

## MODALITY IN NEWS DISCOURSE ON NATURAL DISASTERS: A STUDY OF THE UNITED KINGDOM PRESS

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### Abstract

This article investigates modality in UK news discourse on natural disasters, drawing on a corpus of 50 disaster-related news reports collected from five UK online newspapers. The corpus comprises 23,804 words, with an average length of 476 words per report. Methodologically, the study adopts a mixed-methods design, integrating qualitative descriptive analysis to identify, categorize, and interpret modal expressions in context with quantitative analysis to determine the frequency and distribution of modal resources across the corpus. All texts were annotated and statistically processed using UAM CorpusTool 6.2. The findings reveal that, out of 386 modal tokens, verbal modality overwhelmingly predominates (328 tokens; 85%), while nonverbal modality is comparatively limited (15%), suggesting hard-news reporting favors more determinate, less overtly subjective forms. Modal auxiliaries are the primary resource, led by will (70), can (50), could (43), and would (36). Adjectival modality is diverse but less frequent overall (28 items), with likely (12) most common, followed by possible (9) and unable/sure (7 each). Adverbial modality is rare, with only definitely (2) and maybe/possibly/perhaps (1 each). This paper advances applied linguistics theory and offers practical insights for improving journalistic communication in Vietnam.

**Keywords:** Disaster Discourses; modality; press discourse; UK News.

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### 1. Introduction

In recent decades, applied linguistics has expanded into many specialized domains, with discourse analysis emerging as a key approach for exploring how language constructs meaning and social relations. One prominent area within discourse analysis is the study of modality, which makes visible the interaction between text producers and the information being presented. Modality not only encodes degrees of certainty, possibility, and obligation in clauses/utterances, but also reveals the speaker/writer's attitudes, stance,

and perspective toward the events described. For this reason, research on modality in discourse is valuable not only theoretically but also practically, as it helps explain how language operates to shape social perception and action.

However, in Vietnam, research on modality in news discourse still shows substantial gaps. Existing studies have tended to focus on grammar or semantics, while modality from a discourse perspective, especially in specialized genres such as journalism, has not been examined in depth. This situation opens a broad research space for scholars to investigate and account for how journalistic language constructs information, attitude, and public orientation. Studying modality in journalistic discourse not only clarifies how the press represents reality, but it also illuminates the press's role in forming social viewpoints and guiding public action.

Against this backdrop, disaster discourse in the news stands out as a distinctive genre. Disaster reporting typically provides information about losses that have occurred, while also forecasting risks that may emerge in the near future. It is therefore a discourse type characterized by warning, guidance, and strong interaction with the public. These features make disaster discourse a valuable data source for modality research, as it clearly reflects how the press uses language not only to inform but also to persuade and shape social understanding. Nevertheless, in Vietnam's research context, disaster discourse remains relatively new, and few studies have analyzed it through the lens of modality to clarify how the press constructs information and stance in emergency.

In response to these research gaps, the present paper examines disaster discourse in UK journalism in order to clarify modal characteristics within a highly developed media system. With its long-established tradition and diverse media landscape, UK journalism provides rich data for analyzing how modality is used to represent current conditions and to anticipate disaster risks. Investigating disaster discourse in UK news not only helps identify salient linguistic features but also shows how the press mobilizes modality to build trust, recommend actions, and shape public attitudes. The findings may, in turn, suggest new approaches for the Vietnamese context, where this area remains underexplored. Accordingly, the paper addresses two main research questions:

- (i) What modal features characterize disaster discourse in UK journalism?
- (ii) Which linguistic resources realize different types of modality in disaster discourse in UK journalism?

Answering these questions will help clarify how UK journalism uses modality to provide information while also shaping public perceptions and attitudes toward disaster events. At the same time, the study points to prospects for application in Vietnam, where there is still considerable potential for further research. By comparing and drawing on experience from the UK journalism, the study may suggest new directions for analyzing Vietnamese journalistic discourse. In this way, it contributes theoretically to applied linguistics while also offering practical value for improving the effectiveness of journalistic communication in Vietnam.

## 2. Previous studies

Research on disaster discourse is extensive and may be broadly organized into three strands: (i) Critical Discourse Analysis (CDA)-oriented studies, (ii) meaning-making

approaches that describe discourse features, and (iii) work on interpersonal interaction in disaster discourse.

### ***2.1. CDA-oriented approaches***

Within the first strand, Pyles and Svistova (2015) examine portrayals of Haitians and foreign recovery actors in print media. They identify a hegemonic and disempowering discourse that foregrounds outsider expertise and disaster capitalism, alongside a counter-hegemonic discourse that recognizes postcolonial conditions and Haitian participation in recovery. Marchezini (2015) investigates disaster governance during long-term recovery in São Luiz do Paraitinga (Brazil), showing that biopolitical discourses and practices by government agencies framed the response as successful insofar as it “saved biological lives,” while inadvertently devaluing social lives and effectively abandoning affected populations.

Using CDA of expert news media, Mosurska et al. (2023) analyze representations of Indigenous peoples in disaster contexts. They identify five discourses, including a dominant framing of disasters as natural events remediable through humanitarian and technocratic intervention, one that casts Indigenous communities as helpless, depoliticizes disaster causation, and legitimizes state/NGO action as “care.” They also document competing discourses that emphasize oppression and self-determination, treat disasters as political, and foreground colonialism as a condition producing disaster vulnerability. Trčková (2014) examines newspaper coverage of major 21st-century natural catastrophes in Western English-speaking countries, identifying recurrent discursive strategies and the ideological perspectives underpinning this coverage.

Overall, CDA-informed scholarship on disaster discourse emphasizes discursive strategies, ideological positioning, and the exercise of power as they are enacted and naturalized through language.

