Master thesis

Title
Tutors' written feedback on essays: The way students make use of it
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Abstract

Feedback on essays is essential for students' learning and improvement of performance. In this paper a conceptual model is presented for the essay writing process with feedback, including aspects that influence students' use of this feedback. Though most of these aspects have received close attention from several authors, particularly how students use feedback appears still to be under-researched. This situation prompted the following research questions: how do students make use of tutor's written feedback on their essays, and to what extent do the student variables, motivation, learning strategies, perceptions of feedback, and perceptions of writing assignments, explain their use of feedback?

Therefore, a questionnaire was designed to assess students' scores on these variables. Seventy master students in the faculty of Development Studies at Melbourne University filled out the questionnaires. Besides, feedback comments of four teachers were analysed and five students were interviewed. The results of the questionnaires show that, as hypothesised, all mentioned student internal factors had a positive influence on students' use of feedback and explained together78% of the variance of it. Both the findings of the interviews and of the revision of teachers' written feedback indicated a large difference among teachers in quality, quantity and timing of feedback on written assignments. Further recommendations are given on how to increase the use and impact of feedback on essays.

Introduction

Mackenzie (1974, p. 58) mentioned almost 40 years ago that "much remains to be known, in any detail, about the average student's use of his tutor's comments". In recent years a large amount of articles has appeared, based on research in higher education concerning feedback on students' assessments and its importance for students' learning (e.g. Covic & Jones, 2008; Crisp, 2007; Duncan, 2007; Handley & Williams, 2011; Higgins, Hartley, & Skelton, 2001, 2002; Lizzio & Wilson, 2008; Nicol, 2010; Orsmond, Merry, & Reiling, 2005; Poulos & Mahony, 2008; Price, Handley, & Millar, 2011; Price, Handley, Millar, & O'Donovan, 2010; Sargeant, Mann, van der Vleuten, & Metsemakers, 2009; Walker, 2009; Weaver, 2006; Wingate, 2010).

In this paper the effect of tutors' written feedback on students' essays will be discussed. Feedback is defined by Hattie and Timperley (2007, p. 102) as "information provided by an agent (e.g., teacher, peer, book, parent, experience) regarding aspects of one's performance or understanding". In the literature related to feedback on assignments often tutor is used for academic staff that provides the feedback. However, it can also be replaced by teacher, lecturer or other academic staff. Besides, as will be further discussed below, mostly essay writing is used both for summative reasons, to grade students, and for formative reasons, to stimulate learning (e.g. Boud, 2007). Although when discussing feedback in this paper it concerns mainly formative feedback, also summative feedback plays a role since it is often included together with formative feedback in tutor's comments on assignments, and summative feedback can have a formative role as well (Orsmond, et al., 2005).

When reviewing the literature on above mentioned topic as has been done below, two facts emerge: it is hard to find a complete conceptual model of the essay writing process with feedback, and the way students' use feedback appears still to be under-researched.

Therefore, in this paper, before further reviewing and discussing the literature related to this topic, a picture will be drawn of the feedback process, showing a conceptual model with the factors, activities and results related to it. Next these aspects of the feedback process will be discussed, using a broad variety of references. This will lead to the research questions of this paper, which focus on the way students make use of feedback. Feedback use is taken as the depending variable in the feedback process in which all other aspects affect feedback use to a certain extent. Subsequently a description follows of the method used to answer these questions.

A model for the feedback process

A first essential fact mentioned by Nicol and Macfarlane-Dick (2006) is that students assess their own work and create their own feedback before any external feedback is provided. These authors developed a model for self-regulated learning. It is based on the model from Butler and Winne (1995) that explains self-regulated learning (SRL) as a process in which students, based on their prior knowledge and motivational beliefs, set goals against which performance can be self-assessed, and use tactics and strategies in order to obtain mental ("cognitive and affective/emotional") and behavioural results. By constantly monitoring this process of engagement with the learning tasks, their activities and their progress towards the goals, students generate internal feedback (p. 248).

Nicol and Macfarlane-Dick (2006) made two essential adaptations in their conceptual model (see Figure 1), compared with the one from Butler and Winne: the internal feedback and monitoring activities are directly connected to the "externally observable outcomes" (e.g. the essay), and the external feedback is directly connected to the student's internal processes or cognitive system, instead of connecting it first with the tasks.

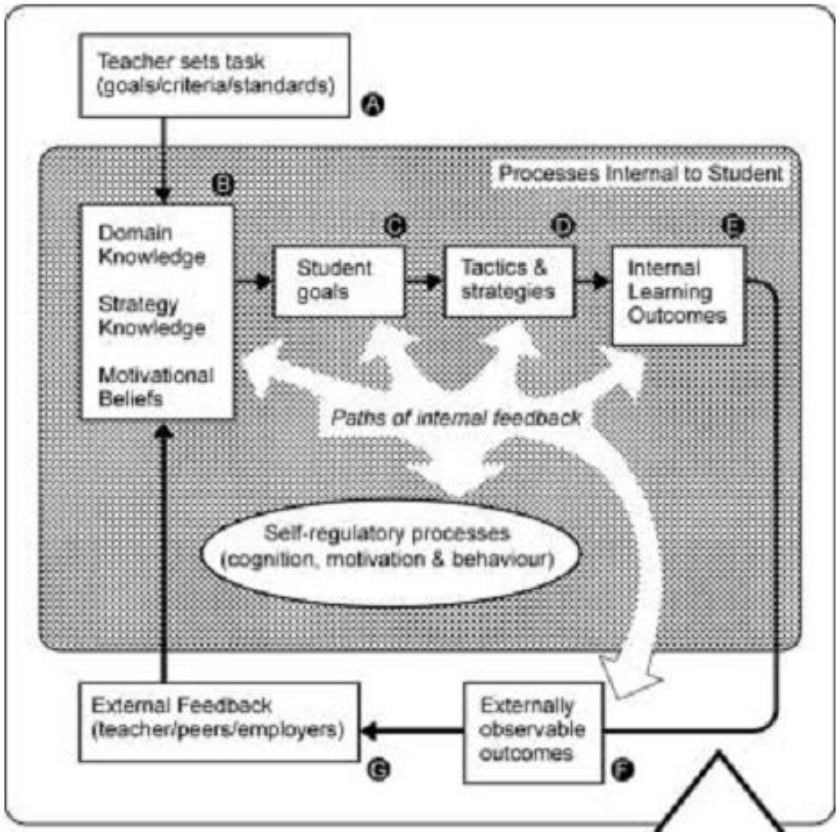


Figure 1 Feedback and self-regulated learning (Nicol & Macfarlane-Dick, 2006, p. 203)

Although this model describes very clearly and adequately the internal, cognitive processes, some other, external aspects are less clear or not directly included. In order to get an overview of all these aspects, above model will be reduced in a new model to a SRL box in which the internal processes are supposed to be as shown in the rectangular shadowed part in Figure 1. Therefore, an essential fact in the feedback and self-regulated model is used, namely that, since the internal feedback connects the externally observable outcomes with the internal processes, the self-regulatory processes happen also without external feedback. With other words, essay writing without feedback comments is also supposed to lead to two results: the improvement of student's essay and learning. The simplest model of the essay writing process is shown in Figure 2, in which the writing assignment is the task set by the teacher and the essay is the externally observable outcome as mentioned in Figure 1.

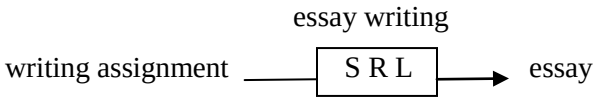


Figure 2 Model of essay writing process without feedback

Next, when adding feedback to this model an important question arises: is feedback given on the essay writing process or on the essay itself. Since tutors in higher education are generally not able to observe the essay writing process, but need either the essay or a temporary product of the essay, like outlines or drafts, to give feedback, in the model feedback will be put after the essay.

Many authors indicate that formative feedback can only be effective and promote learning if it is used in the future (e.g. Duncan, 2007; Handley & Williams, 2011; Price, et al., 2011; Sadler, 1983). Depending on the timing of the feedback in the essay writing process, the feedback may be used for the same original assignment. Besides, feedback may also be used for future different assignments, or in the context of future jobs. In case of use of feedback for the same assignment, the version on which feedback was given was temporary (Figure 3). This distinction between use of the feedback for the same assignment or for future tasks or assignments is not clearly made in the original model in Figure 1.

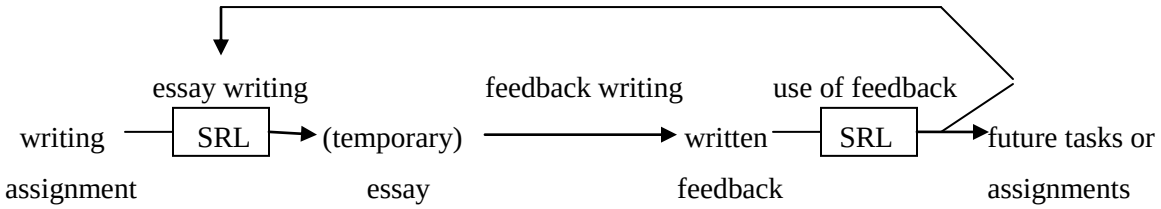
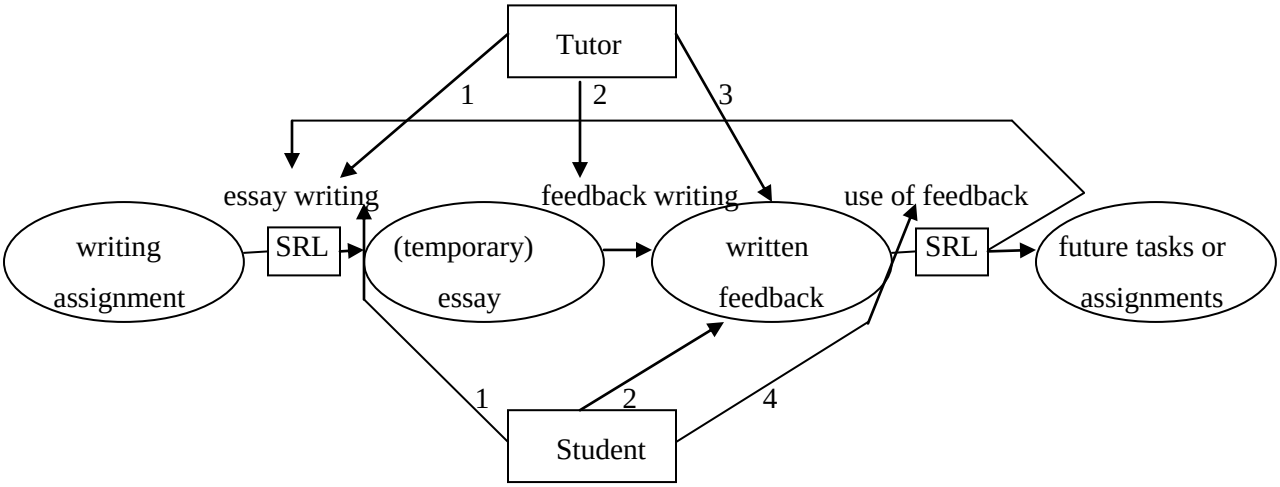


Figure 3 Model of essay writing process with feedback

Some essential factors that affect the processes and results are still missing in Figure 3. These factors are student and tutor related, and concern students' and tutors' perceptions of essay writing (e.g. McCune, 2004; Scouller, 1998; Wingate, 2010) and of written feedback (e.g. Beaumont, O'Doherty, & Shannon, 2011; Walker, 2009; Weaver, 2006), the way tutors provide and communicate the feedback (e.g. Higgins, et al., 2001; Nicol, 2010), and students' characteristics that influence the use of feedback, like experience (Beaumont, et al., 2011), motivation (Wingate, 2010), and the ability to use self-regulated learning (Hattie & Timperley, 2007; Orsmond, et al., 2005). These factors are included in Figure 4.



