

Modal Verbs in Sustainability Reports by the University of Cambridge and the University of Oxford: Comparing Discursive Practices

Oleksandr Kapranov

1 Introduction

Higher education institutions (HEIs) have become an important arena for discussing the issue of sustainability as long-lasting environmental practices that are associated with education, research, community engagement, and societal change (Kapranov 2021, 55; Miquelajauregui et al. 2022, 637; Ralph and Stubbs 2014, 71). It is argued that sustainability is seen by HEIs as the maintenance of human development goals in conjunction with the ability of ecosystems to provide and sustain natural resources for future generations (Sady et al. 2019). The world-renowned HEIs are thought to recognise their responsibility to foster the faculty's and the student body's awareness of sustainability and, in particular, sustainable development (Filho et al. 2021, 1). In addition to raising awareness of sustainability, HEIs contribute to teaching and conducting research in this area (Kovalcikiene and Buksnyte-Marmiene 2021), as well as communicating their research (Molthan-Hill and Blaj-Ward 2022). For instance, the leading HEIs in the United Kingdom (the UK) regularly produce and disseminate their research, vision, and policies that are related to sustainability in the form of sustainability reports (Lozano 2011; Sassen et al. 2018; Soini et al. 2018).

Sustainability reports have been scrutinised through the lenses of micro- and macro-discursive perspectives (Kapranov 2015a, 2015b, 2016), that is from word to text and context (Fløttum and Gjerstad 2013; Fløttum et al. 2014). Discursive contexts of sustainability reports may involve modal verbs that play a range of pragmatic and communicative roles in their textual structure (Fløttum 2010). The literature in applied linguistics and discourse studies has established that pragmatic roles of modal verbs are associated with the expression of the author's personal attitudes and assessments of the status of knowledge in a text (Hyland 2005; Hyland and Jiang 2016; Kapranov 2023a), hedging (i.e., the author's mitigation of the claims and the style of presentation), and boosting that consists in the author's presentation of the claims in an assertive manner (Hyland 2005; Hyland and Jiang 2016). Based upon the literature (Fløttum 2010; Hyland 2005; Hyland and Jiang 2016; Kapranov 2022a, 2023b), the present article introduces and discusses a corpus-assisted study that seeks to identify the frequency of the occurrence of the central modal verbs, such as *can/could*, *may/might*, *must*, *shall/should*, and *will/would* and uncover their pragmatic roles in sustainability reports that are communicated online by the most prestigious and world-renowned universities in the UK, namely the University of Cambridge (UC) and the University of Oxford (UO).

Whilst HEIs in the UK have a long history of addressing and communicating the issues of sustainability and sustainable development to the faculty, students and public at large (Lozano

2011; Salite et al. 2021; Sassen et al. 2018), there is a paucity of prior studies that investigate the frequency and pragmatic roles of modal verbs in sustainability reports by HEIs (Fløttum and Dahl 2012; Fløttum and Gjerstad 2013; Plastina 2022). The corpus-assisted study that is further described in the article attempts to bridge the current gap in the literature. The relevance of the present investigation involves the following considerations. Firstly, the British private and public stakeholders (inclusive of HEIs) were the first actors to recognise sustainability as a topical issue that needed to be addressed on the institutional level (Kapranov 2018b). Secondly, the leading British HEIs are reported to pay specific attention to the issues of sustainability, sustainable development, and climate change (Adams 2013; Kapranov 2022b). For instance, both UC and UO have their own Sustainability Centres that maintain the respective university-wide websites dedicated to communicating sustainability to the faculty, students, and as well as the general public, for instance, *Sustainability* at <https://sustainability.admin.ox.ac.uk/home> (UO 2022a) and *Sustainability* at <https://www.environment.admin.cam.ac.uk> (UC 2022a). Thirdly, both UC and UO are considered to be the leading actors in terms of the best policies and practices for sustainability and sustainable development in the HEI sector (Kapranov 2022a; Lozano 2011; Sassen et al. 2018; Soini et al. 2018) that should be studied and emulated by other HEIs worldwide (Watkins and Lofthouse 2010).

In light of the abovementioned considerations, the study seeks to answer the following research questions (RQs):

RQ1: What are the most frequent central modal verbs in the sustainability reports by UC and UO, respectively?

RQ2: What pragmatic roles do the most frequent central modal verbs play in the sustainability reports by UC and UO, respectively?

Further, this article is structured as follows. First, an outline of the prior studies on sustainability reporting by HEIs is provided in section 2. Second, a review of the literature on the use of modal verbs in written English-mediated discourse is given in section 3. The review takes into consideration the central modal verbs in English (*can/could*, *may/might*, *must*, *shall/should*, and *will/would*). Thereafter, in section 4, the present study is discussed in conjunction with the corpus, methodology, results and their discussion. Finally, the article concludes with the summary of the major findings in section 5. The findings are summarised through the lens of their implications to sustainability reporting by HEIs.

2 HEIs' Sustainability Reporting

Sustainability reporting involves the process of making periodic public disclosures that are related to environmental and social performance (Fonseca et al. 2011, 22). Currently, there is a strong societal demand for sustainability reporting by HEIs as a token of recognition of sustainability, sustainable development, and education for sustainable development (del Mar Alonso-Almeida et al. 2015; Salite et al. 2021). In this regard, it is indicated that universities are expected “to demonstrate to stakeholders their active commitment to responding to social and environmental issues through comprehensive reporting practices” (Nicolò et al. 2021, 1). In addition to the general public’s interest in sustainability reporting by universities, this issue has attracted a considerable amount of scholarly attention in discourse studies, corporate and business communication, and narratology (Bice and Coates 2016; del Mar Alonso-Almeida et al. 2015; Fonseca et al. 2011; Gamage and Sciulli 2017).

The literature suggests that sustainability reporting by HEIs is studied through the lenses of i) content analysis, ii) critical discourse analysis (CDA), and iii) rhetorical analysis (Melles

2020; Nicolò et al. 2021; Nikolić and Vukić 2020; Weisser 2017). Given that there is a plethora of studies on sustainability reporting by HEIs (Bice and Coates 2016; del Mar Alonso-Almeida et al. 2015; Fonseca et al. 2011; Gamage and Sciulli 2017; Hassan et al. 2019; Kapranov 2022b; Lee et al. 2013; Nicolò et al. 2021; Nikolić and Vukić 2020; Melles 2020; Weisser 2017), this article does not seek to present a detailed and comprehensive overview of the literature. However, this section of the article outlines the aforementioned approaches to the discourse of sustainability reporting by HEIs, namely content, CDA, and rhetorical analyses.

In terms of the content analysis, sustainable reporting by HEIs seems to follow the discursive frameworks set by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) in conjunction with the Decade of Education for Sustainable Development (Lee et al. 2013). Moreover, the HEIs' sustainability reporting is deemed to be conditioned by the United Nation's Sustainable Development Goals that are aimed at eradicating poverty, protecting the environment, and ensuring peace and prosperity (Al Amin and Greenwood 2018). According to the literature, the content of sustainability reporting by HEIs involves the adoption of the UNESCO sustainability framework that is employed in order to facilitate HEIs' sustainable visions and policies (Hassan et al. 2019).