### ***2.2. Meaning-making approaches***

The second strand, often characterized as more “linguistic” in orientation, has generated the largest volume of work. Kim (2006) proposes (a) a semiotic model of natural catastrophic events and (b) a hexagonal model specifying six semiotic dimensions of natural-disaster discourse: narration, description, explication, visualization, prevention, and recovery action. Reid (2019) and Balandina (2020) examine linguistic representations of agency in discourse on the Fukushima nuclear disaster and in media coverage of natural disasters, respectively. Their analyses typically aim to delineate core content categories and subtopics in disaster news and to specify recurrent stylistic features of the genre.

Relatedly, Damayanti et al. (2020) describe disaster discourse in children’s storybooks, while Mrdak-Mićović et al. (2022) examine media reporting on floods in Montenegro and globally, drawing on English and languages used in Montenegro. From a contrastive perspective, Un Nisa et al. (2025) investigate how Pakistani and American print media construe environmental disaster through Systemic Functional Linguistics.

In line with linguistic goals more generally, meaning-making studies seek to account for how disasters are textually constructed through narrative organization, descriptive resources, genre conventions, and stylistic patterning, thereby generalizing distinct dimensions of disaster discourse as a communicative domain.

### ***2.3. Interpersonal interaction in disaster discourse***

Whereas the second strand tends to prioritize comparatively “static” linguistic description, the third examines the dynamic interpersonal dimension of disaster discourse. It asks how texts and talks position speakers, audiences, victims, institutions, and responsibilities through resources such as stance, attitude, modality, evaluation, and appraisal. Representative studies include Liu and Stevenson (2013) on stance in disaster news reporting; Puspita and Pranoto (2021) on Japanese newspapers’ attitudinal positioning in disaster narratives; Bacolod (2023) on the translatability of Filipino modals and its implications for disaster communication; and Zein et al. (2024) on appraisal in leaders’ responses to natural disasters.

This strand is important because disasters are not merely reported; they are also socially managed through discourse, including persuasion, legitimation, blame attribution, solidarity construction, and calls for action. At the same time, the literature varies in theoretical commitments, dataset scope, and the degree to which interpersonal findings are linked to broader political and institutional structures. Taken together, however, these studies underscore that disaster discourse is profoundly interpersonal: it organizes credibility (stance), social evaluation (attitude/appraisal), obligation and uncertainty (modality), and legitimacy (leaders’ responses), including in multilingual settings where translation mediates meaning.

## **3. Theoretical framework**

In contemporary linguistics, modality is generally treated as a broad semantic category that captures the relationship among the speaker, the propositional content of an utterance, and reality. Given the conceptual complexity of modality, both international and Vietnamese scholars have advanced diverse approaches; consequently, definitions of modality remain varied and not fully convergent.

Panfilov observes that few categories have provoked as many divergent even opposing accounts of their linguistic nature and semantic composition as modality (as cited in Nguyễn Văn Hiệp, 2019). This complexity helps explain why modality has been conceptualized in different ways across the literature.

Lyons (1977) characterizes modality as the linguistic resources speakers use to express opinions or attitudes toward the proposition conveyed by a sentence or toward the situation described by that proposition. Similarly, Palmer (1986) defines modality as the semantic component of a sentence through which the speaker’s stance toward what is being talked about is expressed. From a grammatical perspective, Hoàng Trọng Phiến (2008) regards modality as a latent category of the sentence, present across sentence types; it contributes to the utterance’s communicative value and allows the hearer to infer the speaker’s attitude toward reality. In a related vein, Phạm Hùng Việt (2003) argues that, alongside the informational content concerning events, states, or situations, utterances contain an additional component that encodes the speaker’s relation to the reported content and to reality, namely modality.

Overall, modality is widely viewed as a central yet highly polysemous construct in linguistics. It can be approached in terms of the speaker’s attitudes and viewpoints, degrees of certainty and commitment to a proposition, and the utterance’s anchoring in reality. Despite differences in terminology and emphasis, scholars commonly agree that

modality operates at an interactional level of meaning, emerging from the interplay between the speaker, the utterance content, and the real world. Identifying modal markers, therefore, provides an effective analytical lens for examining how language encodes relations between subjects and reality across linguistic systems (Lyons, 1977; Palmer, 1986; Hoàng Trọng Phiến, 2008; Phạm Hùng Việt, 2003).

The present study adopts Palmer's (2001) account of modality as its theoretical framework. Based on descriptive analyses, Palmer (2001) proposes two major subtypes: propositional modality and event modality. Propositional modality concerns the speaker's epistemic position with respect to a proposition's truth value: epistemic modality encodes knowledge and belief about the truth of an utterance, whereas evidential modality foregrounds the evidential basis or source of support for the proposition. By contrast, event modality pertains to actions or events construed as potential or as constrained by norms, and is typically divided into deontic modality (obligation, social rules, permission) and dynamic modality (the subject's capacity or potential to perform an action).

Building on this typology, Nguyễn Quang (2002), from a functional perspective, distinguishes three types of modality: epistemic modality, which expresses the speaker's degree of knowledge and commitment regarding the accuracy or reliability of information; deontic modality, which highlights moral and social norms that regulate action, thereby specifying obligations, rules, and permissions; and dynamic modality, which describes the subject's internal potential for action, including ability, disposition/orientation, and intention or motivational force.

**Table 1. Listing the different modalities in language**

Deontic Modality	Epistemic Modality	Dynamic Modality
Obligatory	Verified	
Permitted	Possible	Able
Indifferent	Probable	Dispositional
Forbidden	Falsified	Volitional

(Source: Nguyễn Quang, 2002)

Despite differences in terminological labels and scope, this study draws on Palmer's (2001) typology and Nguyễn Quang's (2002) synthesis (Table 1) as the theoretical basis for the subsequent analysis of modality classification in disaster-related discourse in the UK press. We will analyze three subtypes of modality—*Deontic*, *Epistemic*, and *Dynamic*—to generalize the characteristics of English-language news discourse on natural disasters, clarifying how disasters are depicted, how power and obligations are described (e.g., relief efforts and safety regulations), and how readers are guided by the degree of certainty and the source, while also elucidating the motivational forces of action implied in the reports.

