

2015

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Recommended Citation

Hammill, Jackie; Best, Gill; and Anderson, Jennifer, Developing Student Mentor self-regulation skills through formative feedback: Rubric development phase, *Journal of Peer Learning*, 8, 2015, 48-58.

Available at: <http://ro.uow.edu.au/ajpl/vol8/iss1/6>

Developing Student Mentor self-regulation skills through formative feedback: Rubric development phase

Jackie Hammill, Gill Best, and Jennifer Anderson

ABSTRACT

Research into Peer Assisted Study Sessions (PASS) in Higher Education has largely focused on the positive effects of PASS on student motivation, retention and engagement. Less attention has been given to the cognitive, affective and professional development of the PASS Student Mentors through their engagement with students and academic staff. At Victoria University learning and development for Student Mentors begins at training and continues during the semester, supported by several methods of formative feedback: weekly reflective posts through an online platform, weekly development workshops, observations, progress interviews, and evaluations. Despite ongoing training and development throughout the semester, PASS supervisors have observed that some Student Mentors do not have a clear understanding of the role expectations. This paper describes the processes undertaken to develop a rubric that clarifies PASS facilitation objectives for Student Mentors and their PASS supervisors.

INTRODUCTION: PASS AT VU

The PASS program at Victoria University (VU) is one of several student peer learning programs referred to collectively as Students Supporting Student Learning (SSSL), situated organisationally within the Department of Academic Support and Development. SSSL programs at VU have been an important part of the mission to support first year transition to university for a cohort that can be characterised, to a large extent, as first in family and from lower socioeconomic, culturally and/or linguistically diverse backgrounds. Student Mentors at VU are therefore working with a complex cohort.

At VU, PASS sessions are facilitated by two Student Mentors rather than the usual one, which adds to the complexity of the role. This strategy was implemented early in PASS at VU when it became clear that working in pairs contributed to confidence-building and led to the creation of more interesting and supportive PASS sessions. Given the complex and diverse student cohort, PASS supervisors pay particular attention to the learning and development of the Student Mentors so they are better able to assist their PASS mentees. Student Mentor feedback indicates that they believe the development process facilitates their personal and professional growth and in some cases leads to improved career options.

VU's focus on continuous development can be likened to the PASS supervisors acting as mentors for the Student Mentors. This process mirrors Koballa and Bradbury's (2009) work in a secondary school context where

student teachers have opportunities to collaborate with peers and experts in the field to ensure personal and professional growth. The method that SSSL lecturers at VU use for continuous development of Student Mentors is a blended learning approach which begins at training and continues during the semester. Student Mentors participate in 1.5 days of initial training that takes place before the start of semester. Over the semester they write and respond to weekly online reflective posts, participate in feedback following regular supervisor observations of their PASS sessions, participate in weekly Student Mentor development workshops, and offer evaluations regarding their performance in end of semester progress interviews. These modes of development will be described more fully in the following sections as they address issues experienced by Student Mentors in their roles as individuals, as PASS session pairs, and as SSSL team members.

1. Online reflective posts

Reflective posts provide an opportunity for Student Mentors to share ideas and issues that arise across the various units in which they are mentoring. They assist in deepening student learning through the processes of critical reflection and extraction of meaning from lived experiences (Fink, 2003; Jones & Shelton, 2006; Moon, 1999; Zubizarreta, 2004). The online posts can be accessed only by PASS supervisors, Senior Student Mentors, and other Student Mentors within specific PASS program groups. Student Mentors are encouraged to respond to other Student Mentor posts and a PASS supervisor responds to each post, usually within 24 hours.

Although the reflective writing process has the potential to support Student Mentor learning and development, not everyone inherently understands what “reflection” means. Kathpalia and Heath (2008) point out that while reflective writing increases student learning through the process of peer and supervisor feedback and reflection, the process needs to be modelled, with clear instructions provided on reflection requirements. This is clearly the case at VU. Many Student Mentors have consistently needed guidance to develop a reflective approach to their student mentoring practice, and as a result, PASS supervisors post questions that encourage higher order thinking responses. However, despite the various questioning techniques used, students continue to be challenged when writing reflective posts. This observation highlights the importance for students to receive clear guidelines to assist them in their reflective writing.