1 perceptions of essay writing
2 perceptions of feedback
3 providing/ communicating feedback
4 student characteristics that influence the use of feedback

Figure 4 Model of essay writing process with feedback and student and tutor related factors

The processes, results and factors in Figure 4 will be further discussed below.

Writing assignment

The writing assignment is the task set by the teacher as mentioned in Figure 1 and is used for assessment of the students. The way students are assessed, influences their learning (Gipps, 1994; Sadler, 1983). Writing assignments can prepare students to write scientific texts, since also scientific professionals use the work of other authors to write articles. Moreover, they learn about the subject by critically reading the existing literature, how to organise and present the information in a logical way, and how to cite references. Besides, essay writing promotes deep learning and students' acquaintance with the university culture (Venables & Summit, 2003). However, if students learn this all when writing their essay depends among others on the purpose of the assignment and the assessment environment.

Essay writing

In general it is essential to make the distinction between assessment of learning, which means determining what has been learnt and relates to the summative function, and assessment for learning, in which case assessment is used to stimulate learning and has a formative function (Gipps, 1994). Similarly, essay writing for learning means that a writing assessment is used for formative reasons to stimulate learning. Feedback comments on essays are mainly intended to support this formative function.

Assessment for learning needs an assessment environment that:

- *"is rich in formal feedback (e.g. tutor comment; self-assessment systems),*
- *is rich in informal feedback though dialogic teaching and peer interaction,*
- *provides opportunities to try out and practice knowledge, skills and understanding,*
- *has assessment tasks which are authentic or relevant,*
- *assists students to develop independence and autonomy, and*
- *has an appropriate balance between formative and summative assessment*" (McDowell, Wakelin, Montgomery, & King, 2011, p. 750).

Moreover, these authors stress that apart from feedback at the end of the assessment, students need feedback from tutors during the process of the assessment, as well as informal feedback by interaction with peers.

Students' perceptions of essay writing

Students relate essay writing with higher cognitive levels and capacities like analysis and understanding (Scouller, 1998). Other research, however, shows that some students see essay writing as less constructive learning and mention that it is just a matter of putting information from books on paper (Sambell, McDowell, & Brown, 1997). McCune (2004) found that first year psychology students did not have a sophisticated conception of essay writing and were unable at the end of the first year, even after receiving help and advice that could lead to improvement of their conceptions, to mention what tutors expected in their essays, like a clear plan for the essay, a good structure, sufficient research evidence, a critical approach, and logical conclusions. The author suggests that a reason that the students did not improve their conceptions of essay writing is that their existing conceptions hinder them to follow up any advice that is given to them. Research results of several authors show that students' conceptions affect the way students write their essays, the quality of those essays, and the way they interpret the feedback on their essays (e.g. Campbell, Smith, & Brooker, 1998; Prosser & Webb, 1994).

Tutors' perceptions of essay writing

It is often difficult for students to fulfil the expectations of their teachers and tutors. (McCune, 2004). McCune found that tutors' conceptions of a good essay are that it has a clear plan and structure, is based on sufficient research evidence, that the student shows a critical approach and makes logical conclusions. Apart from making logical conclusions Wingate (2010) also mentions these criteria and adds a proper style and use of language, as well as clear expressions. Since often tutors' and students' perceptions of good essay writing differ, several authors stress the importance that tutors and students share a list with assessment criteria (e.g. Handley & Williams, 2011; McCune, 2004; Sadler, 1989; Weaver, 2006; Wingate, 2010). A mismatch between the goals, criteria and standards set by the teacher and the goals that students use as criteria for self-regulation (Figure 1) might reduce students' performance, because they do not have a clear idea of what good performance looks like (Nicol & Macfarlane-Dick, 2006).

Writing the feedback

After the students write their essay, it is sent either on paper or on-line to their tutor for assessment and feedback. Four aspects are particularly important related to the feedback writing of tutors. First, since abilities of tutors for assessing students' essays and feedback writing might differ substantially, courses for tutors how to write and provide feedback comments are often necessary (Day & Hounsell, 1995). Second, several authors stress that tutors' feedback should be directly related to clear, and both for students and tutors well-known, assessment criteria (e.g. Beaumont, et al., 2011; McCune, 2004). Third, tutors' perception of feedback strongly influences their feedback writing. And lastly, tutors have often too little time to write appropriate feedback comments on students assignments (e.g. Higgins, et al., 2002; Price, et al., 2011; Sadler, 2010).

Written feedback

Proper feedback on assignments assists students to recognize the desired goals, provides them information about their work compared to these goals, and indicates ways to close the gap between their assignment and these goals (Sadler, 1989). Although there does not exist much doubt about the importance of feedback on assignments and all the authors mentioned in this paper recognize the role of effective comments on students' learning and progress, in higher education it is still under-researched (e.g. Weaver, 2006).

Written feedback comments on assignments are becoming almost the only source of feedback for students in higher education (Higgins, et al., 2002). Based on the results of his research, Nicol (2010) suggests ten criteria for the quality of written feedback comments. They should be "understandable", "selective" (only some comments that are explained in detail), "specific" (clearly indicating where it applies in the assignment), "timely" (in time to be used by the student), "non-judgemental" ("descriptive rather than evaluative, focussed on learning goals, not just performance goals"), "balanced" (mentioning both positive points and points for improvement), "forward looking" (indicating how it can be used for future work), "transferable" ("focused on processes, skills and self-regulatory processes not just on knowledge content"', and "personal" (related to the specific student) (pp. 512-513).

Students' judgement of the feedback depends not only on the quality of it, but also on students' perceptions of feedback.

Students' perceptions of feedback

Lizzio and Wilson (2008) examined how written feedback affects students' perceptions of quality and effectiveness, as well as their assignment. In order to stimulate positive perceptions of assessment feedback and use of the feedback, these authors stress the importance of combining developmental feedback, indicating what can be improved, with encouraging feedback, giving hope. Besides, students' feeling that the tutor considers them as important is stimulated by the fairness, consistency and clarity of the feedback (pp. 269-271).

Students' perceptions of their teacher's quality and the confidence that they have in them is mostly related to their perceptions of the credibility of the feedback. However, students do not have a homogenous opinion about what effective feedback is and how it can be used. First year students' perception of effective feedback is that it not only indicates how to improve the assignment, but that it also supports them emotionally (Poulos & Mahony, 2008). The need of emotional support might be partially explained by evidence from Beaumont et al.(2011) demonstrating the huge difference in feedback that students experience in school/college and in university. Since students were used during school time to "feedback as a formative guidance process", motivating and providing explanation, first year students' perception of quality feedback is that it guides them to improve the assignment before submission (p. 682). Feedback in higher education, however, is mostly given after submission of the assignment and, not surprisingly, students will greatly change this perception in subsequent years.

Walker (2009) concluded that students perceive the feedback as valuable if it is usable, mentioning what is wrong, why it is wrong and how it can be improved. Feedback should also be usable for future assignments, indicating what the student can do to develop certain skills and has to avoid related to future assignments. According to this author, in the practice of higher education, only few feedback comments fulfil these requirements. This is confirmed by Duncan (2007), who analyzed feedback from different tutors on several assignments. He found that most comments were related to mechanical aspects of the text, like use of language, grammar and spelling. Besides, several of the other comments were vague and others were positive and encouraging comments, however without information how to improve future work. Also Weaver (2006) mentions that students perceive feedback as not useful if it is too vague, too general, and/or does not indicate how to improve the assignment. In addition, feedback is also perceived

as not useful if there are too many negative comments, and if it is not clearly related to the assessment criteria (Weaver, 2006).

Tutors' perceptions of feedback

Beaumont, O'Doherty and Shannon (2011) mention that in their research at three universities, all tutors stressed that the feedback on assignments was for students' improvement and learning. However, most of them considered feedback as a "post-submission summative event". Assessment criteria were mostly tacit and not explicitly discussed with the students. Among the tutors was no consistency in the way formative assessment was carried out, and it depended more on the individual tutor's perception of feedback how formative assessment practices were applied, including the provision of feedback. Moreover, there existed a difference in the perception of feedback experience between tutors and students, since tutors indicated that they gave extensive and detailed feedback, but most students did not confirm this. Other research showed that teachers feel often a lot of pressure by all the work that they have to do, including giving feedback, and doubt about the effect of their feedback on students' learning and improvement of assessments (Crisp, 2007). Baily and Garner (2010) confirm that teachers have different perceptions of the purpose of written feedback comments on students' assessments, and doubt if it is effective and how students use it.

Providing/ communicating feedback

Giving written comments to students is more effective for improvement of performance than giving marks (Black & Wiliam, 1998). Tutors in higher education spend a lot of time for providing such feedback to students, expecting that this will enhance students' learning and improvement of their assignments (Orsmond, et al., 2005). However, often these academics complain that students do not make sufficiently use of their feedback and that the effort of providing feedback was in fact a waste of time (Crisp, 2007). As Sargeant et al. (2009, p. 401) mention "providing assessment feedback requires consideration of both feedback content and process". The content has to be clear, understandable, specific and relevant. Concerning the process, the feedback should be timely, understandable, adapted to the students' perspective, and stimulate action for improvement.

Students' characteristics that influence their use of feedback

Two characteristics of students that mainly influence the way they make use of feedback are their motivation and their ability to self-regulate their learning process. The theory of self-regulated learning has been shortly discussed above (see also Figure 1). The motivational theory will be shortly elaborated below.

Motivation

The amount of literature on motivation is huge. Therefore, within the limited size of this paper the motivational theory will focus on and shortly discuss the six motivational components of the *Motivated Strategies for Learning Questionnaire (MSLQ)* (Pintrich, Smith, Garcia, & McKeachie, 1991), which will be used for this study. These motivational components are "intrinsic goal orientation", "extrinsic goal orientation", "task value", "control believes", "self-efficacy for learning and performance", and "test anxiety" (p. 6).

The first two, intrinsic and extrinsic goal orientation, are based on the "self-determination theory" (Deci & Ryan, 1985) and on the "goal theory" (Pintrich, 2000). Self-determination theory distinguishes several kinds of motivation based on the reasons or goals for a certain action. Roughly two basic kinds of motivation can be distinguished: intrinsic and extrinsic (Ryan & Deci, 2000). In case of intrinsic motivation, the (learning) activity itself is what motivates the actor. In case of extrinsic motivation, the actor does something to get a result dissociable from this action (Vansteenkiste, Timmermans, Lens, Soenens, & Van den Broeck, 2008). Goal theory explains motivation based on the goals to do the task. It distinguishes broadly two types of motivational goals: "mastery goals" and "performance goals". Mastery goals are related to understanding and learning from the task, and can be compared with intrinsic motivation. In case of performance goals the person is motivated to be better than others, comparable with extrinsic motivation (Pintrich, 2000).

