

How Can Feedback Increase Self-Determined Motivation to Keep Writing?

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Introduction

When someone makes the decision to attend college, they are committing to the time, energy, and money, as well as the academic writing, required. Unfortunately, a large number of students will find that writing assignments are not their favorite, and possibly their most dreaded, part of college. The dread some students experience often delays the writing until finally, if the external pressures are great enough, they write at the last minute, which compromises quality. The object of my investigation is to explore the theories developed in psychology and other disciplines that address this problem, with particular attention to feedback and motivation. Through an analytical assessment of the research on motivation and feedback theories, this paper examines the question of how optimal feedback types and application strategies influence students' self-determined motivation for writing.

The paper begins in section I with an exploration of the development of motivation theories, so as to fully understand the foundation of the more current motivation theories. This base of understanding serves as a reference point, as well as a clear theoretical lens for sections II and III. Section II considers the various feedback theories that have emerged from research in psychology and writing studies. This section also seeks to determine which feedback theories are most applicable to the case of motivation for writing. Then finally, section III

explores the application of the theories discussed in previous sections. This final section speculates on ways in which educators might apply concepts that could potentially influence students' self-determined motivation for writing, as well as explores the more challenging considerations and suggestions for future research.

Section I –The Study of Motivation: Background

What motivates people to do what they do, or don't do? Humans have been attempting to answer this question for thousands of years. The Old Testament used the wrath and blessings of God to encourage people to act in certain ways and refrain from acting in other ways. For example in Deuteronomy, God gave the Hebrews a law to live by and promised great rewards for their obedience: he would "bless the fruit of thy body and the fruit of thy land, thy corn and thy wine and thine oil, the increase of thy kin and thy young of thy flock" (Deuteronomy, 7:12-13). The Hebrews were also warned that if they were disobedient then "so shall ye perish; because ye would not harken unto the voice of the Lord your God" (Deuteronomy, 8:19-20). The Old Testament is one example among many significant writings in Western civilization where the anticipation of rewards and the fear of punishments are used as a means to motivate people to do or not do something.

The ancient Greek philosophers explored the question of motivation as well. In the fourth century B.C., the philosopher Thrasymachus insisted people are motivated by self-interest. In a discussion between Thrasymachus and Socrates in Plato's *Republic*, Thrasymachus indirectly states that rulers are not much different than shepherds and cowherds, who only care for their livestock to fatten them for personal gain. He claims that rulers set up systems of reward or punishment, codifying them into laws, to motivate people to follow their rule, a system designed for

their own personal benefit (Plato, trans. 2004). In opposition to Thrasymachus, Socrates exclaimed, "On the contrary, they demand to be paid on the assumption that their ruling will benefit not themselves, but their subjects" (Plato, trans. 2004, p. 23). Socrates debates that people's basic drives or motivations were not based only on a search for self-interested pleasure, but also on their ever-evolving judgment of what is right (Plato, trans. 2004). The ability to act correctly is a matter of greater awareness, "for Socrates... If we know what is right we will do it" (Mook, 1996, p. 28).

The Old Testament and Thrasymachus represent the idea that people are motivated by seeking pleasure and avoiding pain, which, as Mook observes, "links the psychology of motivation with the psychology of *feeling and emotion*" (1996, p. 28). For Thrasymachus, people's motives are self-serving emotional drives to accumulate external goods and social or political position, and to avoid death or punishment. For Socrates, motivation is a cognitive, more selfless experience of being naturally drawn to do what is "right." In our innate desire to be virtuous, we desire to know what "right" means, and once we have accumulated this wisdom we cannot help but act accordingly.

