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ASSESSMENT RUBRIC FOR RESEARCH REPORT WRITING: A TOOL FOR SUPERVISION

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ABSTRACT

Purpose – Assessment rubric often lacks rigor and is underutilized. This article reports the effectiveness of the use of several assessment rubrics for a research writing course. In particular, we examined students’ perceived and observed changes in their Chapter One thesis writing as assessed by supervisors using an existing departmental rubric and a new task-specific rubric.

Methodology – Using action research methodology, two of the authors played active roles as course supervisors, i.e. practitioners. Two final year undergraduate students from a communication department (one from each supervisor) participated by writing three drafts of Chapter One of their research: (1) without a rubric, (2) with an existing departmental rubric, and (3) with a revised rubric. We collected data on the students’ drafts, students’ interviews and the supervisors’

reflections over the course of four months. We employed content analysis to evaluate the students' writing, and thematic analysis to analyze the students' semi-structured interviews and the supervisors' reflections.

Findings – The findings suggest substantial improvements between the three drafts of the students' writing. Each student-supervisor pair acknowledged improvements in the students' writing after the introduction of the departmental rubric. With the newly revised rubric, they noted additional as well as specific improvements especially in the scope of literature searches, problem statements, formulation of research questions, and operational definitions of variables. Generally, they also indicated improvements in the clarity of writing by way of examples and relevant explanations tailored to the research topics.

Significance – With effective scaffolding in supervision, students will regulate their learning and assess the quality of their own research report writing. We demonstrated the importance and benefits of a properly designed and validated rubric tailored to the programme and course objectives to help students improve their drafts. Collective collaboration and input-sharing from faculty and instructors in developing and improving a rubric specific to the course and programme objectives will produce quality assignments, provide constructive learning experience for students, and achieve better grading for the programme and department.

Keywords: Assessment rubric, constructive learning, research writing, supervision, feedback, action research, scholarship of teaching and learning, high impact educational practices.

INTRODUCTION

In many higher education institutions in Malaysia, a dissertation or thesis is considered to be the subject of a compulsory course, and forms part of the core requirements for graduation at both undergraduate and postgraduate levels. For undergraduate students, an undergraduate research project will be the final assessment component that needs to be completed toward the end of their studies (Burk, 2020). It has also become one of the most common high-impact educational practices in universities (Kuh, 2008). It requires students' ongoing involvement in systematic research and investigation. Such involvement needs students to have sufficient research skills, in-depth knowledge in the subject matter, adequate general knowledge, skills in cutting-

edge technologies, and genuine passion in completing the research. In essence, its assessment criteria are designed to measure students' competency in conducting a scientific research project and writing a manuscript.

On top of that, good research experience, conduct, and thesis report are largely determined by the quality of supervision that takes place throughout the process (Lankau & Scandura, 2007; Maxwell & Smyth, 2010; McAlpine & McKinnon, 2013; Moxham et al., 2013; Saleem & Mehmood, 2018). Guiding research is an often complex task which requires the supervisor to not only be an experienced researcher, an expert in the subject matter, and a master in the methodological aspect of the research, but also an empathetic individual with sufficient supervision skills (Phillips-Jones, 2003; Roberts & Seaman, 2018). Previous researchers examining supervision (Anderson et al., 2006; Denis et al., 2019; Ismail et al., 2014; Jamieson & Gray, 2006; Phillips-Jones, 2003; Saleem & Mehmood, 2018) have tended to emphasize several elements as the critical determinants of a successful dissertation: the need for students to develop their analytical skills and improve their communication skills; a supervisor-supervisee relationship which includes the personal dimension of thesis supervision; the quality of feedback and guidance provided; expectations and the degree of mutual agreement. Other scholars (Nordentoft et al., 2013; Nurie, 2018; Peachey & Baller, 2015; Wichmann-Hansen et al., 2015) have also suggested factors which are effective in preparing a good thesis report which include: clarity of goals, standards, and expectations; thesis supervision and (written) feedback; types of feedback (content, generic, linguistic); promotion of skills; scientific climate; team-based learning and collaboration; evaluation process; students' satisfaction and exposure in the process of thesis writing.

Assessment Rubric

A rubric is a measurement tool that describes the criteria against which a performance, behaviour, or product is compared and measured. Essentially, it functions as a scoring guide to evaluate the quality of students' work on a given task. It lists the criteria, indicators, and/or guidelines established for a particular task and the levels of achievement associated with each criterion. The levels of achievement specified by a rubric often appear in the form of a matrix or table. The three essential features of a rubric commonly discussed in the literature (Popham, 1997; Reddy & Andrade, 2010; Tierney & Simon, 2004; cf. design elements by Dawson, 2017) are: (1) evaluative performance criteria/indicators/guidelines, (2) quality definitions/descriptors, and

(3) scoring strategy/progression scale. The use of assessment rubrics has become more prevalent as there is general consensus among scholars (e.g., Carriveau, 2010; Dawson, 2017; Fraile et al., 2017; Jönsson & Panadero, 2018; Mansilla et al., 2009; Reddy & Andrade, 2010; University of Hawai'i at Manoa, 2017) on its important roles and benefits.

- A rubric provides a common framework and criteria for performance assessment.
- A rubric provides standards of transparency and objectivity for all students in a course in which students understand their learning target(s) and the quality standards of a given assignment.
- The use of a rubric facilitates the efficient examination (and supervision) of complex products or behaviours.
- The use of a rubric provides guidance for students in making dependable judgements on their task-specific strengths and the aspects which they need to revise and improve, resulting in deep learning, better self-regulation, and grade improvement.
- Well-trained and novice raters/examiners/reviewers apply the same criteria and standards thus ensuring consistency and fairness in grading.
- Rubrics are criterion-referenced rather than norm-referenced. Users ask, "Did the student meet the criteria for level 5 of the rubric?" instead of, "How well did this student do compared to other students?"
- Using rubrics can lead to substantive conversations between faculty members.
- The collaboration of instructors and faculty members in the development of a rubric promotes shared expectations and grading practices.

The use of a properly designed analytical assessment rubric (Dawson, 2017; Mertler, 2001; Tierney & Simon, 2004) can help a supervisor to provide quality and focused feedback. The supervisor can also communicate specific requirements and expectations, acceptable performance standards, and the essential assessment criteria necessary for a research report, thus providing constructive guidance to students. Learning becomes more constructive as students use well-designed rubrics as a means of self-assessment (Carson & Kavish, 2018; He & Canty, 2012; Jönsson & Panadero, 2018; Panadero & Romero, 2014; Reddy, 2007; Tan & Leong, 2014) and to regulate their own learning (Alonso-Tapia & Panadero, 2010; Fraile et al., 2017; Kitsantas &

Zimmerman, 2006; Panadero et al., 2013; Zimmerman & Schunk, 2011).