The motivational component "task value" refers to conceptions of the task like importance and how interesting it is (Pintrich, et al., 1991). Kusurkar (2012) mentions that the learning environment (including the task) can influence motivation, and that motivation can influence learning. This motivational component is also related to the "expectancy value theory" (based on work of Atkinson (1966) and further elaborated by others). According to this theory,

motivation and effort to fulfil the task are highest when the probability of success is moderate (the task should neither be too easy nor too difficult).

Next, control beliefs refers to students' beliefs that their success on the task depends on their own efforts (Pintrich, et al., 1991) and is related to the "attribution theory" (Weiner, 1974). According to this theory ability, effort, task difficulty and luck are the most important factors for achievement of the task. The last two factors are external to the student and the first is internal, but stable. Consequently, these three are difficult to influence by the student. Effort, on the contrary, is mostly within the control of the student. It concerns the students' believes that understanding and learning depend on their efforts to study. This depends also indirectly on the other three factors: students will mostly do more efforts if they believe that they are able to do it, that the task is not too difficult, and that it does not depend (too much) on luck.

Self-efficacy for learning and performance refers to two motivational aspects: expectancy for success and self-efficacy (Pintrich, et al., 1991). As mentioned before, expectancy for success, descended from the expectancy value theory, is another dimension of motivation. Motivation is highest if the expectancy of success is moderate. Self efficacy is central to the "social cognitive theory" (Bandura, 1993), which explains that people mostly undertake activities if they believe that they are capable of performing them and avoid activities which they believe to be incapable of performing. Self efficacy believes of students, for instance, determine how much time and efforts they invest in using feedback (see below). Besides, this motivational component also refers to the ability aspect of the attribution theory.

Lastly, test anxiety has cognitive and emotionality aspects. It concerns worries and bad feelings about the test or exam. Since this motivational component is probably less related to essay writing, it is not further elaborated in this paper.

Influence of motivational aspects and self-regulation on use of feedback

As discussed above, students' prior experience with formative feedback in school and college differs greatly from formative feedback in higher education (Beaumont, et al., 2011). Consequently, students' expectations of the feedback are often not met, resulting in dissatisfaction and sometimes even demotivation. Motivation is important for learning and for the use of feedback comments as well (see also Figure 1). However, if students have a low level of self-confidence as writer, and using the feedback comments on their essay seems difficult,

their motivation to use it will also be low (Wingate, 2010). Moreover, as indicated by students, alternative assessments (like writing essays) are highly time consuming and demand a high level of motivation. However, both factors are often too limited (Sambell, et al., 1997).

Students with low perceptions of "self-efficacy" ("beliefs about their capabilities to exercise control over their own level of functioning and over events that affect their lives" (Bandura, 1993, p. 118)) related to their writing skills are often less engaged with tutors' feedback on their assignment than students with higher perceptions of self-efficacy. Subsequently, for students with low self-perceptions of their ability as writers, tutors should pay carefully attention to "tone, style and amount of feedback comments" in order to ensure that these students use it. (Wingate, 2010, p. 519).

Students' perceptions of self-efficacy strongly influence their writing performance and students' self-confidence in their writing capability affects directly their writing apprehension and performance. Students can develop a lack of writing confidence because of previous experiences or present academic difficulties. Teachers should try to avoid that students develop such negative self-perceptions (Pajares & Johnson, 1996).

Also the level of students' academic success influences the use of tutor's feedback. Students obtaining lower marks, seem to depend more on tutor's feedback than students obtaining higher degrees (Orsmond, et al., 2005). The explanation might be that students with lower levels of academic success have less self-regulating strategies and create less internal feedback than students with more academic success, and thus depend more on external feedback from tutors (Hattie & Timperley, 2007).

Summarizing, students' prior experience, their perception of self-efficacy, motivation and academic success influence their use of feedback.

Students' use of feedback

As Sadler (1989) states, only if students use the feedback it can be called formative feedback. However, students do not always use the feedback. In their research study, Sinclair and Cleland (2007, p. 580) found that only 46% of the students collected their formative feedback. Some authors mention different results related to the time students use for the feedback. On the one hand, results of empirical research show that the majority of university students spend less than 15 minutes to read the feedback at the end of the assignment (Crisp, 2007, p. 577), although it is

difficult to judge about the feedback reading time since this author does not mention the amount of feedback given on students' assignments. On the other, according to Higgins, et al. (2002) students pay close attention to the feedback on their essay. Moreover, if students read their feedback, they might not understand or use it (Mc Cune, 2004). This is confirmed by Higgins, et al. (2002) who add another barrier to the use of feedback, namely that students' workload is often very high. Walker (2009), who states that few research has been done on students' response to feedback, shows with her research results that students find some types of feedback considerably more usable than others. Remarkably, this author's own research does also not examine students' response to feedback, but students' perceptions of usability of the feedback.

If the feedback is not clear, a logical reaction of students would be to ask for clarifications. However, since students are often busy during the semester, many of them will not ask for clarification of feedback comments. Subsequently, tutors might wrongly suppose that students understand the feedback (Crisp, 2007)

In case the feedback is used, students do this broadly in six different ways: to motivate them, as guidance in order to stimulate learning, to promote reflection, to clarify what is expected or why a certain mark was given, to use for future assignments, and by using specific feedback that indicates clearly what has to be changed (Orsmond, et al., 2005). However, although students recognize the importance of feedback for improvement of their assessment and their learning, the exact way students use feedback is not clear and the context of this use is complex (Higgins, et al., 2002). For effective implementation of formative feedback, it is essential to know more in detail students' understanding of the feedback and how they make use of it to improve their assessment (Higgins, et al., 2001). Moreover, to enhance learning, it is essential that students are actively involved in the feedback process (e.g. Nicol, 2010; Price, et al., 2011)

Students as active constructors of feedback information

Although the quality of the feedback comments is important, the quality of students' interaction with these comments is at least as important (Nicol, 2010). However, how assessment feedback links with improved performance is not well understood (Sargeant, et al., 2009). Too often feedback is considered as a product instead of a long lasting two way communication process, that can only be productive if all parties participate (Price, et al., 2011). These authors

distinguish the next steps in this engagement process following the assessment feedback: "collection, immediate attention, cognitive response, immediate or latent action" (p. 883), as shown in Figure 5.

According to these authors collection of the feedback comments is the most visible step. This is true for comments written on paper. However, providing feedback comments on-line is also a common practice in contemporary higher education, of which the collection is difficult to observe. These authors mention that the combination of providing marks on-line and written feedback on paper reduces students' motivation to recollect the comments and thus decreases the number of recollected feedback sheets.

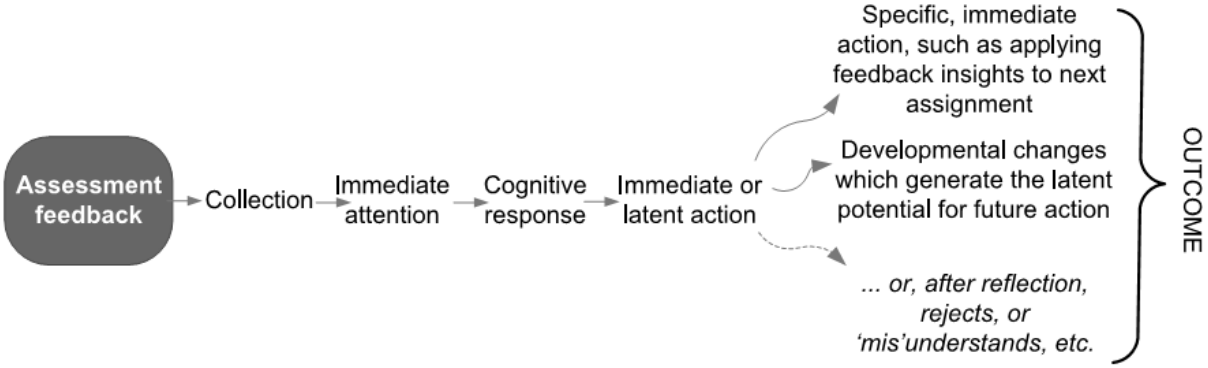


Figure 5 Student use of assessment feedback (From: Price, et al., 2011, p. 883)

Related to the second step, immediate attention, it is essential if students read the feedback and, if they do, how much time they spend for it and how intensive this attention is. The third step, students' cognitive response is the most critical (Price, et al., 2011). At this point students' perceptions of feedback play a significant role. The authors state that this step depends mainly on the fact if the feedback is understandable and on the self-efficacy of the students. Although these authors did not indicate the relation with the conceptual model of Nicol and Macfarlane-Dick (2006), this step concerns the internal processes of self-regulated learning as shown in Figure 1. It is here where tutor's external feedback is internalised in student's cognitive system. Moreover, like Nicol and Macfarlane-Dick (2006) indicate, tutor's feedback can support student self-regulation. Both students' attention to feedback and their cognitive response is mostly invisible for tutors and teachers.

The last step, taking action, depends on three prerequisites: "motive (the student needs it), opportunity (the student receives it in time to use it), and means (the student is able and willing

to use it)" (Shute, 2008, p. 175). Also in the conceptual model for self-regulated learning (Figure 1) the internal cognitive processes come before the external outcomes (the essay). However, as indicated in the models in Figure 1 and 4, it is during the action of using the feedback to improve the actual or future assignment that internal cognitive processes of self-regulated learning take place. With other words, thinking, learning and acting go hand in hand.

Research questions and hypothesis

From above discussion of the different aspects of the essay writing process with feedback as shown in Figure 4, it becomes clear that most aspects have received close attention from several authors. Related to the use of feedback, this includes evidence on the usefulness of feedback, students' perceptions of the usefulness of feedback, the extent to which students value the feedback, characteristics that influence the effectiveness and use of feedback, and the way students should use feedback. However, how students exactly use written feedback on their essays seems still to be under-researched. A better understanding of it is essential in order to be able to understand this part of the feedback process and to know the extent to which the feedback is effective. This situation prompted the following research questions:

1. How do students make use of tutor's written feedback on their essays?
2. To what extent do student internal factors as mentioned in the conceptual model of the essay writing process with feedback (Figure 4) explain students' use of feedback?

Related to the second research question, the following hypothesis is examined:

> The student internal factors, motivation, learning strategies, perceptions of feedback, and perceptions of writing assignments have all a positive influence on students' use of written feedback on their assignments.

Method

Design

Mixed methods were used combining quantitative and qualitative research. The study was undertaken at the University of Melbourne at the school for Development Studies. The reason for this choice was that students of this school were assessed by essay writing and got feedback on their essays. Underlying this study was the assumption that students' use of feedback follows the steps of the model of student engagement with feedback as proposed by Price et al. (2011), which is shown in Figure 5.