These perspectives differ in how the internal states are defined (emotional versus cognitive drives; selfish versus selfless acts). However, what these perspectives appear to have in common is to claim that people are motivated by beliefs, desires, or needs formed in relation to our environmental circumstances and influences. In modern-day psychology this is called a "mediationist" perspective, which states that we can only understand what people do when we can understand how they perceive a situation, what they think about it, what it means to them, and what they plan to do about it (Mook, 1996). Mook describes the mediationist thought as being divided into two classes. First there are "the

psychodynamic theorists, who emphasize urges or impulses, arising from within...Second there are the cognitive theorists, who emphasize the thinking, judging, rational processes that in turn lead to action" (pp. 10-11). Among the psychodynamic mediationists, Sigmund Freud (1856-1939) is the most famous. Freud's innovative analysis developed concepts still applied in modern-day psychology, such as the ego and unconscious motivations. Freud's drive theory (often called instinct theory) was the foundation of motivation theory within psychoanalytic psychology (Mook, 1996; Pintrich & Schunk, 2002; Ryan & Deci, 1985). The cognitive theorists, by contrast, emphasized the current, internal processing of feelings and beliefs as a primary motive for action, and were less convinced that past experiences or subconscious thoughts were influencing this process (Pintrich & Schunk, 2002; Stipek, 2002).

Thrasymachus claimed that our internal motivations come from the desire to acquire wealth and power in the world; our internal desires exist in the anticipation of maximizing our external rewards. This idea that our behavior is shaped by external influences, one could also argue, falls in line with a "behaviorist" perspective. In contrast to the "mediationist" approach, the behaviorist approach took a stand against all explanations of action based on internal thoughts and desires (Mook, 1996; Pintrich & Schunk, 2002). The behaviorists began to dispute Freud's psychodynamic theories as early as 1913 with a paper written by John B. Watson, entitled: "Psychology as the Behaviorist Views It." In fact, for Watson, in contrast to the mediationist view, psychology was not a study of the mind, but a study of behavior only. He writes: "The time seems to have come when psychology must discard all reference to consciousness; when it need no longer delude itself into thinking that it is making mental states the object of observation." (Watson, 1913, p. 163) Later Watson also insisted that

what had been labeled as “instincts” were actually learned behaviors (Pintrich & Schunk, 2002; Watson, 1924).

Watson's writings were directly opposed to the mediationist' theories and perspectives, and they had a profound effect on the development of psychological research and theories at that time; as the behaviorists then went on to dominate the study of motivation and learning for the next 20 to 30 years. The behaviorists' research emphasized observable data, which created a new standard in academic psychology. For claims to be credible, they must be supported by objective, observable evidence (Mook, 1996; Pintrich & Schunk, 2002). The domination of the behaviorists was temporary, however. The behaviorists' emphasis and expectation of observable data did not eliminate the mediationists (who still believed in the connection between our motivations and our thoughts, images, wishes or preferences), but simply delayed their resurgence. During and after the resurgence of more mediationist concepts in the 1930s and 40s, and through the following several decades, research in this area of psychology began to provide clear, reliable empirical evidence to support previous and currently expanding theoretical claims (Graham & Weiner, 1996; Pintrich & Schunk, 2002; Mook, 1996; Ryan & Deci, 1985).

In the late 1950s and early 1960s, academic psychology began to reconsider the value of the doer's perception and personal will to act. This is also when the idea began to emerge that simply having experiences that create a feeling of success and competence may be enough to motivate people. Even though in the very early history of formal psychology, William James (1890, 1892) emphasized the significance of *will*, most psychologists who wrote in the decades following James ignored the significance of such concepts (Ryan & Deci, 1985). Although a few early psychologists, such as Ach (1910), attempted to develop

evidence to support claims, they were often vague and difficult to prove empirically (Pintrich & Schunk, 2002). Once psychologists began to reconsider and expand on the concept of *will*, and find ways to develop empirical evidence, a movement towards the concepts of intrinsic motivation and self-determination began to develop and gain significance.

Part of this trend began in the late 1950s, when Robert White (1959) argued for a motivational concept that could complement contemporary mediationist theories, a motivational concept with greater explanatory power concerning human development (Ryan & Deci, 1985; White, 1959). White (1959) writes: "We need a different kind of motivation idea to account fully for the fact that man and the higher mammals develop a competence in dealing with the environment which they certainly do not have at birth and certainly do not arrive at simply through maturation." (p. 297) White put forth that organisms are innately motivated to effectively deal with their environment. White also brought to the discussion the idea that a feeling of *effectance* coming from competent interactions with the environment is a reward in and of itself, and this feeling can sustain behaviors independent of other motives (Ryan & Deci, 1985; White 1959). The accomplishment and accompanying feeling of competence or "feeling of efficacy" (White, 1959, p. 329) becomes the reward and the driving force to motivate future actions.