The Zone of Proximal Development and Scaffolding

The Zone of Proximal Development (ZPD) (Vygotsky, 1978) is the zone of activity in which a student can achieve with support what they cannot achieve alone or can only achieve with difficulty. Vygotsky believes that when a student is in the ZPD for a given task, providing the appropriate support and assistance will give the student a sufficient “boost” to perform the task. The term ZPD has become synonymous in the literature with the term scaffolding (Wood et al., 1976). Carson and Kavish (2018) highlight the importance of scaffolding of skills in university required courses. Scaffolding facilitates student writing skills which are required to successfully complete the degree in their discipline (Pearce, 2020). Instructors and supervisors can assist students’ understanding of the given task and course materials at all levels by embedding specific skills in both writing tasks and assessment (Carson & Kavish, 2018; Huskin, 2016; Nurie, 2018). This increases the quality of performance of the given tasks and the students’ scores. Hooper and Butler (2008) summarized the benefits of scaffolding in writing tasks by stating that “student writing can be scaffolded to move students toward more complex thinking and stronger compositional skills throughout the course or programme of study” (p. 7). With adequate scaffolding, instructors are also more able to focus on students’ material rather than the technical issues related to writing.

Self-Regulated Learning and Self-Assessment

As students enter the ZPD through guidance and ongoing feedback by the instructor, students become more responsible for their own learning. Self-regulated learning is a process in which students plan and adapt their own thoughts, actions, and emotions in order to achieve their personal goals (Zimmerman, 2000; Zimmerman & Schunk, 2011) and eventually become autonomous and successful learners. For that purpose, students need to conduct ongoing self-assessment (Fraile et al., 2017; Panadero et al., 2013). Students self-regulate their learning and success when they are able to self-assess their learning using appropriate and sufficient criteria, guidelines, or indicators (Andrade & Valtcheva, 2009; Panadero & Romero, 2014). There are at least three crucial factors for conducting self-assessment: (1) using sufficient, task-specific, assessment criteria (Dawson, 2017; Popham,

1997; Rusman & Dirks, 2017; Tierney & Simon, 2004); (2) using criteria at an appropriate time (Jönsson, 2014; Nordrum et al., 2013; Torrance, 2007); and (3) having the opportunity to revise and improve performance or task (Andrade & Valtcheva, 2009; Bharuthram & Patel, 2017; Caughlan & Jiang, 2014; Dochy et al., 2006). Essentially, results generally suggest higher achievement and deeper learning by students who have rubrics to guide their work (Andrade & Valtcheva, 2009; Howell, 2011; Petkov & Petkova, 2006).

Assessment Rubric and Students' Writing

Many scholars have acknowledged the importance of rubrics in students' assessments, specifically in writing tasks (Anderson & Mohrweis, 2008; Andrade, 2001; Carson & Kavish, 2018; Clabough & Clabough, 2016; Hooper & Butler, 2008; Mansilla et al., 2009; Rezaei & Lovorn, 2010; Timmerman et al., 2010). For instance, research writing requires extensive writing describing empirical-based research. Such complex and demanding tasks require a specific and detailed assessment rubric. With such analytical rubric, students would be able to improve their writing skills (Andrade, 2000, 2001) and their understanding of the task and materials (Timmerman et al., 2010). Essentially, rubrics have been used in writing for various purposes in many disciplines (Anderson & Mohrweis, 2008; Mansilla et al., 2009; Peterson & Gustafson, 2013; Teater, 2011; Timmerman et al., 2010; Wehlburg, 2013).

A good rubric incorporates expectations of both mechanical skills and content development for students prior to starting their writing tasks (Carson & Kavish, 2018; Dawson, 2017; Panadero & Romero, 2014; Stevens & Levi, 2013; Tierney & Simon, 2004). In a writing course, rubrics help to assess and provide feedback to students' understanding and knowledge of key criteria based on intended learning outcomes (Jönsson, 2014; Kinne et al., 2014; Lipnevich et al., 2014)—ultimately to meet course and programme objectives.

Assessment Rubric and Feedback

Despite the benefits of using rubrics in writing tasks, some scholars (Jönsson, 2014; Kinne et al., 2014; Lipnevich et al., 2014) have found that the sole use of the tools have not improved student learning or revised/subsequent written work. In addition to the use by instructors and supervisors of different methods to improve students' writing (e.g., written feedback on assignments, peer-review of written manuscripts, drafts of students' mind maps from brainstorming sessions) and self-

assessment (i.e. using rubrics for writing), their feedback on students' writing is also important for students to achieve clarity and confidence. Rubrics are valuable to instructors because they promote consistency across grading instances, both from the first to the last written work in a specific assignment and from the first to the last assignment in a course. The sub-set scores in an analytic rubric help students identify more specific and concrete writing skills. When instructors provide students with those scores (not just the overall grade) along with either verbal or written feedback (Carson & Kavish, 2018; Nordrum et al., 2013; Nurie, 2018), or both (Caughlan & Jiang, 2014; Lipnevich et al., 2014; Teater, 2011), both instructors and students can formulate plans for improvement (Bharuthram & Patel, 2017; Thurlings et al., 2013).

Carson and Kavish (2018) and Nordrum et al. (2013) combined the use of in-text feedback and rubrics for writing tasks. They independently found that students used the in-text, written feedback to correct common writing errors but the rubric was used to identify writing errors and to give the students a better understanding of where improvement was specifically needed. Caughlan and Jiang (2014) focused on the use of a rubric during three writing attempts (a raw, revised, and final version) before finalizing students' grades. They provided feedback on both the raw and revised writing pieces along with feedback from the rubric. They reported that all scores improved from the raw draft to the final version. Horton and Diaz (2011) and Lipnevich et al. (2014) also found that writing skills improved when students were provided a rubric prior to the start of writing. Students had the opportunity to submit drafts for feedback several times and the instructors withheld their grades on the drafts until the final submission.

Current Study

The roles of a rubric in writing a research dissertation are two-fold: (1) it serves as a meaningful guide for students' writing of their dissertation and (2) it provides a proper reference for supervision. Rubrics have been indicated to be effective in increasing accuracy in grading and in providing objective feedback and self-assessment. However, the role of rubrics in helping supervisors to assess the quality of student writing for a research dissertation/thesis has not been properly understood. Often in practice, rubrics for course assignments are not effectively shared with students (Dawson, 2017; Jönsson, 2014; Torrance, 2007), thus students are not provided with the proper guidelines for their assignments. Simply sharing rubrics,

especially those available on the Internet to students without proper development, subsequent feedback from the instructors, or without deep engagement from students (Kaur et al., 2019), have proven to be ineffective in benefitting them (Andrade, 2000, 2001; Fraile et al., 2017; Green & Bowser, 2006). Moreover, currently available rubrics may not be sufficient as guidelines (Panadero & Romero, 2014; Dawson, 2017). In a few instances when rubrics were used to assess students' dissertations/theses, the rubrics appeared inadequate in detailing the requirements or reflecting certain performance standards. In due course, students were not able to fully benefit from such rubrics due to their ambiguous criteria and lack of specification of performance standards (Popham, 1997; Tierney & Simon, 2004), which eventually resulted in poor quality writing. Thus, our intention was to introduce the use of rubrics to the undergraduate research students and examine the changes in the quality of the students' writing before and after the use of the rubrics. To respond to the concerns that the existing rubric may not provide sufficient and specific assistance to students, we also initiated an effort to design a new rubric to meet the criteria of producing quality academic, research writing. As a preliminary step, we sought students' feedback on the new rubric and examined how their writing might or might not differ from their first revision with the first rubric after using the new analytic rubric.