Background

For all subjects of the Master of Development Studies two individual essay writing assignments were used: one mid-term, after 4 to 6 weeks and a final assignment after the last class at the end of the semester. The first was mostly shorter (about 1500-2000 words) than the second (about 3000-4000 words). For larger subjects also larger essays were expected. For most subjects the first and second assignments were not directly related to each other. For some other subjects, the first assignment concerned an outline of the final assignment. At the beginning of the semester, students got for all their subjects an overview of the themes, required readings and recommended readings for each week, as well as descriptions of the two assignments. If desired, students could make appointments with their teacher or tutor for extra explanation related to the assignment. All feedback on assignments was provided in written form, either on paper or digital.

Participants

The participants in the study were 75 national (Australian) and international students who were enrolled in the Master of Development Studies. Since the researcher was attached to this faculty, he had easier access to these students who were in general willing to cooperate. All of them had finished their bachelor degree, some of them had finished a master degree, but in another discipline. Five participated in the interviews and 70 in the questionnaire. Of the 70 students who filled out the questionnaire, the answers of two respondents were excluded, because one of them gave the same answer to all questions and the other skipped two pages of questions. The remaining 68 respondents came from 23 countries, 15 of them were Australian. Most of the other students were from Asian countries. 44 Students were female and 24 were male.

Instruments

To assess students' motivation and learning strategies the *Motivated Strategies for Learning Questionnaire (MSLQ)* (Pintrich, et al., 1991) was used, and to measure students' use of feedback and their perceptions of feedback the *Assessment Experience Questionnaire (AEQ)* (Gibbs & Simpson, 2003) was used.

The Motivated Strategies for Learning Questionnaire (MSLQ)

The MSLQ is an instrument to measure self-regulated learning (SRL) that has widely been used (Zimmerman, 2008). It is "based on a general cognitive view of motivation and learning strategies". It exists of two parts. The motivational part has 31 items to assess "students' goals and value believes for a course". The learning strategies part has 50 items: 31 are used to measure students' cognitive and meta-cognitive strategies and 19 to measure students' "management of different resources" (Pintrich, et al., 1991, p. 2). All items have been tested on large groups of students and rewritten based on the analysis of the test data. Simultaneously, the conceptual model underlying the questionnaire was refined. The internal reliability of the scales of the final MSLQ varies from low to high, with Cronbach's alphas of .52 to .93 (p. 4).

The 31 items of the motivational part measure six scales. Three of them are "value components": "intrinsic goal orientation" (4 items), "extrinsic goal orientation" (4 items) and "task value" (6 items). Two scales are used for "expectancy components": "control believes" (4 items) and "self-efficacy for learning and performance" (8 items). The last motivational scale is "test anxiety" (5 items) and measures the affective component.

The 50 items of the learning strategies part measure nine scales. Five scales are used for cognitive and meta-cognitive strategies: "rehearsal" (4 items), "elaboration" (6 items), "organization" (4 items), "critical thinking" (5 items), and "meta-cognitive self-regulation" (12 items). Four scales measure "resource management strategies": "time and study environment" (8 items), "effort regulation" (4 items), "peer learning" (3 items), and "help seeking" (4 items) (p. 6).

The Assessment Experience Questionnaire (AEQ)

The AEQ was developed to measure to which extent students experience the assessment as appropriate. Based on a literature review on student assessment eleven conditions for assessment

were defined to stimulate students' learning, which are underlying the AEQ. This instrument uses six scales, each containing six items, to measure the extent to which the eleven conditions are met. The six scales are: "1) time demands and student effort, 2) assignments and learning, 3) quantity and timing of feedback, 4) quality of feedback, 5) use of feedback, 6) the examination and learning" (Gibbs & Simpson, 2003, p. 1). The items and scales of the AEQ are based on a wide range of studies. Calculation of the reliability coefficients for the six items of each scale revealed a large difference in internal reliability: scale 1, 2 and 6 had Cronbach's alphas of less than .6 and the scales related to feedback (3, 4 and 5) had Cronbach's alphas between .74 and .87 (p. 7).

The instruments in this research

A questionnaire (see Appendix 1A and 1B) was developed of which the first part existed of 76 questions of the MSLQ. The whole MSLQ exists of 81 questions. 5 Questions of the affective component related to test anxiety were not included in the questionnaire of this paper, because they were not relevant to the situation of the participants. A seven point Likert scale was used to answer the questions, ranging from *not at all true of me* to *very true of me*.

The 18 questions of the AEQ of the three scales that are directly related to feedback: quantity and timing of feedback, quality of feedback, and use of feedback, were included in the second part of the questionnaire of this research, here called the Feedback Experience Questionnaire (FEQ). After these 18 questions followed a group of questions divided over five scales. The first four were related to the four steps of student use of assessment feedback as shown in Figure 5: collection (4 items), attention (3 items), cognitive response (8 items), and action (8 items). The fifth scale intended to measure students' perceptions of writing assignments (5 items). A five point Likert scale was used to answer these questions, ranging from *strongly disagree* to *strongly agree*. All these questions of the FEQ concerned students' experience with their subjects of the Master of Development Studies. Lastly, some general questions followed about the student's personal background.

In order to get more in depth information about the use of feedback, semi structured interviews were carried out by using an interview questionnaire (see Appendix 2). The interviews were semi-structured, in order to stimulate open talk of respondents. The focus of the questions was on how students made use of the feedback on their essay, and the influence of

their specific context on it. Students were approached by the researcher and asked to volunteer in the interview.

Procedure

Before the beginning of one of the classes of one of the subjects, within the classroom a student handed out the questionnaires. This assistant was instructed to tell the other students that the questionnaire was part of a research to get information about students' use of tutor's and teacher's feedback on their essays, that it was absolutely voluntary and anonymous, and to request them to fill in the questionnaires individually. The participation rate was about 80%. Students used about 20 minutes. The assistant collected the questionnaires when completed and put them together in an envelop, which was collected by the researcher. The answers were collated and analysed.

Besides, two students were asked by the researcher at random and voluntary for the feedback on their essays of four previous subjects given by four teachers. This feedback on paper was handed over to and analysed by the researcher. Five students were requested by the researcher to volunteer in the interview. Appointments for the interview were made with them at the university. The interviews lasted 45 to 60 minutes. After the five interviews were recorded and transcribed, the answers of the interviews were analysed.

Analysis

First, the answers of 68 students on both parts of the questionnaire were used for analysis. Each scale of the questionnaire was calculated by taking the mean of the items that make up that scale. Before calculation, the numbers of reverse coded items were put in the opposite direction. Since the MSLQ and the first part of the FEQ that origins from the AEQ have been tested intensively and their items and scales are based on a wide range of qualitative and quantitative studies, these items of the questionnaire were not further tested on their internal reliability.

However, the last five scales of the FEQ and their items were subjected to a calculation of their internal reliability. Items which reduced the internal reliability were removed. Next, the mean scores and standard deviation of each of the remaining items from these five scales were calculated. Subsequently, regression assumptions were checked for all scales and if the necessary conditions were met, correlations between the independent variables (learning strategies,

motivation, perceptions of feedback, and perceptions of writing assignments), and the dependent variable (use of feedback) were calculated, using multiple regression analysis. If the conditions for multiple regression analysis were not met, non-parametric tests were done by using Spearman's rank correlation coefficient**.**

Subsequently, feedback of four teachers was analysed on the following aspects: amount of feedback, timing of feedback, clarity, if it is understandable, the proportion negative and positive feedback, specificity, usability, and transferability. Lastly, semi structured interviews with five students were used to provide detailed data about the use of feedback related to the specific context of the participants. Next these data were analysed to identify the scope and range of answers, as well as common answers. The data were categorised, categories were described and connections between categories were made. Conclusions related to the proposed hypothesis were formed.All results were synthesised and discussed by comparison with in literature available research evidence. Conclusions related to the research questions were given.

Results

Answers to the questionnaire

Motivation and learning strategy scales

One item of the MSLQ ("I rarely find time to review my notes or readings before an exam") was removed as several respondents indicated that it was not applicable for them since they do not make exams but write papers for assessment.

Mean and internal reliability (Cronbach's Alpha) for the motivation and learning strategy scales were compared as shown in Table 1with those of Pintrich, Smith, Garcia and Mckeachie (1993, p. 808), who used the answers of "380 Midwestern college students, most from a four year, comprehensive university" (p. 805). Cronbach's Alphas were higher for all motivation and learning strategy scales of the current research. The relation of the heights of the Cronbach's Alphas of both researches however matched reasonably, and the ratio CA current research/ CA research of Pinbtrich et al. was between 1.04 and 1.38.

The absolute difference between the means of the scales of the current research and the one from Pintrich et al. is ≤ 0.35 for 6 scales, > 0.35 and ≤ 0.70 for 5 scales, and > 0.70 for 3 scales. These last three scales, which are lower for the current research, are "control of learning beliefs", "self-efficacy for learning and performance", and "rehearsal".

Table 1 Descriptive statistics and internal reliability coefficients for motivation and learning strategy scales

	Current research			Pintrich et al. (1993)	
Scale	Mean	SD	Cronbach's Alpha	Mean	Cronbach's Alpha
Motivation scales					
Intrinsic goal orientation	4,96	1,60	0.90	5.03	0.74
Extrinsic goal orientation	4,38	1,00	0.77	5.03	0.62
Task value	5,31	1,28	0.95	5.54	0.90
Control of learning beliefs	4,70	1,15	0.81	5.74	0.68
Self-efficacy for learning and performance	4,52	1,23	0.97	5.47	0.93
Learning strategy scales					
Rehearsal	3,70	1,15	0.73	4.53	0.69
Elaboration	5,02	1,18	0.92	4.91	0.75
Organisation	4.04	1,06	0.83	4,14	0.64
Critical thinking	4,57	1,19	0.90	4.16	0.80
Metacognitive self-regulation	4,24	1,09	0.93	4.54	0.79
Time and study environment management	4,91	1,17	0.84	4.87	0.76
Effort regulation	4,87	1,06	0.76	5.25	0.69
Peer learning	3,42	1,04	0.80	2.89	0.76
Help-seeking	4,44	0,96	0.72	3.84	0.52

Assessment experience scales

In case of the assessment experience scales these numbers were compared as shown in Table 2 with those of Gibbs and Simpson (2003, p. 7), who used the answers of two groups of students. One group were part time and mature students of whom 498 replied the questions and the others were mainly full-time and 18-21 years old students of whom 278 replied the questions (p. 4). Cronbach's Alphas were lower for two scales and higher for one scale of the current research. The ratio CA current research/ CA research of Gibbs and Simpson was between 0.86 and 1.12. Means were between 3.10 and 3.61. Unfortunately, means are not mentioned in the article of Gibbs and Simpson. These authors did negatively interpret the fifth item of the scale for quantity

and timing of feedback: "I would learn more if I received more feedback". However, in that case this item would negatively correlate with the rest of the items of this scale, and Cronbach's Alpha of the scale would be lower (0.62 instead of 0.75). Although this item can be negatively interpreted in the sense of "I don't learn so much because I get hardly any feedback" most respondents of the current research interpreted it probably in a positive way as "I value the feedback and would even learn more if I received more feedback".