## 4. Methods

### 4.1. Building the Corpus

In compiling the research corpus, we adopted a systematic sampling strategy that focused on mainstream news outlets in the United Kingdom to ensure linguistic accuracy and

content reliability. This strategy also enabled the collection of texts produced by native-speaker journalists reporting on natural disasters in the UK press. The corpus compilation procedure comprised four stages.

#### **Step 1.** Identification of data sources

From among numerous established and widely read UK newspapers, five titles were purposively selected for data collection. Selection was guided by three criteria: (i) a stable readership, (ii) long-standing institutional credibility, and (iii) representativeness of contemporary journalistic language. The selected newspapers were *London Bangla*, *The Daily Telegraph*, *The Asia Today*, *The Guardian*, and *The Sun*.

#### **Step 2.** Topic-based keyword search

To ensure broad and diverse coverage of natural-disaster reporting, the corpus was retrieved using the following search terms: *Hurricane, Typhoon, Cyclone, Gale, Tornado, Blizzard; Flood, Flash flood, River overflow, Storm surge; Earthquake, Tsunami, Landslide/Mudslide, Volcanic eruption; Drought, Wildfire, Severe weather.*

#### **Step 3.** Selection procedures and criteria

Within each of the five newspapers, articles were retrieved using the keyword set specified in Step 2. Ten relevant articles were selected from each outlet.

Corpus size: 50 full-text articles.

Inclusion criteria: Articles were prioritized if both the headline and the main text contained the target terms, the content was topically relevant and timely (2010-2025), and the article exhibited a complete textual structure.

Retrieval tools: Each outlet's internal search function and time filters were used to capture reports from a range of disaster periods.

#### **Step 4.** Corpus preparation and storage

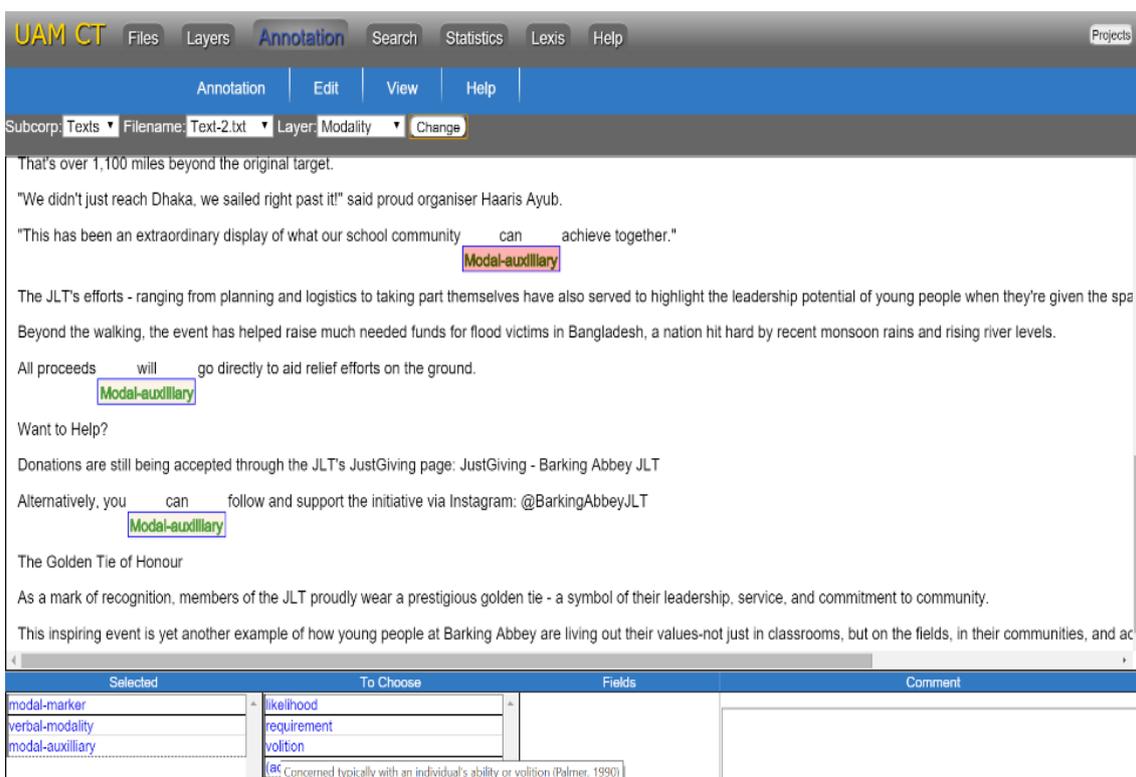
All selected articles were processed and stored in a standardized full-text format (excluding images and embedded video materials) to support subsequent analysis.

File organization: Each article was saved as an individual Word document (.docx), and the ten articles from each newspaper were stored in a dedicated folder.

Metadata and stored components: Each file contained four required elements to ensure traceability and reliability: (1) Title; (2) Full text, copied verbatim with non-textual or irrelevant material removed (e.g., advertisements, photo captions, and video-related text); (3) Source URL, linking directly to the original article; (4) Publication date and most recent update (if applicable), recorded by day, month, and year.

### **4.2. Automatic Annotation**

To provide an overview of the corpus composition and key characteristics, detailed descriptive statistics are presented in Appendix 1. The corpus, consisting of 50 preliminarily processed newspaper articles, will be automatically annotated using UAM CorpusTool 6.2 to support the analysis of modality in UK news discourse.