Other significant research in the field of motivational psychology came from Richard de Charms in the 1960s. For de Charms (1968), the bipolar disputes between the mediationist and behaviorist psychologists had become a thing of the past, and he believed that "current approaches to motivation may be seen as attempts to reconcile the obvious advantages of dealing with observable physical events such as stimuli and responses with the nagging fact that human beings appear to

be motivated from within." (pp. 12-13). De Charms' book *Personal Causation*, published in 1968, helped to merge conflicting psychological views with an emphasis on the idea that the "locus of causality" can come from without or from within. De Charms (1968) admits he was not the first to consider these theories, and gives credit to Thibaut and Riecken (1955) for having previously discussed these concepts. He further mentions that another recent predecessor, Heider (1958), had also "made a distinction between perceiving the locus of causality for behavior as external or as internal to a person" (p. 14). In reference to the terms *intrinsic* and *extrinsic* motivation in relation to the concept of personal causation de Charms (1968, p. 328) writes:

We propose that whenever a person experiences himself to be the locus of causality for his own behavior (to be an Origin), he will consider himself to be intrinsically motivated. Conversely, when a person perceives the locus of causality for his behaviors to be external to himself (that he is a Pawn), he will consider himself to be extrinsically motivated. We are suggesting that the crux of the distinction between intrinsic and extrinsic motivation may lie in the knowledge or feeling of personal causation. The satisfaction deriving from the experience of personal causation is the satisfaction of having accomplished something by individual effort. The satisfaction of possession of objective rewards or results of the effort must be distinguished from the above.

In other words, a person's perspective of his or her "locus of causality" determines if the causality is perceived as coming from internal or external sources. With internal causality, which his predecessor White had pointed out, the accomplishment itself becomes the reward, and our feeling of competence motivates us to repeat or continue our actions.

In addition to White's research findings that *competence* is a factor for internal motivation, de Charms (1968) added the need for *control*. He

writes: "If we assume...that a major factor in the intrinsic dimension is the desire for personal causation, then intrinsically motivating tasks are those in which the person feels that he is in control" (p. 329). For de Charms, a "basic desire to be in control of one's own fate is a contributing factor in all motivational behavior" (Deci & Ryan, 1985, p. 30). This control that one experiences comes from a self-determined desire to be the locus of causation, as de Charms (1968, p. 269) asserts: "man strives to be a causal agent, to be the primary locus of causation for, or the origin of, his behavior; he strives for personal causation." With de Charms, the idea begins to emerge that personal causation is a human desire that people naturally strive to attain.

By the early 1980s, these perspectives began to take hold in mainstream academic psychology and it became obvious a shift had occurred. The evidence of this shift had been in "the types of theories and principles proposed, from those conceiving a person as machinelike, without conscious awareness or volition and controlled by environmental forces, to perceptions of individuals as rational scientists, decision makers, information processors, self-determining, and having other characteristics associated with an active mind" (Graham & Weiner, 1996, p. 65). By the 1980s, considering the significant shifts in thought, psychologists claimed that the current theories were not sufficient to explain motivation to act (Deci & Ryan 1985), and a comprehensive theory that placed self-determined action at the center was needed.

An early definition of self-determination comes from Deci (1980, p. 26): "*self-determination is the process of utilizing one's will.*" Deci believed that self-determination activated certain *capacities*, such as: "accepting one's boundaries and limitations, recognizing the forces operating on one, utilizing the capacity to choose, and enlisting support" (1980, p. 26). Basically, when people are determined to achieve something, complete

a task or satisfy a need, they will be aware of their obstacles, exercise choice and find help as needed. A few years later, Deci and Ryan (1985, p. 38) refined the definition of self-determination as: “a quality of human functioning that involves the experience of choice, in other words, the experience of an internal perceived locus of causality. It is integral to intrinsically motivated behaviors and is also in evidence in some extrinsically motivated behaviors...self-determination is more than a *capacity*, it is also a *need*.” Self-determination was now defined as not only a *capacity* for action, but also an internal *need* to exercise our internal locus of causality, i.e. be the origin of our actions.