2. Observation of PASS Sessions

PASS supervisors observe PASS Student Mentors facilitating PASS sessions in order to provide students with external feedback, an important element in the development of self-regulation processes that empowers learners to take control of and evaluate their own learning and behaviour (Ormrod, 2012). These observations are undertaken at least twice a semester. Following each observation, a formal feedback session is conducted with the Student Mentor pair to discuss what went well and suggest improvements. An additional intention for offering feedback is that it will lead to Student Mentors being able to identify their developmental changes in the online reflective posts.

3. Development workshops and progress interviews

The half-hour weekly Student Mentor Development Workshops provide structured input into areas of PASS practice that Student Mentors or PASS

supervisors have identified as challenging in online or face-to-face communication and in observation sessions. The Development Workshops also provide Student Mentors with an opportunity to engage with other PASS Student Mentors facilitating in other units. This ongoing interaction not only assists with relationship building and developing a sense of belonging and value to both the PASS program and the university; it also offers opportunities for deeper peer engagement and mutual development.

The development workshops, in which Student Mentors and PASS supervisors share strategies and activities for use in PASS sessions, are conducted using the same principles of collaborative-facilitated learning that form the framework for a PASS session, thereby consolidating the importance and validity of this pedagogic approach.

Progress interviews occur at the end of semester and offer an opportunity for Student Mentors to reflect on their learning and development, and to set future goals and strategies for development in the coming semester.

THE KNOWLEDGE-BEHAVIOUR GAP

All of the above practices provide a comprehensive suite of development tools to encourage Student Mentor learning and development. Yet empirical evidence from each of these forums revealed a noticeable gap in Student Mentor behaviour, reflecting a lack of comprehension regarding the feedback offered. For example, despite constant requests for “warts and all” reflections, many Student Mentors tended to write online posts that emphasised only the positive aspects of their PASS sessions, perhaps to assure of their capacity to do the task. Furthermore, while PASS supervisors offered a wide range of suggestions to aid Student Mentor development, they themselves had no clear guidelines to follow. If PASS supervisors were not able to explicitly state expectations, then Student Mentors remained unclear about how to improve in their PASS facilitation role. This gap in shared supervisor and mentor knowledge led to a need to clarify development objectives in a format that would result in greater opportunities for learning and development.

As a part of this process, the PASS supervisors were determined to increase Student Mentor responsibility for their own development. Glickman, Stephen, and Gordon (1987) suggest that a decrease in dependence on supervisors promotes developmental growth and higher level thinking, and this can be achieved by introducing new teaching and learning approaches such as a self-regulating formative assessment process (Nicol & Macfarlane-Dick, 2006).

This concept of involving students in their own learning and development is widely supported (Ivanic, Clark, & Rimmershaw, 2000; Pintrich & Zusho, 2002). Self-regulating students use internal feedback mechanisms to set goals that allow them to compare and assess their own performance. They design their own learning activities and tasks to improve performance (Pintrich & Zusho, 2002). In addition to the student’s internal monitoring of progress, supervisors also provide external formative feedback to assist in goal achievement and self-regulation (Ivanic et al., 2000). Nicol and Macfarlane-Dick (2006, p. 203) provide a seven-step model that supports students to be self-regulated learners:

1. Clarify good performance
2. Facilitate self-assessment
3. Deliver high quality feedback information
4. Encourage teacher and peer dialogue
5. Encourage positive motivation and self-esteem
6. Provide opportunities to close the gap
7. Use feedback to improve teaching

Essential to PASS and Student Mentor development, Nicol and Macfarlane-Dick's model adopts a social-constructivist pedagogy based on an epistemological belief that cognitive abilities are developed through socially supported interactions (Shepard, 2000). The support and development processes already in place at VU reflect six of Nicol and Macfarlane-Dick's seven principles. The first principle, "clarifying good performance," is the major gap in the VU program, a gap that can be addressed through the creation of a clear learning and development rubric for PASS Student Mentors. This paper describes the process undertaken to develop clear guidelines for Student Mentors to enable them to take control of their own development, using such a developmental rubric.