**Figure 1. Automatic annotation of Modality by UAM 6.2**

(Source: Authors, 2025)

The UAM 6.2 application offers researchers a comprehensive tool for labeling modality in English. Figure 1 depicts the automatic annotation of modal auxiliaries within disaster discourse in the United Kingdom, as produced by the UAM 6.2 tool. Likewise, Figure 2 presents a graphical representation of adjectival-modality statistics within disaster discourse, generated by the UAM 6.2 system. In this paper, we rely on the automatic annotations produced by these tools to label modal markers and to extract the statistics that support our qualitative argumentation.

The UAM 6.2 application offers researchers a robust tool for labeling modality in English. However, the analytical results generated by the tool have certain limitations (Leyang & Zhaoxia, 2022) that warrant caution. In this study, we adopt a pragmatic stance: we rely on the quantitative results pertaining to modal markers to support our qualitative arguments, while acknowledging that these findings may not fully capture all nuances of modality in disaster discourse. We therefore treat the reported metrics as indicative rather than definitive, and we call for further validation and triangulation with complementary methods in future work.

File	Pretext	<Modality feature="adjectival-modality"/>	Posttext
Texts/Text-10.txt	overnight, telling people to only venture out if	necessary	due to heavy rain and the risk of flash floods. T...
Texts/Text-10.txt	limited number of connecting flights still being	cleared	. Please check your flight status with your airlin...
Texts/Text-11.txt	om 5.30am till 8pm." Commercial flights have been	unable	to land but there was a glimmer of hope on Sunday...
Texts/Text-11.txt	t Maarten after she went to visit friends and was	unable	to get a flight or boat off the island when she h...
Texts/Text-12.txt	ly in the west. "We know many of you are hurting,	uncertain	, and anxious after Hurricane Melissa, but please...
Texts/Text-13.txt	ds of villagers and rescue teams were deployed to	clear	heavy snow that blocked access to the area, accor...
Texts/Text-13.txt	ict while they searched for survivors, while also	clearing	blocked roads after landslides washed away homes...
Texts/Text-14.txt	nd roads brought to a standstill. The council was	unable	to collect bins in North Yorkshire and 631 homes...
Texts/Text-14.txt	adding: "Please consider whether any journeys are	necessary	and, if you are travelling, take extra care." In...
Texts/Text-14.txt	umberland was brought to a standstill as snow was	cleared	on Thursday morning, with delays continuing. In S...
Texts/Text-14.txt	-east Scotland down the east coast of England are	likely	to see some further snow, lying snow, in that par...
Texts/Text-17.txt	nd. The Foreign Office said the flight, for those	unable	to fly home commercially, would depart from Kings...
Texts/Text-17.txt	but chartered a small number of flights for those	unable	to do so. People with medical needs and children...
Texts/Text-19.txt	we can get our lives back to 'normal' as soon as	possible	. "She also criticised "disbelievers" for doubting...
Texts/Text-20.txt	through the day." She said that "60-80mm is most	likely	for many hills within the amber warning area, whi...
Texts/Text-20.txt	well as southwest Scotland, with disruption also	possible	in these areas through the day. The public has al...
Texts/Text-20.txt	g areas, with rainfall falling on slopes that are	likely	to already be saturated. "There is potential for...
Texts/Text-25.txt	flood alerts - where flooding is not expected but	possible	across the UK...
Texts/Text-26.txt	soon rains expected over the next few days, it is	clear	that the situation for millions of people in Paki...
Texts/Text-28.txt	rs who live on Virgin Gorda and as many people as	possible	, distributing aid, water and supplies. We have se...
Texts/Text-29.txt	ber, the east and north east are all on alert for	likely	local floods, spray and potential power cuts. "So...
Texts/Text-29.txt	ay and Thursday remain unsettled, with heavy rain	likely	to return....
Texts/Text-30.txt	that when gales and floods strike the insurer is	able	to get to affected customers quickly, making emer...
Texts/Text-30.txt	emergency accommodation if required." While it's	impossible	to predict the extent of severe weather, preparat...
Texts/Text-30.txt	storm is raging • Prepare for power cuts and make	sure	you have torches, batteries and that generators a...
Texts/Text-30.txt	rators are ready • Park your car in the garage if	possible	• Secure outdoor garden furniture • In flood-pron...
Texts/Text-30.txt	s upstairs or raise them from ground level • Make	sure	you have you insurer's emergency helpline availab...
Texts/Text-30.txt	lly, check the weather forecast and only drive if	necessary	• Check your tyres, as well as the levels of your...
Texts/Text-30.txt	your engine oil, coolant and screen wash. Making	sure	your lights and battery are in good working order...
Texts/Text-30.txt	ater and a chocolate bar or two in the car • Make	sure	your mobile telephone is fully charged, and tune...

Figure 2. Illustration of adjectival-modality statistics in disaster discourse by UAM 6.2

(Source: Authors, 2025)

## 5. Findings and discussion

### 5.1. The Modal Features in the News Discourse on Natural Disasters

#### 5.1.1. Types of Modality

Table 2 summarizes the distribution of modality in UK disaster-related news discourse, distinguishing between verbal and nonverbal realizations.