Another aspect of the content analysis of sustainable reporting by HEIs is concomitant with the parallels between sustainability discourses by HEIs and those of corporate communication (Melles 2020). The parallels are drawn on the assumptions that discursive behaviour of HEIs and corporations share a substantial number of similarities (Guthrie and Lucas 2022). For instance, sustainability reporting is regarded as "an important tool for the assessment and communication of sustainability performance" by the corporate and HEIs actors alike (Ceulemans et al. 2020, 1043). However, whilst sustainability reporting by the corporate sector appears relatively homogeneous, sustainability reports by HEIs, inclusive of universities, seem to exhibit more "variation in coverage and quality of reporting" (Melles 2020, 945).

Presumably, the variation in sustainability reporting by HEIs is reflective of a complex and multi-faceted relationship between the sustainability goals and practices (Garde Sánchez et al. 2013). Assuming that sustainability practices are different among the HEIs actors, it is logical to suggest that the discourses of sustainability would vary from one HEI to another, at least in terms of the content (Fonseca et al. 2011; Lozano 2011). In this regard, the literature points to the discrepancies in sustainability reporting by HEIs that range from a very modest commitment to sustainability (Lee et al. 2013) to a significant increase in the quality of content embedded in the HEIs' annual reports (Hassan et al. 2019).

The CDA approach to sustainability reporting by HEIs problematises sustainability discourse from socio-cultural and historical perspectives (Wodak 2015). From the vantage point of CDA, sustainability reporting by HEIs is structured by the foci on renewable energy, innovation and governance, quality education, health and well-being, sustainable consumption, zero hunger, and climate action (Filippo et al. 2020, 14). In case of the leading British HEIs, discursive representations of sustainability reporting involve the topics of climate change, digital sustainability, lifelong learning, social justice, and sustainable education (Kapranov 2022b). Notably, one of the most frequent discursive representations of sustainability discourse by the renowned HEIs in the UK are lifelong learning and digital sustainability, respectively (ibid.).

Within the rhetorical approach to sustainability reporting by HEIs, the construal of sustainability is investigated for the presence of definitions of sustainability (Weisser 2017) in order to unpack similarities among the discourses of sustainability produced by HEIs on the one hand, and political and public stakeholders on the other hand. This is done to reveal specific ways in which sustainability reporting by HEIs is interconnected with sustainability discourses by other actors (Weisser 2017).

As outlined above, there is a cornucopia of prior studies that scrutinise sustainability reporting by HEIs from the vantage points of content, CDA, and rhetorical analyses. However, currently there are no published studies that focus on the frequency and pragmatic roles that the central modal verbs play in sustainability reporting by HEIs in general, and by UC and UO, in particular. Prior to proceeding to investigate this research issue, however, it appears relevant to discuss the role of the central modal verbs in written English-medium discourse.

3 Modal Verbs in Written English-Medium Discourse

Traditionally, the literature pays specific attention to the central modal verbs in English, namely *can/could*, *may/might*, *must*, *shall/should*, and *will/would* (Biber et al. 1999). They are referred to as a closed group of nine non-inflectable verbs that do not function as lexical verbs and whose semantic functions fall in the category of modality (Payne 2011, 254-255). Whilst the central modal verbs in English possess time distinction in the form “present (e.g., *can*) – past (e.g., *could*)”, their past forms (e.g., *could*) do not necessarily represent past time (Álvarez-Gil and Morales 2021; Diver 1964), as seen, for instance in the interrogative sentence “*Could* you give me some water, please?”. In this sentence, *could* refers to the polite form of request rather than to the past tense of *can* as a modal verb that denotes ability and possibility.

The central modal verbs, and modal verbs in general, are associated with modality (Biber et al. 1999; Cornillie and Pietrandrea 2012; Diver 1964; Payne 2011; Rizomilioti 2006). Modality is operationalised as

a complex conceptual domain that covers a wide range of possible speaker’s attitudes or orientations towards a situation. These include the speaker’s belief in the reality, necessity, or likelihood of the situation described. In English, modality is expressed most directly by the modal auxiliaries. (Payne 2011, 296)

In other words, the central modal verbs, also referred to as *plain modal auxiliaries*, are reflective of “the attitude of the speaker toward the event indicated by the verb” (Diver 1964, 322). Subsequently, they “frequently combine reference to information source with whatever other meaning they have” (Aikhenvald 2007, 217). In this sense, modal verbs could be regarded as the surface realisation of epistemic (i.e., ability, assumption, possibility, probability, prediction, etc.) and deontic (i.e., insistence, obligation, permission, suggestion) modality (Glynn 2014; Kafes 2015; Keck and Biber 2004; Rizomilioti 2006).

It should be, perhaps, specified that whilst epistemic modality describes the interlocutor’s perception of the situation at hand, as well as their confidence in the truth of the proposition (Payne 2011, 296), deontic modality refers to the interlocutor’s perception of the necessity of the situation (ibid.). Often, the central modal verbs in English combine both epistemic and deontic functions whose use is disambiguated in the communicative context (Cornillie and Pietrandrea 2012; Hyland 1996). In this regard, it is posited in the literature that the polyfunctionality of the central modal verbs is explained by the complexity of communicative strategies employed by the speaker and/or writer (Hyland 1994; Kafes 2015; Rizomilioti 2006; Ton and Nguyen 2020).

Owing to their relation to modality, the central modal verbs in written English-medium discourse have been the subject of keen interest of many scholars, who specialise in research in academic writing in English, discourse and communication, and literary studies (Hyland 1994; Skorasińska 2014; Vičič and Jurančič Petek 2016). The literature indicates that modal verbs that are associated with epistemic modality are frequent in academic writing (Huschová 2015; Hyland 1994; Mur-Deñas 2016; Ton and Nguyen 2020). In this regard, Vičič and Jurančič

Petek (2016, 23) posit that modal verbs impart a genre-specific textual voice to the genre of written English-medium academic discourse.

As far as the genre-specific textual voice is concerned, Hyland (2005) contends that modal verbs serve as a surface representation of stance in the text. Hyland (2005) operationalises stance as the writer's expression of personal attitudes and assessments of the status of knowledge in a text (Hyland and Jiang 2016). In light of Hyland's (1994, 2005) approach to stance, the central modal verbs, such as, for instance, *could*, *may*, and *would* are argued to represent the academic writer's hedging strategy. According to Hyland (1994, 251), hedging is suggestive of "either (a) a lack of complete commitment to the truth of a proposition, or (b) a desire not to express that commitment categorically". Following Hyland (1994, 260), modal verbs as hedges are used by academic writers in order to avoid bold, categorical assertions. For instance, Hyland (1994, 261) demonstrates that hedging in academic articles in biology is frequently expressed by such modal verbs as *would*, *may*, *could*, and *might*, which are used to hedge epistemic propositional content and convey the results and their discussion with caution.

Another pragmatic strategy associated with the central modal verbs in academic writing in English is related to boosting (Hyland 1996; Mur-Dueñas 2016; Orta 2010; Ton and Nguyen 2020). Whilst hedging is indicative of a certain avoidance of the assertion and clarity (Hyland 1995), modal verbs as boosters are reflective of the degree of certainty of the proposition (Hyland 2005). Specifically, the central modal verbs as boosters are thought to facilitate the expression of meaning with conviction or a reasonable degree of confidence (Orta 2010, 89-90).

