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A Rubric Guide for New Academics

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Introduction

This report presents a guide to support early career academics (ECA) in developing their understanding of rubrics, specifically when used as part of the assessment process. It is accompanied by two artefacts: first, an infographic which provides a general overview of rubrics; second, a website containing further resources including a selection of rubric templates (Appendix A, Appendix B).

Contribution to Practice

The manifold challenges faced by ECA are documented by authors such as Behari-Leak (2017). Houston et al. (2006) discuss the increasing demands of a new work environment which can include "increased expectations for measurable outputs, responsiveness to societal and student needs and overall performance accountability" (p. 17). An integral part of these responsibilities is assessment, a well-recognised driver of student learning which provides support through observations and the examination of activities (Jessop, El Hakim, & Gibbs, 2014; Medland, 2016). Gibbs (2006) asserts its importance by stating that "assessment frames learning, creates learning activity and orientates all aspects of learning behaviour" (p. 2). The importance of constructively aligning assessment with learning outcomes (LO) (see Figure Error! No text of specified style in document.) is recognised by many authors (Biggs, 2003; Crisp, 2012). This process can be a daunting for ECA particularly when trying to articulate expectations to their students or providing feedback (Ash & Clayton, 2004; Stiggins, 2002).

Rubrics can be used within the context of assessment and feedback strategies to provide a framework that clearly articulates expectations through the provision of different levels of quality when accompanied by a list of key criteria which identify what counts in an activity or observation.

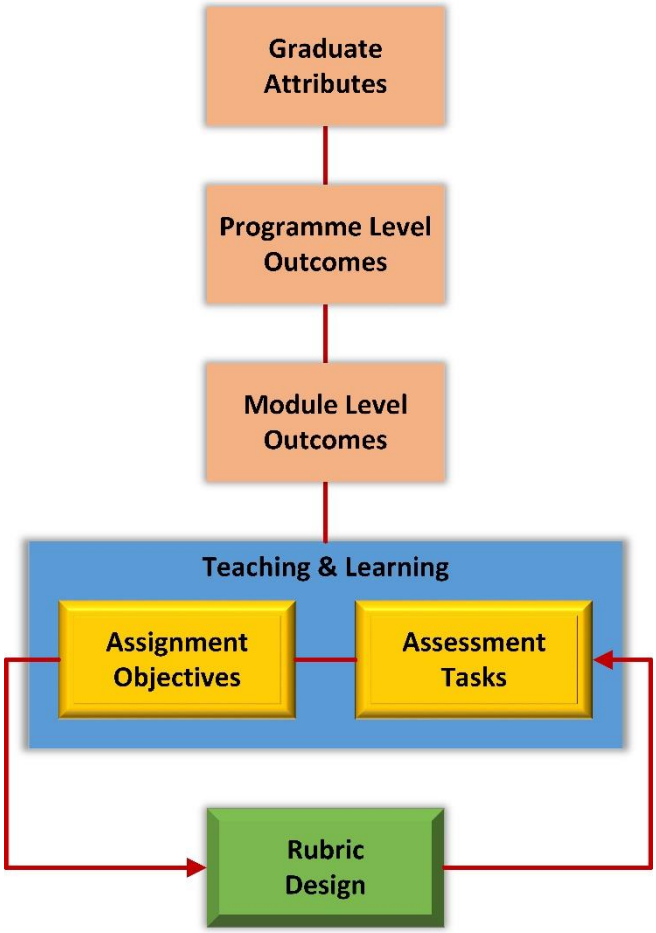

***Figure** Error! No text of specified style in document.: Constructive alignment*

Context

A report published by the Irish Universities Association documented several issues facing Higher Education in Ireland (IUA, 2014). This report emphasises the value of the student experience, particularly in relation to the acquisition of skills and knowledge, both of which can be developed and productively gauged by appropriately implemented assessment and feedback methods.

The latter should constitute an important avenue of enquiry since, according to Boud (1995), "students can, with difficulty, escape the effects of poor teaching, [but] they cannot (by definition if they want to graduate) escape the effects of poor assessment" (p. 35). Jessop et al. (2014) states good assessment design includes summative assessment, formative assessment, and long term learning; crucially, when supported by appropriate rubrics, this can assist teaching and learning (Bearman et al., 2016; Plush & Kehrwald, 2014).

