A systematic review of rubric types and their influence on marking and feedback efficacy

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Abstract
Rubrics are widely used in higher education to promote fairness, transparency, and consistency in assessment and feedback. Yet, the diversity of rubric designs complicates efforts to evaluate their impact systematically. This study set out to investigate whether differences in rubric 'type' influence marking and feedback efficacy (measured through student outcomes or perceptions of feedback) through a systematic review of 63 empirical studies published between 2009 and 2024. Dawson's (2017) 14-element framework was used to analyse rubric design and implementation in depth. Findings reveal that while rubrics are reported to improve transparency, support equitable marking, and enhance engagement, inconsistent reporting makes it difficult to establish if universally effective designs for rubrics exist. Variation in how rubrics were reported across studies hindered direct comparison and replication, limiting the ability to determine which design features are most impactful. These findings underscore the need for clearer reporting standards, greater methodological transparency, and targeted comparative research to identify the rubric characteristics that most enhance educational efficacy.

Keywords
Rubric; Effective practice; Feedback; Systematic Review.

Introduction

The quality of assessment and feedback is crucial for supporting student learning, motivation, and academic success in higher education. As institutions prioritise enhancing student experience and outcomes, assessment tools capable of improving the effectiveness and consistency of the assessment process have garnered significant attention. One such established tool is the assessment rubric.

In educational contexts, the term 'rubric' typically refers to a tool utilised for marking and/or feedback purposes that delineates the fundamental components of an assessment task. However, this single term has long been recognised as encompassing a variety of different formats (Popham, 1997). Andrade (2023, pp. 315) provided a foundational definition, describing a rubric as: '… a document that articulates the learning goals for a task and describes varying levels of mastery of those goals#. This perspective emphasises the necessity of explicitly aligning rubrics with student learning goals. Evidence supports that rubrics are effective learning tools, demonstrating they enhance student feedback literacy by providing standardised and objective guidelines (Chan and Luo, 2022). Furthermore, when rubrics are co-constructed with students (Chamcharatsri, 2016) or generated by inter-departmental staff teams (Cleary et al., 2018), the process facilitates agreement on expectations and ensures a shared understanding. Rubric development and use can thus define shared standards between staff and students, and especially so if they are combined with the use of exemplars (Ajjawi et al., 2021). The dual function of rubrics as both a marking tool and a facilitator of feedback allows them to support efficient and effective feedback processes, aligning with quality frameworks such as the UK Quality Code for Higher Education (QAA, 2024).

Over the past three decades, extensive research has been conducted to investigate or describe the effectiveness of rubrics. Key scholarly contributions have focused on defining rubrics (Dawson, 2017), tracing their historical evolution (Gallardo, 2020), and evaluating whether the benefits observed in specific case studies are applicable across wider contexts (Brookhart and Chen, 2015; Jonsson and

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Svingby, 2007). Critical perspectives argue that rubrics may unintentionally narrow students' approaches to learning by encouraging strategic compliance with specified criteria rather than intellectual risk-taking, creativity, or exploratory engagement with complex tasks (Kohn, 2006; Torrance, 2007; Sadler, 2014; Wilson, 2007). From this perspective, rubrics can function less as supports for learning and more as regulatory devices that promote conformity to pre-specified standards, particularly when criteria are overly detailed or prescriptive. These critiques suggest that the pedagogical value of rubrics is contingent on their design and how flexibly they are interpreted and enacted within teaching and feedback practices.

While these critical perspectives question the overall efficacy of rubrics and others note that provision alone is ineffective if students do not understand the tool (Bacchus et al., 2020), a comprehensive review by Panadero and Jonsson (2020) concluded that the demonstrated benefits outweigh the limitations. The primary benefits identified include (i) increased consistency and efficiency in marking, and (ii) improved student learning through enhanced exposure to assessment criteria. Nonetheless, existing reviews have often examined rubrics in broad classifications, focusing on specific applications such as formative feedback (Panadero and Jonsson, 2013) or designing universal rubrics for courses (Debattista, 2018), without systematically determining if the specific type of rubric used influences its efficacy, where an effective rubric can be thought of one which has a positive impact of student outcomes or staff or student perceptions of marking and/or feedback.

Rubrics are frequently characterised using two broad categories (or 'types'): analytical and holistic (Jonsson and Svingby, 2007). Analytical rubrics are recognised for offering detailed feedback across multiple criteria, identifying strengths and weaknesses, while holistic rubrics render a single judgment based on the overall quality of the submission. The former are often suggested for instructional purposes, whereas the latter are used to achieve efficient and consistent marks or scores (Moskal and Leydens, 2000). For example, analytical rubrics have been shown to facilitate feedback by providing a structure with which students can engage prior to completing the assessment (McKenzie and Wood-Bradley, 2014). However, analytical rubrics are limited by their reliance on assessment designers being able to articulate all possible areas of success or failure. Furthermore, alternative designs exist, such as the single point rubric, which describes the required proficiency level for each learning outcome and includes blank spaces for personalised, bespoke feedback (Estell et al., 2016).

These complexities demonstrate that traditional terms like 'analytical' and 'holistic' are insufficient for describing or capturing the diversity inherent in rubric design and implementation. Dawson (2017) demonstrated that a shared understanding of the term 'rubric' is absent among educators and researchers, and that institutional promotion of rubrics without clear definition leads to varied practices. Crucially, this variability, combined with inconsistent reporting practices in scholarly literature, is highly problematic for research efforts. It remains difficult to judge or understand what type of rubric has been used in a research article when detailed descriptions or examples are not provided. Many existing studies fail to report sufficient detail about the rubrics used, which substantially hinders the accurate classification and comparison of different designs. Without comprehensive descriptions, readers cannot fully understand which specific details of rubric design have impacted the reported outcomes, thereby impeding the ability to replicate or emulate successful interventions.