It could be summarised that the central modal verbs in English play an important role in written English-medium discourse, be it a research article or an official corporate report (Álvarez-Gil and Morales 2021; Cornillie and Pietrandrea 2012; Huschová 2015; Hyland 1994; Kafes 2015; Mur-Dueñas 2016; Orta 2010; Rizomilioti 2006; Ton and Nguyen 2020; Vičič and Jurančič Petek 2016). Modal verbs, in particular, the central modal verbs in English (*can/could*, *may/might*, *must*, *shall/should*, and *will/would*), contribute to the writers' positioning themselves in the text, "adopting a point of view in relation to both the issues discussed in the text and to others who hold points of view on those issues" (Hyland 2005, 175-176).

As previously mentioned, whilst modal verbs in English seem to be amply elucidated in the literature, little is known about their frequency, distribution and pragmatic roles in sustainability reports that are published online by the leading universities in the UK. The study that is presented and discussed in the following section of the article aims at discovering new knowledge about this under-researched aspect.

4 The Present Study: Corpus and Methods

The present study was based upon an assumption that sustainability reports could be marked by the presence of modal verbs whose use would be determined by the pragmatic roles outlined by Hyland (2005), namely hedges, boosters, attitude markers, directives, shared knowledge, and personal asides. In line with the assumption and the RQs (see the introductory part of the article), the study examined a set of two sustainability reports by UC and UO, respectively, that were freely available online at <https://sustainability.admin.ox.ac.uk/files/environmentalsustainabilityreport2020-21.pdf> (UO, 2022b) and <https://www.environment.admin.cam.ac.uk/Annual-Report> (UC 2022b). The annual sustainability reports by UC and UO were considered to adhere to the style of official communication in English (Kapranov 2017, 2015a, 2015b). They were deemed comparable for the purposes of the present investigation given that they were i) written on the identical topic of sustainability in the HEIs context, ii) made publicly available online, iii) reflective of official

communication of English, iv) suggestive of the collective authorship, and vi) indicative of the respective universities' stance on sustainability. The descriptive statistics of the reports were computed in AntConc (Anthony 2022) and summarised in Table 1 below.

Table 1. The Descriptive Statistics of the UC and UO Sustainability Reports

N	Descriptive Statistics	UC	UO
1	N reports	1	1
2	N words	13 423	4 429
3	N types	2 418	1 210
4	N pages	52	24
5	N sections (chapters)	10	4

In terms of the methods in the present study, the following should be specified. The sustainability reports (total N = 2) for the years 2020-2021 were accessed on the official websites of UC and UO, respectively, and downloaded. Then, the reports were analysed individually in the computer program AntConc version 4.0.11 (Anthony 2022). The individual sustainability reports were opened in AntConc (Anthony 2022) in order to calculate the number (N) of words and types of words in the reports (see Table 1). Thereafter, the frequency of the occurrence of the central modal verbs as the non-normalised data was computed in each sustainability report. In addition, the most frequent central modal verbs from each individual sustainability report were analysed in AntConc (Anthony 2022) as normalised data in order to identify their occurrence in the text clusters as normalised data per 100 hits. The results of the raw data analysis as well as the normalised cluster analysis were summarised in Tables 2 – 4.

Afterwards, the most frequent modal verbs were manually examined in the texts of the reports in order to establish their involvement in the pragmatic roles in accordance with the methodological approach postulated by Hyland (2005). In concord with Hyland's (2005) methodology, the central modal verbs in the study were assumed to play one of the following pragmatic roles, specifically, i) hedges, ii) boosters, iii) attitude markers, iv) directives, v) shared knowledge, and vi) personal asides. Hedges (for instance, *could, might, would, should*) were considered to "indicate the writer's decision to withhold complete commitment to a proposition, allowing information to be presented as an opinion rather than accredited fact" (Hyland 2005, 178). Boosters (e.g., *must, will*) were deemed "to allow writers to express their certainty in what they say and mark involvement with the topic and solidarity with their audience" (Hyland 2005, 179). Attitude markers (e.g., *may, must*) were thought "to indicate the writer's affective, rather than epistemic, attitude to propositions, conveying surprise, agreement, importance, frustration" (ibid.). Directives were seen as the instructions to the reader to perform an action or to perceive it in a way determined by the writer (for instance, *must, should*). In addition, the central modal verbs could pertain to personal asides, i.e. phrases and/or clauses "that would allow writers to address readers directly by briefly interrupting the argument to offer a comment on what has been said" (Hyland 2005, 183). Also, the central modal verbs were assumed to be a part of shared knowledge, referred to as "the presence of explicit markers where readers are asked to recognize something as familiar or accepted" (Hyland 2005, 184). It should be reiterated that the aforementioned pragmatic roles were manually examined in relation to the central modal verbs in the sustainability reports. The results of the qualitative analysis associated with the pragmatic roles of the central modal verbs in the study were confirmed by a specialist in discourse studies whose doctoral research and subsequent peer-reviewed publications focused on modal verbs in diachrony and in Modern English.

5 Results and Discussion

The results of the quantitative analysis of the UC and UO sustainability reports in AntConc (Anthony 2022) yielded the absolute frequency of the occurrence of the central modal verbs. In addition, the absolute frequency was normalised per 1000 words in the statistical program Statistical Package for Social Sciences (SPSS) version 20.0 (IBM 2011) due to the difference in the size of the reports (see Table 1), The absolute and normalised frequencies are summarised in Table 2 below.

Table 2. The Frequency of the Occurrence of the Central Modal Verbs in the UC and UO Reports in Absolute and Normalised Values

N	Modal Verb	UC in Absolute Values	UC in Normalised Values per 1000 Words	UO in Absolute Values	UO in Normalised Values per 1000 Words
1	<i>Can</i>	25	1.9	7	1.6
2	<i>Could</i>	9	0.7	0	0
3	<i>May</i>	7	0.5	1	0.2
4	<i>Might</i>	1	0.07	0	0
5	<i>Must</i>	0	0	0	0
6	<i>Shall</i>	0	0	0	0
7	<i>Should</i>	2	0.1	0	0
8	<i>Will</i>	22	1.6	19	4.3
9	<i>Would</i>	4	0.3	2	0.5

5.1 The frequency of the central modal verbs in the study

It is evident from Table 2 that the most frequent modal verbs in the sustainability report by UC are *can* and *will*. Similarly, it has been found that *will* is the most frequent modal verb in the sustainability report produced by UO, where it is followed by *can*. Notably, it follows from the data that *might*, *should* and *would* are either infrequently used, which is the case of the UC's report, or are absent in the report by UO. Given that *might*, *should* and *would* are typically regarded in the prior literature as hedges (Álvarez-Gil and Morales 2021; Cornillie and Pietrandrea 2012; Huschová 2015; Hyland 1994; Kafes 2015; Mur-Dueñas 2016; Orta 2010; Rizomilioti 2006; Ton and Nguyen 2020; Vičič and Jurančič Petek 2016), it could be inferred from the present findings that hedging does not seem to be a preferred pragmatic role associated with the central modals in the reports. It should be noted that the pragmatic roles of the central modal verbs are discussed in detail in subsection 4.1.2 of the article.