Rubrics can play an instructional role, by defining criteria for student performance in advance (formative), as well as an evaluative role (summative), by providing the basis for determining a grade for an examination or activity (Popham, 1997). Furthermore, they support ECA by eliminating ambiguous assessment criteria and providing a more objective basis for evaluating performance. Rubrics can also promote independent learning and provide

students with a framework for self-assessment (Andrade & Valtcheva, 2009; O'Donovan, Price, & Rust, 2004).

Project Aims & Objectives

The overall aim of this project is to provide new academics with a deeper understanding of the role rubrics can play in teaching and learning. A literature review was undertaken to provide ECA with a summary of perceptions regarding rubrics, and critical appraisal of their use. An infographic was produced to offer a brief overview of rubrics. A website was developed to act as a repository for rubric-related resources.

Literature Review

Studies of rubrics in higher education have spanned a wide range of disciplines and have been developed for multiple purposes. Some of these functions include increasing student achievement, improving instruction and evaluating programmes by assisting students in understanding their learning targets and setting standards for a specific piece of assessment.

Student and Lecturer Perceptions

It is important to note that students and lecturers are both under time-constraints. Lecturers engage long hours in setting assignments, producing marking schemes, grading, and providing feedback, and if lucky, experience a brief hiatus before entering another cycle of teaching and assessment. Students potentially work concurrently on multiple assignments while, at the same time, reflecting on feedback. By virtue of the different roles they play, however, students and teachers have different perceptions regarding the effectiveness of assessment.

Studies of students' responses to rubric use outline that graduate and undergraduate students consider rubrics as significant because these explain the targets for their work, allow them to adapt their work and make grades transparent and fair. According to Bolton (2006) and Andrade and Du (2005), students feel rubrics enable them to identify critical issues in an assignment, thereby reducing uncertainty, allowing them to gauge the amount of effort needed, evaluate their own performances, estimating their grades beforehand and focus their efforts to improve performance on subsequent assignments. Powell (2001) stated that students associated rubrics with fairness and satisfaction with grading. Schneider (2006) argues that the key to positive students' response to rubrics is to either co-create with or make them available to students before they start an assignment. Schneider also found 88% of students rated the rubric provided with the assignment as useful, against 10% who found it useful when provided only with a final grade. The findings are echoed by Andrade (2000), Osana and Seymour (2004), Tierney and Simon (2004) and Song (2006).

Lecturers across a variety of disciplines view rubrics as an objective basis for evaluation that enables them to grade more consistently, reliably and efficiently (Campbell, 2005; Powell, 2001). In case of oral presentations Reitmeier, Svendsen, and Vrchota (2004) reported that the use of rubrics enabled the conversion in evaluation procedures from "subjective observations to specific performances" (p. 18). In contrast, Parkes' (2006) study of music performance rubrics reported no significant differences in student and teacher perception towards grading after the use of rubrics.

The key variance between students' and lecturers' perceptions of rubric use is essentially related to their perceptions of the purposes of rubrics: whereas students view them as a tool for the purpose of learning and achievement, lecturers consider them almost exclusively as a framework to quickly, objectively and accurately assign grades.

Benefits and Limitations of Rubrics

By aiming to cultivate a clearer understanding of standards and expectations, rubrics engender benefits for both lecturers and students. As mentioned previously, one of the challenges faced by ECA is the heavy workload under tight time constraints. Rubrics, in addition to saving time, introduce a high degree of fairness and objectivity (Diab & Balaa, 2011; Reddy & Andrade, 2010), especially through their clear criteria. This also benefits the students, who are more likely to receive targeted feedback (Schamber & Mahoney, 2006; Stevens & Levi, 2005) which renders them more likely to evaluate their own work (Bolton, 2006; Jonsson & Svingby, 2007) and to earn higher grades (Andrade & Du, 2007; Howell, 2011) with the effect of actually teaching the student rather than merely evaluating (Arter & McTighe, 2001; Stiggins, 2001). Rubrics also allow students to link the curriculum with LO. Boostrom (2015) even suggests that "without rubrics, students don't know what to think about the curriculum" (p. 97).