In the development of self-determination theory (SDT), one consideration was that, “Fundamentally, self-determination is an issue of choice and therefore necessitates a theory built on concepts such as volition, intentionality, or will” (Deci & Ryan, 1985, p. 36). Built on these concepts, SDT specifies a set of important underlying assumptions. For example, “SDT begins by embracing the assumption that all individuals have a natural, innate, and constructive tendency to develop an ever more elaborate and unified sense of self” (Deci & Ryan, 2002, p. 5). In addition to the assumption that humans are “active, growth-oriented organisms,” SDT also assumes that humans have “an inherent tendency toward integrating experiences into a unified regulatory process” (Deci & Ryan, 2002, p. 433). In other words, we humans have an innate desire to expand ourselves, seek out experiences, and naturally integrate these experiences into our ever-expanding, self-regulating being.

SDT research shows that there are three fundamental psychological needs: *competence*, *relatedness* and *autonomy*. The degree to which we are motivated to continually expand ourselves by integrating new experiences is directly related to our feelings of fulfillment of these three psychological needs (Pintrich & Schunk, 2002; Deci & Ryan, 2002). Indeed,

the “basic psychological needs for competence, relatedness and autonomy have served well for explaining variance not only in the degree of self-determination but also in the various behavioral and well-being outcomes” (Deci & Ryan, 2002, p. 432). *Competence* refers to the need for individuals to feel that they are effective actors in their environments. This tends to promote task mastery and skill development, which, in turn, increases one’s competence and desire to repeat the task (Pintrich & Schunk, 2002). The centrality of *competence* for motivational functioning is echoed in related motivational theories. Harter (1978, 1981), for example, drew on earlier theorists, such as Hendrick (1942) and White (1959), to emphasize perceived *mastery* as perpetuating motivation to complete tasks again in the future.

Self-efficacy is another related construct, developed in the mid-1980s by psychologist scholar Albert Bandura (1986, 1989, 1993, 1997), as a more task-specific version of *competence*. Despite the fact that *competence* is considered a need in SDT, and *self-efficacy* is not defined as such, they are similar in that they both refer to people’s self-perception of whether their skills and abilities are sufficient to successfully complete a task or reach a goal. Bandura’s (1989) claim with *self-efficacy* in the classroom is that “The stronger the belief in their capabilities, the greater and more persistent are [students’] efforts,” (p. 1176), could easily refer to the effects of either perceived *competence* or *self-efficacy*.

Autonomy is another need fundamental to SDT. One place we have seen this concept beginning to take form is when de Charms emphasizes the link between intrinsic motivation and control, “intrinsically motivating tasks are those in which the person feels that he is in control” (1968, p. 329). Deci and Ryan (2000, p. 74) explain that, “Within SDT, autonomy refers not to being independent, detached, or selfish but rather to the feeling of volition that can accompany any act, whether

dependent or independent, collectivist or individualist." When people feel they are autonomous individuals they perceive themselves as being in control of their actions, and recognize that they are the central instigators of their own actions, no matter whether they act alone or not. This connection between *autonomy* and intrinsic self-determined motivation is seen as "one of the most comprehensive and empirically supported theories of motivation available today" (Pintrich & Schunk, 2002, p. 257).