In our study, we provided empirical support in the context of research report writing and supervision for both the concept of scaffolding and the ZPD. We proposed and encouraged the use of a rubric as a learning tool to improve the supervision of undergraduate research and the writing of a thesis chapter. We specifically aimed to examine the effectiveness of assessment rubrics in improving students' drafts of their first chapter. The second author and the third author who also served as the dissertation supervisors introduced the existing, departmental rubric to the supervisees to compare their writing before and after using the assessment rubric. In addition to using the existing, departmental rubric, we also developed a new rubric (refer to Development of New Assessment Rubric) based on the assessment criteria of a research dissertation report and important elements of effective academic writing. We then assessed the effectiveness of the revised tailor-made rubric in helping students' writing by comparing students' writing using both the departmental and the revised rubrics. We also situated our investigation based on the perceptions and reflections of both supervisees and supervisors. We adopted an action research methodology that incorporated several implementation cycles as we were the ones conducting and benefitting from the research.

Given the aforementioned gaps and issues in using an assessment rubric particularly in dissertation supervision, we aimed to apply the use of existing and new assessment rubrics with students' writing of the first chapter of their dissertation. The following are our specific questions:

1. How does an assessment rubric affect students' writing of the introduction section for a research report?
2. What changes do students perceive in their written work as a result of using the rubric to guide them as they write their introduction?
3. What are students and supervisors' perceptions of the assessment rubric in general and of a revised rubric in particular?

METHODOLOGY

Sagor (2019) defines action research as “a disciplined process of inquiry conducted *by* and *for* those taking the action. The primary reason for engaging in action research is to assist the ‘actor’ in improving and/or refining his or her actions” (p. 1). Burns (2009) identifies two advantages provided by the use of action research methodology. First, collaborative action research processes strengthen opportunities for the results of research on practice to be incorporated into educational systems in a more substantial and critical way. Second, action research is a promising means for educators to share common problems and to work cooperatively as a research community to examine their existing assumptions, values, and beliefs. Educational action research can be engaged either by a single instructor, by a group of colleagues who share an interest in a common problem, or by the entire faculty of a school (Zuber-Skerritt, 2013). Action research always involves several implementation cycles which often become a spiral process. In our study, we worked to identify best practices to improve the supervision of students' research writing and help students to write their Chapter One for dissertation successfully. We implemented our research in six cycles:

1. First cycle : Students write and submit the introduction chapter without a rubric.
2. Second cycle : Supervisors introduce existing departmental rubric to students.
3. Third cycle : Students revise and submit the second draft of the introduction chapter based on the existing departmental rubric.

4. Fourth cycle : Researchers create and validate a new assessment rubric based on existing departmental rubric and other essential criteria of research and academic writing.
5. Fifth cycle : Researchers introduce the newly revised and refined rubric to students.
6. Sixth cycle : Students revise and submit the final draft of the introduction chapter based on the new rubric.

Participants

We conducted our study at a department of communication at a public university in Malaysia. Two students from the department who were enrolled in a compulsory, dissertation course participated in the study. The first student's research project was titled, 'Students' Perception toward Corporate Identity and Brand Loyalty of Institution of Higher Learning'. The second student's research topic was 'The Impact of Non-verbal Communication in the Teaching Process of Final Semester Communication Students'. We specifically stated their research topics to ensure understanding of the content analyses that we had conducted. Both students were female and were currently in their seventh (final) semester. Their respective supervisors, who were also part of the research team—the second and third authors—provided ongoing supervision, feedback, and reflections on students' learning and progress.

Data Collection

We explored the effectiveness of using an analytic rubric with respect to students' writing skills for their first chapter in a dissertation. We employed three data collection strategies: (1) samples of students' writing along with written feedback from their respective supervisors, (2) students' responses from semi-structured interviews, and (3) supervisors' reflections. First, we compared drafts of the students' introduction chapter written without reference to any rubric. After we had introduced the departmental rubric, we collected the revised drafts which were written using the rubric to examine changes in the quality of the students' writing. We then asked the students to revise their introduction in Chapter One, one more time using the new revised rubric.

After introducing the existing departmental rubric and before we finalized the revision of the new rubric, we conducted a semi-structured interview among the two students to elicit their opinion on their writing process with and without the rubrics. We also incorporated their supervisors' reflections based on supervision meetings and the supervisors' review of the drafts of their students' introduction-chapter. Holding on to the principle of teacher as a 'reflective practitioner', we were (and remain) committed to reflection upon practice.

Development of New Assessment Rubric

Developing an assessment rubric (University of Hawai'i at Manoa, 2017) is critical to ensure that the assessment tool fulfils its intended purpose and use. We incorporated into the newly developed rubric 13 (out of 14) rubric design elements summarized and compiled by Dawson (2017). Dawson's work closely incorporates most of the work of Timmerman et al. (2010), Tierney and Simon (2004), Popham (1997), Andrade and Du (2005) and Sadler (2005, 2009). The 13 elements that were used from Dawson's rubric design were: (1) specificity: generic vs. task-specific, (2) secrecy: who the rubric is shared with and when it is shared, (3) scoring strategy, (4) evaluative criteria, (5) quality levels, (6) quality definitions, (7) judgement complexity: qualitative judgements vs analytic judgements, (8) the intended users and uses of the rubric, (9) creators/designers of the rubric, (10) quality processes: involves reliability of scores and validation of rubric, (11) accompanying feedback information, (12) presentation, and (13) explanation/instructions to users. The omission of the 14th element of Dawson's, i.e., exemplars, were deemed as tentative as we continued to work on incorporating the use of research writing exemplars/work samples—given the evaluative criteria (element #4) and their quality definitions (element #6)—alongside the new rubric. The performance criteria/indicators that were used were based on a combination of suggested headings for research proposal in general—as illustrated in thesis preparation guides by graduate schools at several local universities (e.g., University of Malaya Institute of Graduate Studies, 2017; Awang Had Salleh Graduate School of Arts and Sciences, Universiti Utara Malaysia, 2015) and international universities (The University of Memphis Graduate School, 2018; The Graduate School, The University of North Carolina at Greensboro, 2016) and as proposed by several textbook authors on research methodology in social science (Cresswell, 2012, 2014; Neuman, 2014)—as well as significant components required for effective academic writing (Bailey, 2003; Murad Sani, 2016; Rezaei & Lovorn, 2010).

We received constructive feedback during the development of the new rubric from five research supervisors at both undergraduate and postgraduate levels. These research supervisors have been supervising research students for an average of three years. Two of the supervisors also teach graduate-level research methodology course offered by the university and rated three master's students' Chapter One thesis reports using the new rubric. The intra-class correlation (ICC) coefficient was .916, indicating excellent score consistency (Koo & Li, 2016) between the two supervisors/raters (ICC=.916; 95% confidence interval (CI)=.837, .967; $p<.05$). An assessment expert provided assessment on the verbal quantifier across the scoring continuum (from exceeds standard to does not meet standard). We also incorporated some feedback on the rubric's usability when we tested the rubric with a group of postgraduate students from the master of education programmes (i.e. Master of Education in English Language Teaching and Instructional Technology) from the School of Education at the same university. We submitted the new rubric for proofreading and editing purposes to a professional editor who is also a native speaker of (academic) English and has a background in empirical research.