Although research suggests an overall positive relationship between the use of rubrics and student assessment, as well as an improved institution and programme of education (Flynn, Tenam-Zemach, & Burns, 2015; Kinne, Hasenbank, & Coffey, 2014), the very objectivity underlying rubric-design also potentially entails problematic consequences. A real danger is that "used poorly, rubrics may position users to fulfil predefined or unanticipated/undesirable outcomes, satisfy predetermined roles that normalize tradition and preclude progress" (Flynn et al., 2015, p. xxiv). This risks aggravating an interlinked issue identified by Patterson and Perhamus (2015), who write that "rubrics assume that academic work will be perfect and that anything that falls outside some sort of pre-determined ideal interrupts our abilities to explore meaning" (p. 32). Even when creative liberty is not at stake, students may not have a clear sense of how to interpret criteria (Orsmond, Merry, & Reiling, 1996). Therefore, Busching (1998), Wiggins (1998) and Perlman (2003) suggest using authentic examples that illustrate the qualities that the assessor is looking for.

Context and experience are equally essential to the successful use of rubrics. Haraway and Flinders (2015) assert that "much is lost when we decide to require all teachers or all students to use the same rubrics in the same way" (p.133). Moreover, a constructive alignment of rubric and curriculum needs to be developed over time since, as Wiggins and McTighe (2005) note, students potentially play an active role in helping lecturers to redefine their understanding of what characterises successful performance. Therefore, rubric development necessarily involves a process of piloting, modifying, analysing and revising rubrics (Lalonde, Gorlewski, & Gorlewski, 2015).

Haraway and Flinders (2015) contend that "even flawed rubrics can result in productive learning environments if they are used within the context of positive relationships between teachers and students" (p. 126). Hence, regardless of the variety of limits implicit in the use of rubrics, attentive consideration of their "context of use" (Haraway & Flinders, 2015, p. 119) arguably offers a valuable means of enabling both teachers and students to heighten their

engagement with a given module in an academic context. In short, they allow teachers to "teach, test and hope for the best" (Wiggins & McTighe, 2005, p. 314).

Methodology

Design and Development of the Artefacts

This project began with the goal of developing a tool that could be used by ECA to introduce them to and deepen their understanding of rubrics. As discussed earlier, their use can help academics be more consistent with marking and speed up the marking process, which can be a valuable time saver for ECA.

We felt that two pieces of information was essential for this tool:

- Knowledge of what rubrics are and how they may be used effectively, based on information gathered from literature.
- Suite of template examples from various assessment types.

A collective decision was made to provide this information using two artefacts, an infographic and a website. The advantages motivating this decision are illustrated in the following mind map.

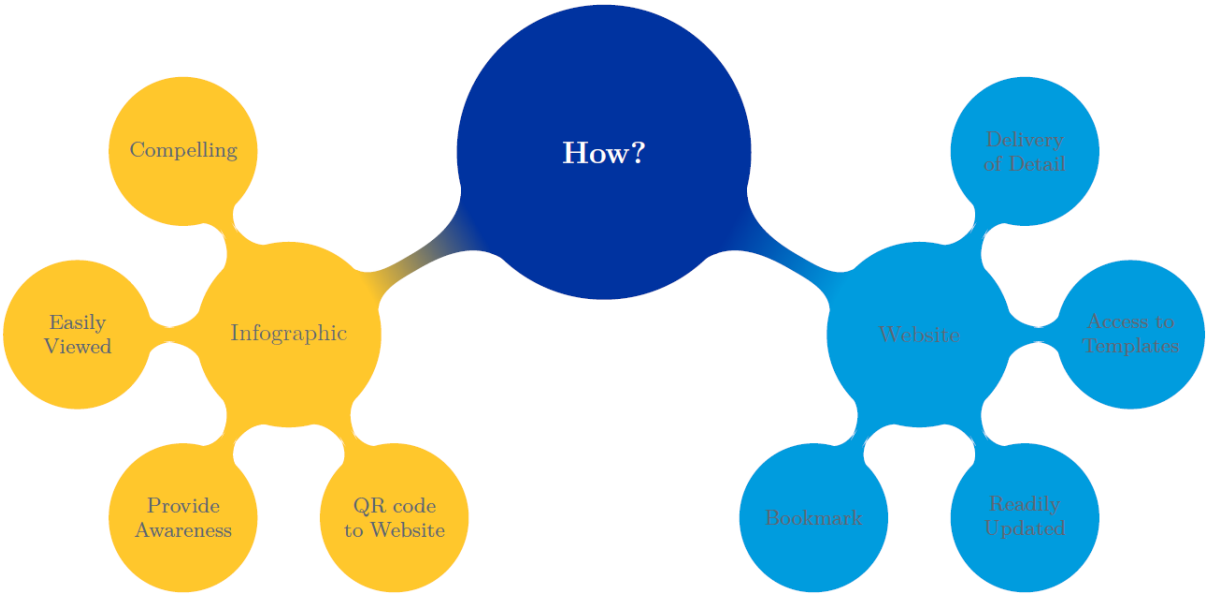

***Figure 2**: Development of Artefact*

The infographic was designed to be a quick reference guide, providing ECA with the key information about how rubrics can be a useful tool to implement in their modules. It was designed to be compelling and easy to read, with reference to the key advantages of their use and link to the website. The infographic can be found in Appendix A.