The aims of the rubric are to enable Student Mentors, with the guidance of PASS supervisors, to identify the knowledge, skills, and behaviours that characterise the PASS Student Mentor role, set developmental and learning goals, and develop strategies to achieve these goals. Unlike academic units of study, the developmental rubric is not externally assessed and Student Mentors are not graded, since learning happens according to their individually specified needs and interests. Student Mentors do not compare their developmental progress with others, as each Student Mentor is likely to focus on different areas for development and to select different strategies to reach their individual goals. In some cases, however, PASS Student Mentor pairs may decide to negotiate a common set of goals with a focus on team facilitation.

STUDENT MENTOR FORMATIVE PROCESSES

In order for Student Mentors to more deeply understand the characteristics of PASS facilitation, they must be aware of the criteria that underpin the formative feedback process (Harlen & Deakin-Crick, 2003). The Australian National Centre for PASS at the University of Wollongong trains all PASS supervisors and provides a PASS Observation Record Sheet that can be used to provide formative feedback to Student Mentors. This form contains criteria such as "Introduction & Opening," "Individual & Group Dynamics," and "Content & Strategy." Under each criterion are actions that the Student Mentors and PASS supervisors rate as "Satisfactory" or "Need for Discussion" (National Centre for PASS, 2012, p. 69). For instance, elements under Introduction & Opening include "Leader is adequately prepared" and "Room arranged/used appropriately for group work." While these elements provide some guidance for Student Mentor development, they are quite subjective and vague. For example, what does it mean to be "adequately prepared" and what does a room that is "appropriately set up for group work" look like? Is there only one option?

Although these elements are covered in PASS training, it is difficult for Student Mentors to grasp the implied expectations, especially when they are

new to the role of PASS facilitator. The fundamental difference with a self-regulating rubric is the use of a sliding six-band scale of competency for each criterion that articulates the knowledge, skills, and behaviours demonstrated by Student Mentors in their PASS sessions. Glaser (1981) argues that such a scale can empower students in the learning and development process, allowing them to identify their gaps and set strategies to achieve individually identified goals.

THE DEVELOPMENT OF A STUDENT MENTOR DEVELOPMENTAL RUBRIC

PASS supervisors have observed that Student Mentors come to the role at different competency levels. A rubric allows for them to develop within the role at their own rate of learning and development, reflecting Vygotsky's zone of proximal development. Stevens and Levi (2012, p.57) regard rubrics as a pedagogical tool that can "allow us [PASS supervisors] to impart more clearly our intentions and expectations," thereby making it an invaluable tool for Student Mentor self-regulation.

In order to develop such a rubric, PASS supervisors at VU used Stevens and Levi's (2012, p. 45) four steps for rubric development: (1) identifying the rubric title, (2) identifying the criteria (dimensions) to be assessed, (3) developing a scale that indicates levels of achievement, and (4) outlining the expectations of each scale. The process of each step is described below.

Identifying rubric title and criteria

The title of a rubric should clearly identify its purpose (Steven & Levi, 2012), and so we call our rubric "Students Supporting Student Learning: Student Mentor Self-Regulating Development Rubric" (Table 3). At VU the indicators for criteria selection, which may stem from training needs, supervisor suggestions, or assessment requirements (Gillis & Griffin, 2004), were based on the key performance criteria spelt out in the VU PASS Student Mentor position description and on areas of competency identified by Student Mentors and PASS supervisors in the various developmental forums. Six key PASS facilitation criteria were identified by the PASS supervisors: Learning Environment, Online Posting, Mentee Engagement, Group Dynamics, Creativity, and Redirecting Questions (Table 1).