While the absence of a single agreed definition of a 'rubric' presents clear challenges for research synthesis and comparative evaluation, this conceptual ambiguity is likely to be pedagogically productive. The flexibility of the term allows disciplines and institutions to adapt rubric design to local practices and assessment cultures, rather than conforming to a one-size-fits-all model. In this sense, variation in how rubrics are conceptualised and enacted may support responsiveness to contextual and disciplinary differences. The challenge for the field is therefore not necessarily to enforce a singular

definition of what constitutes a rubric, but to develop shared reporting conventions that preserve pedagogical flexibility while enabling meaningful comparison and replication across studies.

The lack of clear reporting standards for rubric descriptions has made it challenging to systematically determine if there is a definitive link between specific rubric designs or types and how effective they are in marking and feedback practices. Existing reviews have frequently examined rubrics in broad classifications without addressing whether the specific structural components influence outcomes. Addressing this gap is vital, as the lack of detailed comparative knowledge hinders the development of strategies for designing rubrics for optimal effectiveness within any given pedagogical context.

To address this challenge, Dawson (2017) proposed a framework comprising 14 design elements (summarised in Figure 1.). These elements define the numerous ways in which rubrics differ in design and implementation, providing a common language and a valuable structure for synthesising existing data on rubric interventions and understanding the specific aspects that may affect efficacy.

Figure 1. Summary of Dawson's 14 elements of rubric design and implementation (generated using napkin.ai).

This study aimed to build on Dawson's initial work by employing a systematic review methodology to align the published literature on rubric implementation against Dawson's 14 design elements, with the objective of investigating whether the 'type' of rubric utilised influences how effective they were perceived to be, with reported student outcomes or perceptions of feedback from students or staff acting as proxies for this efficacy. This framework was chosen as the only available resource that attempts to define rubrics in such detail. The methodology focused on empirical studies published between 2009 and 2024 to collect broad data across various courses and institutions. This approach aims to fill a gap in the literature concerning the need for larger scale studies examining rubric use across diverse disciplines and institutions previously highlighted by Cockett and Jackson (2018) in their review on rubric use in nursing education.

In this review, the concept of 'efficacy' is understood as a values-informed judgement about the extent to which the use of rubrics supports the intended pedagogical purposes of assessment. Specifically, efficacy is described in terms of (i) reported impacts on student outcomes, (ii) student and staff perceptions of feedback and marking practices, and (iii) the extent to which rubrics support transparency, consistency, and shared understandings of academic standards. This framing acknowledges that what counts as an 'effective' rubric is not value-neutral, but depends on the purposes for which rubrics are designed and implemented (e.g. supporting learning, promoting fairness, or communicating standards). Overall, three interrelated constructs are used to examine rubric efficacy: student outcomes, student perceptions of feedback and assessment, and staff perceptions of marking and feedback practices. Student outcomes refer to measurable or reported changes in performance or attainment (e.g. grades, task quality, or completion rates). Student and staff perceptions are understood as experiential and interpretive indicators of how rubrics are received, enacted, and valued within assessment processes, including perceptions of fairness, clarity, transparency, and usefulness of feedback. These perceptual dimensions are not treated as secondary to outcomes, but as mediating mechanisms through which rubrics may influence learning and engagement. Thus, efficacy is conceptualised as a relational construct, emerging from the interaction between rubric design, pedagogical implementation, and how rubrics are experienced by students and staff in practice. By collecting data on these constructs, the review attempts to answer the following research question: Does the 'type' of rubric used have an impact on the efficacy of marking and feedback?

Methods

Research Paradigm: Ontological and Epistemological Stance

This systematic review operates within an interpretive research paradigm, specifically drawing upon principles associated with critical realism in its ontological and epistemological stance. The ontological position assumes the existence of an external reality (i.e. that rubrics possess real characteristics and implementation contexts that impact student outcomes) but acknowledges that this reality is complex and mediated by context. This perspective recognises the vast variety in rubric design and implementation and the difficulty in measuring their effects due to numerous contextual variables.

Epistemologically, the study adopts a systematic approach to synthesise existing empirical data to test relationships (e.g. between rubric type and efficacy). By utilising a highly structured framework (Dawson's 14 design elements) to classify heterogeneous data, the research seeks to derive generalised knowledge regarding the components necessary for effective rubric design. Within this interpretive framing, both outcome measures and participant perceptions are treated as legitimate, complementary forms of evidence for examining the efficacy of rubric-based interventions. The chosen methodology of a systematic review culminating in a narrative synthesis, reflects a commitment to rigorous synthesis while accepting that the complexity and often insufficient reporting of interventions in the literature prevent purely statistical meta-analysis or the identification of simple causal links.

Data Collection

The methods for data collection were inspired by the systematic review process detailed by Siddaway et al. (2019) and incorporates the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA; Page et al., 2021). Ethical approval for this study was deemed to not be required by the researcher's institutional ethics panel, as the analysis used only previously published data and did not involve the collection of data from human participants. However, the review was conducted in accordance with principles of research integrity and transparency. To enhance methodological rigour, all stages of screening and inclusion were defined by pre-specified criteria and documented using a PRISMA flow diagram. Decisions regarding inclusion and exclusion were recorded synchronously, and borderline cases were resolved through reference to the stated criteria. This structured approach was

intended to minimise selection bias and enhance the transparency and reproducibility of the review process.