Table 1 illustrates the newly developed and introduced rubric. It consists of 11 performance criteria under the "Research Component" column. The first seven criteria directly target the important components in a common chapter one (Cresswell, 2012, 2014; Neuman, 2014). The next four specify important academic writing criteria (Bailey, 2003; Murad Sani, 2016; Rezaei & Lovorn, 2010). In addition to the new chapter-one-specific rubric, we also presented the departmental rubric that was used. Table 2 illustrates the existing rubric of the Department of Communication. The original departmental rubric consists of five evaluative/performance criteria. As our focus was on the writing of Chapter One, therefore we presented only the relevant evaluative criterion specific to Chapter One. The objectives of the dissertation course offered by the department require students to achieve the following at the end of the course, i.e., the course learning outcomes: (1) To produce scientific research on aspects of communication; (2) To produce a research report; and (3) To perform a professional presentation on the results of the study. Thus, the departmental rubric is intended to meet the second objective of the course.

Table 1
The New Task-Specific Rubric

Research Component	Exceeds Standard 9–10 pts.	Meets Standard 6–8 pts.	Nearly Meets Standard 3–5 pts.	Does Not Meet Standard 1–2 pts.	No Evidence 0 pt.	Score
CHAPTER ONE						
1. Title/Topic	The title/topic of the study is <u>clear, specific,</u> and <u>explicitly</u> reflects the variables and audience of the student's research.	The title/topic of the study is <u>specific</u> and reflects the variables and audience of the student's research.	The title/topic of the study is <u>broad</u> and <u>adequately</u> reflects the variables and audience of the student's research.	The title/topic of the study is <u>too broad</u> and <u>does not</u> reflect the variables and audience of the student's research.	No evidence.	
2. Introduction/Background of Study	<u>Exceptional</u> introduction that grabs the interest of the reader and states detailed background information and main topic. It explicitly identifies <u>current</u> and <u>specific</u> issues of <u>the</u> research/field, and provides <u>detailed</u> information regarding the variables. It links coherently to the problem statement.	<u>Good</u> introduction that makes sense to the reader and states background information and main topic. It identifies <u>specific</u> issues of <u>the</u> field, and provides <u>adequate</u> information regarding the variables. It is <u>connected</u> to the problem statement.	Introduction is <u>adequate</u> but is <u>general</u> and <u>dull</u> . It describes <u>general</u> issues and provides <u>some</u> information regarding the variables. It <u>ends abruptly</u> and is somewhat connected to the problem statement.	Introduction is <u>too broad, dull</u> and <u>lacks focus</u> . It lacks issues and provides <u>minimum</u> information. It is detached from the problem statement.	No evidence.	

(continued)

Research Component	Exceeds Standard 9–10 pts.	Meets Standard 6–8 pts.	Nearly Meets Standard 3–5 pts.	Does Not Meet Standard 1–2 pts.	No Evidence 0 pt.
3. Problem Statement	Problem statement is based on the identification of comprehensive research gaps. It consists of thought provoking questions and/or significant issues/problems specific to the research at a local, national, or world level. It is current and contextualized within the scope of the student's research purpose. It specifies the important relationship between the variables of the study. It provides localized, concrete, and convincing support/evidence. It is very clear and well developed.	Problem statement is based on identification of some research gaps. It consists of questions and/or issues/problems related to the research at a local, national, or world level. It is worded in the form of the study's purpose. It specifies the relationship between the variables of the student's research. It provides adequate support/ relevant support/ adequately developed.	Problem statement is based on questionable/ unconvincing evidence of research gaps. It consists of questions and/or issues/problems that are generally related to the research. It briefly states the purpose of the student's research and specifies the relationship between the variables being examined in the student's research. It lacks support/evidence. It is ambiguous and too general.	Problem statement is not based on research gaps. There is lack of questions and/or issues/problems that are related to the research. It briefly states the purpose of the student's research. It lacks support/evidence. It is ambiguous and too general.	Absent.

(continued)

Research Component	Exceeds Standard 9–10 pts.	Meets Standard 6–8 pts.	Nearly Meets Standard 3–5 pts.	Does Not Meet Standard 1–2 pts.	No Evidence 0 pt.	Score
4. Research Objectives, Research Questions, and/or Hypotheses	The objectives, questions, and/or hypotheses are feasible, clear, significant, and ethical. They are clearly stated and closely related to the problem statement. They align with each other and incorporate all of the SMART strategy (specific, measurable, achievable, realistic and time-bound).	The objectives, questions, and/or hypotheses are feasible, clear, significant, and ethical. They are related to the problem statement. They align with each other and incorporate most of the SMART strategy (specific, measurable, achievable, realistic and time-bound).	The objectives, questions, and/or hypotheses are feasible, clear, significant, and ethical. They are somewhat related to the problem statement. They are related to each other and incorporate most of the SMART strategy (specific, measurable, achievable, realistic and time-bound).	The objectives, questions, and/or hypotheses are not feasible, clear, significant, and ethical. They are confusing and deviate from the problem statement. They lack alignment with each other and do not reflect the SMART strategy.	Absent.	
5. Conceptual Framework	The principal elements (key factors, concepts, variables) in the conceptual framework are clearly defined, contextualized, and/or theoretically grounded. The assumed relationships among them are clearly explained either graphically or in narrative form. Overall, the conceptual framework is systematically organized, easy to remember, and apply.	The principal element (key factors, concepts, variables) in the conceptual framework are adequately defined, contextualized, and/or theoretically grounded. The assumed relationships among them are explained either graphically or in narrative form. Overall, the conceptual framework is organized and somewhat easy to remember, and apply.	The principal elements (key factors, concepts, variables) in the conceptual framework are real and are somewhat contextualized, and/or theoretically grounded. The assumed relationships among them are loosely explained either graphically or in narrative form. Overall, it can still be improved.	The conceptual framework is confusing and/or inaccurate and/or lack theoretical support.		

(continued)

Research Component	Exceeds Standard 9–10 pts.	Meets Standard 6–8 pts.	Nearly Meets Standard 3–5 pts.	Does Not Meet Standard 1–2 pts.	No Evidence 0 pt.	Score
6. Significance of Study	This section clearly addresses the research's applicability and meaningfulness. It provides added-value in terms of the theoretical and empirical aspects, and/or practical contribution in relation to the research topic. The expected results must have significant impact on specific and relevant society, economy and/or nation. The research must be very worthwhile for relevant readers, researchers, and/or practitioners.	This section addresses the research's applicability and meaningfulness. It provides value in terms of the theoretical, empirical aspects, and/or practical contribution to the research topic. The expected results have some impact on relevant practitioners, society, economy and/or nation. The research is likely to be worthwhile for relevant readers, and/or practitioners.	This section somewhat addresses the research's applicability and meaningfulness. It provides value in terms of the theoretical, empirical aspects, and/or practical contribution in the research topic. The expected results may have some general impact on society, economy and/or nation. The research may be worthwhile for relevant readers, researchers, and/or practitioners.	This section ambiguously addresses the research's applicability and meaningfulness. It provides minimal value in terms of the theoretical and empirical aspects, and/or practical contribution in relation to the research topic. The expected results have minimal impact on society, economy, and/or nation. The research may not be worthwhile, or its value may be limited in scope.	No significant contribution.	