In SDT, the third psychological need is *relatedness*. *Relatedness* came later in the development of SDT, and is the need to feel a safe, secure connection with people, and to feel one is worthy in that connection (Connell & Wellborn, 1991; Stipek, 2002). Education and early childhood development are two fields that have conducted an extensive amount of research on the psychological need for *relatedness*. In education, research has shown that when students experience caring and supportive relationships in school, they have a more positive academic attitude and are generally more satisfied with school (Baker, 1998, 1999; Battistich et al., 1995). Research has also shown that when students perceive their teacher as supportive, and believe that she cares about them, they are more engaged in their academic work than students who do not feel this way (Connell & Wellborn, 1991; Ryan & Deci 2000). Some early childhood research has also shown that "thwarting of the need for relatedness can have a deleterious effect on intrinsic motivation" (Deci & Ryan, 2002, p. 14). Ryan and Deci explain however, that while significant in certain environments, *relatedness* is not as universally significant in SDT as *competence* and *autonomy*. They write, "We have suggested that relatedness plays a more distal role than competence and autonomy, although there are some interpersonal activities for which satisfaction for the need for relatedness is crucial for maintaining intrinsic motivation" (Deci & Ryan, 2002, p. 14).

While we have primarily considered the intrinsic motivational aspects of SDT, not everyone experiences pure intrinsic motivation when it comes to academic writing. As Ryan and Deci (2000, pp. 59-60) remind us, “intrinsic motivation will occur only for activities that hold intrinsic interest for an individual—those that have the appeal of novelty, challenge, or aesthetic value for that individual.” When we consider a college student working on an academic paper, we can recognize that many students are not interested enough to be intrinsically motivated. But they write the paper anyway, because they are extrinsically motivated by other forces, e.g. life goals, expectation of a good grade, pleasing one's parents or the teacher. According to a sub-theory of SDT called organismic integration theory (OIT) (Deci & Ryan 1985, 1992, 2002; Ryan & Deci, 2000), it is possible, through support of basic psychological needs, to not only increase intrinsic motivation, but also to shift one's perception of the external locus of control and move closer to an intrinsically motivated experience. This integration experience increases one's self-determination and self-regulation. (See Figure 1 below.)

In 1985, Deci and Ryan first describe OIT as a secondary sub-theory of SDT that “details the movement from extrinsic regulation towards integrated self-determined regulation of activities that are not themselves intrinsically interesting” (1985, p. 264). Ryan and Deci (2000, p. 71), explain this process of internalization or integration as occurring in a continuum ranging from “Amotivation or unwillingness, to passive compliance, to active personal commitment.”

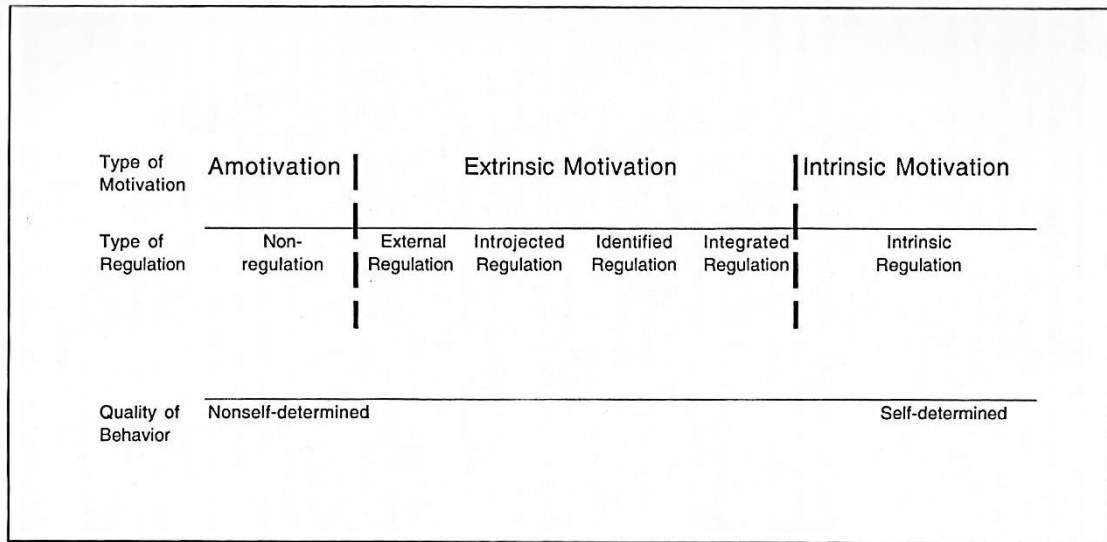


Figure 1.1. The Self-Determination Continuum, with Types of Motivation and Types of Regulation.