Table 2 Descriptive statistics and internal reliability coefficients for assessment experience scales

	Current research			Gibbs and Simpson (2003)
Scale	Mean	SD	Cronbach's Alpha	Cronbach's Alpha
Assessment experience scales				
Quantity and timing of feedback	3.10	0,59	0.75*	0.87
Quality of feedback	3.20	0,56	0.76	0.77
Use of feedback	3.61	0,71	0.83	0.74

* 0.62 if fifth item is negatively interpreted ("I would learn more if I received more feedback")

Use of assessment feedback scales and perception of writing assignment scale

Descriptive statistics and internal reliability coefficients for the scales that were constructed as mentioned in this report, the assessment feedback scales based on the figure of Price et al. (2011) and the perception of writing assignment scale are given in Table 3.

Each item of these scales was tested on four criteria:

- the item does not sufficiently discriminate (has a low standard deviation (SD))
- the item has a low item-total correlation (< 0.3)
- removing the item leads to an increase of Cronbach's Alpha
- the content of the item does not fit well with the scale.

Concerning the first scale, *collection*, the second item "I collect always the feedback on my outline for an assignment" caused a decrease of the internal reliability. After removal of it Cronbach's Alpha increased from 0.75 to 0.88. Moreover, although a SD of 1.22 was good, the item-total correlation of 0.21 was considered as too low. With respect to the content of this item, this seemed difficult to explain, since it was logical that collection of this feedback was part of the collection of all kinds of feedback on

assignments, and students who scored high on this scale would probably also score high on this item. However, during the interviews with 5 students it appeared that even students who made less use of feedback used the feedback on outlines because they needed it to be able to continue. Moreover, as a student explained who was very eager to use teacher's feedback, "feedback on outlines for assignments is send to us so we do not need to collect it". For these reasons this second item was removed from the scale for collection, as shown in Table 4. For the scales *attention* and *cognitive response* all items could meet the criteria.

Table 3 Descriptive statistics and internal reliability coefficients for use of assessment feedback scales and perception of writing assignment scale

Scale	Mean	SD	SD per item	Cronbach's Alpha
Scales for use of assessment feedback				
Collection	3.88	0.84	0.94-1.22	0.75**
Attention	4.25	0.91	0.91-1.14	0.90
Cognitive response	3.46	0.70	0.90-1.08	0.85
Action	3.62	0.54	0.69-1.08	0.77***
Perception of writing assignments	4.16	0.87	0.94-1.07	0.91

** 0.88 if second item (SD = 1.22, item-total correlation = 0.21) is removed ("I collect always the feedback on my outline for an assignment")

*** 0.82 if item 4 (SD = 0.69, item-total correlation = -0.08) is removed ("After thinking about some feedback items I decided not to use them")

With regard to the fourth scale, *action*, the fourth item "After thinking about some feedback items I decided not to use them" decreased the internal reliability of this scale. Cronbach's Alpha increased from 0.77 to 0.82 after removal of the item. The SD of this item, 0.69, was low and the item-total correlation was even negative (- 0.08). Negative interpretation of this item slightly increased the internal reliability to 0.79 and the item-total correlation became positive, but was with a value of 0.08 still too low. Relating to the content of this item it was expected that this item positively related to the whole scale for action: the student actively thought about the feedback and made an informed decision. However, the decision not to use the feedback made this item confusing as it could also be considered as no action. Students who generally thought about feedback and used feedback, might score low on this statement, and students who

generally did not think about feedback and mostly did not use the feedback might score high on this item. It was in fact the same kind of double statement in one item as mentioned before in case of the fifth item of the scale for quantity and timing of feedback from Gibbs and Simpson (2003), which was confusing. Consequently, this item was removed (Table 4).

For the scale *perception of writing assignments* all items could meet the criteria.

Table 4 Corrected descriptive statistics and internal reliability coefficients for use of assessment feedback scales (after removal of items) and perception of writing assignment scale

Scale	Mean	SD	SD per item	Cronbach's Alpha
Scales for use of assessment feedback				
Collection	3.88	0.97	0.94-1.19	0.88
Attention	4.25	0.91	0.91-1.14	0.90
Cognitive response	3.46	0.70	0.90-1.08	0.85
Action	3.80	0.62	0.78-1.08	0.82
Perception of writing assignments	4.16	0.87	0.94-1.07	0.91

Relation between independent and dependent variables

If regression assumptions were met, relations between the independent variables (learning strategies (LS), motivation (M), perceptions of feedback (PF), and perceptions of writing assignments (PWA)), and the dependent variable (use of feedback) could be calculated. The model for it would be as follows:

Use of feedback = $B0 + B1*LS + B2*M + B3*$ PF + $B4*PWA + E$

Supposing that most relevant assumptions for linear regression analysis were met, linearity and multi collinearity were considered as remaining and uncertain assumptions for linear regression of the current data. Scatter plots showed that the criteria for linearity were met. Moreover, they revealed that 9 % of the students scored low on all factors. The associated criteria for collinearity were a tolerance > 0.2 and a variance inflation factor (VIF) < 10.

First, for each respondent mean scores were calculated per scale. Next for each respondent the mean scores per variable were calculated by taking the mean of all the scales of that variable. In

case of the dependent variable use of feedback, the scales "use of feedback" from the AEQ (Gibbs & Simpson, 2003), "collection", "attention", "cognitive response", and "action" were used. Linear regression of these means of the variables was calculated.

Although VIF was lower than 10 for all four independent variables, tolerance was lower than 0.2 for learning strategy (0.138) and for motivation (0.198). Probably these two variables were too much interconnected. For that reason from both variables one new variable was made containing both motivational and learning strategy scales. These were all scales for self-regulated learning (SRL). The new model was as follows:

Use of feedback = $B0 + B1*SRL + B2*$ PF + $B3*$PWA + E

This model met the criteria for collinearity since all independent variables in this model had a tolerance > 0.2 and a VIF < 10. Regression values are mentioned in Table 5.

Table 5 Multiple regression analysis: correlations between the predictors (learning strategies, motivation, perceptions of feedback, and perceptions of writing assignments), and the dependent variable (use of feedback)

Predictor	Standardised coefficient (Beta)	Significance	Tolerance	VIF	R Square
Perception of writing assignment	0.44	0.00	0.27	3.77	
Perception of feedback	0.27	0.01	0.39	2.57	
Self regulated learning	0.24	0.02	0.33	3.07	0.78

R square was 0.78 ($\rho < 0.001$) what meant that 78% of the variance of students use of feedback could be explained by the three independent variables. All ß-s were significant ($\rho < 5\%$). The regression equation was:

$\hat{U}SE = 0.326 + 0.18*SRL + 0.36*PF + 0.36*PWA$

Beta was highest for perception of writing assignment (0.44), followed by perception of feedback (0.27) and self-regulated learning (0.24). This meant that students' perception of writing assignment was the predictor with the largest influence on students' use of feedback. The fact that beta was relatively low for perception of feedback could partly be explained by the

negative betas of some of its items. For instance students who agreed with the item "When I get things wrong or misunderstand them I don't receive much guidance in what to do about it", would probably use the few feedback that was available. So a low score on perception of feedback might correspond with a high score on use of feedback and vice versa, reducing the correlation coefficient between these variables.

Moreover, Spearman's rank correlation coefficient showed that both motivation and learning strategies had significant influence on the use of feedback with similar correlation coefficient (respectively 0.59 and 0.58).

Teacher's feedback

The written feedback of four teachers on paper versions of assignments was analysed on the following aspects: amount, timing, clarity, comprehensibility, proportion negative and positive feedback, specificity, usability, and transferability.

Amount of feedback

The amount of feedback varied from 34 to 134 words.

Timing of feedback

The time between submission of the assignment and teacher's feedback varied from two weeks to three months. Only in case of feedback on outlines for assignments, students knew beforehand in which week they would get their feedback. However, only one of the four teachers asked for an outline, which contributed 30% to the final mark of the subject.

Clarity

The clarity of the comments differed a lot among teachers. Some wrote clearly, while others' handwriting was difficult to read or even not legible at all. Clarity relates also to teachers' expectations for a good assignment which should be mentioned beforehand. One teacher added to his feedback on a final assignment two pages with explanations of marking criteria that were specific for his feedback and one page with a general guide to assessment grading of the University of Melbourne. Since this was given to the students some weeks after finalizing their assignment, it was doubtful if students would still read it. Another teacher wrote "I was

expecting a more elaborated detailed plan". However, she did not clearly mention this in the description of the task and did not suggest how to do that within the limited size of the paper.

Understandability

Although most comments were understandable, a large part of about 20% remained that was vague like: "demonstrate this for me" or "in general you have not been able to demonstrate your ability for independent thinker, especially in the discussion of key terms".

Proportion negative and positive feedback

In general, the end comments on the separate sheet were a good mix of negative and positive feedback. However one teacher did mostly refute her positive feedback by adding negative feedback in the same sentence, and continued then with more negative feedback ("A clearly written piece, but your M&E plan is unfortunately underdeveloped. Moreover, there are no justifications for your choices, and ..."). Many other positive points were not mentioned by this teacher like a proper use of good references, a good structure, and the use of explanatory examples. The tone of the feedback varied. Some teachers used often imperatives like "you should" or "you need", others had a more friendly and careful tone like "perhaps you could"

Specificity

Feedback is specific if it is clear where it applies in the assignment (Nicol, 2010). Consequently the general feedback on the separate sheet was mostly less specific than the feedback comments in the text of the essay. Specific feedback contains information about the way to improve it (Goodman, Hendrickx, & Wood, 2004). About 50% of the feedback was specific, indicating how to improve it, 40% of the feedback was less specific, indicating what was wrong without information for improvement, and about 10% of the feedback was positive, not specific feedback ("well done", "your proposed research looks really interesting").

Usability

The usability of feedback depends largely on most of above mentioned aspects of the feedback. Timely, clear, understandable and specific feedback is more likely to be used. Moreover, a good mix of positive and negative feedback makes acceptance of it easier. As mentioned, these aspects

varied largely among teachers and consequently also the usability of feedback varied. There were only few explicit suggestions for improvement.

Transferability

Transferability indicates students' learning for next papers or tasks. As such it is strongly related to usability of the feedback, since mainly feedback that is usable can lead to learning. Two teachers gave some advice for future assignments, like "Should not write essays in bullet points" and "Next time, another fruitful line of analysis would be ...".

Transferability of feedback might be negatively related to the specificity of the feedback. Since specific feedback indicates how to improve it for that specific situation, it might reduce the transferability of the feedback. For instance, Goodman et al. (2004) found that more specific feedback caused less exploration, although they could not demonstrate that it led to less learning for future tasks. On the other hand, if more specific feedback stimulates the use of the feedback, students' learning will increase when using feedback. This learning can be used for next assignments. Probably the mix of specific and less specific feedback favoured transferability.

Use of feedback related to the specific context of the participants

In order to get more in depth information about the use of feedback, semi structured interviews were carried out by using an interview questionnaire (Appendix 2). Five students, who differed in sex (3 female and 2 male), age (22 to 48 years) and nationality (Australian, Vietnamese, Chinese, Afghanistan's, and Zimbabwean) were approached by the researcher and volunteered to participate in the research. The results of the interviews were divided over three categories: students' assignments, students' use of feedback and the role of feedback for the improvement of task and learning.