Database Selection and Search Strategy

Seven databases deemed appropriate for the subject area were selected for the systematic search (Table 1.). The database selection process informed by the work of Gusenbauer and Haddaway (2020) and was predicated on several factors: the appropriateness of the resource for the research subject area, the effectiveness of the search query options available, the reliability of repeated search outcomes, and the operational feasibility within defined project resource limits.

Initial scoping searches were conducted on 03 October 2024, to confirm the suitability of the databases and optimise search terms. The most effective search query was determined to be: 'rubric*' AND 'feedback' AND ('higher education' OR 'university' OR 'college'). The terms 'efficacy', 'outcomes', and 'perceptions' were excluded as search terms (even though they are key to answering the research question) because they resulted in poor indexing consistency and risked missing relevant studies. Therefore, the approach used aimed to find the widest set of applicable studies through broader terms that could then be suitably filtered through analysis.

To filter the results, specific criteria were applied:

1. Date Range: Publications between 2009 and 2024 were included to meet the explicit aims of the study.
2. Search Scope: Searches were limited to the title and abstract of records, a filter implemented to exclude papers that did not have rubrics as the focus of the study but merely mentioned their use.

The final search across all seven databases (Table 1.) was executed on 30th October 2024.

Table 1. Databases used for the systematic search.

Database
Educational Research Complete (ERC)
Education Resources Information Centre (ERIC)
Scopus
Web of Science (Core Collection)
Bielefeld Academic Search Engine (BASE)
Science Direct
Springer Link

Screening and Duplication Management

Search results were exported into citation management software (Endnote X9) using bulk citation export tools where available. For the Springer Link database, where automated export functionality was unavailable, individual records were manually exported.

Duplication management involved two stages:

1. Automatic removal using the citation management software's 'Find Duplicates' function.
2. Manual verification to identify and remove citations referring to the same record but formatted differently (e.g. variations in issue numbers). This manual search identified and removed an additional 187 duplicates.

Following duplication removal, 129 records that were not published in English were excluded, prioritising efficient completion within the defined project timeframe over the potential use of translation software.

Study Selection and Inclusion

To assess the suitability of the remaining records for answering the research question, five specific exclusion criteria were systematically applied (Table 2). This screening process involved reading the abstract initially, followed by examining the methods and results sections of the full record where necessary.

Table 2. Exclusion criteria used to assess records for suitability.

	Criteria
1	The study must be an empirical work that describes rubric use with a student group
2	The student or staff engagement with the rubric is defined/measured in some way
3	The rubric is described in some level of detail
4	The study has ethical approval
5	The study was carried out in a Higher Education setting

A significant number of studies (n = 48) were excluded because they did not explicitly state if either ethical approval had been granted or was required. Although some older publications may have predated requirements for ethical approval for low-risk studies, the decision was made to enforce this exclusion criterion to maintain a high ethical standard for the work.

Following the systematic exclusion process, 34 records remained for review (Figure 2.).

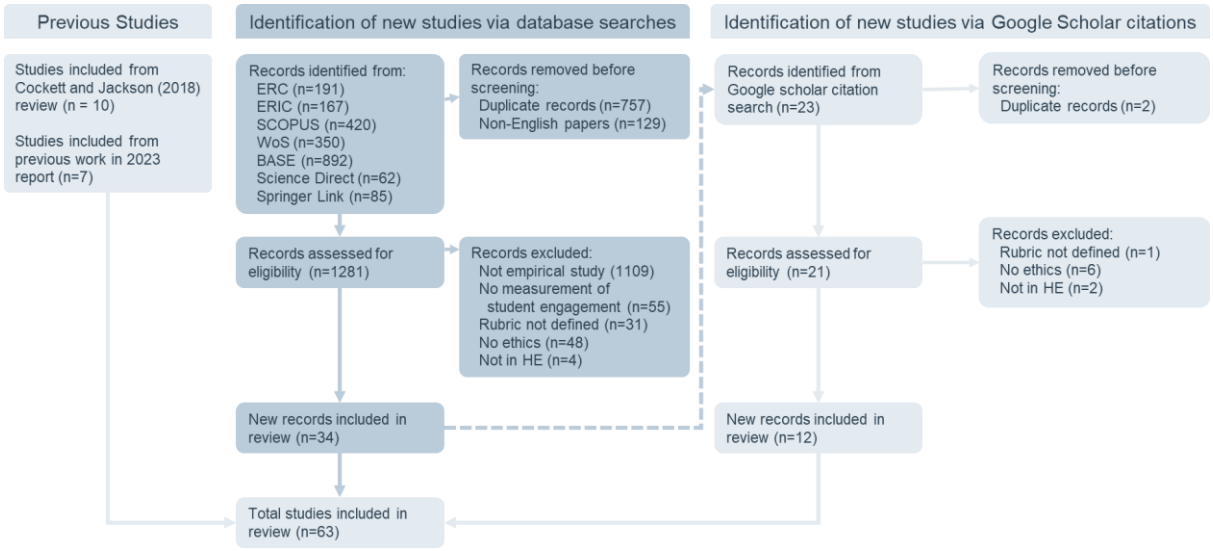

Figure 2. Flow diagram of data extraction based on the PRISMA template (Page et al., 2021).

Supplementary Literature Identification

The dataset was supplemented by additional relevant papers:

1. Seven papers identified during preliminary research in 2023.
2. Ten papers sourced from an existing review article focused on a similar research question in nursing education (Cockett and Jackson, 2018).
3. Twelve additional records identified through a supplementary search utilising Google Scholar. This search involved entering the 51 previously identified papers into Google Scholar to locate

citing articles. These citing articles were then subjected to filtering (repeat removal) and application of the exclusion criteria (Table 2.).