(continued)

Research Component	Exceeds Standard 9–10 pts.	Meets Standard 6–8 pts.	Nearly Meets Standard 3–5 pts.	Does Not Meet Standard 1–2 pts.	No Evidence 0 pt.	Score
7. Operational Definitions	<p><u>All</u> key variables are <u>operationalized</u> to <u>specific</u> measures or activities that allow the student researcher to <u>observe</u> <u>them empirically</u>. They are written in <u>clear and specific</u> language rather than <u>general, abstract, and/or</u> conceptual definitions. <u>All</u> citations of specific tools, instruments, modules, and activities that will be used are properly included.</p>	<p><u>All</u> key variables are <u>adequately</u> operationalized to measures or activities that allow the student researcher to observe them empirically. They are written in <u>specific</u> language rather than <u>and/or</u> general, abstract, and/or conceptual definitions. <u>Most</u> citations of specific tools, instruments, modules, and activities that will be used are properly included.</p>	<p><u>Some</u> key variables are <u>loosely</u> operationalized to measures or activities that <u>may</u> allow the student researcher to observe them empirically. They are written in <u>a</u> combination of <u>specific</u> and <u>general</u> language. <u>Some</u> citations of specific tools, instruments, modules, and activities that will be used are properly included.</p>	<p>Key variables are generally defined. <u>No</u> operationalization is made. <u>No</u> citations to of specific tools, instruments, modules, and activities that will be used are properly included.</p>	<p>No evidence.</p>	

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Research Component	Exceeds Standard 9–10 pts.	Meets Standard 6–8 pts.	Nearly Meets Standard 3–5 pts.	Does Not Meet Standard 1–2 pts.	No Evidence 0 pt.	Score
8. Organization: Structural Development of Ideas	Exceptionally clear, logical, mature, thorough presentation and development of ideas that support thesis statement. Each paragraph has <u>sufficient</u> supporting detailed sentences that develop the main idea. <u>Excellent</u> transitions between paragraphs.	Clear and logical presentation and development of ideas that support thesis statement. Each paragraph has <u>sufficient</u> supporting sentences that develop the main idea. <u>Good</u> transitions between paragraphs.	Somewhat clear and logical presentation and development of ideas. Each paragraph lacks detailed supporting sentences. <u>Adequate</u> transitions between ideas and paragraphs.	Lacks clear and logical presentation and development of ideas. Each paragraph fails to develop the main idea. <u>Weak</u> transitions between ideas and paragraphs.	Not applicable.	
9. Quality of Information and Evidence	<u>Exceptionally</u> well-researched and detailed; accurate and critical evidence from a <u>wide</u> variety of sources.	<u>Well</u> researched and <u>accurate</u> evidence from a <u>variety</u> of sources.	<u>Some</u> aspects of the <u>student's</u> work is researched with some accurate evidence from <u>limited</u> sources.	<u>Limited</u> information on topic with <u>lack</u> of details or accurate evidence.	No evidence.	

(continued)

Research Component	Exceeds Standard 9–10 pts.	Meets Standard 6–8 pts.	Nearly Meets Standard 3–5 pts.	Does Not Meet Standard 1–2 pts.	No Evidence 0 pt.	Score
10. Language Conventions/ Mechanics	Very concise, clear, and with consistently proper errors in grammar, spelling, punctuation, and paragraphing. Minimal errors in sentence structure and word usage.	Clear, with minimal errors in grammar, punctuation, and paragraphing. Several errors in sentence structure or word usage.	Periodic errors in spelling, grammar, and paragraphing. Many errors in sentence structure or word usage.	Inconsistent grammar, spelling, punctuation, and paragraphing throughout paper. Numerous distracting errors in sentence structure and word usage.	Not applicable.	
11. Citation/ Documentation	Sources are exceptionally well-integrated and they effectively support claims made by the student. A substantial amount of sources are peer-reviewed journal articles published in the past five years. Proper detailed format is used consistently and correctly in both the text and references section. There may be occasional errors, but references, quotations, and works cited conform to APA 7th edition in both the text and references section.	Sources are well-integrated and they support the student's claims made within the integrated student's arguments. Only a handful of sources are peer-reviewed journal articles published in the past 10 years. Sometimes inconsistent citations section. Sources are not cited/listed correctly according to APA 7th edition in both the text and references section.	Sources support some research, if it does, sources are well not well-integrated. Sources are obsolete edition.	Inadequate use of research sources or compliance to APA 7th well-integrated. Sources are obsolete edition.	No evidence of non-compliance	

Table 2

Assessment Rubric by the Department of Communication

Criteria & Learning Outcome Domain (LOD)	Exceeds Expectations (High Distinction) 9–10 pts.	Exceeds Expectations (Distinction) 7–8 pts.	Meets Expectations (Credit) 5–6 pts.	Meets Expectations (Pass) 3–4 pts.	Below Expectations (Fail) 1–2 pts.	Score
CHAPTER ONE						
Establishing the research context (10%***)	Research thesis is positioned clearly in the relevant scientific field. Student is able to indicate the novelty and innovation of the research. The research questions are clear and to the point within the limits of the research.	Context of research is well-defined and to the point. Research questions emerge directly from the described context. The research questions are clearly defined and researchable.	Context of research is well-defined, with input from the student. There is a link between the context and research questions. Generally, the research questions are clear however certain points could have been expressed more clearly..	The link between the research thesis and existing research does not go beyond the information provided by the supervisor. At the very least either the research questions or the description of the research is clear.	The context of the topic at hand is described in broad terms but there is no link between what is known and what will be researched. Most research questions are unclear or not researchable and the delineation of the research is weak.	

*Notes. *** The criterion contributes 10% from the total percentage of the report. The rest of the evaluation criteria is not included.*

Supervision Procedures

According to the requirements of the Department of Communication, students enrolling in the dissertation course are required to attend a minimum of seven supervision sessions throughout the semester. This is to ensure that students would have ample opportunity for supervision, obtain a better understanding of the subject matter, and produce a quality dissertation manuscript. Among the crucial elements discussed during the supervision session was the assessment of the writing of each chapter. In accordance with our objective, we collected data from two respondents during three supervision sessions with three rounds of draft submissions.

In general, the first meeting was held during the second week of the semester. During this meeting, we principally discussed the students' academic background, research interests and concerns about their dissertation, if any. During this session we taught/ remedied students' understanding of the basic skills involved in performing research, and highlighted initial ideas on certain topics. We asked the students to find journal articles related to their research interests and to submit a three-page proposal through email. This meeting was strictly informal and without reference to any rubric. Upon submitting the initial ideas via email, the supervisors responded by providing feedback to the proposal and setting the date for the second meeting, in which the students were required to submit the first draft.

The second meeting was held around week four of the semester. During this session, the students presented the first draft (1st Draft) of their Chapter One. The preparation of their Chapter One was in accordance with the programme format set by the Department of Communication, and consisted of several sections such as introduction, problem statement, research question, research objective, significance of research, conceptualization of operational definition(s), and chapter summary. The outcome of the second meeting was described in Tables 3 and 4 in the first column, 'Without rubric'. This stage represented the first cycle of our action research. Next, we provided the students with the rubric currently being used by the Department of

Communication. The supervisors discussed with the students the elements required in the rubrics to improve their first draft. We expected the students to revise their Chapter One based on the rubric provided as a guideline.