Table 2. Frequency of Modality Types in UK Disaster Discourse

MODALITY-TYPE	N	%
- verbal-modality	328	85
- nonverbal-modality	58	15
TOTAL:	386	100.00%
VERBAL-MODALITY-TYPE	N	%
- modal-auxiliary	254	65.8
- semi-modal	32	8.3
- lexical-verb	42	10.9
TOTAL:	328	85.00%
NONVERBAL-MODALITY-TYPE	N	%
- adjectival-modality	53	13.7
- adverbial-modality	5	1.3
TOTAL:	58	15.00%

(Source: Authors, 2025)

Across 386 modal tokens, verbal modality is dominant, accounting for 328 instances (85%). This pattern suggests that UK disaster reporting relies primarily on explicit linguistic resources to encode epistemic and deontic meanings in ways that are relatively direct and readily interpretable. Within verbal modality, three subtypes are identified: modal auxiliaries, lexical verbs, and semi-modals. Modal auxiliaries constitute the largest category, with 254 occurrences (65.8%), indicating their central role in efficiently expressing degrees of certainty, obligation, and likelihood-functions that are especially salient in disaster contexts where information must be communicated both rapidly and accurately. Although lexical verbs and semi-modals occur less frequently (approximately 8% and 11%, respectively), they nonetheless extend the interpersonal meaning potential of the discourse by introducing additional semantic nuance and stylistic variation.

By contrast, nonverbal modality accounts for only 15% of the data, which may indicate a preference for minimizing forms that can be interpreted as more subjective or less determinate in hard-news reporting. Nonverbal modality is realized mainly through adjectival modality (53 tokens; 13.7%), while adverbial modality is rare (5 tokens; 1.3%). Nonverbal modality is not a subcategory of modality as indicated in Table 1. Through automatic annotation, the UAM tool labeled nonverbal modality as expressions that realize modality categories but are not modal auxiliaries; for example, adjectives and adverbs can convey modal meaning without functioning as auxiliary verbs. Despite their relatively low frequency, items such as *likely*, *possible*, and *probably* remain functionally important, enabling journalists to mark evaluation, inference, and emphasis when reporting projections, warnings, or uncertainty.

Overall, Figure 3 points to a clear tendency in UK disaster news discourse to prioritize verbal modality, particularly modal auxiliaries, to support clarity and communicative efficiency. The comparatively limited use of nonverbal modality further suggests caution in deploying overtly evaluative or speculative expressions in an emergency-information genre.

### 5.1.2. Modal Semantics

Table 3 provides a more fine-grained account of how modal meanings related to likelihood, obligation, and dynamic capacity are realized in the news reports.

**Table 3. Frequency of Modal Semantics in UK Disaster Discourse**

MODAL-SEMANTICS	N	%
- likelihood	43	11.1
- requirement	94	24.4
- volition	23	6
TOTAL:	160	41.50%
LIKELIHOOD-TYPE	N	%
- certainty	16	4.1
- probability	0	0
- possibility	24	6.2
- improbability	0	0
- impossibility	2	0.5
- uncertainty	1	0.3
TOTAL:	43	11.10%

DEONTIC-TYPE	N	%
- obligation	78	20.2
- advisability	14	3.6
- permission	2	0.5
- not-necessary	0	0
TOTAL:	94	24.40%
DYNAMIC-TYPE	N	%
- ability	19	4.9
- willingness	0	0
- intention	4	1
TOTAL:	23	6.00%

(Source: Authors, 2025)

Overall, 160 instances of modal semantics are identified, representing 41.5% of the corpus. These tokens are distributed across three major categories: deontic modality (obligation) with 94 cases (24.4%), likelihood modality with 43 cases (11.1%), and dynamic modality with 23 cases (6%). This distribution highlights modality's role in constructing journalistic stance and shaping readers' orientations toward disaster events, while also indicating a clear preference in UK disaster reporting for meanings that foreground duties, requirements, and recommendations.

The likelihood category comprises six subtypes and primarily indexes degrees of event probability and epistemic commitment. *Possibility* is most frequent (24 tokens; 6.2%), followed by *certainty* (16 tokens; 4.1%). By contrast, *probability*, *improbability*, and *not-necessary* are not attested, suggesting limited use of neutral mid-range probability expressions or negated necessity in this dataset. *Impossibility* (0.5%) and *uncertainty* (0.3%) occur only sporadically, which may reflect an editorial tendency to avoid formulations that could amplify ambiguity or undermine informational stability in crisis communication.

Deontic modality is the most salient category. Within it, *obligation* accounts for 78 instances (20.2%), indicating frequent use of strongly directive forms (e.g., *must*, *need to*, *have to*) that encode requirements and compel action. *Advisability* appears 14 times (3.6%), reflecting the presence of guidance-oriented recommendations. *Permission* is rare (2 tokens; 0.5%), and *not-necessary* is absent, implying that the reports rarely emphasize optionality or the lack of obligation in readers' prospective actions.

Dynamic modality captures agents' capacities and intentional states. *Ability* occurs in 19 cases (4.9%), whereas *intention* is comparatively infrequent (4 cases; 1%). Notably, *willingness* does not occur, suggesting that UK disaster reporting in this corpus seldom foregrounds affective or motivational dimensions of individual agency.

Taken together, Figure 4 shows that UK disaster news discourse is structured around an action-oriented communicative logic: deontic meanings predominate, while likelihood and dynamic meanings are comparatively constrained. The prominence of obligation-related semantics is consistent with the institutional role of the press in emergency contexts, where informing the public is closely coupled with directing behavior and reinforcing shared responsibility. Conversely, the limited presence of uncertainty- and willingness-related meanings suggests a preference for clarity, accountability, and actionable guidance over more explicitly subjective or indeterminate framing.

## 5.2. The Realization of Modality Types in the News Discourse on Natural Disasters

### 5.2.1. Verbal Modality

Table 4 presents a detailed account of the linguistic resources through which verbal modality is realized in UK disaster discourse, illustrating how news reports encode degrees of certainty, likelihood, obligation, and intention. In this corpus, verbal modality is expressed via three primary forms: modal auxiliaries, lexical verbs, and semi-modals.