Another noteworthy finding that follows from Table 2 is related to the frequent occurrence of *will* both in the UC and UO sustainability reports. This finding is in contrast to the previous studies that do not mention *will* as a frequent modal verb in the formal register of writing in English (Álvarez-Gil and Morales 2021; Huschová 2015; Kafes 2015). However, the high frequency of *will* in the present study lends indirect support to the findings reported by Orta (2010, 85), who notes the high frequency of *will*, as well *can*, in official communication.

The fact that both *can* and *will* appear to be the most frequent modal verbs begs the question whether or not this finding is suggestive of the modals being, presumably, eagerly used, if not shared, in sustainability reporting by the content writers in these two universities. Presumably, a similar discursive space as far as sustainability discourse is concerned is

explicable by UC and UO cooperation and co-ordination of their respective sustainability policy documents, as evident from the UC’s Sustainability Report, e.g.

Through benchmarking against peer organisations from the Higher Education and private sectors – including the University of Oxford, and AstraZeneca – we developed a road map for the University’s approach to sustainable procurement performance. (UC 2022b: 34)

Similarly, the prior literature reports that there exists a shared discursive space among a number of the transnational fossil fuel corporations that coordinate their corporate discourse communication so that they metaphorically “speak in one voice” (Kapranov 2015, 306) when it comes to reporting on the issue of global climate change.

Whereas *will* and *can* seem to be frequent in sustainability reporting by UC and UO, their distribution varies not only in absolute values (see Table 2), but also in terms of the normalised frequencies of collocations, as evident from Table 3 below.

Table 3. The Frequency of Collocations with *Can* as Normalised Data per 100 Hits

N	Clusters with <i>Can</i>	UC	UO
1	<i>Can be</i>	0	4
2	<i>Can only</i>	3	0
3	<i>Can achieve</i>	2	0
4	<i>Can also</i>	2	0
5	<i>Can all</i>	1	0
6	<i>Can build</i>	1	0
7	<i>Can contribute</i>	1	0
8	<i>Can download</i>	0	1
9	<i>Can find</i>	1	1
10	<i>Can gain</i>	1	0
11	<i>Can generate</i>	1	0
12	<i>Can get</i>	1	0
13	<i>Can give</i>	1	0
14	<i>Can highlight</i>	1	0
15	<i>Can identify</i>	1	0
16	<i>Can make</i>	1	0
17	<i>Can regenerate</i>	1	0
18	<i>Can reduce</i>	0	1
19	<i>Can share</i>	1	0

As seen in Table 3, only one collocation with the modal verb *can* is similarly distributed in the sustainability reports as normalised data per 100 hits, e.g. *can find* (N = 1). Notably, the distribution of clusters with *will* also exhibits substantial differences in the two sustainability reports as the normalised data per 100 hits (see Table 4 below).

Table 4. The Frequency of Clusters with *Will* as Normalised Data per 100 Hits

N	Clusters with <i>Will</i>	UC	UO
1	<i>Will be</i>	6	3
2	<i>Will make</i>	2	0
3	<i>Will report</i>	0	2

4	<i>Will save</i>	2	0
5	<i>Will achieve</i>	0	1
6	<i>Will allow</i>	0	1
7	<i>Will also</i>	1	1
8	<i>Will continue</i>	1	0
9	<i>Will create</i>	1	1
10	<i>Will enhance</i>	1	0
11	<i>Will establish</i>	0	1
12	<i>Will evolve</i>	0	1
13	<i>Will exist</i>	1	0
14	<i>Will focus</i>	1	0
15	<i>Will form</i>	0	1
16	<i>Will have</i>	1	0
17	<i>Will help</i>	1	0
18	<i>Will hopefully</i>	1	0
19	<i>Will impact</i>	1	0
20	<i>Will lead</i>	1	0
21	<i>Will likely</i>	1	0
22	<i>Will limit</i>	0	1
23	<i>Will pilot</i>	0	1
24	<i>Will reduce</i>	1	1
25	<i>Will review</i>	0	1
26	<i>Will run</i>	0	1
27	<i>Will set</i>	0	1
28	<i>Will share</i>	0	1
29	<i>Will work</i>	0	1

It follows from Table 4 that there are several collocations with *will* that are similarly distributed in the sustainability reports, for instance, *will reduce*, and *will create*. Further, we discuss the pragmatic roles of the most frequent modal verbs *can* and *will*.

5.2 The pragmatic roles of most frequent modal verbs in the study

Based upon Hyland's (2005) methodology, *can* and *will* are discussed through the lens of pragmatic roles that the modals may play in the reports, namely hedges, boosters, attitude markers, directives, shared knowledge, and personal asides. First, let us discuss how *can* is involved in the abovementioned roles in the sustainability report by UC. Having applied Hyland's (2005) research methodology, it appears that *can* in the UC's sustainability report is associated with boosters (N = 14), directives (N = 5), attitude markers (N = 4), and hedges (N = 2). These findings are graphically illustrated by Figure 1 in the form of percentage to the total number of *can* (N = 25) in the UC's sustainability report.

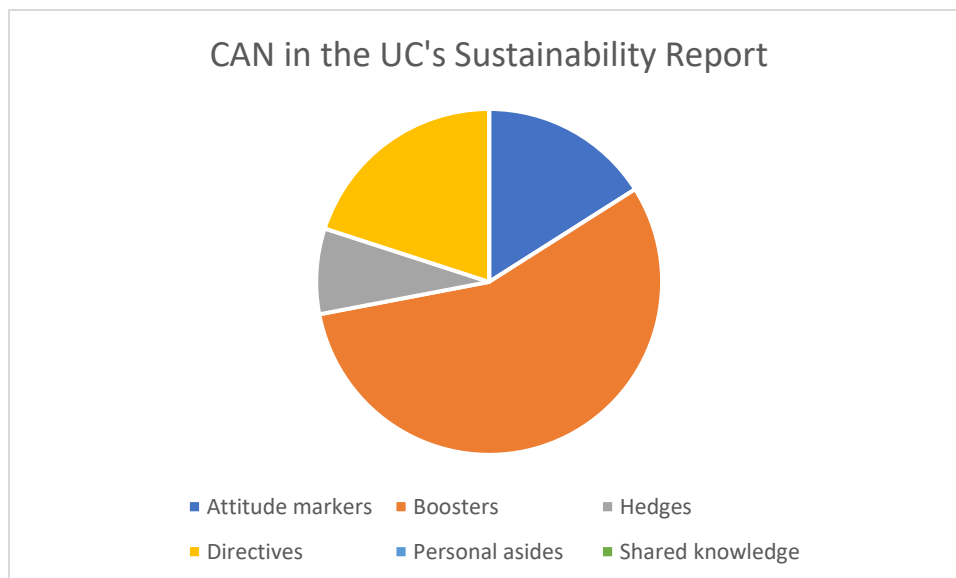


Figure 1. The Pragmatic Roles of *Can* in the UC's Sustainability Report

It follows from Figure 1 that there are no cases of *can* being related to either personal asides or shared knowledge in the sense postulated by Hyland (2005). It is evident from Figure 1 that *can* is involved, primarily, in boosting, hedging, and directives in the sustainability report by UC (Hyland 2005). *Can* as a booster that expresses certainty is further emblematised by excerpt (1), whereas *can* as a directive (i.e., instructions to the reader to perform an action determined by the writer) is exemplified by excerpt (2) below.