In the second cycle of the data collection, the revised draft (2nd Draft) was submitted a week later. We assessed the drafts based on the rubric and then we returned the drafts to the students for the necessary action. Finally, in the third cycle, we introduced the revised rubric to the students. At this stage, we conducted a semi-structured interview session with the students during which the instructor explained the new rubric and how it can help to guide them in writing Chapter One. From their understanding of the new elements in the rubric, we required the students to amend their Chapter One drafts according to the new input.

Procedures for Data Analyses

We employed qualitative content analysis to analyze students' drafts. The processes were straight forward and conceptual in nature. For the content analysis sampling, we used each of the components/subheadings of a working Chapter One as our predefined categories. Students' writing for each subheading were taken as our unit of analysis. In the analyses, we also incorporated the supervisors' comments. Krippendorff (2004) emphasized the value of expert knowledge and familiarity concerning the chosen context in helping with the content analysis process. In our research, the analysis of our students' writing for each subheading were based on the supervisors' expertise in understanding and evaluating their students' work. Both supervisors have more than 14 years of experience in supervising thesis students. The analyses are presented in Tables 3 and 4.

Additionally, after introducing the existing departmental rubric and before we finalized the revision for the new rubric, we conducted a semi-structured interview with both students to elicit their opinion on their writing processes, with and without rubrics. We conducted thematic analyses (Braun & Clarke, 2019, 2006) on both students' responses from the semi-structured

interviews and the supervisors' reflections. According to Braun and Clarke (2006, 2019), thematic analysis is chosen as an analysis method because the researcher can work independently from any specific theoretical approach. In exploring the students' opinions on their writing processes with and without rubrics, thematic analysis is useful because it enables us to examine the usefulness of rubrics in helping students' thesis writing, the significance it has in improving their writing, and, more broadly, their perceptions of it. We organized the data from interviews with students according to our research questions. We presented their selected responses verbatim along with some immediate feedback from their respective supervisors. Accordingly, the supervisors' reflections were studied and analyzed to determine emerging themes. These themes would then be coded to answer the research questions.

RESULTS

Overall, we found substantial improvement among the students' drafts, particularly when the students used the new rubric. The following Tables 3 and 4 provide details of the analysis of two students' drafts respectively. The first drafts were prepared without the rubric, the second drafts were revised based on the departmental rubric, and the third drafts were revised according to the new rubric.

Table 3

Content Analyses of Students' First Drafts with and Without Rubric

Component	1st Draft: Without Rubric	2nd Draft: Departmental Rubric	3rd Draft: Revised Rubric
Research Title: Students' Perception toward Corporate Identity and Brand Loyalty			
Introduction/ Background of Study	The introduction was not within the scope of the student's research. It focused on the field of corporate communication which was too broad and general.	The introduction was narrowed down to the scope of the student's research which was corporate identity and brand loyalty.	The write up in this section was more concise and specific. The dependent variable, which was crucial in any cause and effect quantitative research, was specifically identified.
Problem Statement	The problem statement was not clear and tended to be too general. The discussion of problems were not sufficiently in-depth (written in less than a page with double-spacing format), resulting in ambiguity as to what was the real problem resolved through the student's research. The gap in the literature was not clearly addressed.	The problem statement was specific and was discussed in sufficient detail to fill three pages. It clearly highlighted the problem addressed by the student's research as well as the theoretical gap in the literature.	The problem statement was well-written and placed within its specific context. More recent data was provided to support the lack of knowledge and awareness on this topic among university students. This evidence strengthened the statement of the research problem. For example, the current nature of brand loyalty at the university had been critically argued and had led to many important and researchable questions. The gap in the literature addressed both the theoretical and practical aspects of the topic.

(continued)

Component	1st Draft: Without Rubric	2nd Draft: Departmental Rubric	3rd Draft: Revised Rubric
Research Objectives (ROs), Research Questions (RQs), and/or Hypothesis	The student only proposed two RQs and ROs. One of the questions could not be considered as a significant question for the research topic. (i.e. the differences in perception between semesters).	The student expanded to three RQs and ROs. These were more relevant and measurable. They were significant in the context of the student's research (i.e. the level of perception of corporate identity and brand loyalty).	The RQs and ROs were rephrased to be in line with the proposition of the research hypothesis. The paraphrasing resulted in a clear indication on the statistical analysis required (i.e. how to measure) to answer the questions.
Significance of Study	This section was poorly written. Many points were repeated, causing redundancies across subsections (i.e. in the introduction and problem statement). There was a lack of relevance of the research. The impact of the research on the field was unclear due to weak arguments. It also failed to address the theoretical importance of the student's research.	The redundancy in arguments and discussion from other subsections were relatively minimal. More points were presented with stronger arguments and justifications as to why and how this research was significant and relevant to the field of corporate identity and brand loyalty.	This section was reorganized according to the flow of ideas to ensure smooth reading. It begins with the benefits in a general context (public organization), followed by its impact on specific stakeholders (university administrators, branding team, and potential students). The theoretical and practical aspects were addressed in terms of how the results of the student's research will contribute in the expansion of literature on corporate identity and brand loyalty and will serve as a guideline to the higher education institution in managing its identity and brand loyalty.

(continued)

Component	1st Draft: Without Rubric	2nd Draft: Departmental Rubric	3rd Draft: Revised Rubric
Operational Definitions	The definitions were merely operationalizations and general definitions of the constructs. They were not operationalized to explain how the constructs will be empirically measured.	The operational definitions merely consisted of general definitions and concepts.	General definitions and concepts were followed by a clear and specific operationalization of the constructs. Recent citations were added to provide clearer operational definitions for each construct. More importantly, the student was able to personalize the operational definition of this study based on scholars' operational definitions of the constructs.
Summary	The first draft required major revision of Chapter One, i.e. the introduction section, problem statement, RQ, RO and the significance of the study. The writing process and format had to be improved as well.	The revised version indicated a better discussion in each section, although the departmental rubric was laconic. Ideas and arguments were somewhat well expressed and presented in a systematic manner.	The third draft was much better than the second draft in many aspects as specified in the new assessment rubric. Major improvement was evident for each specific criterion of the task: both in the research and writing aspects. The student was more independent when writing this draft as she constantly referred to the more analytical rubric.

Table 4

Content Analyses of Students' Second Drafts with and without Rubric

Component	1st Draft: Without Rubric	2nd Draft: Departmental Rubric	3rd Draft: Revised Rubric
Research Title: The Impact Non-verbal Communication in the Teaching Process of Final Semester Communication of Students			
Introduction/Background of Study	The introduction was not focused on the research context. It was merely a definition of verbal and non-verbal communication without emphasis on the importance of non-verbal communication in teaching and learning.	The introduction was sufficient to provide the background of the study where the student started with general roles of communication before moving on to explain about verbal and non-verbal communication. The student provided some significance on the importance of non-verbal communication in teaching and learning.	There was not much difference in the introduction when compared with the second draft, as the student had already tackled the scope of the research and emphasized the importance of non-verbal communication in teaching and learning.
Problem Statement	The problem statement was too shallow and sketchy. The gap in non-verbal communication in teaching and learning — was not explained well. No previous research was cited in the text to indicate the gap in literature.	The problem statement became clearer in terms of determining the problem with non-verbal communication in teaching and learning. However, the gap in the literature was not clearly addressed.	The problem statement was clear and specific to problems in non-verbal communication in the area of teaching and learning. The issues related to the topic were discussed in detail. However, it still required improvement in highlighting research gaps.