Figure 1 The Self-Determination Continuum (from Deci & Ryan, 2002, p. 16)

As we can see in Figure 1, the closer we get to integrated regulation the more personally committed and self-determined we feel. This integration process occurs due to our need for autonomy, and the perceived locus of our causality (Deci & Ryan, 1985, 2002, Ryan & Deci, 2000). In fact, “from the perspective of OIT, perceptions of autonomy play an extremely important role in the processes of internalization and integration” (Deci & Ryan 2002, p. 19). In addition to autonomy, however, fostering competence and relatedness have also proven effective in the integration process that leads to developing self-regulating behaviors (Deci & Moller 2005; Harter, 1990; Pintrich & Schrauben, 1992). Deci and Moller (2005, p. 591) even go as far as to warn us that “failure to satisfy the basic needs for competence, relatedness, and autonomy will interfere with full internalization.”

The success of the internalization or integration process is significant because the more successful the process, the more

autonomously self-regulated and self-determined an individual will become (Deci & Moller, 2005; Ryan & Deci, 2000), as well as gaining other benefits. For example, Ryan and Deci (2000, p. 61) claim that, "With increasing internalization (and its associated sense of personal commitment) come greater persistence, more positive self-perceptions, and better quality of engagement." The ideal outcome of this integration process is that individuals become increasingly self-regulated and self-determined to act on their own. When people are self-regulated, they possess both metacognitive and self-regulation skills. In other words, people have both an awareness of their capabilities, strategies, and resources and are also capable of planning, goal-setting, managing time, assessing effectiveness, seeking information, and accessing help (Pintrich & Schunk, 2002; Stipek, 2002). Many scholars, especially in the field of education, have come to recognize the value of the integration process, and the benefits of self-regulation. Zimmerman (2002, p. 66) points out that, "self-regulated students are not only more likely to succeed academically but to view their futures optimistically."

These theories we have reviewed, regarding self-regulated and internally driven motivation, provide a lens for exploring motivation in the field of writing. While psychologists and writing researchers do not always use the same terminology, and do not often focus on the same outcomes in their research, SDT and the basic psychological needs connected with this theory provide a framework to explore research on the influences of feedback in both psychology and writing studies.

Section II –Motivation and Writing: Research on Feedback

Academic research that combines the fields of motivation and writing studies is fairly new, as Suzanne Hidi and Pietro Boscolo explain in

their anthology, *Studies in Writing: Writing and Motivation* (2007, p. 4): “In spite of the significant increase of motivational research over the past two and a half decades, on the one hand, and the remarkable development of writing studies, on the other, the topic at the intersection of the two fields has been only partially explored.” This is a meaningful gap to bridge because “becoming a proficient writer involves more than acquiring knowledge of vocabulary and grammar, it depends on high-levels of self-regulation and self-motivation...Writers work under solitary conditions, often over long periods of time with frequent stretches of meager results, and repeatedly revised output” (Zimmerman & Kitsantas, 2007, p. 51). Writing is a field that demands high levels of self-determination and intrinsic or integrated extrinsic motivation, as well as self-efficacy and a feeling of competence, for one to persist in the task of writing to completion.

Since the 1970s, writing research has shown that an instructor's feedback can improve or reduce a student's feeling of competence, confidence, and self-efficacy for writing. Thomas Gee (1972) was one of the earlier scholars who saw an important connection between teacher comments on written work and students' self-perceptions of their abilities. Gee writes “The teacher can be assured that his comments influence the attitudes the student has about a particular composition, and his comments will likely contribute one way or another to the expectations the student has about becoming an adequate writer” (1972, p. 213). Pajares, Valiante and Cheong's (2007, p. 159) chapter, in the anthology *Studies in Writing: Writing and Motivation*, note that “because writing is as much of an emotional as a cognitive activity, affective components strongly influence all phases of the writing process.” One significant “affective component” to the writing process is feedback. As Pajares, Johnson and Usher (2007, p. 117) state, “In many cases, students'

apprehension about writing is a product of the type of feedback they receive in school.”