These methods resulted in a final corpus of 63 records included for review.

Data Analysis

Data Extraction

The first phase of the analysis involved creating a detailed summary of the findings for each of the 63 included papers. Data were collated into a spreadsheet designed to capture key information pertinent to the research question. The specific data extracted included:

- Key information about the study, encompassing course and participant descriptions.
- A detailed description of the rubric based on its alignment with the 14 design elements proposed by Dawson (2017).
- The reported effect of the rubric on measurable student outcomes.
- The reported effect of the rubric on student perceptions of feedback.
- The reported effect of the rubric on staff perceptions of feedback.

To enhance the efficiency of the data summarisation process, a generative artificial intelligence interactive interrogation tool (NotebookLM; https://notebooklm.google.com/) was used. PDF copies of the included papers were uploaded to the tool, enabling the efficient extraction of required information (i.e. the information pertinent to the list above by using prompts such as ‘Describe the student cohort from this study’). All outputs were subject to manual fact-checking and verification against the linked sections of the original documents prior to extraction into the summary table.

Synthesis Approach

Following data collation, the results were synthesised into a narrative synthesis, defined as a presentation of results using primarily descriptive text (Boland et al., 2017, pp.100). This format was selected because the collected data were predominantly qualitative, and the primary objective was to explore the mechanistic functioning of rubrics, rather than merely evaluating the overall presence or absence of effectiveness, a question previously addressed in existing literature (e.g., Panadero and Jonsson, 2020).

The synthesis was constructed by manually reviewing the extracted summaries (available as supplementary information) multiple times to identify recurring themes and key concepts related to student outcomes, student perceptions, and staff perceptions. These identified themes were subsequently organised and discussed in detail within the results section. Due to the inability to consistently classify rubrics into simple 'types,' the resulting synthesis incorporated the relevant classifications of Dawson’s design elements to accurately describe the specific contexts where reported results applied.

Results

Description of the papers used in the systematic review

The final corpus comprised 63 empirical studies published between 2011 and 2024. These publications investigated rubric use across a diverse range of higher education contexts, including undergraduate (45 papers), postgraduate (6 papers), or both (2 papers). The studies originated from 21 countries and spanned over 40 distinct subject disciplines, suggesting that the collected data represents a broad range of international and disciplinary experiences in higher education. While the sample demonstrated a higher representation of undergraduate courses, this distribution aligns with the typical frequency of assessments within undergraduate curricula compared to postgraduate

programmes. A complete list of the included papers and basic study information is provided in Table 3.

Table 3. Full list of paper's used in review with basic information about the studies.

	Rubric included	**Level of Study**	**Number of student participants**	**Subject**	**Location**
Allagui (2019)	Y	Undergrad	59	English writing as an additional language	Abu Dhabi
Bacchus et al. (2020)	N	Undergrad	25	English Literature	Australia
Barney et al. (2012)	Y	Postgrad	42	Engineering	Sweden
Bell et al. (2013)	Y	Undergrad	119	Accounting	Australia
Bergman (2014)	N	Not stated	Not stated	Early Childhood Education	Sweden
Berrocal et al. (2021)	Y	Undergrad	Not stated	Medicine	USA
Bono Cabré and Núñez Peña (2019)	N	Undergrad	135	Psychology (statistics course)	Spain
Bradley et al. (2020)	N	Undergrad	58	Sport and Exercise Science	UK
Bree et al. (2020)	N	Not stated	Not stated	45 programmes across science and health	Ireland
Burnell et al. (2023)	Y	Undergrad	114	English Language	New Zealand
Cargas et al. (2017)	Y	Undergrad	63	Teacher Education, Social Sciences and Life Sciences	USA
Chan and Ho (2019)	N	Not stated	78	Nursing	Hong Kong
Cheng and Chan (2019)	Y	Undergrad	134	Multiple	Hong Kong
Cleary et al. (2018)	N	Undergrad	15	Multiple	Ireland
Czajka et al. (2021)	Y	Not stated	150	Chemistry	USA
Daniels et al. (2023)	Y	Undergrad	59	Business	USA
Eshun and Osei-Poku (2013)	N	Undergrad	140	Graphic Design	Ghana
García-Ros et al. (2021)	N	Undergrad	127	Physical Therapy	Spain
García-Ros et al. (2024)	N	Undergrad	142	Neurophysiotherapy	Spain
Gamel et al. (2018)	N	Postgrad	52	Health Sciences	Netherlands
Gezie et al. (2012)	Y	Not stated	35	Diversity	USA
Ghosh et al. (2020)	Y	Not stated	93	Nautical Science	Australia
Goodwin and Kirkpatrick (2023)	Y	Undergrad	104	Business Writing	Kuwait