(continued)

Component	1st Draft: Without Rubric	2nd Draft: Departmental Rubric	3rd Draft: Revised Rubric
Research Objectives (ROs), Research Questions (RQs), and/or Hypothesis	The RQs and ROs were not clear. This may be due to an unclear introduction and problem statement. The student intended to conduct qualitative research but the research questions leaned towards quantitative methods.	Three RQs were formulated but only two ROs were stated. The RQs were clear and tailored towards qualitative research. The RQs also specifically addressed the research problem.	There was alignment between the RQs and ROs in which three specific RQs were formulated given the three ROs; specifically designed to answer the research problem.
Significance of Study	The section on the significance of the student's research did not specifically address the scope of research as the student was still confused on the focus of the research: whether to focus on the student or the lecturer. Although there was some evidence of theoretical contribution of the research, there was no explanation on the theoretical significance. The focus was only on the practical contribution of the research.	The writing was more focused on the effects of non-verbal communication on the student's understanding. Although it focused only on the practical significance, the scope was wider including its relevance to future policies and improvement in education.	Not many changes were detected but many grammatical mistakes were corrected. The significance of the student's research was related to the issues and the questions raised; crucial to practitioners in understanding non-verbal communication; and fit the research level and duration.

(continued)

Component	1st Draft: Without Rubric	2nd Draft: Departmental Rubric	3rd Draft: Revised Rubric
Operational Definitions	The operational definitions were more of the conceptualization of constructs that were not primary to the research. They were mainly general definitions of concepts in communication.	In addition to the conceptualization of constructs, the operationalization of the constructs were specific to the research and explained in detail.	The constructs were operationalized specifically to the context of the research. Proper citations were included.
Summary	The first draft of the first chapter required major revision, specifically in the problem statement, the RQs and the ROs. The writing format and grammar required improvement as well.	The revised version showed a lot of improvement specifically in the problem statement, the RQs and the ROs.	This draft was the best version of all the three drafts. However, it still needed improvement in terms of gaps in the problem statement and significance of the study. Ideas and arguments were presented in a more structured manner. Improvement on grammar and flow in writing helped to enhance the quality of this chapter.

As we organized students' responses from the semi-structured interviews, thematically, based on our three research questions, we noticed an overall positive feedback of using a rubric, especially the revised rubric. What followed next was the selected important excerpts from students' interviews, taken verbatim, to answer each of our research questions. For our second research question, we also incorporated their respective supervisors' feedback to support the students' statements.

First, we wanted to learn how an assessment rubric affected the students' writing of the introduction section for a research report. After the students had received the departmental rubric for the first time, we asked them to make improvements to their original writing. In addition to the evidence in Tables 3 and 4, both students (and their respective supervisors) agreed that the rubric did help in guiding the writing of Chapter One.

"A lot of improvement... [and] better thesis writing."

(Student 1)

"I feel relieved and energized...when I refer to the rubric, I know which subtopic that I should add an explanation and which point that I have to include. It helped ease my writing."

(Student 2)

We then asked about the changes students perceived in their written work as a result of consulting the rubric during the writing of their introduction. Both students perceived that the rubric helped to improve their thesis writing, a conclusion supported by their supervisors.

"Changes in terms of writing. [Can write] clearer."

(Student 1)

"The rubric has helped my student a lot in improving her writing of Chapter One. She is able to present her ideas in a specific manner and provide thorough and in-depth discussion as per rubric requirement."

(Supervisor 1)

“I don’t have to waste my time writing elaborations not related to the [scope of the chapter]. Before this I wrote about non-verbal communication in general, not relating it to the teaching and learning process. Then only I understand that it has to be specific [to my research] and thorough.”

(Student 2)

“I believe that my student feels more confident to write the chapter as the rubric stated specific criteria and elements needed for the chapter. Now, she is clearer on what should be written in Chapter One.”

(Supervisor 2)

In our third question, we sought to learn the students and supervisors’ perceptions of the assessment rubric in general and of our revised rubric in particular. Thus, after writing the second draft (3rd Cycle), we provided the students with the improved rubric. Their supervisors explained the new rubric, and then we asked them to improve their drafts of Chapter One while consulting the new rubric (6th Cycle). Both students gave positive feedback. In other words, they agreed that the new rubric was more detailed and easier to use as their writing guide.

“I think the new rubric is clearer and detailed. The old rubric only explains in general. When writing using the new rubric, I have to add more facts to strengthen my research in order to get high marks. I prefer the new rubric because it is more detailed, I can identify what I should write. However, the rubric should use terms that are easy for the students to understand.”

(Student 1)

“The new rubric has in-depth information. It eases my writing...compared to the old rubric, it has points but not depth. The new rubric will surely help me in producing a more complete, detailed writing supported with a lot of facts.”

(Student 2)

In addition to students' drafts, interview responses, and supervisors' feedback during supervisions, we also asked the supervisors to share their thoughts as they reflected on the overall process from the first day of supervision till the third revision of the students' writing. Their reflections comprised several aspects, including the supervisors' experience in conducting their own researches during their graduate studies, their experiences during this supervision, the process in writing the introductory chapter, the assessment of their students' achievement and the evaluation of the revised rubric. On analysis, we found four themes which emerged from their reflections: (1) the absence of rubrics when writing a thesis during the supervisors' own studies, (2) getting to know rubrics but not related to rubrics for research and supervision, (3) supervising research students with and without a rubric, and (4) identifying students' problems in writing Chapter One and using the task-specific rubric to help the students solve these problems.

The absence of a rubric during their own studies. Reflecting on their own experiences as graduate students, both supervisors noted that thesis report writing with the support of an assessment rubric was something new for them until they registered for their master's degree. They recalled that they were not required to produce a thesis for their bachelor's degree. To write their theses, they relied heavily on their supervisors and the required research methodology course in which they were enrolled. However, they were not exposed to an assessment rubric to assist in their thesis writing.

Being introduced to general, non-research-related, non-task-specific assessment rubric. Both supervisors also noted that they first learned about the concept of an assessment rubric in a professional development course for new academic staff offered by the university. Despite this, the rubrics introduced in that course were used by the trainers to assess general staff achievement during the course and not specific to rubrics on supervision and research report writing. One supervisor specifically stipulated the need for a more task-specific rubric. She believed that having a rubric was insufficient. As a grading tool, both agreed that a rubric should be relevant, precise, and objective. The current departmental rubric is adequate enough to meet these goals in grading student research reports. However, they were of the opinion that a rubric cannot be generalized to every field of study, or type of research, instead it must be customized or tailor-made according to the course/instructional objective of the programme.