- (1) Citizen science data *can* contribute to national and international datasets, be used for research or conservation, and help inform planning, development and even wildlife legislation (UC 2022b, 20)
- (2) There are also links throughout where you *can* find more information and keep up to date with all the projects and initiatives mentioned. (UC 2022b, 3)

Whilst *can* appears to be, predominantly, associated with boosters and directives in the UC's sustainability report, *can* in the report by UO is related to boosters (N = 3) and directives (N = 4) only. There are no instances of *can* in the UO's sustainability report that are associated with attitude markers, hedges, personal asides, and shared knowledge. In contrast to the pragmatic roles of *can* in the UC report, *can* in the sustainability report by UO is involved, mainly, in directives and, less so, in boosters. This finding is graphically represented by Figure 2 as the percentage to the total number of *can* (N = 7) in the UO's sustainability report.

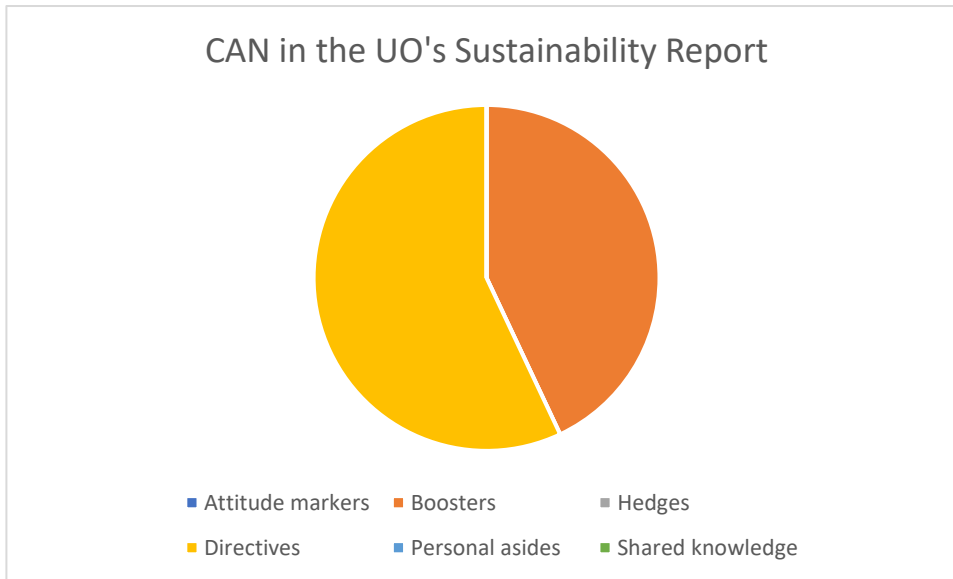


Figure 2. The Pragmatic Roles of *Can* in the UO's Sustainability Report

An example of the use of *can* as a directive in the UO's report is given in excerpt (3).

- (3) We celebrated World Environment Day this year by creating a Biodiversity Treasure Hunt to encourage our community to take inspiration and visit one of the great natural habitats in the area, discovering the vast array of species right on our doorstep. You *can* download the treasure hunt here. (UO 2002b, 22)

As far as *can* is concerned, it could be argued that its use is, mainly, related to stance in the sustainability report by UC, whilst in the UO's report it is associated with engagement. Arguably, this is a novel finding, since Huschová (2015), Hyland (2005), Orta (2010), as well as Vičič and Jurančič Petek (2016) indicate that *can* is employed in conjunction with stance.

Having discussed and compared *can* in the sustainability reports by UC and OC, let us examine *will*. In the UC report, *will* (N = 22) is associated with the attitude markers (N = 4) and boosters (N = 18), as seen in Figure 3.

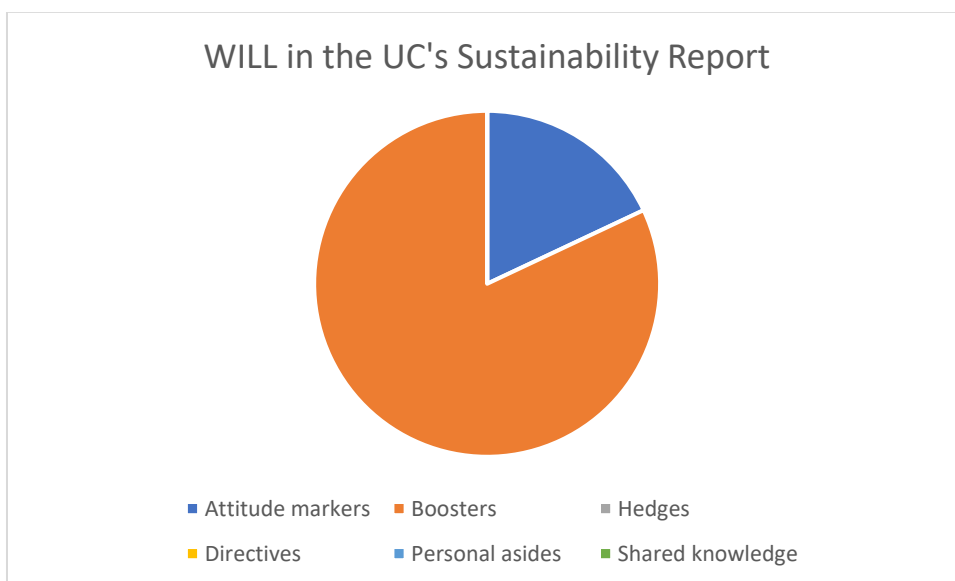


Figure 3. The Pragmatic Roles of *Will* in the UC's Sustainability Report

In Figure 3, *will* as an attitude marker and a booster is plotted as percentages to the total number of *will* (N = 22) in the UC's sustainability report. To reiterate, an attitude marker according to Hyland (2005, 179) is indicative of the writer's affective attitude (surprise, importance, etc.) to the proposition. *Will* as an attitude marker in the sustainability report by UC can be typified by excerpt (4), e.g.

(4) Due to launch fully after this reporting period, this Travel Advisor Service *will* hopefully help more people make the shift to sustainable travel. (UC 2022b, 28)

Other than attitude makers, *will* in the UC's report is deemed to be associated with boosters, as seen in excerpt (5) below:

(5) We have continued to engage and contribute to strategic partner projects that *will* impact the University's estate and/or staff commuting options, as well as contributing to a more sustainable city region. (UC 2022b, 30)

Arguably, it is reasonable to treat *will* in (5) as a booster, assuming that it imparts a degree of certainty of the proposition (Hyland 2005). The use of *will* as a booster in (5) supports the contention by Orta (2010), who suggests that the central modal verbs (e.g. *will*) as boosters convey the meaning of conviction and confidence in the action on the part of the doer.