In order to deliver detailed content, the group decided that a website was essential. All agreed that the following should be included on the website.

- Rubric Templates – the site had to include templates that covered five main wide-ranging submission categories: written, verbal, numerical, practical and software. Each category was subdivided into various types. For example, a verbal submission, could be in the form of an interview/viva, presentation, or a language exam.

- Literature Review – ECA benefit from a background into the perceptions, benefits and limitations that exist in relation to rubrics. Therefore, this review explains why some recommendations on their use are in place, and how to avoid potential pitfalls of poorly designed/implemented rubrics.

- How to Guide – Although templates are important as a start, they will not always fit the needs of the ECA. For this reason, this guide assists in the production of a rubric from scratch. Included is a list of the variations of levels of achievement that are typically used and a distinction between task-specific and general criteria.

- References/Further Reading – references are included, so ECA can broaden their knowledge beyond the summary that is provided within the website.

The website was created with Google Sites. As well as being very user-friendly, it allows for multiple group members to participate in its creation collaboratively. Appendix B contains screenshots and a link to the website.

Conclusion

As outlined in this report, rubrics support assessment in a time-effective manner by articulating expectations through a clear description of various levels of performance, each of which is unambiguously associated with key criteria describing what counts in an assessment. The key benefits of integrating rubrics into the teaching and learning space as a means of supporting ECA are as follows:

- Lecturers are provided with a fair and transparent framework for grading students objectively, especially beneficial for inexperienced ECA under time constraints.

- Students are provided with clear guidelines of what is expected to obtain the minimum requirements needed to meet the LO for an assessment or activity.

- When shared in advance, students can use the rubric as a form of feedback to help identify where they were deficient and where improvements can be made.

In addition to utilising the resource ourselves, the following goals are envisaged:

- We intend to promote it to our colleagues in our individual Schools.

- While our infographic, which includes a link to our website, will be on display in the Learning, Teaching, and Technology Centre, we also aim to promote this artefact at various teaching and learning events across the university.

In doing so, we aim to spread awareness of the value of rubrics to the maintenance of high standards in an era of growing student numbers and increased assessments as a contribution to the growth of Technological University Dublin.

