistic approach. Clause and group structure are clearly linked, e.g., in relation to nominalization and prepositional phrases.

Indeed, in our analysis of assignment instructions we have illustrated their complexity from the text level right down to the word level. It is notable that the issues identified included actual grammatical errors or problems in logic, as well as constructions that were difficult to understand for various reasons. Below, we summarize what we have found at the various levels of language before making some concluding remarks.

5.1. Text level

5.1.1. Genre

One issue to keep in mind is that, as mentioned in the Background section above, assignment instructions may be hybrid texts. In the B.Ed. Primary program, unit coordinators are required to change the assignment every year, as an anti-plagiarism measure. This means that the assignment may represent an adapted version of the previous year's task, with the implications for text cohesion not necessarily all resolved. A more serious reason for the text's hybridity is that it may have different authors, each of whom has passed the unit down to a new coordinator. Traces of the different origins may also be seen in the text's cohesion, or lack thereof. If the history of the document could be tracked, as is the case at some universities, this would perhaps help iron out some of the inconsistencies that are due to multiple authors.

Given this context, several difficulties were identified at the level of genre: confusion over the identification and features of the various genres; lack of a range and logical progression of genres throughout the program, with no noticeable scaffolding apparent; lack of clarity in the stages or schematic structure of the genre, including inconsistencies in the format of some common genres, notably lesson plans; contextual information that the student needs to wade through before coming to the assignment instructions themselves; and alternation between giving information and instructing the students what to do. In light of these problems, it is not surprising that students sometimes produce work that is generically inappropriate or complain that they do not understand the instructions or do not know what is expected of them.

5.1.2. Cohesion

Cohesion, especially the Reference system, was also an issue in the assignment prompts. The hybridity of the unit plan texts, mentioned above, may have been a contributing factor in this. Problems with Reference included the reader and/or the marker being referred to in different ways; the unit plan or the unit itself being referred to confusingly; the referent lacking specificity or being difficult to track; the reference being incorrect; the order of references being misleading; and too much repetition of the referent noun.

5.1.3. Register

In terms of *Register* (See [Halliday, 1978](#)), there were many concerns about the relationship constructed with the student reader of the assignment instructions, including inconsistencies in the type of relationship (Tenor) and how it was expressed. Many of the realizations of Tenor can be seen at the sentence and clause level; therefore, these realizations will be dealt with below.

5.1.4. Sentence and clause level

Assignments varied greatly in their formality and in how the student was addressed, sometimes with shifts in these variables within the one text. They also differed in the degree of obligation, certainty and choice conveyed, and how directly this was expressed, causing potential difficulties for students. Incongruent Mood choices and politeness markers added to the complexity, where a simple direct Command may have been sufficient. Finally, selections of Voice (active and passive) can leave students wondering who is doing what. Combinations of these linguistic choices can be puzzling for students. In some cases, a wide range of expressions has been used at the expense of clarity.

Other issues at the sentence and clause level appeared to reflect lecturers' own knowledge of grammar. There were structural errors at the sentence level, including sentence fragments, and unnecessary repetition. These indicate a need for time and assistance with proofreading.

5.1.5. Group level

Problems occurred in both nominal and verbal groups, with some very long noun groups that would cause confusion for students; this is also related to the issue of Reference mentioned above. Types of errors in the noun group included essential structural elements being omitted, awkward construction, issues with the order of elements and over-modification. Use of nominalization and abstract nouns helped to make assignment instructions less readable, and incorrect punctuation added to difficulties in interpretation. Similar to noun groups, verb groups sometimes had structural inaccuracies; they also had errors in agreement and were too long. As for the sentence and clause level, it is the actual mistakes in the structures at the group level that are the most unacceptable.

5.1.6. Word level

Issues at the word level included inconsistent vocabulary; problems with particular word classes such as prepositions; and inaccurate punctuation and spelling, some of which could have been corrected with a Spellchecker.

Thus, it can be seen that the concerns regarding the assignment instructions covered the full range from the text to the word level, with formatting also being an issue. They therefore require a multi-faceted and holistic approach to address them. We should also use the tools that we have for describing lexical density and nominalization in academic writing, along with considerations of genre, cohesion and register.

In making the following recommendations, we recognize the limitations of our study in that it is a qualitative description of some of the issues we found in our corpus, not a quantitative analysis in the style of Biber and colleagues. It focusses on one program in one institution. We are also aware that, while we have the benefit of our own experiences in relating to our students around assignments, student perspectives are not investigated here; that would be another study.