Notably, *will* as a booster is present in the sustainability report by UO. In the report, boosting appears to be the only pragma-communicative device in relation to *will*. As a booster, *will* denotes strong probability and prediction, as emblematised by excerpt (6):

(6) We *will* achieve a net gain in biodiversity by reducing the negative impact of our operations and supply chain, making biodiversity enhancements on and off the estate, achieving a 20% net gain on all new development plans, and using biodiversity offsetting where necessary. We *will* set interim five-year targets and we *will* share our progress annually. We *will* also give the University community opportunities to engage with the Strategy and contribute to achieving its goals. We *will* review the Strategy every five years. (UO 2022b, 4)

Presumably, *will* as a booster in (6) is strategically employed to impart UO's strong and clear stance as far as sustainability is concerned. In (6), *will* could be argued to serve as a discursive representation of the university's image as an actor that approaches the issue of sustainability in a confident manner and seeks to transmit its confidence to the stakeholders and the general public.

The discussion of RQ2 could be finalised with the following observations. Firstly, interpreted within Hyland's (2005) approach, the most frequent modal verbs in the study, i.e. *can* and *will*, appear to be associated both with the convergent and divergent pragmatic roles. Namely, whilst *can* is related, predominantly, to boosters in the sustainability report by UC, it is associated, to a great extent, with directives in the UO's report. Secondly, *will* exhibits a convergent pragmatic role both in the UC's and UO's sustainability reports in the sense that it is associated with boosters. Obviously, these findings should be treated with caution, since only two sustainability reports were analysed in the study.

6 Conclusions

The article introduced and discussed a computer-assisted study that examined the frequency of the occurrence of the central modal verbs and their pragmatic roles in a set of sustainability reports produced and distributed online by UC and UO, respectively. The results of the quantitative computer-assisted investigation indicated that the most frequent modal verbs in the sustainability reports both by UC and UO were *can* and *will*. The finding could provide support to the prior studies that reported a substantial presence of *can* and *will* in English-medium writing, especially in academic writing (Huschová 2015; Hyland 1994; Mur-Dueñas 2016; Orta 2010; Ton and Nguyen 2020; Vičič and Jurančič Petek 2016). In addition, the finding could be suggestive of the similarities in sustainability discourse by “Oxbridge”, i.e., Oxford and Cambridge.

However, in contrast to the previous literature (Hyland 2005; Orta 2010; Vičič and Jurančič Petek 2016), which posited that *could*, *might*, *should* and *would* were amply represented in academic and formal writing, the frequencies of *could*, *might*, *should* and *would* were found to be either low or non-existent. That finding could be interpreted as an indication of a more confident, direct and, perhaps, assertive discursive style of sustainability reporting both by UC and UO. The contention that UC’s and UO’s sustainability discourse would be characterised as confident and direct could be supported by the findings of the qualitative analysis. Specifically, the results of the qualitative analysis pointed to the substantial involvement of *can* and *will* as boosters, which facilitated the expression of certainty in the content.

It could be concluded that the central modal verbs, especially *can* and *will*, could be assumed to play an important role in sustainability discourse communicated online by UC and UO. The role of the central modal verbs should be taken into consideration when analysing sustainability reports by HEIs. The frequency and pragmatic roles of the central modal verbs in the study could contribute to investigating sustainability discourse by the leading British HEIs. The discourse of sustainability by UC and UO, inclusive of the use of the central modal verbs, could serve as an index of the best practices of sustainability reporting (Kapranov 2022c).

Acknowledgements

The author of the article wishes to acknowledge their appreciation of Kjersti Fløttum, whose guidance and advice were invaluable in a series of the author’s publications written on the topic of climate change-related discourse. This article is dedicated to Kjersti and her outstanding career as a linguist, whose research interests are focused on climate change and sustainability. Additionally, the author is appreciative of the editors and the anonymous reviewers for their insightful and constructive comments on the article draft.

References

- Adams, Carol A. 2013. Sustainability reporting and performance management in universities: Challenges and benefits. *Sustainability Accounting, Management and Policy Journal* 4(3): 384-392.
- Aikhenvald, Alexandra Y. 2007. Information source and evidentiality: What can we conclude. *Rivista di Linguistica* 19(1): 209-227.
- Al Amin, Md, and Janinka Greenwood. 2018. The UN sustainable development goals and teacher development for effective English teaching in Bangladesh: A gap that needs bridging. *Journal of Teacher Education for Sustainability* 20(2): 118-138. <https://doi.org/10.2478/jtes-2018-0019>

- Álvarez-Gil, Francisco J., and María Elena Domínguez Morales. 2021. Modal verbs in academic papers in the field of tourism. *Revista Signos* 54(106): 549-574. <https://doi.org/10.4067/S0718-09342021000200549>
- Anthony, Laurence 2022. AntConc (Version 4.0.11) [Computer Software]. Tokyo, Japan: Waseda University. Available from <https://www.laurenceanthony.net/software>
- Biber, Douglas, Stig Johansson, Geoffrey Leech, Susan Conrad, and Edward Finegan. 1999. *Longman Grammar of Spoken and Written English*. Harlow, Essex: Pearson Education.
- Bice, Sara, and Hamish Coates. 2016. University sustainability reporting: Taking stock of transparency. *Tertiary Education Management* 22: 1–18. <https://doi.org/10.1080/13583883.2015.1115545>
- Ceulemans, Kim, Carol Scarff Seatter, Ingrid Molderez, Luc van Liedekerke, and Rodrigo Lozano. 2020. Unfolding the complexities of the sustainability reporting process in higher education: a case study in the university of British Columbia. In *International business, trade and institutional sustainability. World Sustainability Series*, Walter L. Filho, Paulo Borges de Brito, and Fernanda Frankenberger (eds.), 1043-1070. Cham: Springer. https://doi.org/10.1007/978-3-030-26759-9_61
- Cornillie, Bert, and Paola Pietrandrea. 2012. Modality at work. Cognitive, interactional and textual functions of modal markers. Available at <https://hal.archives-ouvertes.fr/hal-00665337/file/inpressCornillie-Pietrandrea-Intro.pdf>
- del Mar Alonso-Almeida, Maria, Frederic Marimon, Fernando Casani, and Jesus Rodriguez-Pomeda. 2015. Diffusion of sustainability reporting in universities: Current situation and future perspectives. *Journal of Cleaner Production* 106: 144-154. <https://doi.org/10.1016/j.jclepro.2014.02.008>
- Diver, William. 1964. The modal system of the English verb. *Word* 20(3): 322-352. <https://doi.org/10.1080/00437956.1964.11659826>
- Filippo, Daniela D., Javier Benayas, Karem Peña, and Flor Sánchez. 2020. Communication on sustainability in Spanish universities: Analysis of websites, scientific papers and impact in social media. *Sustainability* 12(19): 1-21. <https://doi.org/10.3390/su12198278>.
- Filho, Walter L., Mihaela Sima, Ayyoob Sharif, Johannes M. Luetz, Amanda Lange Salvia, Mark Mifsud, Felicia Motunrayo Olooto, Ilija Djekic, Rosley Anholon, Izabela Rampasso, Felix Kwabena Donkor, Maria Alzira, Pimenta Dinis, Maris Klavins, Göran Finnveden, Martin Munashe Chari, Petra Molthan-Hill, Alexandra Mifsud, Salil K. Sen, and Erandathie Lokupitiya. 2021. Handling climate change education at universities: An overview. *Environmental Science Europe* 33: 1-9. <https://doi.org/10.1186/s12302-021-00552-5>
- Fløttum, Kjersti. 2010. A linguistic and discursive view on climate change discourse. *La revue du GERAS* 58: 19-37.
- Fløttum, Kjersti, and Trine Dahl. 2012. Different contexts, different “stories?” A linguistic comparison of two development reports on climate change. *Language & Communication* 32(1): 14-23.
- Fløttum, Kjersti, and Øyvind Gjerstad. 2013. Arguing for climate policy through the linguistic construction of narratives and voices: The case of the South-African Green Paper “National Climate Change Response”. *Climatic Change* 118(2): 417-430.
- Fløttum, Kjersti, Anje Müller Gjesdal, Øyvind Gjerstad, Nelya Koteyko, and Andrew Salway. 2014. Representations of the future in English language blogs on climate change. *Global Environmental Change* 29: 213-22. <https://doi.org/10.1016/j.gloenvcha.2014.10.005>
- Fonseca, Alberto, Amanda Macdonald, Emily Dandy, and Paul Valenti. 2011. The state of sustainability reporting at Canadian universities. *International Journal of Sustainability in Higher Education* 12(1): 22-40. <https://doi.org/10.1108/14676371111098285>