Students' assignments

The way students work on their assignment

In general, most students had the following way to work on their assignment: They analysed the question or task description and surged for general information on the topic to see if they would have enough articles and information. If so, they scanned or read the articles. Next, most of them made first an outline and tried to get feedback from their teacher on the outline. Some started

writing directly. After finishing the assignment they got always feedback. How much time they used to read it varied per student and depended also on timing, quality and quantity of the feedback.

Factors influencing the quality of students' assignments

Students indicated that the quality of their assignment depended on the way they met the marking criteria, like a proper analysis, critical discussion, the quality and number of references, structure and readability of the essay. Two students mentioned that they tried to write the paper in the way their teacher liked it so that they would get a higher mark.

This all depended for all students on their understanding of the topic. Advice and feedback from the teacher was important for most of them to improve their understanding of it and consequently they asked the teacher for feedback and explanation when necessary. Most of them also indicated that some lectures and readings were difficult to understand especially because they were not so much used to read scientific articles and English was not their mother tongue.

Availability of time was another factor mentioned by all students that influenced the quality of their assignment and which depended on the distribution of the tasks over the study year as well as on their personal situation. The distribution of tasks was such that lectures were provided and assignments were made in a period of three months. Then followed a period of three months holiday till the next three months study started again. Most students mentioned that the period that they had to make their assignments was very stressful. None of them had enough time to read all the required readings, and the articles used for their essay were mostly read too superficial because of lack of time. Related to the personal situation two students had a part-time job since they could easily earn relatively high salaries compared with those in their home countries. Another student recently gave birth and was combining her study with the care for the baby.

Another factor was related to students' emotional situation and wellbeing. Two of the five students left their partner and children behind for a period of two years. Another was single but missed her family members and country. These students indicated that this situation made it often difficult to concentrate on their study. Moreover, students' wellbeing also related to their position as students. Two of them explained that in their home country they had high positions in

their government, while at Melbourne University "I am nothing" and "teachers tell me in a colonial and authoritarian way if they have time for me, what I have to do and if it is good or not".

A last factor mentioned by two students was that their grade would always be sufficient as long as they made the assignments because "teachers don't want to let us fail since we have to leave the country after two years".

Students' use of feedback

The way feedback was provided

Feedback on outlines of assignments was mostly provided by e-mail, sometimes on paper during lecture. Feedback on midterm and final assignments was sometimes provided by mail, but mostly on the paper version of the assignment, and respectively given back during lecture or when students came to pick it up after finishing the concerning subject. Face to face explanations, advice and feedback was provided when students were working on it and during appointments with their teacher.

Students' appreciation of the feedback

In general students appreciated teachers' feedback to know what could be approved. They mentioned that teacher's feedback on outlines helped most to improve the assignment. Feedback on mid-term assignments was often useful to orient for the final one ("Then you know what this teacher wants"). If it was feedback on a final assignment it was difficult to use, especially when it came late ("The feedback comes often too late to be used").

Factors influencing students' use of feedback

Students mentioned several factors influencing their use of it. Besides the already mentioned timing of the feedback, also quality and quantity of it varied from teacher to teacher. Concerning the quality were mentioned the clarity ("sometimes I cannot read my teacher's handwriting"), understandability ("some comments are so fuzzy"), the tone of the feedback and balance of negative and positive feedback ("one of my teachers seems not to be able to see some good points of my paper, others are really positive and motivating" and "sometimes the feedback is not very rational"), the specificity ('often I really don't know how to improve it"), and the

relation with the content of the subject ("there is few feedback on the content"). Two students mentioned that they would like to receive more feedback ("I write 3000 words and my teacher gives feedback in only three sentences").

The role of feedback for the improvement of task and learning

The role of feedback related to the quality of the assignment

Although students agreed that feedback could improve their understanding of the subject and the quality of their paper, most of them indicated that especially in case of final assessments the role of feedback was not very important, because it came often too late and according to some of them the feedback on the content was very few ("it looks more like an explanation of the mark"). All students agreed that feedback on outlines for assignments was most effective because it could still be used. Maybe even more important for most of them was face to face contact with their teachers and tutors ("it [face to face contact] is often more important than the feedback because I can ask my teacher concerning the assignment and it directs you").

Importance of feedback on assignments for learning

Although most students mentioned that when they used the feedback they learned at the same time how to improve their writing skills, others mentioned that they just used the comments of their teachers to improve their papers and were not sure if they really learned something from it. This might be explained by students' "diversity of approaches (ranging from reflective to mechanistic)" (Orsmond, et al., 2005, p. 378).

Most students valued and used the possibility to consult their teacher for advice and feedback ("during the appointments with my teachers I learn always things that I can use for my paper"). Most students read also the feedback on final assignments even if it came late and sometimes they learned something from it, mainly related to the general comments ("if I think now what feedback I used in next papers it was mostly advice like "show your critical thinking", or "compare the authors' viewpoints"").

In general the students arranged the study activities, starting with the one that adds most to their learning about the subject, as follows: 1 the classes of their teacher, 2 writing the assignment, 3 reading the required articles, and 4 the feedback on their assignment. Two students put writing the assignments first and the classes of their teacher second.

In case of their learning of academic qualities the order was mostly 1 writing the assignment, 2 the feedback on their assignment, 3 reading the required articles., and 4 the classes of their teachers.

Discussion

This study considers how students make use of tutor's written feedback on their essays and to what extent student internal factors explain students' use of feedback. The findings confirmed the hypothesis that the student internal factors, motivation, learning strategies, perceptions of feedback, and perceptions of writing assignments have all a positive influence on students' use of written feedback on their assignments. These factors explained together 78% of the variance of it. Students' perception of writing assignment seemed to be the most influential predictor for use of feedback. As mentioned before, research of various authors shows that students' conceptions affect their way of writing, the quality of their papers, as well as their interpretation of the feedback on it (e.g. Campbell, et al., 1998; Prosser & Webb, 1994).

When observing in more detail the individual scales for motivation and learning strategies, some surprising outcomes deserve attention. Students scored low on "rehearsal", "control of learning beliefs", and "self-efficacy for learning and performance". As appeared during the interviews with students, most of them experienced the essay writing period as stressful and indicated to have too little time to read and analyse carefully all articles. Consequently rehearsal, demanding enough available time, was inevitably limited. The results of the interviews also revealed answers to the other low scores. The foreign students indicated that lectures and articles were often difficult for them. Moreover, they were not used to read scientific articles and English was not their mother tongue. So task difficulty was high and ability to fulfil the task was low, reducing students' control of learning believes. This resulted too in low levels of confidence as writer and of expectancy for success, both main factors for self-efficacy for learning and performance (Pajares & Johnson, 1996). This all might also explain students' relatively high scores on the scales "peer-learning" and "help-seeking": students looked for support since fulfilment of the tasks was difficult. Advice and feedback for improvement of their essays was welcomed. Most students in this research indicated the importance of feedback for improvement of their assignment and to enhance learning, which probably all authors mentioned in this article would agree on.

Limitations of the study

The influence of students' perception of feedback on their use of it was expected to be higher than found in this research. This can at least partly be explained by the fact that some items of the scales "quantity and timing of feedback" and "quality of feedback", which formed together the factor perception of feedback did hardly or even negatively load on the factor use of feedback. Moreover, the students in this study were all from the same faculty. Generalisation of the results for other students reduces validity. Besides, this study is limited by its being conducted with a small group of students. Reliability could be increased by using more respondents.

Recommendations for practice

The findings of the interviews and revision of teachers' feedback, concerning several aspects of the feedback, confirm each other, and indicate a large difference among teachers' feedback on written assignments. Apart from written feedback, students stress the importance of face to face contact with their teachers. Since differences in the personal situation of students cause differences in available time and emotional situation, which both influence the way they work on their assignment, it might also be advisable for teachers to keep personal contact with their students in order to give them proper support where needed.

The following aspects of feedback, which are related to the findings of this research, will be further discussed below: the purpose, the effects, the effectiveness, the timing, and the proportion of negative and positive feedback.

Purpose of feedback

In order to measure the effectiveness of feedback, it is essential to know the purpose of the feedback. Without knowing the purpose, effectiveness cannot be accessed. Feedback concerns multiple purposes, which are mostly not explicitly recognized or even not known at all. Several broad categories of feedback can be distinguished, varying from correction to development. Since there exists a significant difference between correction and development, also the measures of effectiveness for these purposes will be different (Price, et al., 2010). Moreover, both among tutors and among students exists a wide variety of beliefs around the purpose of feedback that is related to all these categories.

Effects of feedback

According to Black and William (1998) formative assessments that facilitate formative feedback should stimulate students' learning. Also contemporary educational theories indicate the importance to provide formative feedback on assessments to foster reflection (Sargeant, et al., 2009), to stimulate students' learning and to better equip them for similar assignments in the future (Crisp, 2007).

It is essential to distinguish general compliments (praise) from feedback. Students' satisfaction increases more by using praise than by giving feedback. However, feedback improves performance and praise does not. Therefore, tutors should use a mix of feedback and praise, in order to improve students' performance and learning, as well as students' satisfaction (Boehler et al., 2006).

Feedback can also have unwanted and negative effects (Lizzio & Wilson, 2008). Kluger and DeNisi (1996) concluded, that in one-third of the feedback interventions in the workplace performance even decreased. Besides, feedback can either be motivating or demotivating (Kluger & DeNisi, 1996; Wingate, 2010).

Effectiveness of feedback

The effect of feedback is stronger if it is related to the performance on a task, especially if it gives information about correct ways for improvement of previous work of the student (Hattie & Timperley, 2007). Characteristics of effective feedback comments are: "performance-gap information, the inclusion of positive components, clarity and a concern with fairness" (Lizzio & Wilson, 2008, p. 264). Moreover, study results with undergraduate health students indicated that "effectiveness of feedback related to three key dimensions: perceptions of feedback, impact of feedback and credibility of feedback" (Poulos & Mahony, 2008, p. 145). Besides, students should have a proper interpretation of the assessment criteria, and have the same understanding as tutors of the assumptions underlying the feedback comments, before it can be effective (McCune, 2004). Tutors should evaluate how effective their feedback has been (Orsmond, et al., 2005).

Formative feedback on assessments can only be effective if it is used by the student somewhere in the future. However, maybe one of the main reasons that many students do not use their feedback is that they perceive the feedback as useless for future assignments. Reasons for

this perception of irrelevance of feedback are that students do not understand the feedback, that they do not see the link with other future subjects or modules, students do not understand the assessment criteria and consequently cannot fully interpret the feedback (Handley & Williams, 2011). Moreover, effective feedback should indicate what has to be done to improve the assignment (Gipps, 1994). If feedback is accepted and used, depends on many factors, including "the nature of the feedback, self-perceptions and expectations, feedback credibility, specificity and consistency with other feedback, emotional reactions, beliefs about ability to change and barriers to change" (Sargeant, et al., 2009, p. 401). Also the fairness of the feedback influences the use of the feedback. Students perceive feedback comments as fair if they are understandable, clear, legible, and consistent (Lizzio & Wilson, 2008).