Gupta et al. (2014)	N	Undergrad	316	Dentistry	USA
Gyamfi et al. (2022)	Y	Not stated	354	Database Principles	Australia
Hannigan (2016)	Y	Postgrad	16	Food Microbiology	Ireland
Hawe et al. (2021)	N	Postgrad	18	Teaching	New Zealand
Hogeboom and Atkinson (2014)	Y	Undergrad	100	Statistics	Australia
Hoo et al. (2022)	N	Not stated	79	Cross-cultural management	Singapore
Howell (2014)	Y	Not stated	40	Juvenile Delinquency	USA
Hung et al. (2013)	Y	Undergrad	18	English	Taiwan
Karaman (2024)	Y	Undergrad	79	Education	Turkey
Kedrowicz et al. (2018)	Y	Not stated	196	Veterinary medicine	USA
Kunnel (2021)	Y	Undergrad	20	English Language	Canada
Lipnevich et al. (2014)	Y	Undergrad	100	Child Development	USA
Maehana et al. (2021)	Y	Undergrad	283	Sport Education	Japan
McKenzie and Wood-Bradley (2014)	Y	Undergrad	62	Game Design	China
McKevitt (2016)	Y	Undergrad	40	Humanities	Ireland
McKnelly et al. (2021)	Y	Undergrad	19	Chemistry	USA
Miknis et al. (2020)	Y	Undergrad	42	Computer programming	UK
Ndeke and Barmao (2024)	N	Undergrad	246	Education	Kenya
Nordrum et al. (2013)	Y	Undergrad	54	English Language	Sweden
Panadero et al. (2023a)	Y	Undergrad	126	Psychology	Spain
Panadero et al. (2023b)	N	Undergrad	126	Psychology	Spain
Pang et al. (2022)	Y	Undergrad	186	Engineering	Australia
Pape and Spuur (2020)	N	Undergrad	15	Medicine	Papua New Guinea
Pérez-Guillén et al. (2022)	Y	Undergrad	134	Physiotherapy	Spain
Reddy (2011)	Y	Undergrad and postgrad	95	Business	India
Rickett et al. (2019)	Y	Undergrad	250	Creative writing	Australia
Robbins and Marinkova (2023)	Y	Postgrad	5	English Language	UK

Rogers et al. (2019)	Y	Undergrad and postgrad	269	Multiple	USA
Sáiz-Manzanares et al. (2017)	N	Undergrad	171	Social Sciences and Mechanical Engineering	Spain
Stranford (2024)	Y	Undergrad	24	Biology	USA
Su (2021)	Y	Undergrad	32	English Interpretation	China
Sweeney and Nielsen (2018)	N	Undergrad	43	Education	Australia
Taylor et al. (2024)	N	Undergrad	14	Education	UK
Teh et al. (2024)	N	Postgrad	5	Education	Malaysia
Timmerman et al. (2011)	Y	Undergrad	142	Biology	USA
Yan (2024)	Y	Undergrad	57	English Language	China
Yik et al. (2024)	N	Undergrad	1679	Chemistry	USA
Yune et al. (2018)	N	Undergrad	126	Medicine	South Korea
Zhang et al. (2024)	N	Undergrad	126	Education	China
Zheng et al. (2020)	Y	Undergrad	17	Education	USA

Classification of Rubrics Using Dawson's 14 Design Elements

The objective of this review was to investigate the influence of rubric 'type' on efficacy. Given the acknowledged complexity of defining rubrics beyond the simple analytical/holistic dichotomy, Dawson's (2017) 14 design elements were employed to classify the identified interventions.

Role of Dawson's Framework

Dawson's 14 elements function primarily as qualitative descriptors used within a structured framework for analysis. These elements provide specific terminology (e.g., 'Task-specific', 'Shared', 'Analytical-Weighted') that captures the nuances of rubric design and implementation. By mapping each rubric against these elements, the review aimed to reduce the inherent subjectivity and ambiguity associated with vague terms like 'rubric'.

This detailed classification supported the validity of comparisons by ensuring that studies categorised together shared common, quantifiable design characteristics. Additionally, adopting this common language for describing rubric features directly addresses the problem of underreporting in the literature, thereby improving the potential for replicability of successful interventions by enabling future researchers to fully understand the specific details of rubric design that led to the reported outcomes.

Of the 63 included papers, only 39 contained sufficient descriptive detail to allow for comprehensive classification against all 14 elements. This limitation highlights the pervasive issue within the literature where many studies fail to report sufficient detail about the rubrics used, thus hindering systematic classification and comparison.

Classification Findings

Based on the 39 studies that could be fully classified, Table 4. details the distribution of rubric designs across Dawson's 14 elements.

Table 4. Descriptions of how the papers aligned to Dawson's 14 design elements of rubrics. The descriptions and possible classifications are based on the content of the original publication (Dawson, 2017).

Design Element	Description	Possible Data Classification	Number of papers meeting that classification
Specificity	The breadth of task for which the rubric has been designed to be used against.	Task-specific	17
		Task-type	15
		Department-wide	6
		Institutions-wide	1
Secrecy	Whether the rubrics were shared with students either before or after task completion.	Shared	36
		Not shared	0
		Unclear	3
Exemplars	Whether exemplars were included in the rubric (combined) or as part of a general feedback strategy (supplementary) or not at all.	Combined	4
		Supplementary	7
		None	29
Scoring strategy	If the rubric was used to produce an overall grade, was this in a holistic manner (one overall judgement) or analytical (where judgements are made on each criteria (weighted or not) and then combined formulaically).	Holistic	2
		Analytical – No weightings	24
		Analytical – Weighted criteria	8
		None	5
Evaluative criteria	Criteria (often defined on the left of the rubric) that stipulates on what specific elements the work will be measured.	Present	36
		Absent	3
Quality levels	Often occupying the top row, these state the levels or grades which each criteria is marked against.	Present	34
		Absent	5
Quality definitions	These typically occupy one cell of the rubric matrix and describe the evaluative criterion at a particular quality level.	Present	35
		Absent	4
Judgement complexity	A description of how a marker will make a judgement between the quality definitions. These can qualitative (in that a marker will use their judgement to distinguish between 'good' and excellent pieces of work) or analytical (where the fucus is on the adherence to a specified structure or presence of particular information).	Qualitative	32
		Analytical	1
		Qualitative and analytical	6
Users and uses	How and by whom the rubric will be used.	Any combination of:	
		Student: Planning	16
		Student: peer-assessment	5