Research continues to show us that feedback affects the writer in various ways. Since the 1970s, the what, how and why of the effects of feedback have been and continue to be explored through research and application. Because writing research on feedback does not consider SDT, or the psychological needs we have for autonomy, competence and relatedness, there is a gap to bridge when exploring motivation and feedback in the domain of writing. It is also possible that some of the debates that exist regarding feedback in the field of writing could be resolved if researchers consider whether basic psychological needs are being met. The next section reviews some of the debates on feedback in writing studies, and considers how they could be informed by a consideration of the psychological needs of autonomy, competence and relatedness. The subsequent section turns to the psychology literature for an exploration of important findings regarding the effects of feedback on motivation and learning.

Long Standing Conflicts in Writing Research

Corrective Feedback. *Corrective feedback* is one area in writing studies where the research has sparked a number of conflicting discussions, and contradictory findings. Corrective feedback is feedback that focuses on correcting grammatical and mechanical errors (e.g., punctuation and syntax). It concentrates on *local* (smaller grammatical or mechanical) errors over *global* (larger more structural or organizational) errors; and on *form* over *content*. Since the 1980s, the discussion on whether corrective feedback is helpful or harmful to the learning process has persisted (Guènette, 2007). Those who feel it is helpful believe that

corrective feedback is essential to improving one's grammar, punctuation and other more *local* writing errors. Others, however, believe that while corrective feedback might improve a particular piece of writing and enhance short-term learning, it does not benefit long-term learning and can potentially damage the learning process (Truscott, 1996, 1999, 2007; Truscott & Hsu 2008). A few examples of the potential damage that can occur are feelings of being overwhelmed, overly-controlled, and incompetent.

One example of this discussion on corrective feedback comes from an on-going debate between cognitive psychologist and second-language teaching and learning researcher John Truscott, and applied linguistic expert John Bitchener. For almost 20 years, Truscott has held strong in his view that corrective feedback is harmful to students' learning (Truscott, 2007). One of the many dangers that has been highlighted by Truscott and others is that students will become fearful of making future errors and will take fewer risks following corrective feedback. For example, research has shown that "corrected students tend to shorten and simplify their writing ... apparently to avoid situations where they might make errors" (Truscott, 2007, p. 268). Fiona Hyland's (2003) research also confirmed that when students have experienced error correction as a primary feedback they don't write as much and stick to what they are confident they can do well. Truscott's research further demonstrated that while corrective feedback may help improve a specific piece of writing, it does not improve long-term learning (Truscott, 2008). From an SDT perspective, if students are taking fewer risks and sticking to what they know to avoid making mistakes, then it is possible that they do not feel competent. It is quite probable that they are attempting to satisfy their need for competence by doing what they are sure will be correct. This situation is taking away an opportunity for students to build competence,

and an opportunity to practice the skills that would potentially lead to fulfilling this need. Thus, it is possible that in some circumstances, corrective feedback will not promote competence, might actually diminish feelings of competence or self-efficacy, and put future development at risk.

The corrective feedback debate became particularly significant in second-language learning, where corrective feedback is a dominant feedback type. Danielle Guènette (2007, p. 40) tells us that “Indeed, the results of many experimental studies on written corrective feedback carried out over the last 20 years have been so contradictory that second language teachers looking to support their pedagogical choice to correct, or not to correct, the grammar of their students’ written production are left in the midst of controversy.” Guènette attempted to understand conflicting evidence and discovered that the research is often not comparable because of variations in research design and methodology. She also suggests that there are other variables that might impact its efficacy, such as “the inconsistencies of feedback provided by teachers, and students’ perceptions and preferences, and individual differences” (p. 50). Guènette touches on something that we might relate to SDT: the inconsistencies in feedback provided and differences in students’ perceptions.