Supervising research students with and without rubric. As they compared their own experiences when writing without rubrics, they learned to appreciate the importance of a rubric in their supervision of their own students. Rubrics have not only guided their supervisees in writing but also helped the supervisors examine the more important parts of the content of their students' work while supervising and grading the students' performance. They acknowledged the premise that the quality of a dissertation was influenced by the quality of the supervision session, which in turn could be assisted by the use of a rubric as a guideline. During the supervision, the supervisor explained every single element in the rubric to their supervisee. Our results indicated a significant improvement compared to the previous supervision sessions. The supervisor was able to identify the weaknesses in a dissertation which was prepared without a rubric and the strength of a dissertation which was prepared with one. Another supervisor stated that “[a]s a new lecturer, I supervise my students based on my experience of being supervised. I follow a lot of my supervisors' style. Fortunately, my supervisors [were] experienced senior lecturers with a lot of experience in research writing”. Both supervisors felt that their students were fortunate since they could learn quickly and effectively on how to write a thesis by using a rubric as their guideline.

Identifying students' problems and helping them in writing Chapter One. During the supervision, both supervisors identified several challenges that both their students experienced: (1) writing the problem statement and highlighting the gap in the literature that they intended to address; (2) formulating research objectives and questions; and, (3) operationally defining key variables. Looking back at her supervision experience, one supervisor found that many students had problems in writing their problem statement and formulating their research questions. In terms of problem statement, the most glaring mistake was in stating and discussing the research gap. Usually, the gap was not made clear or there was no gap to describe as the students focused only on explaining the literature without emphasizing the significant gap that spurred the research. The second obvious problem was formulating the research questions and research objectives. Another supervisor believed that this problem was closely related to the problem of finding the gap. If they could write a clear problem statement, emphasizing the gap, this problem would not occur. Essentially, the supervisors deemed the newly-developed rubric as helpful in providing specific definitions and requirements for this particular criterion.

Summary of Findings

Our main objective was to investigate the effectiveness of using an assessment rubric to improve students' writing skills for their first dissertation/thesis chapter. We also aimed to examine whether a refined and more specific rubric could improve students' writing of the introduction chapter in their dissertation and ultimately improve their learning. Lastly, we hoped to examine the students and supervisors' perceptions when using rubrics in a dissertation course. We asked specifically, three research questions. In this section, we will summarize the findings of the study based on each question, respectively.

How does an assessment rubric affect students' writing of the introduction section for a research report? Given the analyses of the three writing attempts from the students, their interview responses, and their supervisors' reflections, there is evidence that the introduction of an assessment rubric in general has a positive effect on students' writing of the first chapter of the dissertation course. Students are aware of the components required for the introduction chapter. The performance standards and grading level in the rubric serve as important guidelines in helping students to meet the intended criteria and write their Chapter One effectively.

What changes do students perceive in their written work as a result of using the rubric to write their introduction? From the supervisors' written feedback on the students' first drafts (i.e. 1st Draft in Tables 3 and 4) we noted many issues in the students' writing. When the supervisors introduced and explained the criteria of the departmental rubric to students, the students expressed their relief as they could write with purpose and clarity without wasting time adding irrelevant information and material. After using the new rubric (3rd Draft), their writing was more focused, especially when describing the research problem, formulating research questions, and stating operational definitions of key variables. The students started to write purposefully, constantly referring and relating their current text to their respective research topics. These conclusions were also supported by both the supervisors from their reflections and feedback.

What are students and supervisors' perceptions of the assessment rubric in general and of a revised rubric in particular? Both students agreed that both the writing rubrics were useful in helping to improve their Chapter One drafts and in helping them to self-assess work on their assignments. Analyses of the students' third drafts (i.e. 3rd Draft

in Tables 3 and 4) of their Chapter One (in which they made revisions based on the new revised rubric), supervisors' written feedback on students' manuscripts, and students' responses from the interviews, indicated that both the students and supervisors benefitted from the more specific rubric. The required criteria and their explanations were explicit in the new rubric. Nevertheless, the new rubric still requires further revisions as some phrases and terms proved unfamiliar and somewhat difficult for the students to comprehend.

CONCLUSION

We proposed this six-cycle action research to examine the use of general and task-specific assessment rubrics in helping research students in their dissertation writing. Our findings showed evidence that the use of rubrics in undergraduate students' writing tasks (Burk, 2020) such as the research introduction chapter was useful in improving students' research writing and in educating them on the specific criteria of the task. A properly designed and validated rubric (Dawson, 2017; Panadero & Romero, 2014; Pearce, 2020) tailored specifically to the programme and course objectives (Anderson & Mohrweis, 2008; Jönsson, 2014; Kinne et al., 2014; Lipnevich et al., 2014) will constructively assist students in their learning (Carson & Kavish, 2018; Stevens & Levi, 2013). With occasional scaffolding (Carson & Kavish, 2018; Hooper & Butler, 2008; Huskin, 2016) and constructive feedback (Caughlan & Jiang, 2014; Lipnevich et al., 2014; Nordrum et al., 2013; Nurie, 2018) from supervisors, students can benefit from the use of assessment rubrics.

Essentially, a well-designed rubric, given prior to a task or an assignment (Dawson, 2017) enables students to critically assess their own work (Panadero et al., 2013) and helps them develop critical thinking and decision-making skills. Students can continuously assess their progress on tasks based on the performance criteria and scoring mechanism in the rubric (He & Canty, 2012; Reddy, 2007; Reddy & Andrade, 2010) thus self-regulate their learning (Alonso-Tapia & Panadero, 2010; Fraile et al., 2017).

Our use of action research to examine the effects of assessment rubrics was exclusive (cf. Clabough & Clabough, 2016). Previous studies on rubrics and students' learning were primarily conducted using a pre- and post-test or quasi-experimental design (Andrade, 2001; He & Canty, 2012; Howell, 2011). The practice of action research should receive both top-down (university, schools, and department)

and bottom-up (classroom/supervision practitioners) support as it has proven fruitful in improving instructional practice (Burns, 2009; Zuber-Skerritt, 2013) and produced quality outcomes. Collective collaboration and ongoing input-sharing from faculty and instructors/supervisors in improving a rubric specific to course or programme objectives will ensure effective, systematic design of the course assessment. Furthermore, it provides beneficial and meaningful learning experiences for students and ultimately helps to achieve better grading for the programme/department (Mansilla et al., 2009; University of Hawai'i, 2017). Administrators should facilitate such initiatives by offering appropriate resources and relevant training, celebrating flexibility, but at the same time mandating enforcement.

Our study only involved two students and two supervisors from a small department at a public university located in the northern part of Malaysia. We understand the significant need to validate the new rubric with more students from the department and similar research domains. Some terms and points in the revised rubric require further simplification and clarification (Dawson, 2017; Panadero & Romero, 2014). The verbose nature of the new rubric may also hinder the performance of weaker students (Panadero & Romero, 2014). Some senior faculty members may find such specificity of the performance criteria cumbersome and thus may hesitate to use it (Popham, 1997; Sadler, 2009). Since both students who volunteered to participate in the study were hardworking and high-achieving students, it is crucial to test the new rubric with a more diverse group of students (Carson & Kavish, 2018; Clabough & Clabough, 2016). Moreover, the supervisors who were also the researchers of the study may have their biases which were not taken into account. We definitely need to seek more feedback from other instructors and faculties and from experts in assessment, research methodology, and academic writing disciplines. In addition, we did not include all 14 design elements suggested by Dawson (2017). Specifically, we did not include exemplars (Sadler, 1987; Tierney & Simon, 2004), which represent the highest scoring level for each of the performance criterion. Aspiring future researchers who appreciate rigour may work on extending the development of the rubric for the remaining thesis chapters.

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