		Student: Self-assessment	17
		Staff: Grading	18
		Staff: Feedback	12
Creators	Who created the rubric and what resources did they use.	Staff	16
		Staff with literature consultation	5
		Staff with student feedback	1
		Co-creation with students	3
		Adapted from literature	4
		Unknown	10
Quality process	Whether the rubric underwent any quality assurance process as part of the study discussed in the paper.	Yes	12
		No	27
Accompanying feedback information	Whether the students were received additional feedback to that given by the rubric.	Yes	17
		No	15
		Unknown	7
Presentation	How the quality definitions were presented.	Descriptive text	34
		Checklist	3
		Questions	1
		Likert scale	1
Explanation	Did the paper describe how the rubrics were explained to students.	Yes	33
		No	6

By identifying the most numerous classification across each element, the most common rubric design observed in the literature can be described as follows: Rubrics are task specific, or designed for a specific type of activity, and include evaluative criteria, quality levels, and quality definitions in a textual format that are used to generate qualitative judgements of assessments. They are designed by staff, without any quality assurance process, and often do not include exemplars. In most cases, they are shared with students and used by students to help them when planning their assessment tasks and for self-assessing. This sharing is accompanied by detailed explanations of how the students should use and interpret the information contained within the rubric. Staff tend to use rubrics for either grading and/or providing feedback in relatively equal abundance. Additional feedback forms are implemented along with the rubric-based feedback as often as they are not. When used for grading, an analytical (non-weighted) approach is commonly used.

However, when applying all these most common classifications simultaneously, only five rubrics from the corpus adhered to every characteristic, indicating the immense variety in rubric design and implementation and highlighting the difficulty in classifying rubrics into standardised ‘types’.

Narrative synthesis

The challenge in systematically classifying rubrics required that the narrative synthesis be nuanced, ensuring that specific contextual details of the rubric design elements were included when discussing the applicability of reported findings. The synthesis is structured around five key themes derived from the analysis of extracted data regarding student outcomes, student perceptions of feedback, and staff perceptions of the feedback process.

Theme 1: Rubrics can have a positive effect on student outcomes

Data extracted on student outcomes demonstrated that rubric interventions frequently lead to direct improvements in student grades. Studies reported specific increases in attainment (Barney et al., 2012; Ghosh et al., 2020; Howell, 2014; Hung et al., 2013; Karaman, 2024; Maehana et al., 2021; Timmerman et al., 2011) and a reduction in course failure rates (Bradley et al., 2020). Other evidence indicated generic improvements in the quality of student work or content understanding (Burnell et al., 2023; Cheng and Chan, 2019; Lipnevich et al., 2014).

To investigate whether a specific rubric design element correlated with these successes, the 14 design elements of the cited studies were examined. The analysis found that none of the 14 elements were uniform across all successful studies. For instance, the successful interventions included rubrics categorised as task-specific, task-type, and departmental-wide, utilised the complete range of scoring strategies, and incorporated various qualitative and analytical judgement strategies. This lack of uniformity suggests that rubrics can be adapted effectively in multiple design configurations to support student outcomes.

Theme 2: Rubrics promote consistent and fair marking practices

Staff and student perceptions consistently reported that rubrics improve consistency in grading (Chan and Ho, 2019; Cheng and Chan, 2019; Cleary et al., 2018; Gamel et al., 2018; García-Ros et al., 2024; Gyamfi et al., 2022; Hogeboom and Atkinson, 2014; McKnelly et al., 2021; Pang et al., 2022; Rogers et al., 2019; Timmerman et al., 2011) and enhance assessment accuracy (Czajka et al., 2021). This is attributed, in part, to rubrics facilitating a shared language regarding assessment and feedback (Sweeney and Nielsen, 2018). Furthermore, data from student perception studies indicated that awareness of the grading method improved student feelings of fairness (Daniels et al., 2023).

However, similar to Theme 1, an analysis of the specific design elements of the ten studies in this theme that provided sufficient data revealed no common design elements. This suggests that multiple factors contribute to developing fair and consistent marking practices, not just a single rubric configuration.

Theme 3: Rubrics add transparency to the marking process

The most frequently cited benefit regarding student perception data was that rubrics enhance the transparency of the assessment process, enabling students to understand task requirements clearly (Allagui, 2019; Bell et al., 2013; Bono Cabré and Núñez Peña, 2019; Daniels et al., 2023; Eshun and Osei-Poku, 2013; Gezie et al., 2012; Hawe et al., 2021; Lipnevich et al., 2014; Miknis et al., 2020; Rickett et al., 2019; Sweeney and Nielsen, 2018; Yik et al., 2024, and many others). This transparency provides students as increased informational clarity and a sense of reassurance and legitimacy in assessment, which may affect how they orient themselves emotionally and strategically towards tasks. Studies noted that this transparency resulted in students raising fewer queries with staff (Barney et al., 2012) and increased student understanding of their own strengths and weaknesses (Allagui, 2019; Barney et al., 2012; Gyamfi et al., 2022).

The findings related to transparency provide the strongest correlation between efficacy and a specific rubric design element. One study, for example, observed peak rubric viewing at the start of the module and again after grades were released, indicating that students utilised the rubric both for early task planning and later for feedback interpretation (Allagui, 2019). This pattern suggests that rubrics are taken up by students as sense-making resources, helping them plan tasks prior to submission and interpret feedback after judgement. The vast quantity of literature demonstrating benefits in transparency provides a strong argument for ensuring the ‘Secrecy’ design element is classified as ‘Shared’ whenever possible.