**Table 4. Frequency of Verbal Modality Realizations in UK Disaster Discourse**

Modal auxiliaries			Lexical verbs			Semi-modal		
wording	counts	frequencies	wording	counts	frequencies	wording	counts	frequencies
will	70	0.2756	expected	22	0.5238	had to	10	0.3125
can	50	0.1969	expect	6	0.1429	need to	7	0.2188
could	43	0.1693	advised	4	0.0952	need	5	0.1563
would	36	0.1417	required	3	0.0714	have to	4	0.125
may	18	0.0709	require	2	0.0476	needs to	3	0.0938
should	9	0.0354	allow	1	0.0238	having to	2	0.0625
couldn't	7	0.0276	advises	1	0.0238	needed to	1	0.0313
must	7	0.0276	allowed	1	0.0238			
'd	5	0.0197	expects	1	0.0238			
might	4	0.0157	expecting	1	0.0238			
can't	4	0.0157						
wouldn't	1	0.0039						

(Source: Authors, 2025)

Modal auxiliaries are the dominant resource. The most frequent items are *will* (70 tokens; 0.2756), *can* (50; 0.1969), *could* (43; 0.1693), and *would* (36; 0.1417). These forms typically construe prediction, potentiality, and future-oriented commitment, aligning with the urgency and action-guiding orientation of disaster reporting. Importantly, the distribution suggests a calibrated stance: strong-commitment forms such as *will* co-occur with more tentative auxiliaries (e.g., *could*, *might*), indicating that journalists combine assertive information delivery with caution when projecting outcomes. By contrast, *must* (7; 0.0276) and *should* (9; 0.0354) occur relatively infrequently, which may reflect a preference to avoid overtly prescriptive or coercive formulations in order to maintain an impersonal, ostensibly objective tone and to mitigate the risk of exacerbating public anxiety.

Although lexical verbs are less frequent overall, they make a substantive contribution to modal meaning by encoding evidential stance, evaluation, and recommendation. Items such as *expected* (22; 0.5238), *expect* (6; 0.1429), *advised* (4; 0.0952), and *required* (3; 0.0714) do not merely report events; they position propositions with respect to anticipated developments and institutional authority, thereby supporting the press's role in shaping public interpretation and response.

Semi-modal expressions, including *had to* (10; 0.3125), *need to* (7; 0.2188), and *have to* (4; 0.125), primarily construe obligation and necessity. Their use reinforces action requirements and underscores the imperative dimension of crisis communication.

Overall, Figure 5 indicates that UK disaster journalism relies most heavily on modal auxiliaries to achieve clarity and actionability, while lexical verbs and semi-modals provide additional resources for evidential positioning and obligation framing. The combined pattern suggests a strategic balance between assertive reporting, cautious projection, and guidance-oriented messaging in contexts of heightened uncertainty.

### 5.2.2. Non-verbal Modality

Non-verbal modality is divided into two main groups, adjectival modality and adverbial modality (Table 5), which reflect evaluative meanings, likelihood, and degrees of certainty in journalistic information.

**Table 5. Frequency of Non-verbal Modality Realizations in UK Disaster Discourse**

- adjectival-modality			- adverbial-modality		
wording	counts	frequencies	wording	counts	frequencies
likely	12	0.2264	definitely	2	0.4
possible	9	0.1698	maybe	1	0.2
unable	7	0.1321	possibly	1	0.2
sure	7	0.1321	perhaps	1	0.2
necessary	4	0.0755			
able	4	0.0755			
clear	3	0.0566			
cleared	2	0.0377			
impossible	2	0.0377			
uncertain	1	0.0189			
clearing	1	0.0189			
certain	1	0.0189			

(Source: Authors, 2025)

Accordingly, adjectival modality comprises a total of 12 different expressions, indicating a tendency to employ classificatory and evaluative descriptors in news discourse. Among these, *likely* (12 tokens; frequency 0.2264), followed by *possible* (9; 0.1698), and *unable* and *sure* (both 7; 0.1321) are commonly used to describe situations, probabilities, or the states of actors involved in disaster-related events. This suggests that UK journalism favors descriptive and evaluative language to construct context and guide readers' interpretation. Items such as *certain*, *uncertain*, and *clearing* occur only once, pointing to limited use of ambiguous or equivocal expressions in UK news style. In addition, the presence of *unable*, *necessary*, and *impossible* indicates that reporting does not focus solely on likelihood, but also emphasizes constraints, requirements, and the urgency of action consistent with the press's role in encouraging social and policy responses in emergency contexts.

By contrast, adverbial modality occurs at a relatively low frequency, suggesting that the press makes limited use of adverbs expressing conjecture or uncertainty. Only four adverbial items are attested: *definitely* (2 tokens; 0.4) and *maybe*, *possibly*, and *perhaps* (each 1; 0.2). The restricted use of adverbs such as *maybe* and *perhaps* can be attributed to journalistic expectations of accuracy and objectivity, particularly in disaster contexts where vagueness may lead to misunderstanding or public anxiety.

In sum, although non-verbal modality expressions are relatively infrequent, they play an important role in enriching propositional nuance, enabling news discourse to remain broadly objective while still shaping public affect and orientation. The preference for evaluative adjectives and the avoidance of speculative adverbs reflect a linguistic strategy aimed at ensuring clarity, precision, and guidance. Thus, UK disaster reporting appears to employ non-verbal modality selectively and purposefully. These resources not only complement the system of verbal modality but also contribute semantic depth and tonal variation to disaster-related journalistic discourse.

**5.3. The Realization of Modal Semantics in the News Discourse on Natural Disasters**

Table 6 offers both an overview and a fine-grained account of how modal meanings are semantically realized in UK disaster news discourse. The data are organized into three categories - *likelihood*, *requirement*, and *volition* - with each category represented by specific linguistic items accompanied by token counts and normalized frequencies.