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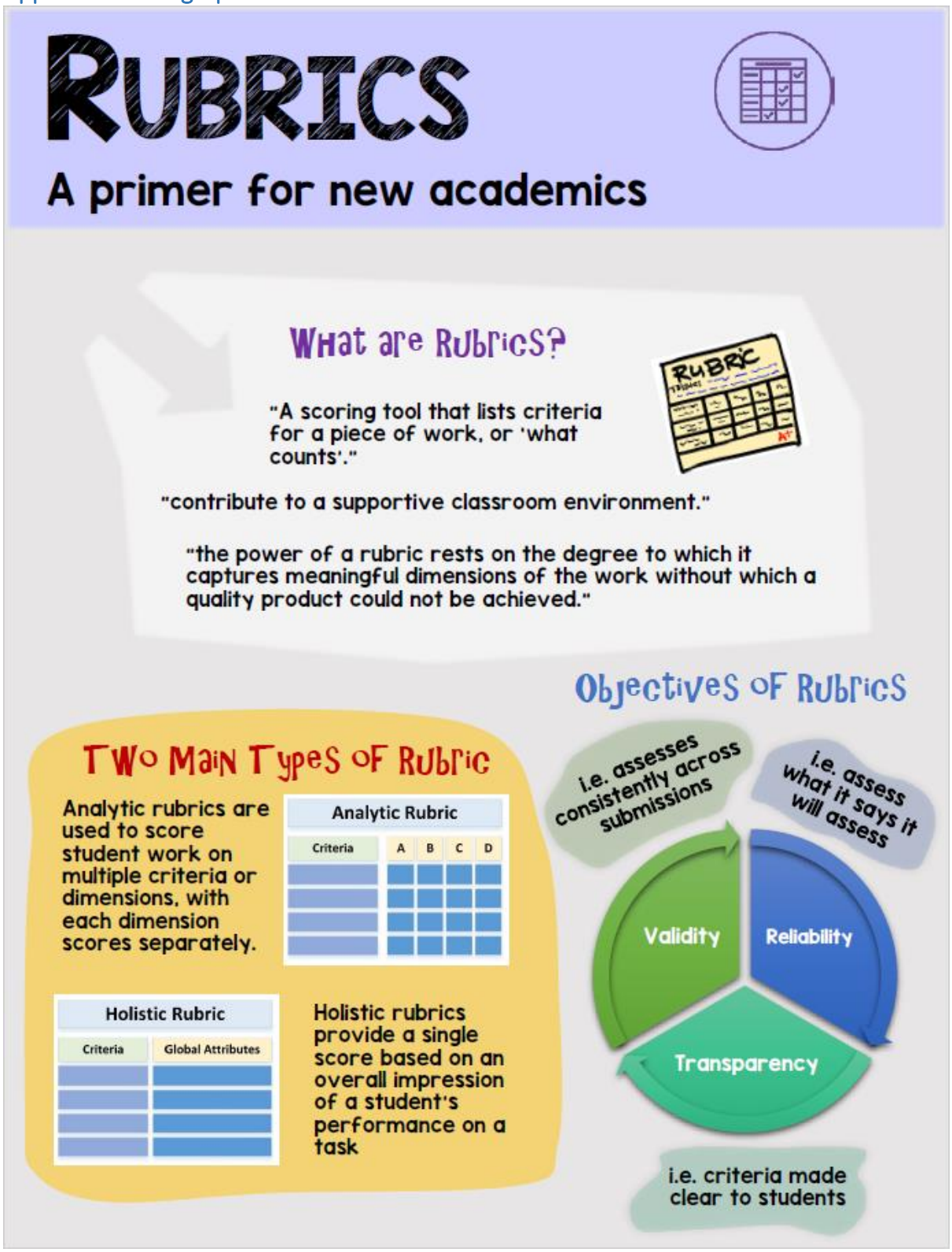