Table 1
PASS Facilitation Criteria

Learning Environment		
Online Posting		
Mentee Engagement		
Group Dynamics		
Creativity		
Redirecting Questions		

Developing the rubric scale

Once the criteria were established a scale was needed to indicate the various levels within each criterion. Stevens and Levi (2012) maintain that a rubric scale could take the form of words, numbers, or forms depending on the preference of the rubric designer, and in this case the scale was based on Bloom's revised taxonomy of educational objectives in the cognitive domain, originally devised to encourage dialogue and analysis regarding the development of learning goals. This particular set of graded "thinking" objectives is the foundation for higher education assessment. By handing over knowledge of this taxonomy to students, it encourages deeper levels of engagement and develops critical assessment of their own current and future personal and professional development needs.

The revised taxonomy (Anderson & Krathwohl, 2001) classifies thinking into a rising scale of cognitive domains: remembering, understanding, applying, analysing, evaluating, and creating. This type of rubric or matrix with scaled criteria has been described by Ferguson (2002) as a cake with many layers with various levels of learning within each layer—the higher the layer, the more complex the thinking process becomes. In order to simplify the scale for the Student Mentor rubric, instead of using words such as "Remembering/Understanding/Applying," the PASS supervisors felt Student Mentors would be able to relate more to a numerical system of "Bands" from one to six, with each band representing a dimension within Bloom's taxonomy. Table 2 provides an example of one of the criteria and its associated bands, with Band 1 (Remembering) being low on the continuum and Band 6 (Creating) being high on the continuum.

Table 2
Online Posting Task Criteria Scale

Online Posting	6	
	5	
	4	
	3	
	2	
	1	

Assessing the rubric dimensions

Once the criteria and a scale of complexity were identified, descriptors for each band on the scale were developed. The descriptors enable Student Mentors to recognise the level they identify with currently and to set future development goals. The descriptors were constructed using mind maps based on reflections of previous observations, development workshops, and online posts. For example, the descriptor for the criterion "Online Posting" at the lowest level of Bloom's revised taxonomy, "Remembering" (Band 1) was conceived as: "Student Mentor lists the activities undertaken during the session." This level indicates a starting point for some Student Mentors in their writing of online posts. Students demonstrate plenty of room for development if they are operating at this level. After the development of Band 1, the highest level of "Creating" (Band 6) was developed; as one might expect, it contains more detail (Table 3, Band 6).

Once descriptors for the highest and lowest bands had been identified, descriptors for the remaining bands were developed to accord with cognitive skills of understanding, applying, analysing, and evaluating (Bands 2-5). Table 3 presents the current version of the online posting criterion that was developed using Stevens and Levi's (2012) four-step approach to Student Mentor development. The descriptors are continually being refined based on feedback from Student Mentors and PASS supervisors.

The first complete draft of the rubric was introduced to Student Mentors during training in 2013 through an interactive activity that aimed to demonstrate its usefulness to Student Mentors in the development of their PASS facilitation skills. The activity began with Student Mentors being asked to think back to the last assignment they wrote in their course. They were then asked, "How did you know what you were expected to put in the assignment to achieve the grade you wanted?" The following discussion revealed that a rubric provided clear guidelines to students so they could get the result they wanted. Differences between summative and formative assessment uses of rubrics were then clarified.

The intention was to provide Student Mentors with a self-regulating formative assessment tool that made sense to them, one they could help us to further develop, and one that would be effectively used by them. Figure 1 shows Student Mentors engaged in a rubric training activity. Each group was given a criterion and Student Mentors had to read the set of descriptors and order them, with Band 6 (Creating) at the top and Band 1 (Remembering) at the bottom. Once they had an understanding of one criterion, they moved on to the next and the next until they had read and ordered all the criteria and their descriptors.