**Table 6. Frequency of Modal Semantic Realizations in UK Disaster Discourse**

- likelihood			- requirement			- volition		
wording	counts	frequencies	wording	counts	frequencies	wording	counts	frequencies
likely	12	0.2791	expected	22	0.234	unable	7	0.3043
possible	9	0.2093	had to	10	0.1064	can	7	0.3043
sure	7	0.1628	should	9	0.0957	will	4	0.1739
clear	3	0.0698	need to	7	0.0745	able	4	0.1739
cleared	2	0.0465	must	7	0.0745	can't	1	0.0435
impossible	2	0.0465	expect	6	0.0638			
definitely	2	0.0465	need	5	0.0532			
uncertain	1	0.0233	necessary	4	0.0426			
clearing	1	0.0233	have to	4	0.0426			
maybe	1	0.0233	advised	4	0.0426			
possibly	1	0.0233	required	3	0.0319			
certain	1	0.0233	needs to	3	0.0319			
perhaps	1	0.0233	require	2	0.0213			
			having to	2	0.0213			
			allow	1	0.0106			
			advises	1	0.0106			
			allowed	1	0.0106			
			expects	1	0.0106			
			expecting	1	0.0106			
			needed to	1	0.0106			

(Source: Authors, 2025)

### 5.3.1. Epistemic Modality (Likelihood Type)

The 'likelihood' category comprises 13 items and primarily serves to project future developments and manage uncertainty in a manner that remains informative and cautionary. The most frequent realizations are *likely* (12 tokens; 0.2791), *possible* (9; 0.2093), and *sure* (7; 0.1628). Their prominence suggests that UK reporting routinely frames disaster events in probabilistic terms, thereby supporting anticipatory sense, making by enabling readers to infer plausible scenarios and potential impacts. Less frequent items, such as *definitely*, *impossible*, *clear*, and *maybe*, indicate additional options for calibrating certainty. The sparse occurrence of *uncertain*, *maybe*, and *perhaps* further implies a preference for minimizing overtly speculative or indeterminate wording, consistent with journalistic expectations of accuracy and credibility, particularly in high-stakes crisis contexts.

### 5.3.2. Deontic Modality

The requirement category is the most extensive, with 20 distinct expressions, encoding obligation, necessity, and recommendation often aligned with institutional authority and official guidance. Its lexical diversity and high overall frequency underscore the behavior-orienting function of disaster reporting. Salient forms include *expected* (22; 0.234), *had to* (10; 0.1064), *should* (9; 0.0957), and both *need to* and *must* (7 each; 0.0745). Additional items such as *advised*, *required*, *necessary*, and *have to* further differentiate gradations of deontic force, ranging from recommendation to compulsion. Collectively, this pattern indicates that the press not only documents unfolding events but also actively participates in constructing actionable interpretations and legitimizing particular responses.

### 5.3.3. Dynamic Modality (Volition)

The volition category contains 5 items and indexes agency, capacity, and willingness to act. Although smaller in scope, it is analytically significant because it foregrounds actors' ability (or inability) to respond under crisis conditions. The most frequent items are *unable* and *can* (7 each; 0.3043), followed by *will* and *able* (4 each; 0.1739), which together represent readiness, potential, and constraints in disaster management. *Can't* appears only once (0.0435), suggesting that explicitly negated capacity is comparatively marginal in this dataset.

Taken together, Figure 7 indicates that UK disaster journalism mobilizes modality in a systematic and purposive manner. The prominence of requirement foregrounds the press's role in promoting compliance, preparedness, and collective action; likelihood supports risk projection and contextualization; and volition adds interpretive depth by representing agency and operational capacity. More broadly, the distribution suggests an integrated use of epistemic and deontic modality, simultaneously forecasting risk and legitimizing action, highlighting modality as a key discourse resource through which news media shape public understanding and societal responses to natural hazards.

## 6. Conclusion

This study contributes to discourse analysis by clarifying how modality functions as an interactional resource in UK disaster news, enabling journalists to manage uncertainty while addressing readers' informational and practical needs. Based on 50 disaster-related texts from UK News, the findings show a strong preference for verbal modality (328/386

tokens; 85%) and a comparatively limited use of nonverbal modality (15%), consistent with hard-news conventions that favor determinate, less overtly subjective formulations in emergency contexts.

Within verbal modality, modal auxiliaries are the primary mechanism for shaping stance and projecting actionability, with *will* (70), *can* (50), *could* (43), and *would* (36) occurring most frequently. Nonverbal resources are present but restrained: adjectival modality is diverse yet infrequent (12 types), led by *likely* (12) and *possible* (9), while adverbial modality is rare (e.g., *definitely* (2); *maybe/possibly/perhaps* (1 each)). Overall, the distribution suggests a strategic balance in UK disaster journalism: modal auxiliaries secure clarity and operational guidance, whereas lexical verbs and semi-modals provide additional nuance for evidential positioning and obligation framing. In combination, these modal choices support firm reporting, cautious projection, and guidance-oriented messaging under heightened uncertainty.

The study is not without limitations. The corpus size (50 reports) constrains the generalizability of the results; expanding the dataset across outlets, genres, and time periods would strengthen reliability and allow finer-grained comparisons. In addition, the focus on English-language UK reporting limits broader interpretive claims. Future research adopting a cross-linguistic, contrastive design could further illuminate how different communicative communities deploy modality in disaster discourse, thereby extending the study's explanatory and comparative value.