Theme 4: Rubrics are one of many factors that may contribute to student success
Extracted data indicated that improvements in student performance are often not attributable solely to the rubric in isolation. Several studies noted that high-performing students who engaged with the rubrics may have succeeded regardless of the feedback mechanism (Allagui, 2019; Howell, 2014), while others were reluctant to establish a direct causal link to rubrics due to awareness of other variables (Maehana et al., 2021; Taylor et al., 2024).

Studies where additional feedback information was provided alongside the rubric often showed student preference for that accompanying feedback, such as specific tutor comments, feedforward statements, or exemplars (Bacchus et al., 2020; Bell et al., 2013; Bono Cabré and Núñez Peña, 2019; Bradley et al., 2020; Goodwin and Kirkpatrick, 2023; Lipnevich et al., 2014; Nordrum et al., 2013; Rickett et al., 2019; Sáiz-Manzanares et al., 2017). When rubrics were utilised as part of a formative process that allowed for resubmission or draft improvement (Cleary et al., 2018; McKevitt, 2016; Pape and Spuur, 2020; Zheng et al., 2020), positive outcomes were noted, but it remains unclear if other types of formative feedback would have yielded similar results.

This thematic evidence suggests that if a causal link between the rubric intervention and improved student outcomes cannot be definitively established in individual studies, it is subsequently impossible to determine if the specific design elements of those rubrics influenced the reported success.

Theme 5: Successful implementation of rubrics has challenges
The final theme covers staff and student perceptions of difficulties encountered during rubric implementation. These challenges included practical limitations (e.g., electronic vs. paper format) (Allagui, 2019; Robbins and Marinkova, 2023), issues with the rubric content being either too prescriptive (Cheng and Chan, 2019; Teh et al., 2024) or too vague (Allagui, 2019; Taylor et al., 2024). These challenges reflect critiques in the literature that rubrics can constrain students' engagement with complex tasks when they are experienced as overly prescriptive or compliance-oriented. When students focus primarily on satisfying explicit criteria, this may limit creativity, reduce willingness to take intellectual risks, or encourage surface-level strategic behaviour rather than deeper engagement with disciplinary practices (Kohn, 2006; Torrance, 2007; Sadler, 2014). The findings of this review suggest that such risks are not necessarily inherent to rubrics, but emerge from how rubrics are designed and enacted within specific pedagogical contexts.

Staff resistance sometimes hindered the effective implementation across cohorts (Barney et al., 2012; Bergman, 2014; Gamel et al., 2018). Additionally, student perceptions, often influenced by prior negative experiences or the instructor-student relationship, sometimes undermined rubric effectiveness (Cheng and Chan, 2019; Goodwin and Kirkpatrick, 2023; Kunnel, 2021; Taylor et al., 2024). These findings indicate that rubrics are experienced by students and staff as interpretive artefacts that shape how assessment is encountered in practice. Experiences of reassurance, fairness, or legitimacy can support engagement with rubrics, while frustration, distrust, or perceptions of constraint can limit their pedagogical value. These factors emphasise that a successful outcome is not guaranteed even with a well-designed rubric. These challenges, alongside the 14 design elements, constitute crucial factors educators must consider during the implementation and evaluation of rubric use in practice.

Overall, the thematic synthesis suggests that the success of rubric implementation is primarily linked to the pedagogic aims of the rubric (e.g., enhancing criterion explicitness) rather than reliance on any single, specific design element. Taken together, this suggests that rubric efficacy is shaped by how rubrics are introduced, interpreted, and lived within specific assessment scenarios.

Discussion

This systematic review sought to determine whether the 'type' of rubric used influences the efficacy of an intervention within higher education settings. To address the acknowledged complexity of defining rubrics beyond the basic analytical/holistic dichotomy, Dawson's (2017) 14 design elements were utilised as a framework for systematic analysis. The systematic collation and synthesis of 63 empirical studies established several key findings regarding rubric implementation and efficacy. The review confirmed that the term 'rubric' encompasses a vast range of formats, and the inherent variety in design and implementation made classifying rubrics into standardised 'types' virtually impossible. Furthermore, only 39 of the 63 included papers contained sufficient descriptive detail, such as including the rubric or a sample, to allow for complete classification against all 14 of Dawson's elements. This challenge highlights the difficulty in utilising existing literature for comparison.

While rubrics generally showed positive effects, frequently improving student grades, reducing failure rates, promoting consistent marking practices, and enhancing assessment accuracy, the analysis found no uniform design across all successful studies. Successful interventions spanned various classifications, including task-specific, departmental-wide, different scoring strategies, and varied judgement strategies. The only design element consistently associated with positive student perceptions was the 'Secrecy' element, specifically classifying it as 'Shared'. The data showed that shared rubrics enhance the transparency of the assessment process, enabling students to understand task requirements more clearly and resulting in students raising fewer queries with staff. Students often utilised the shared rubric early in the course for planning and later for interpreting feedback. Additionally, the efficacy of rubrics was repeatedly found to be intertwined with other pedagogical factors, rather than the rubric functioning in isolation. Students often preferred additional feedback provided alongside the rubric, such as tutor comments or exemplars, and positive outcomes were noted when rubrics were used formatively to facilitate revision or draft improvement. These phenomenological dimensions of rubric use highlight the importance of how rubrics are experienced by students and staff in everyday assessment practices. Designing and implementing rubrics with attention to these lived experiences may therefore be as important as the technical features of rubric structure in shaping meaningful engagement with feedback.