Several authors mention that written feedback on students' assignments is often vague and of low quality and that some tutors should use more energy to improve their feedback (e.g. Duncan, 2007; Lizzio & Wilson, 2008; Nicol, 2010). If feedback of tutors is vague and non-specific, the effect on improvement of the essay and students' learning is limited (Brockbank & McGill, 1998). Moreover, to be effective, feedback should be "purposeful, meaningful, and compatible with students' prior knowledge"(Hattie & Timperley, 2007, p. 104) Lastly, too much feedback can easily overwhelm the student and also reduce the use of the feedback (Brockbank & McGill, 1998; Orsmond, et al., 2005).

Two other characteristics of feedback that can highly influence the effectiveness of it, as demonstrated by the results of this research, are the timing and the proportion negative and positive feedback.

Timing of feedback

Although formative feedback can be provided before submission of an assessment, mostly it is provided together with the (summative) mark for the assessed work (Boud, 2000). Several authors state that feedback should be timely (e.g. Higgins, et al., 2002). Timeliness enhances the impact of feedback (Poulos & Mahony, 2008). Feedback is timely if it can be used by students. There are several ways for improving timeliness: giving feedback to draft assignments of the students, so that students can use the feedback to improve their final version of the assignment, using examples which show students feedback on exemplar assignments of students who did the subject or module before them (Handley & Williams, 2011), giving feedback on outlines for the

essay to enable students to improve their final essay, and stimulating the use of feedback on the assignment of a former subject to new subjects. For this last approach close cooperation by lecturers of the different subjects will be essential. Duncan (2007) carried out research in which such old feedback on former assignments was analysed by staff and next synthesised to make learning plans for the same students. He called this "feed-forward" (p. 271). Students' interest for this kind of help was low and only 31% of them volunteered to participate in the research (p. 278). An explanation might be that students do not believe that feedback comments on one essay might help to improve a future essay.

Several authors write about the option to resubmit assignments. Sadler (1983) suggests that "students should be given an opportunity and incentive to rework and resubmit papers, with continues rather than single-shot access to evaluative feedback during the reworking" (p. 74). Covic and Jones (2008) followed this advice in their research by offering students detailed formative feedback on their essay and the opportunity to resubmit it. Although the resubmitted essays improved, it concerned mainly minor improvements like adding references or correcting grammatical errors. Not all students took larger changes as suggested by the feedback of the tutor. The main reason for resubmission was to get a better mark. The students who resubmitted their essay indicated that they valued this option, mainly as an advice how to improve their essay. The main reasons not to use the resubmitting option were workload, lack of time and getting a mark for the first submitted essay that was considered as high enough. Based on empirical research, Freestone (2009) concluded that students, who resubmitted their written assignment after review and feedback by a tutor, improved both their learning and their assignment.

Proportion of negative and positive feedback

Wingate (2010) found that high-achieving students got more positive and friendly advising comments and low-achieving students got more negative and imperative comments. According to the author this does probably negatively affect and discourage weaker students, and foster successful students' self-efficacy and motivation. This demonstrates the importance of a proper balance between negative (inconsistent with self-perceptions) and positive feedback.

Moreover, Kluger and DeNisi (1996) mention that if feedback is perceived as negative it might not be accepted nor used, and it can even result in demotivation instead of motivation,

without any improvement. Improvement is more likely if it is perceived as positive and if the receivers of it believe that change is possible, determine performance goals and work on further improvement of their performance (Hattie & Timperley, 2007). However, despite the risk that negative feedback might not be accepted, receiving negative feedback also stimulates extended reflection. Reflection enhances both assimilation of the feedback and of the emotions and concerns related to the feedback (Sargeant, et al., 2009).

Besides all these factors, findings of the current research showed students' preference for face-to-face feedback, indicating that also the way feedback is communicated probably strongly influences the use of it.

Changing feedback processes

According to some authors providing feedback should be more than a passive process of giving the feedback from tutor to student. It should be a dialogical and ongoing communication process in which both the tutor and student are actively involved (Higgins, et al., 2001; Nicol, 2010). Assessment should foster students' reflection on their own work. Therefore students need self-confidence and to consider themselves as active learners (Boud, 2007). Some contextual factors have to be taken into account in order to establish proper conditions for reflection: what can teachers/tutors do and what not, the necessity to build trust and situations in which students own meaningful learning is stimulated, the boundaries of higher education set by the academic departments, and whose interests are being served by reflective activities (Boud & Walker, 1998). In addition, students' learning has to be considered in the context of real work situations, in which they themselves are active constructors of their own learning. They have to decide what has to be learned, how it has to be learned and how to assess their own learning. This is different from most assessments in higher education (Boud, 2007).

Conclusions

In this study the ways in which students use feedback and factors influencing their use were explored in order to increase understanding how to improve effectiveness of feedback. Students' motivation, learning strategies, perceptions of feedback, and perceptions of writing assignments, explained largely their use of feedback. Further study with more students of other faculties should demonstrate if this applies to students in general.

Within the boundaries of higher education and the limitations of their available time, teachers and tutors have the difficult but important task to optimize their feedback for students' learning. To promote students' reflection and active learning, providing feedback should perhaps become a more dialogical process in which both tutors and students themselves are actively involved (Higgins, et al., 2001; Nicol, 2010) . In that way the individual learning context of students, which influences students' learning and use of feedback, might also be better understood. It deserves more research to find usable and successful ways to apply this in the context of academic learning and assessment.

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Appendix 1A The Motivated Strategies for Learning Questionnaire

(All questions below were mixed according to the original MSLQ)

The Motivated Strategies for Learning Questionnaire (MSLQ) was developed to measure the types of learning strategies you use and your academic motivation. It contains several sections. For each section, you will receive a score. It is important that you answer all of the questions honestly.
These are opinions about yourself; there are no right or wrong answers.

Directions: Below are statements that people use to describe themselves. Please darken in the circle of the response that best describes you using the following scale:

		NOT AT ALL TRUE OF ME ● ● ● ● ● ● ● VERY TRUE OF ME
1.	When I study, I practice saying the material to my self over and over.	① ② ③ ④ ⑤ ⑥ ⑦
	When studying for classes, I read my class notes and the course reading over and over.	① ② ③ ④ ⑤ ⑥ ⑦
	I memorize key words to remind me of important concepts when I study.	① ② ③ ④ ⑤ ⑥ ⑦
	When I study, I make lists of important terms and memorize the lists.	① ② ③ ④ ⑤ ⑥ ⑦
2.	When I study for classes, I pull together information from different sources, such as lectures, readings, and discussions.	① ② ③ ④ ⑤ ⑥ ⑦
	I try to relate ideas in one subject to those in other courses whenever possible.	① ② ③ ④ ⑤ ⑥ ⑦
	When reading for classes, I try to relate the material to what I already know.	① ② ③ ④ ⑤ ⑥ ⑦
	When I study, I write brief summaries of the main ideas from the readings and the concepts from the lectures.	① ② ③ ④ ⑤ ⑥ ⑦
	I try to understand the material in classes by making connections between the readings and the concepts from the lectures	① ② ③ ④ ⑤ ⑥ ⑦
	I try to apply ideas from course readings in other class activities such as lecture and discussion.	① ② ③ ④ ⑤ ⑥ ⑦
3.	When I study the readings for a class, I outline the material to help me organize my thoughts.	① ② ③ ④ ⑤ ⑥ ⑦
	When I study, I go through the readings and my class notes and try to find the most important ideas.	① ② ③ ④ ⑤ ⑥ ⑦
	I make simple charts, diagrams, or tables to help me organize course material.	① ② ③ ④ ⑤ ⑥ ⑦
	When I study, I go over my class notes and make an outline of important concepts.	① ② ③ ④ ⑤ ⑥ ⑦
4.	I often find myself questioning things I hear or read in this classes to decide if I find them convincing.	① ② ③ ④ ⑤ ⑥ ⑦
	When a theory, interpretation, or conclusion is presented in class or in readings, I try to decide if there is good supporting evidence.	① ② ③ ④ ⑤ ⑥ ⑦
	I treat the course material as a starting point and try to develop my own ideas about it.	① ② ③ ④ ⑤ ⑥ ⑦

		NOT AT ALL TRUE OF ME ● ● ● ● ● ● ● VERY TRUE OF ME
	I try to play around with ideas of my own related to what I am learning in a class.	① ② ③ ④ ⑤ ⑥ ⑦
	Whenever I read or hear an assertion or conclusion in classes, I think about possible alternatives.	① ② ③ ④ ⑤ ⑥ ⑦
5.	During class time I often miss important points because I'm thinking of other things.	① ② ③ ④ ⑤ ⑥ ⑦
	When reading for classes, I make up questions to help focus my reading.	① ② ③ ④ ⑤ ⑥ ⑦
	When I become confused about something I'm reading, I go back and try to figure it out.	① ② ③ ④ ⑤ ⑥ ⑦
	If course materials are difficult to understand, I change the way I read the material.	① ② ③ ④ ⑤ ⑥ ⑦
	Before I study new material thoroughly, I often skim it to see how it is organized.	① ② ③ ④ ⑤ ⑥ ⑦
	I ask myself questions to make sure I understand the material I have been studying in class.	① ② ③ ④ ⑤ ⑥ ⑦
	I try to change the way I study in order to fit the course requirements and instructor's teaching style.	① ② ③ ④ ⑤ ⑥ ⑦
	I often find that I have been reading for class but don't know what it was all about.	① ② ③ ④ ⑤ ⑥ ⑦
	I try to think through a topic and decide what I am supposed to learn from it rather than just reading it over when studying.	① ② ③ ④ ⑤ ⑥ ⑦
	When studying, I try to determine which concepts I don't understand well.	① ② ③ ④ ⑤ ⑥ ⑦
	When I study, I set goals for myself in order to direct my activities in each study period.	① ② ③ ④ ⑤ ⑥ ⑦
	If I get confused taking notes, I make sure I sort it out afterward.	① ② ③ ④ ⑤ ⑥ ⑦
6.	I prefer course material that really challenges me so I can learn new things.	① ② ③ ④ ⑤ ⑥ ⑦
	I prefer course material that arouses my curiosity, even if it is difficult to learn.	① ② ③ ④ ⑤ ⑥ ⑦
	The most satisfying thing for me in classes is trying to understand the content as thoroughly as possible.	① ② ③ ④ ⑤ ⑥ ⑦
	When I have the opportunity, I choose course assignments that I can learn from even if they don't guarantee a good grade.	① ② ③ ④ ⑤ ⑥ ⑦
7.	Getting a good grade is the most satisfying thing for me right now.	① ② ③ ④ ⑤ ⑥ ⑦
	The most important thing for me right now is improving my overall grade point average, so my main concern in this class is getting a good grade.	① ② ③ ④ ⑤ ⑥ ⑦
	If I can, I want to get better grades in this class than most of the other students.	① ② ③ ④ ⑤ ⑥ ⑦
	I want to do well in this class because it is important to show my ability to my family, friends, employer, or others.	① ② ③ ④ ⑤ ⑥ ⑦