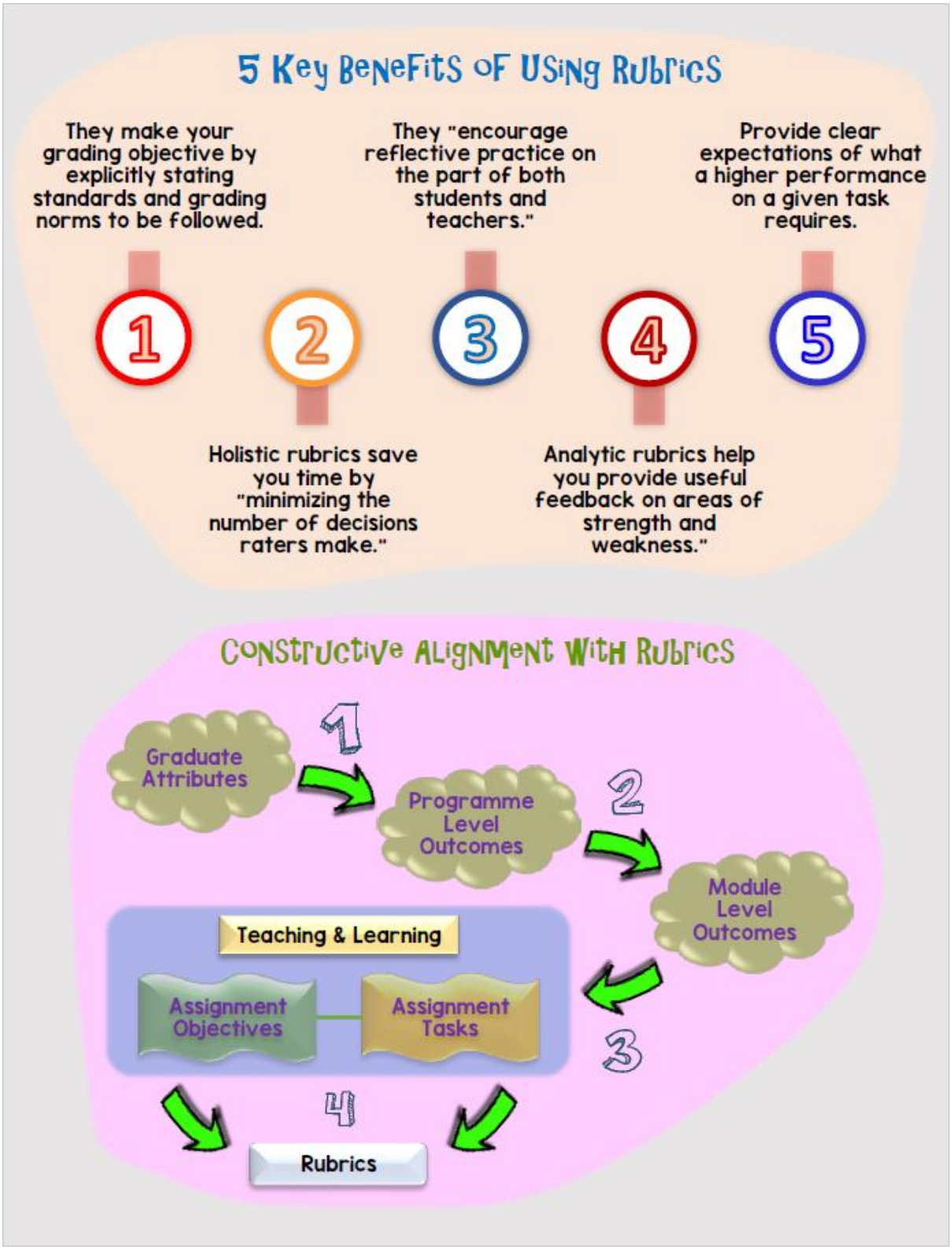
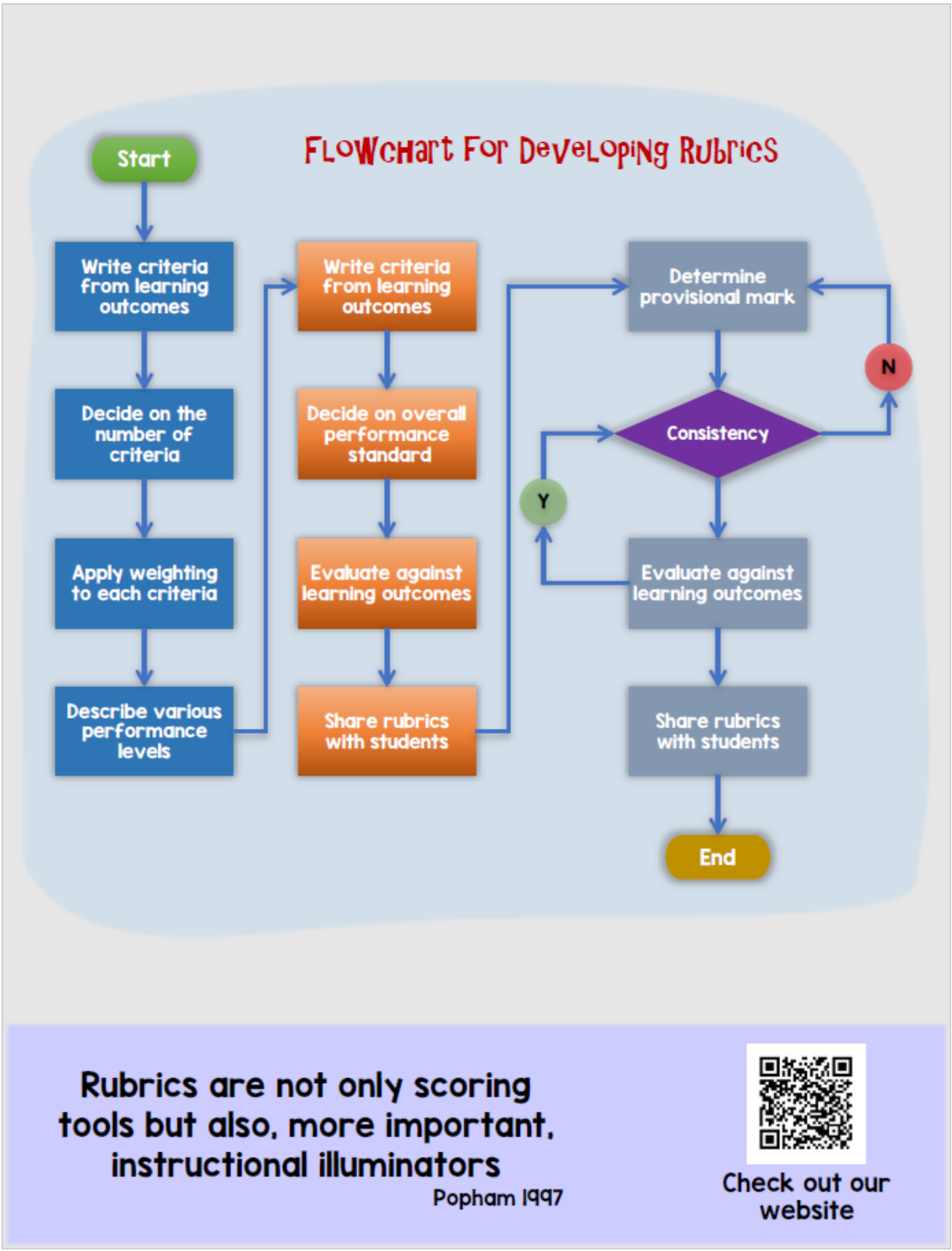