Figure 1. Rubric activity

Table 3
Online posting dimension descriptions

Students Supporting Student Learning: Student Mentor Self-Regulating Development Rubric	
Creating (Band 6)	Student Mentor constructs clear and logically written posts identifying the number of mentees and their names. The aims of the sessions are identified and the activities are outlined. The activities and session plan are linked to current theory in the area being explored. Student learning and how learning was ascertained are discussed, identifying situations which worked well and those that did not. In addition to commenting on the positives and improvements needed in regard to the activities, the Student Mentor also reflects on the learning environment, group dynamics, mentee engagement, and how well he/she was able to redirect questions and probe for further understanding. Student Mentor provides strategies as to how as an individual they may continue to develop in their mentoring role. Where applicable, relevant links are made to previous posts. Student Mentors comment on other Student Mentor posts providing suggestions and strategies when appropriate.
Evaluating (Band 5)	Student Mentor is able to identify the aim of their session and the activities undertaken are explained. Activities are analysed and evaluated in regard to their success from a Student Mentor and mentee perspective. Current theory is mentioned but not linked to the session aims or activities. Student Mentor provides strategies as to how as an individual they may continue to develop in their mentoring role. Mentee engagement is reflected on and strategies for improving engagement which link to other areas of the session are suggested, such as learning environment, mentee grouping, provision of instructions, and questioning techniques.
Analysing (Band 4)	Student Mentor describes the number of mentees, their names and outlines the activities undertaken. Activities are analysed and positive aspects and those that could be improved are identified. Strategies for future improvement are identified. Positive mentee responses are provided and disruptive mentee behaviour is identified and possible reasons which focus on the mentee are suggested.
Applying (Band 3)	Student Mentor describes the number of mentees present and the activities undertaken are explained. Positive aspects of the session are described, including positive mentee feedback and behaviour.
Understanding (Band 2)	Student Mentor describes the activities undertaken in the session and reports on the positive features of the PASS session.
Remembering (Band 1)	Student Mentor describes the activities undertaken during the session.

Student Mentors were then given a slip of paper and asked to put their name at the top. Against each criterion they were to identify which band they considered themselves to “occupy” currently and where they would like to be at the end of the semester (Table 4). The intent was for Student Mentors to set goals in relation to the rubric, reflect on the goals during the semester, and with the support of PASS supervisors, focus on activities that would assist them to reach their goals. At the end of the semester in preparation for the progress interview, Student Mentors were encouraged to reassess their progress and complete the “actual” column (Table 4). This allows for opportunities to discuss the wide range of possible reasons for unrealistic expectations.

Table 4
Rubric goal setting

Name:	Band Score (1-6)		
	Now	End of Semester	Actual
Learning Environment			
Group Dynamics			
Mentee Engagement			
Redirecting Questions			
Central Desktop			
Creativity			

Although Student Mentors may indicate they want to develop in many of the criteria, they are encouraged to identify one or two key learning and development areas to focus on over the semester. If they alter their learning/development objectives, for example, and focus on another criteria or another level of development, they are encouraged to justify the change and are then supported to achieve their revised goals.

INITIAL FINDINGS

Initial findings indicate that Student Mentor motivation and engagement is increased once they understand that the rubric is focused on their individual learning and development. Student Mentors need to know that the rubric will be a part of their self-regulation experience and PASS supervisors must help them to read and interpret the rubric effectively to ensure a shared understanding. Further, the rubric needs to be referred to regularly over the course of the semester. If it is seen as “just another thing we have to do,” its effectiveness in encouraging Student Mentor self-regulation is limited and it fails as a learning and development tool.

This paper is the first of two to explore the use of a formative rubric for the self-regulation of learning and development of PASS Student Mentors. A subsequent paper will provide empirical evidence regarding the rubric’s effectiveness as a learning development tool.

CONCLUSION

Formative feedback assists Student Mentors to reflect on and deepen their learning and development both personally and as PASS facilitators. The

rubric adopts Nicol and Macfarlane-Dick's (2006) formative feedback principles and encourages Student Mentors to use cognitive development strategies and collaborative learning pedagogy to promote self-regulation in PASS facilitation. The rubric clearly outlines a scale of skills and behaviours in key aspects of PASS Student Mentor roles and provides Student Mentors with a development tool that enables them to identify where they are in regard to their mentoring practice, where they would like to be by the end of the semester, and where they would like to be at the end of their role as a Student Mentor. The PASS supervisors are responsible for monitoring progress towards the end of semester goals. The next research phase will be to evaluate the rubric's usefulness from a Student Mentor perspective and to develop targeted strategies to assist Student Mentor development within and between the rubric bands.

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