		NOT AT ALL TRUE OF ME ● ● ● ● ● ● ● VERY TRUE OF ME
8.	I think I will be able to use what I learn in this course in other courses.	① ② ③ ④ ⑤ ⑥ ⑦
	It is important for me to learn the material in this class.	① ② ③ ④ ⑤ ⑥ ⑦
	I am very interested in the content area of this course.	① ② ③ ④ ⑤ ⑥ ⑦
	I think the material in this class is useful for me to learn.	① ② ③ ④ ⑤ ⑥ ⑦
	I like the subject matter of this course.	① ② ③ ④ ⑤ ⑥ ⑦
	Understanding the subject matter of this course is very important to me.	① ② ③ ④ ⑤ ⑥ ⑦
9.	If I study in appropriate ways, then I will be able to learn the material in this course.	① ② ③ ④ ⑤ ⑥ ⑦
	It is my own fault if I don't learn the material in this course.	① ② ③ ④ ⑤ ⑥ ⑦
	If I try hard enough, then I will understand the course material.	① ② ③ ④ ⑤ ⑥ ⑦
	If I don't understand the course material, it is because I didn't try hard enough.	① ② ③ ④ ⑤ ⑥ ⑦
10.	I believe I will receive excellent grades for the subjects.	① ② ③ ④ ⑤ ⑥ ⑦
	I'm certain I can understand the most difficult material presented in the readings for the subjects.	① ② ③ ④ ⑤ ⑥ ⑦
	I'm confident I can understand the basic concepts taught in the subjects.	① ② ③ ④ ⑤ ⑥ ⑦
	I'm confident I can understand the most complex material presented by the teachers of the subjects.	① ② ③ ④ ⑤ ⑥ ⑦
	I'm confident I can do an excellent job on the assignments for the subjects.	① ② ③ ④ ⑤ ⑥ ⑦
	I expect to do well in the classes.	① ② ③ ④ ⑤ ⑥ ⑦
	I'm certain I can master the skills being taught in the classes.	① ② ③ ④ ⑤ ⑥ ⑦
	Considering the difficulty of the subjects, the teachers, and my skills, I think I will do well in the classes.	① ② ③ ④ ⑤ ⑥ ⑦
11.	I often feel so lazy or bored when I study that I quit before I finish what I planned to do.	① ② ③ ④ ⑤ ⑥ ⑦
	I work hard to do well even if I don't like what we are doing.	① ② ③ ④ ⑤ ⑥ ⑦
	When course work is difficult, I give up or only study the easy parts.	① ② ③ ④ ⑤ ⑥ ⑦
	Even when course materials are dull and uninteresting, I manage to keep working until I finish.	① ② ③ ④ ⑤ ⑥ ⑦

		NOT AT ALL TRUE OF ME ● ● ● ● ● ● ● VERY TRUE OF ME
12.	I usually study in a place where I can concentrate on my course work.	① ② ③ ④ ⑤ ⑥ ⑦
	I make good use of my study time.	① ② ③ ④ ⑤ ⑥ ⑦
	I find it hard to stick to a study schedule.	① ② ③ ④ ⑤ ⑥ ⑦
	I have a regular place set aside for studying.	① ② ③ ④ ⑤ ⑥ ⑦
	I make sure I keep up with the weekly readings and assignments for my subjects.	① ② ③ ④ ⑤ ⑥ ⑦
	I attend class regularly.	① ② ③ ④ ⑤ ⑥ ⑦
	I often find that I don't spend very much time on school work because of other activities.	① ② ③ ④ ⑤ ⑥ ⑦
	I rarely find time to review my notes or readings before an exam.	① ② ③ ④ ⑤ ⑥ ⑦
13.	When studying for a class, I often try to explain the material to a classmate or a friend.	① ② ③ ④ ⑤ ⑥ ⑦
	I try to work with other students to complete the course assignments.	① ② ③ ④ ⑤ ⑥ ⑦
	When studying for a class, I often set aside time to discuss the course material with a group of students from the class.	① ② ③ ④ ⑤ ⑥ ⑦
14.	Even if I have trouble learning the material in a class, I try to do the work on my own, without help from anyone.	① ② ③ ④ ⑤ ⑥ ⑦
	I ask the instructor to clarify concepts I don't understand well.	① ② ③ ④ ⑤ ⑥ ⑦
	When I can't understand the material in a course, I ask another student in this class for help.	① ② ③ ④ ⑤ ⑥ ⑦
	I try to identify students in my classes whom I can ask for help if necessary.	① ② ③ ④ ⑤ ⑥ ⑦

Appendix 1B Feedback Experience Questionnaire

The following questionnaire will be used to gain insight into how written feedback from tutors or teachers on students' assignments is used by students. Although most aspects of this feedback process have been researched and discussed by several authors, the way students make use of the written feedback is still under-researched. The aim of this questionnaire is to fill this gap. I hope you will help me by filling out this questionnaire.

Please answer every item quickly by giving your immediate response. Circle the appropriate column to indicate your level of agreement with each statement.

	strongly disagree	disagree	?	agree	strongly agree
1 Quantity and timing of feedback					
On this module I get plenty of feedback on how I am doing.	*1*	*2*	*3*	*4*	*5*
The feedback comes back very quickly.	*1*	*2*	*3*	*4*	*5*
There is hardly any feedback on my assignments when I get them back.	*1*	*2*	*3*	*4*	*5*
When I get things wrong or misunderstand them I don't receive much guidance in what to do about it.	*1*	*2*	*3*	*4*	*5*
I would learn more if I received more feedback.	*1*	*2*	*3*	*4*	*5*
Whatever feedback I get comes too late to be useful.	*1*	*2*	*3*	*4*	*5*
2 Quality of feedback					
The feedback mainly tells me how well I am doing in relation to others.	*1*	*2*	*3*	*4*	*5*
The feedback helps me to understand things better.	*1*	*2*	*3*	*4*	*5*
The feedback shows me how to do better next time.	*1*	*2*	*3*	*4*	*5*
Once I have read the feedback I understand why I got the mark I did.	*1*	*2*	*3*	*4*	*5*
I don't understand some of the feedback.	*1*	*2*	*3*	*4*	*5*
I can seldom see from the feedback what I need to do to improve.	*1*	*2*	*3*	*4*	*5*
3 What you do with the feedback					
I read the feedback carefully and try to understand what the feedback is saying.	*1*	*2*	*3*	*4*	*5*
I use the feedback to go back over what I have done in the assignment.	*1*	*2*	*3*	*4*	*5*
The feedback does not help me with any subsequent assignments.	*1*	*2*	*3*	*4*	*5*
The feedback prompts me to go back over material covered earlier in the module.	*1*	*2*	*3*	*4*	*5*
I do not use the feedback for revising.	*1*	*2*	*3*	*4*	*5*
I tend to only read the marks.	*1*	*2*	*3*	*4*	*5*

(all questions below will be mixed, words in bold will not be mentioned)

Collection

I collect always the feedback on my mid-term assignment either online or on paper.	*1*	*2*	*3*	*4*	*5*
I collect always the feedback on my outline for an assignment.	*1*	*2*	*3*	*4*	*5*
I collect always the feedback on my final assignment either online or on paper.	*1*	*2*	*3*	*4*	*5*
If I would not receive feedback on my assignment, I would ask for it.	*1*	*2*	*3*	*4*	*5*

Attention

The feedback is not worth my attention.	*1*	*2*	*3*	*4*	*5*
I pay close attention to the feedback.	*1*	*2*	*3*	*4*	*5*
I read all the feedback comments.	*1*	*2*	*3*	*4*	*5*

Cognitive response

I use the feedback to reflect on my own assignment and think how I could improve it.	*1*	*2*	*3*	*4*	*5*
If I do not understand the feedback, I will ask for clarifications/ explanations.	*1*	*2*	*3*	*4*	*5*
The feedback comments stay in my mind.	*1*	*2*	*3*	*4*	*5*
I think I learn from the feedback, but sometimes it is difficult to indicate what exactly.	*1*	*2*	*3*	*4*	*5*
I don't learn much from the feedback, because it is mostly not clear or understandable.	*1*	*2*	*3*	*4*	*5*
I discuss feedback comments with another student.	*1*	*2*	*3*	*4*	*5*
The feedback given on my assignment helps me to improve my ways of learning and studying.	*1*	*2*	*3*	*4*	*5*
The feedback given on my assignment helps to clarify things I hadn't fully understood.	*1*	*2*	*3*	*4*	*5*

Action

I think actively about how I can use the feedback in my learning process.	*1*	*2*	*3*	*4*	*5*
I do not apply feedback insights to next assignments.	*1*	*2*	*3*	*4*	*5*
I learn from the feedback, so that I can use it in the future.	*1*	*2*	*3*	*4*	*5*
After thinking about some feedback comments, I decided not to use them.	*1*	*2*	*3*	*4*	*5*
I will use the feedback if I can apply it for the same assignment.	*1*	*2*	*3*	*4*	*5*
I will use the feedback if I see opportunities to apply it in future work.	*1*	*2*	*3*	*4*	*5*
Mostly, I do not know how I can make use of the feedback.	*1*	*2*	*3*	*4*	*5*
The feedback contributes to improvement of my next assignments.	*1*	*2*	*3*	*4*	*5*

How much time do you spend on reading the feedback comments?
0, 5, 10, 15, 20, 25, 30, or more than 30 minutes

	strongly disagree	disagree	?	agree	strongly agree
The following questions are related to your perception of your assignments:					
Writing assignments is just a matter of putting information from books on paper.	*1*	*2*	*3*	*4*	*5*
Writing assignments gives a good indication of my academic capacities.	*1*	*2*	*3*	*4*	*5*
Writing assignments is summarizing a lot of information without understanding it.	*1*	*2*	*3*	*4*	*5*
By writing assignments I improve my academic competencies like using relevant literature, analyzing and integrating information, and critical thinking.	*1*	*2*	*3*	*4*	*5*
Writing assignments improves my understanding of the subject.	*1*	*2*	*3*	*4*	*5*

The last group of questions concerns your personal background:

What is your gender? (male/ female)

What is your age? …….

What is your nationality? ……...

That's all! But in case you would like to add something below, please feel free to add anything you wish, since I know that questionnaires give not enough scope for what each person would like to say on the topic.

Thank you for your help in answering these questions!

Appendix 2 Interview questionnaire

I am conducting a small qualitative study for my master thesis, in order to gain insight into how written feedback from tutors or teachers on students' assignments is used by students. Although most aspects of this feedback process have been researched and discussed by several authors, the way students make use of the written feedback is still under-researched. The aim of this questionnaire is to fill this gap.

- Could you please tell me how you work on your assignments?
- Which factors influence the quality of your assignments?
- What could be changed so that you learn more concerning your university subjects?
- Could you please tell me how feedback on your assignments is provided to you?
- How do you value this feedback?
- How do you make use of it?
- Which factors influence the extent to which you make use of the feedback?
- How important is feedback on your assignment as part of your learning about the subject?
- How important is face-to-face contact with your teacher/tutor related to your assignment?
- Could you please arrange the following activities starting with the one that adds most to your learning about the subject? (reading the required articles, the classes of your teacher, writing the assignment, the feedback on your assignment)
- And the same for your learning of academic qualities?
- Is there anything that you think is important related to your use of feedback on your assignments that we did not discuss?

Thank you very much for your help!