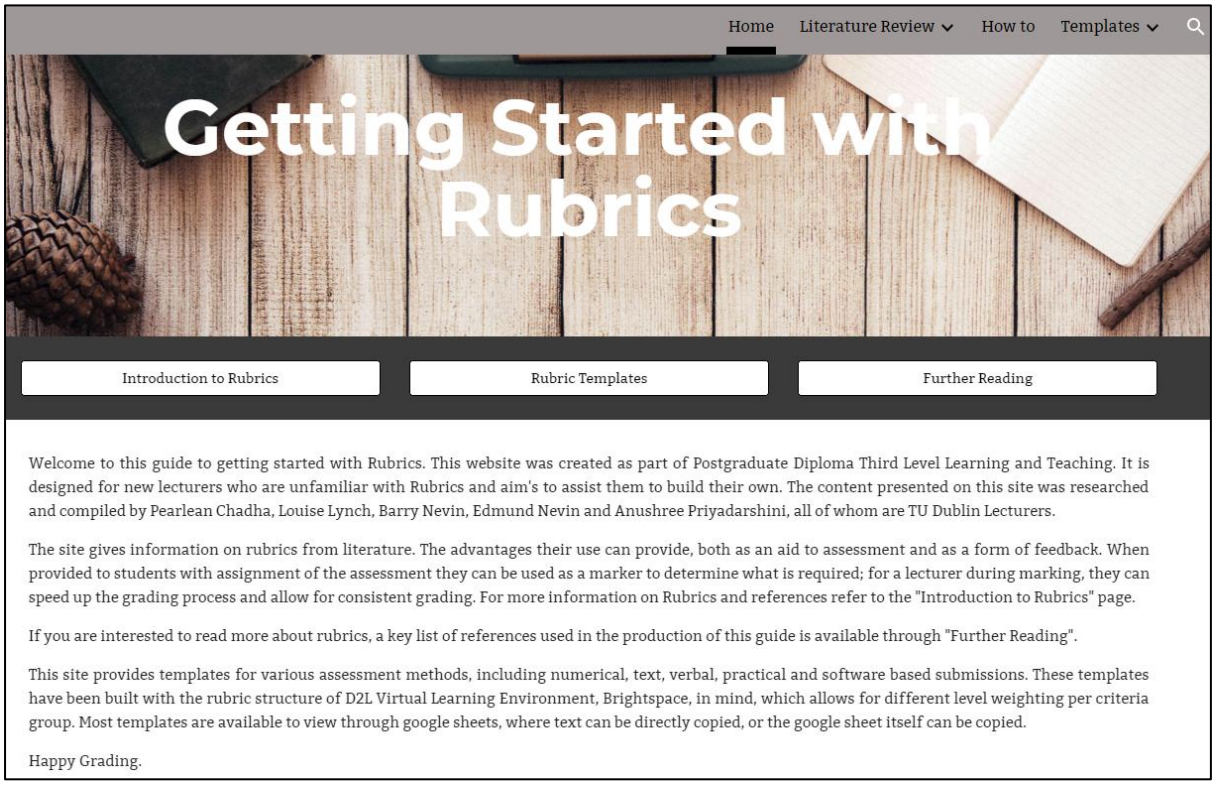
Appendix A: Infographic