The central interpretation of these findings is that the efficacy of rubrics is not reliant on adherence to any specific structural design but rather linked to the pedagogic aims of the implementation. The widespread difficulty in establishing a definitive causal link between a specific rubric design, such as using a weighted analytical approach versus a non-weighted one, and improved student outcomes suggests that the observed benefits often stem from the foundational principles of effective feedback that rubrics inherently facilitate: making expectations explicit and providing criteria for judgment. The use of weighted criteria within analytical rubrics also raises unresolved pedagogical and technical questions that are largely unaddressed in the reviewed literature. Weightings embed normative assumptions about the relative importance of different aspects of performance, yet these assumptions are rarely made explicit or theoretically justified.

The failure to correlate specific design elements with success confirms that the current body of literature lacks the solid-evidence base necessary for researchers and practitioners to understand which specific design elements are most important in any given context. Although it seems intuitive that rubric design influences efficacy, the available data prevent a definitive conclusion on whether rubrics are the optimal method of providing feedback, or if there is an optimal design to maximise impact. The large variation in rubric designs employed, combined with the insufficient detail reported in many studies, has consequently made answering the original research question unexpectedly difficult.

The primary implication arising from this review is the necessity for a substantial shift in the practices of both practitioners and researchers in this domain. Practitioners should base rubric design decisions on their specific pedagogical aims. However, they must be aware that successful outcomes are not guaranteed, even with a well-designed tool, due to implementation challenges such as staff resistance, content being too vague or too prescriptive, and varied student perceptions. The finding regarding the 'Secrecy' element strongly implies that making rubrics 'Shared' should be a consistent feature of implementation strategies to maximise transparency and student engagement. This will aid the practical enactment of shared standards in the sociomaterial context as discussed by Ajjawi et al. (2021). To build the necessary evidence base, there is an urgent need for clearer reporting standards in research. Many published studies fail to provide sufficient detail, hindering accurate comparison and replication. Therefore, researchers should be encouraged to include the full rubric as supplementary information or use online repositories to ensure accessibility. Additionally, future scholarly efforts should pivot from single-intervention case studies to controlled comparative studies that systematically isolate specific design elements. For example, research should examine two rubrics that differ only in one element, such as altering the 'Creator' element (e.g., staff vs. student co-creation, as previously done by Zhang et al. (2024)) or the 'Exemplar' element (e.g., inclusion vs. exclusion, as previously done by Burnell et al. (2023) and Lipnevich et al. (2014)) to deduce the importance of that specific feature. Until the relative importance of each design feature is understood, it remains pertinent for researchers to report on all 14 of Dawson's design elements to ensure readers can fully comprehend how the rubrics aligned or differed across studies. Importantly, the aim of improving reporting practices should not be understood as a call to standardise rubric design across contexts, but rather to enable transparency and comparability while retaining pedagogical flexibility and disciplinary responsiveness.

This systematic review was subject to several methodological constraints. The most substantial limitation was the pervasive inconsistent and insufficient detail provided in the published literature concerning rubric design and implementation. This deficit meant that 24 of the 63 included papers could not be fully mapped against Dawson's 14 elements, thereby limiting the ability to draw comprehensive conclusions about the influence of specific rubric configurations. The review was also limited by time and resources, having been completed by a single researcher within a nine-month timeframe, a constraint that increased the potential likelihood of missing relevant published work. Additionally, the enforcement of the criterion requiring explicit ethical approval resulted in the exclusion of 48 papers, often older publications. While maintaining a high ethical standard, this decision may have excluded relevant data from studies involving human participants. Finally, due to the predominantly qualitative nature of the collected data and the lack of suitable control groups in many original studies, the review could not establish a definitive causal link between specific rubric designs and measurable student success. Therefore, the conclusions drawn pertain to correlation and contextual effectiveness rather than proven causation.

Conclusion

This systematic review examined whether the specific design of assessment rubrics, conceptualised here as their 'type', influences the efficacy of feedback practices in higher education. The application of Dawson's (2017) 14 design elements to 63 empirical studies demonstrated that rubrics are far more heterogeneous and contextually enacted than is captured by the traditional analytical/holistic distinction. While rubrics are widely associated with improved transparency, consistency in marking, and positive student engagement with assessment criteria, this review found no consistent relationship between any single design feature and enhanced student outcomes or perceptions, with the notable exception of the practice of sharing rubrics with students.

Rather than functioning as neutral technical instruments whose effectiveness can be optimised through design alone, rubrics appear to operate as pedagogical artefacts whose efficacy is realised

through use. The benefits attributed to rubrics in the reviewed studies could stem from how rubrics mediate relationships between students, staff, assessment tasks, and standards, rather than the presence or absence of particular structural features. From this perspective, rubric efficacy is a relational outcome of how rubrics are introduced, interpreted, and embedded within broader feedback and assessment practices, rather than a stable property of rubric design.

This relational framing has two important implications for future practice. First, efforts to improve rubric efficacy should focus less on identifying a universally 'optimal' rubric design and more on how rubrics are pedagogically enacted, including how they are explained, negotiated, and integrated with opportunities for dialogue, exemplars, and formative use. Second, the consistent association between shared rubrics and perceived transparency highlights the importance of positioning rubrics as communication tools that support students in making sense of academic standards, rather than merely as grading devices.

For research, the findings indicate a need to focus on comparative study designs that isolate specific design elements while holding pedagogical context constant. However, improving the evidence base is contingent upon more transparent and granular reporting of rubric design and implementation. Without such detail, attempts to theorise or empirically determine the relative contribution of specific design features to rubric efficacy will remain constrained. Future work should therefore attend not only to what rubrics look like, but to how they function within the lived practices of assessment and feedback in higher education.

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