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#### Appendix 1. The List of Research Articles

No	Title	Source	Published date	No	Title	Source	Published date
01	Bangladesh earthquake: further reports arrive	London Bangla	04/01/2016	26	Hurricane Hits Haiti Hurricane Matthew has left thousands displaced in the most powerful Caribbean storm in a decade	The Asia Today	05/10/2016
02	Barking Abbey Students Walk to Raise Funds for Bangladesh Flood Relief	London Bangla	15/07/2025	27	Nepal Earthquake	The Asia Today	27/04/2015

03	Beirut: deadly disaster prompts appeal for help	London Bangla	05/08/2020	28	The Met Office has Issued Yellow Warning Over UK Thunderstorms and Heavy Rain	The Asia Today	13/08/2018
04	Bow flood is under control	London Bangla	07/07/2018	29	UK warned to prepare for Storm Eleanor NFU Mutual issues advice for Storm Eleanor, predicted to bring strong winds and rain Storm Eleanor will be the first named storm of 2018	The Asia Today	02/02/2018
05	Flood closes Bow Road	London Bangla	07/07/2018	30	Hurricane Irma Destroys Sir Richard Branson's Island Home	The Asia Today	12/09/2017
06	Helping Ethiopia cope with drought	London Bangla	20/08/2017	31	At least 229 people dead in Ethiopia after heavy rain causes mudslides	The Guardian	23/07/2024
07	Islamic Relief appeals for help with Bangladesh flood relief	London Bangla	29/07/2019	32	Earthquake of 3.3 magnitude rattles Lancashire and Lake District Residents report homes shaking from quake with epicentre near the village of Silverdale in Lancashire	The Guardian	04/12/2025
08	Islamic Relief UK launches Ramadan appeal	London Bangla	22/04/2019	33	Eight dead and more than a million displaced after super typhoon Fung-wrong slams the Philippines	The Guardian	10/11/2025
09	London Faith Groups united at climate change vigil	London Bangla	08/12/2014	34	Lima's time bomb: how mudslides threaten the world's great 'self-built' city	The Guardian	20/06/2017
10	People warned to stay indoors after storm floods Dubai roads and cancels flights	London Bangla	19/12/2025	35	'Massive disruption': UK's worst-case climate crisis scenarios revealed by scientists	The Guardian	18/12/2025
11	'Abandoned' British holidaymakers claim French rescue planes refused to take 'refugees' from	The Daily Telegraph	11/09/2017	36	Met Office: 2026 will bring heat more than 1.4C above preindustrial levels	The Guardian	18/12/2025

	hurricane-hit Caribbean						
12	At least 30 dead as Hurricane Melissa tears through Caribbean	The Daily Telegraph	30/10/2025	37	Radiator rattling' earthquake hits	The Guardian	19/12/2025
13	Blizzard traps nearly 1,000 hikers on slopes of Mount Everest Rescue effort under way for trekkers stranded on mountain following sudden snowstorm	The Daily Telegraph	06/10/2025	38	Super Typhoon Ragasa: 14 killed in Taiwan and Hong Kong battered as storm hits China	The Guardian	24/09/2025
14	Blizzards bring roads to standstill	The Daily Telegraph	20/11/2025	39	They survived wildfires. But something else is killing Greece's iconic fir forests	The Guardian	19/12/2025
15	Call in the elephants: Indonesia turns to gentle giants after deadly floods Four domesticated Sumatrans help with clean-up as death toll reaches 950 with 274 still missing	The Daily Telegraph	08/12/2025	40	Weather tracker: Typhoon Kajiki lashes south-east Asia with fatalities in Vietnam	The Guardian	29/08/2025
16	Dozens of pilgrims killed in Kashmir flash floods Hundreds missing in Indian-controlled Himalayan region as videos show scenes of destruction	The Daily Telegraph	15/08/2025	41	Survivors of Chile blizzard that killed Cheryl Tweedy's ex-aide say they were forced to become rescuers amid 'failings'	The Sun	23/11/2025
17	First Britons evacuated from Jamaica after	The Daily Telegraph	01/11/2025	42	Survivors of Chile blizzard that killed Cheryl Cole's ex-aide share how 'trip of	The Sun	29/11/2025

	Hurricane Melissa				lifetime' turned into harrowing ordeal		
18	Landslide in Sudan wipes out village and kills 1,000 people	The Daily Telegraph	02/09/2025	43	At least 60 dead & 100 missing after Himalayan flash flooding sweeps through towns leaving them caked in mud	The Sun	14/08/2025
19	Road used as skatepark after storm damage reopens after three years	The Daily Telegraph	02/04/2025	44	Meet the 'Tornado Queen' who has outrun world's deadliest storms & nearly been decapitated... but still goes back for more	The Sun	14/12/2025
20	Wear wellies in heavy rain, public told Met Office also advises people in areas under amber weather warning to pack a 'flood kit'	The Daily Telegraph	30/11/2025	45	Cyprus swamped by floods as storm batters holiday island leaving streets underwater and cars floating away	The Sun	09/12/2025
21	Birmingham charity sends Emergency teams to help Earthquake victims	The Asia Today	3/10/2018	46	What is thundersnow? Rare weather hitting Britain explained by Met Office	The Sun	20/11/2025
22	Disasters Emergency Committee Launch Appeal for Typhoon	The Asia Today	12/11/2013	47	Dramatic moment TORNADO hits holiday hotspot Spain as Christmas lights destroyed amid red alert weather warnings & snow	The Sun	16/12/2025
23	Drought In India As the climate becomes warmer, India's drought forecasts immense struggles, including a series of deaths.	The Asia Today	19/05/2016	48	Full list of schools closed as temps drop to bone-chilling -12C & Met Office warn rare 'thundersnow' to strike UK	The Sun	21/11/2025
24	Earthquake Strikes Italy 21 dead so far as 6.2	The Asia Today	24/08/2016	49	Bert has taken three lives with the Met Office warning of more 70mph winds	The Sun	25/11/2025

	earthquake hits central Italy				and travel chaos to come.		
25	Aid reaches over half a million in flood-hit Pakistan	The Asia Today	09/08/2010	50	Thousands without power as Hurricane Erin batters Caribbean & barrels towards US amid warnings storm will strengthen Mudslides and flash flooding could hit the region as Erin passes through	The Sun	18/08/2025