- Gamage, Pandula, and Nick Sciulli. 2017. Sustainability reporting by Australian universities. *Australian Journal of Public Administration* 76(2): 187-203.
- Garde Sánchez, Raquel, Manuel Pedro Rodríguez Bolívar, and Antonio M. López-Hernández. 2013. Online disclosure of university social responsibility: A comparative study of public and private US universities. *Environmental Education Research* 19(6): 709-746. <https://doi.org/10.1080/13504622.2012.749976>
- Glynn, Dylan. 2014. Quality and quantity. Object and method in the study of subjectivity and epistemic stance. In *Subjectivity and Epistemicity: Corpus, Discourse, and Literary Approaches to Stance*, Dylan Glynn and Mette Sjölin (eds.), 3-21. Lund: Lund University.
- Guthrie, James and Adam Lucas. 2022. How we got here: The transformation of Australian public universities into for-profit corporations. *Social Alternatives* 41(1): 26-34. <https://search.informit.org/doi/10.3316/informit.422944147026200>
- Hassan, Abeer, Mahalaximi Adhikariparajuli, Mari Fletcher, and Ahmend Elamer. 2019. Integrated reporting in UK higher education institutions. *Sustainability Accounting, Management and Policy Journal* 10(5): 844-876. <https://doi.org/10.1108/SAMPJ-03-2018-0093>
- Huschová, Petra. 2015. Exploring modal verbs conveying possibility in academic discourse. *Discourse and Interaction* 8(2): 35-47.
- Hyland, Ken. 2005. Stance and engagement: A model of interaction in academic discourse. *Discourse Studies* 7(2): 173-192. <https://doi.org/10.1177/1461445605050365>
- Hyland, Ken. 2001. Bringing in the reader: Addressee features in academic writing. *Written Communication* 18(4): 549-74.
- Hyland, Ken. 1996. Talking to the academy: Forms of hedging in science research articles. *Written Communication* 13(2): 251-281.
- Hyland, Ken. 1995. The author in the text: Hedging scientific writing. *Hong Kong Papers in Linguistics and Language Teaching* 18: 33-42.
- Hyland, Ken. 1994. Hedging in academic writing and EAF textbooks. *English for Specific Purposes* 13(3): 239-256.
- Hyland, Ken, and Feng Jiang. 2016. Change of attitude? A diachronic study of stance. *Written Communication* 33(3): 251-274. <https://doi.org/10.1177/0741088316650399>
- IBM. 2011. IBM SPSS Statistics for Windows, version 20.0. New York: IBM Corp.
- Kafes, Hüseyin. 2015. *Authorial Stance in Academic English: Native and Non-Native Academic Speaker Writer's Use of Stance Devices (Modal Verbs) in Research Articles*. Unpublished PhD Thesis. Available at <http://earsiv.anadolu.edu.tr/xmlui/bitstream/handle/11421/4214/190131.pdf?sequence=1&isAllowed=y>
- Kapranov, Oleksandr. 2023a. *Would* in research article abstracts across three disciplines. In *Modal Verbs and Modality: From Literary to Non-Literary Texts*, Monika Skorasińska (ed.), 29-58. Newcastle upon Tyne: Cambridge Scholars Publishing.
- Kapranov, Oleksandr. 2023b. Throwing soup at Van Gogh: The framing of art in climate change activism by British mass media. *Discourses on Culture* 19(1): 175-200. <https://doi.org/10.2478/doc-2023-0008>.
- Kapranov, Oleksandr. 2022a. Modal verbs in research article abstracts in applied linguistics: Juxtaposing discursive practices of the Inner and Outer circles of English. *East-West Cultural Passage* 22(2): 6-34.
- Kapranov, Oleksandr. 2022b. Discourse of sustainability in English language teaching at the University of Oxford: Analysing discursive representations. *Journal of Teacher Education for Sustainability* 24(1): 35-48. <https://doi.org/10.2478/jtes-2022-0004>

- Kapranov, Oleksandr. 2022c. The syntax of climate change: Syntactic means in the construction of Greta Thunberg's community identity on Facebook. *Studia Universitatis Babeş-Bolyai-Philologia* 67(4): 15-33.
- Kapranov, Oleksandr. 2021. Discursive representations of education for sustainable development in policy documents by English medium instruction schools in Estonia and Norway. *Discourse and Communication for Sustainable Education* 12(1): 55-66. <https://doi.org/10.2478/dcse-2021-0005>
- Kapranov, Oleksandr. 2018. Conceptual metaphors associated with climate change in British political discourse. In *New Insights into the Language and Cognition Interface*, Rafał Augustyn & Agnieszka Mierzwińska-Hajnos (eds.), 51-66. Newcastle upon Tyne: Cambridge Scholars Publishing.
- Kapranov, Oleksandr. 2017. Conceptual metaphors associated with climate change in corporate reports in the fossil fuels market: Two perspectives from the United States and Australia. In *The Role of Language in the Climate Change Debate*, Kjersti Fløttum (ed.), 90-109. New York/London: Routledge.
- Kapranov, Oleksandr. 2016. Corpus analysis of discourse markers in corporate reports involving climate change. *EPiC Series in Language and Linguistics* 1: 216-227.
- Kapranov, Oleksandr. 2015a. Do international corporations speak in one voice on the issue of global climate change: The case of British Petroleum and The Royal Dutch Shell Group. In *Social Sciences and Humanities: A Global Perspective*, Cem Can, Abdurrahman Kilimci, and Katarzyna Papaja (eds.), 306-322. Ankara: Detay Yayıncılık.
- Kapranov, Oleksandr. 2015b. Conceptual metaphors in Ukrainian prime ministers' discourse involving renewables. *Topics in Linguistics* 16(1): 4-16. <https://doi.org/10.2478/topling-2015-0007>.
- Keck, Casey Mari and Douglas Biber. 2004. Modal use in spoken and written university registers: A Corpus Based study. In *English Modality in Perspective. Genre Analysis and Contrastive Studies*, Roberta Facchinetti and Frank R. Palmer (eds.), 3-25. Frankfurt am Main: Peter Lang.
- Kovalcikiene, Kristina, and Loreta Buksnyte-Marmiene. 2021. Doctoral students as future teachers at universities: Factors related to professional identity. *Journal of Teacher Education for Sustainability* 23(2): 45-61. <https://doi.org/10.2478/jtes-2021-0016>
- Lee Ki-Hoon, Michelle Barker, and Agata Mouasher. 2013. Is it even espoused? An exploratory study of commitment to sustainability as evidenced in vision, mission, and graduate attribute statements in Australian universities. *Journal of Cleaner Production* 48: 20–28. <https://doi.org/10.1016/j.jclepro.2013.01.00>
- Lozano, Rodrigo. 2011. The state of sustainability reporting in Universities. *International Journal of Sustainability in Higher Education* 12(1): 67-78. <https://doi.org/10.1108/14676371111098311>
- Melles, Gavin. 2020. Sustainability Reporting in Australian Universities: Case Study of Campus Sustainability Employing Institutional Analysis. In *International Business, Trade and Institutional Sustainability. World Sustainability Series*, Walter L. Filho, Paulo Borges de Brito, and Fernanda Frankenberger (eds.), 945-974. Cham: Springer. https://doi.org/10.1007/978-3-030-26759-9_56
- Miquelajauregui, Yosune, Louis A. Bojórquez-Tapia, Hallie Eakin, Paola Gómez-Priego, and Daniela Pedroza-Páez. 2022. Challenges and opportunities for universities in building adaptive capacities for sustainability: Lessons from Mexico, Central America and the Caribbean. *Climate Policy* 22(5): 637-651. <https://doi.org/10.1080/14693062.2021.1985422>