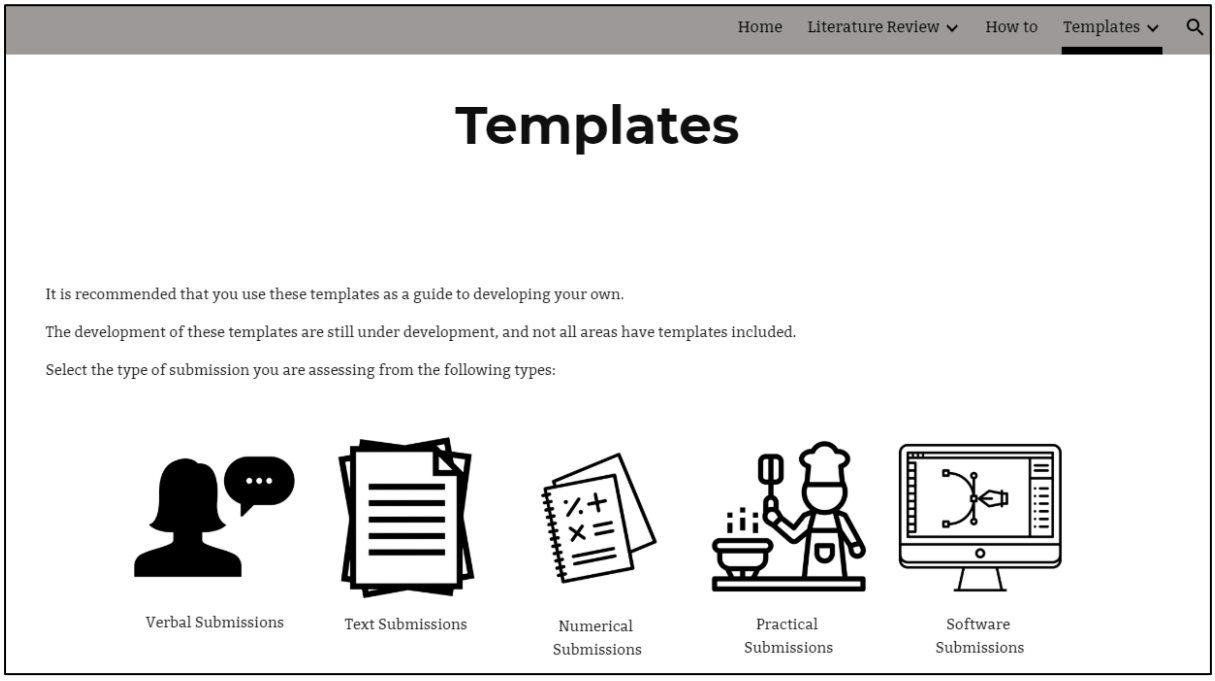



5 Key Benefits of Using Rubrics
They make your grading objective by explicitly stating standards and grading norms to be followed.
1
Holistic rubrics save you time by "minimizing the number of decisions raters make."
2
They "encourage reflective practice on the part of both students and teachers."
3
Analytic rubrics help you provide useful feedback on areas of strength and weakness."
4
Provide clear expectations of what a higher performance on a given task requires.
5
Constructive Alignment With Rubrics
Graduate Attributes
1
Programme Level Outcomes
2
Module Level Outcomes
Teaching & Learning
Assignment Objectives
Assignment Tasks
3
4
Rubrics


Flowchart For Developing Rubrics
Start
Write criteria from learning outcomes
Decide on the number of criteria
Apply weighting to each criteria
Describe various performance levels
Write criteria from learning outcomes
Decide on overall performance standard
Evaluate against learning outcomes
Share rubrics with students
Determine provisional mark
Consistency
N
Y
Evaluate against learning outcomes
Share rubrics with students
End
Rubrics are not only scoring tools but also, more important, instructional illuminators
Popham 1997
Check out our website

Appendix B: Website





Software Submissions

See the following links to rubric templates relating to software based submissions, including excel spreadsheets, programming, CAD modelling and AV Media. This list continues to be under development.

- Programming: https://course1.winona.edu/shatfield/air/Computer%20Programming%20Tusculum%20College.doc
- Programming: https://assessment.fiu.edu/resources/rubrics-and-curriculum-maps/_assets/rubrics/Computer%20Programming%20Grading%20Rubric%20-%20California%20State%20University%20Long%20Beach.pdf
- Programming: http://faculty.csuci.edu/peter.smith/f12162handouts/Comp162ProgramRubric.pdf

- Excel: http://wagner.wpengine.netdna-cdn.com/business-admin/files/2017/03/Excel-Project-Rubric.docx