6. Recommendations and conclusions

In relation to writing assignment prompts for the discipline of Education, we recommend:

1. Consistent descriptions of various genres, their schematic structure and typical realizations; or at least a developed understanding of how they may differ according to purpose and audience.
2. Consideration of sentence structure so that it is both grammatically correct and not too complex.
3. Consideration of modality, voice and grammatical metaphor and the complexities that these involve.
4. Consideration of nominal group structure so that they are not too long and difficult to unpack.
5. Aspects such as abbreviations and metalanguage could be standardized to avoid confusion for students.
6. Infrastructure support and university/School/course-wide processes related to consistency, quality and accuracy in assignments. A quality assurance committee would help assure that standards were being met. For example, some institutions have an online portal and template to cover all assignments.
7. Professional learning and support for staff, such as help with proof-reading and other aspects from Learning Advisors.

Since undertaking this research we have had several short professional development sessions with staff; it is to be hoped that some of the issues we have identified above have now been addressed in our program. We hope that our findings may be applicable beyond the particular program under focus and we would be delighted if our paper could be of some use to those who are grappling with similar problems, if only in raising awareness of some grammatical issues to consider when composing assignment prompts. The issues that we have raised apply to sentence and clause grammar regardless of the genre of the text; however, it would be very interesting to see them applied to other disciplines and genres of academic writing.

While our findings are limited to our own corpus, it is likely that they may be relevant to other disciplines, as student assessment is crucial to student success in a wide range of contexts.

Author Statement

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jeap.2021.100998>.

References

- Alexander, R. (2020). *A dialogic teaching Companion*. London: Routledge.
- Ansarifar, A., Shahriari, H., & Pishghadam, R. (2018). Phrasal complexity in academic writing: A comparison of abstracts written by graduate students and expert writers in applied linguistics. *Journal of English for Academic Purposes*, 31, 58–71.
- Biber, D. (2006). *University language: A corpus-based study of spoken and written registers*. Amsterdam: Benjamins.
- Biber, D., Gray, B., & Poonpon, K. (2011). Should we use characteristics of conversation to measure grammatical complexity in L2 writing development? *TESOL Quarterly*, 45(1), 5–35. March 2011.
- Bretag, T. (Ed.). (2016). *Handbook of academic integrity*. Singapore: Springer.
- Coates, H. (2018). Time to re-think higher education assessments. *Campus Review*, 27, 2018. March.
- Derewianka, B., & Jones, P. (2016). *Teaching language in context* (2nd ed.). Melbourne: Oxford.
- Dreyfus, S., Humphrey, S., Mahboob, A., & Martin, J. R. M. (2016). *Genre Pedagogy in higher education: The SLATE project*. Basingstoke: Palgrave Macmillan.
- Halliday, M. A. K. (1978). *Language as Social Semiotic: The social interpretation of language and meaning*. London: Edward Arnold.
- Halliday, M. A. K. (1985). *Spoken and written language*. Geelong: Deakin University Press.
- Halliday, M. A. K., & Hasan, R. (1976). *Cohesion in English*. London: Longman.
- Halliday, M. A. K., & Matthiessen, C. M. I. M. (2014). *Halliday's introduction to functional grammar* (4th ed.). Oxford: Routledge.
- Harper, R., Ellis, C., Newton, P., Rozenberg, P., Saddiqui, S., & van Haeringen, K. (2019). Contract cheating: A survey of Australian university staff. *Studies in Higher Education*, 44(7), 1857–1873.
- Martin, J. R., & Rose, D. (2003). *Working with discourse: Meaning beyond the clause*. London: Continuum.
- Martin, J. R., & Rose, D. (2007). *Working with discourse: Meaning beyond the clause* (2nd ed.). London: Continuum.
- Miller, R. T., Mitchell, T. D., & Pessoa, S. (2016). Impact of source texts and prompts on students' genre uptake. *Journal of Second Language Writing*, 31, 11–24.
- Riccardi, D., Lightfoot, J., Lam, M., Lyon, K., Roberson, N., & Lolliot, S. (2020). Investigating the effects of reducing linguistic complexity in first-year undergraduate assessments. *Journal of English for Academic Purposes*, 43. <https://doi.org/10.1016/j.jeap.2019.100804>
- Staples, S., Egbert, J., Biber, D., & Gray, B. (2016). Academic writing development at the university level: Phrasal and clausal complexity across level of study, discipline & genre. *Written Communication*, 33(2), 149–183.

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