- Molthan-Hill, Petra, and Lia Blaj-Ward. 2022. Assessing climate solutions and taking climate leadership: How can universities prepare their students for challenging times? *Teaching in Higher Education* 1: 1-11. <https://doi.org/10.1080/13562517.2022.2034782>
- Mur-Dueñas, Pilar. 2016. Modal hedging verbs in English as a Lingua Franca (ELF) business management research articles. *Kalbotyra* 69: 153-178. <https://doi.org/10.15388/Klbt.2016.10371>
- Nikolić, Vesna, and Tamara Vukić. 2020. Sustainability competencies from the University discourse. In *Knowledge Based Sustainable Development*, 71-1. University of National and World Economy: Sofia. Available at https://eraz-conference.com/wp-content/uploads/2021/01/ERAZ_2020-Selected-DRAFT.pdf#page=79
- Nicolò, Giuseppe, Natalia Aversano, Giuseppe Sannino, and Paolo Tartaglia Polcini. 2021. Investigating web-based sustainability reporting in Italian public universities in the era of Covid-19. *Sustainability* 13: 1-12. <https://doi.org/10.3390/su13063468>
- Orta, Ignacio Vázquez. 2010. A contrastive analysis of the use of modal verbs in the expression of epistemic stance in business management research articles in English and Spanish. *Ibérica, Revista de la Asociación Europea de Lenguas para Fines Específicos* 19: 77-95.
- Payne, Thomas E. 2011. *Understanding English Grammar*. Cambridge: Cambridge University Press.
- Plastina, Anna Franca. 2022. Changing discourses of climate change: Building social-ecological resilience cross-culturally. *Text & Talk* 42(4): 1-22. <https://doi.org/10.1515/text-2020-0078>
- Ralph, Meredith, and Wendy Stubbs. 2014. Integrating environmental sustainability into universities. *Higher Education* 67(1): 71-90.
- Rizomilioti, Vassiliki. 2006. Exploring epistemic modality in academic discourse using corpora. In *Information Technology in Languages for Specific Purposes. Educational Linguistics*, Elisabet A. Macià, Antonia S. Cervera, and Carmen R. Ramos (eds.), 53-71. Boston, MA: Springer. https://doi.org/10.1007/978-0-387-28624-2_4
- Sady, Monika, Agnieszka Żak, and Karolina Rzepka. 2019. The role of universities in sustainability-oriented competencies development: Insights from an empirical study on Polish universities. *Administrative Sciences* 9(3): 1-20. <https://doi.org/10.3390/admsci9030062>
- Salite, Ilga, Ilona Fjodorova, Inese Butlere, and Oksana Ivanova. 2021. More personal knowledge for more sustainable higher education. *Journal of Teacher Education for Sustainability* 23(1): 150-165. <https://doi.org/10.2478/jtes-2021-0011>
- Sassen, Remmer, Dominik Dienes, and Johanna Wedemeier. 2018. Characteristics of UK higher education institutions that disclose sustainability reports. *International Journal of Sustainability in Higher Education* 19(7): 1279-1298. <https://doi.org/10.1108/IJSHE-03-2018-0042>
- Skorasńska, Monika. 2014. “Can” in Shakespeare and Marlowe. *Studia Anglica Posnaniensia* 49(1): 31-55. <https://doi.org/10.2478/stap-2014-0002>
- Soini, Katriina, Alexandra Jurgilevich, Japna Pietikäinen, and Kaisa Korhonen-Kurki. 2018. Universities responding to the call for sustainability: A typology of sustainability centres. *Journal of Cleaner Production* 170: 1423-1432. <https://doi.org/10.1016/j.jclepro.2017.08.228>
- The University of Cambridge. 2022a. *Sustainability*. <https://www.environment.admin.cam.ac.uk/>
- The University of Cambridge. 2022b. *Environmental Annual Report*. Available at <https://www.environment.admin.cam.ac.uk/Annual-Report>
- The University of Oxford. 2022a. *Sustainability*. <https://sustainability.admin.ox.ac.uk/home>

- The University of Oxford. 2022b. *Environmental Sustainability Report 2020-21*. Available at <https://sustainability.admin.ox.ac.uk/files/environmentalsustainabilityreport2020-21.pdf>
- Ton, Nu My Nhat, and Thi Dieu Minh Nguyen. 2020. A study om modality in English-medium research articles. *VNU Journal of Foreign Studies* 36(6): 74-92.
- Vičič, Polona, and Klementina Jurančič Petek. 2016. The role of modal verbs in research papers in the field of logistics. *Scripta Manent* 11(1): 21-41.
- Watkins, Matthew, and Vicky Lofthouse. 2010. A review of sustainability within product and industrial design courses in British universities. In *DS62: Proceedings of E&PDE 2010, the 12th International Conference on Engineering and Product Design Education*, Casper Boks, C. McMahon, William Ion, and B. Parkinson (eds.), 346–51. <https://www.designsociety.org/publication/30177/>
- Weisser, Christian R. 2017. Defining sustainability in higher education: A rhetorical analysis. *International Journal of Sustainability in Higher Education* 18(7): 1076-1089. <https://doi.org/10.1108/IJSHE-12-2015-0215>
- Wodak, Ruth. 2015. Critical discourse analysis, discourse-historical approach. In *The International Encyclopedia of Language and Social Interaction*, Karen Tracey (ed.), 275-288. Chichester: Wiley Blackwell.