Looking through an SDT lens, it could be that some instructors have managed to provide their feedback in a way that has met students’ basic psychological needs whereas others have created the opposite effect. Further, the same objective feedback could be perceived by different students in different ways in terms of psychological needs support. For example, one student may have low self-efficacy for writing and perceive corrections as just one more example of his or her incompetence. Another student, who already feels competent, might perceive the same

corrections as controlling and stifling his or her need for autonomy. It may not be a simple matter of “to correct or not to correct” but that other factors such as content, context, perceptions and modality (including timing) may also contribute to the effects of feedback, and whether or not one’s basic psychological needs are being met. These are significant considerations, and will be explored more thoroughly in section III.

In contrast to Truscott’s research and anti-corrective-feedback stance, John Bitchener is a strong advocate of corrective feedback. Since 2005, he has written five books and dozens of articles using empirical evidence to argue for the benefits of corrective feedback. Some recent titles include: Bitchener and Ferris (2012), *Written Corrective Feedback in Second Language Acquisition and Second Language Writing*, and Bitchener (2012), *The Language Learning Potential of Written Corrective Feedback*. Bitchener is one of many scholars to explore how the application of certain considerations with feedback (e.g. ensuring it is clear and direct) might improve the feedback’s contribution to learning. Bitchener and other advocates of corrective feedback continued their research in search of optimal corrective feedback styles and content. One example comes from a discussion that has been researched, both in parallel and in conjunction with the corrective feedback debate: the contrast between *direct* (explicit) feedback versus *indirect* (implicit) feedback. Direct feedback means that there is some sort of description or explanation included with the correction. In contrast, indirect feedback is more vague, with very little, if any, information or explanation.

Direct versus Indirect Feedback. In written corrective feedback, for example, indirect feedback would involve circling or checking mistakes with minimal or no explanation, whereas direct feedback would add a detailed explanation. On one side of this debate, some instructors believe that if students are pointed in the right direction, but not told what to do

(e.g. a circle or mark next to the error, but no explanation) then they will be required to think about what the correction should be. The extra work it takes to think about the error will produce a lasting impression that students will remember longer than if they are told what to do to make it “correct” or “better” (English, 1992; Goswami, 1992; Halford, 1993).

The opposing view is that students may not have enough information to figure it out on their own, and they may become lost, frustrated and even give up in the process (Baker & Bricker, 2009; Brown & Campione, 1994; Cho et al., 2006; Hardiman et al., 1986). Supporters of direct feedback have shown that direct feedback helps students understand what they need to correct or change, thus helping students understand the relevance or significance of the feedback. This results in less confusion and more learning than when given indirect or no feedback at all (Baker & Bricker, 2009; Bitchener et al., 2005; Moreno, 2004). There is also evidence that indirect feedback can be harmful to motivation. For example, Lipstein and Renninger's (2007) research showed that “students who received feedback that was too discrepant (e.g. too abstract, or requiring a lot of work) often spoke of becoming less interested in writing as a result” (p. 136). And as we have seen with SDT, “less interested” potentially means reduced intrinsic motivation. From an SDT perspective, the reduced interest or motivation may come from a lack of competence resulting from receiving indirect feedback and not understanding what one did wrong, hence not knowing how to fix it. If the student is at a loss for how to fix the error, this experience is also taking away the opportunity for new learning and feelings of competence in the future.

What the direct versus indirect feedback debate fails to consider is our needs for competence, autonomy and relatedness. For example, indirect feedback may well offer a more autonomous learning process.

But, if this process fails, students may feel overwhelmed or confused and uncertain (e.g. of the correct grammar, punctuation, etc.), in which case learning may not happen, and perceived competence could be reduced. But direct feedback may also be overwhelming in that it may be perceived as offering “too much” information, leading to a loss of competence in the context of a more controlling interaction. Because of these and other potential risks, further research into the effects of direct and indirect feedback on students’ perceived autonomy and competence could be helpful in determining which would ultimately be more beneficial to learning and motivation.

Furthermore, considering the research focus of existing studies on feedback with writing, we do not know for sure if any of the basic needs for autonomy, competence or relatedness are in fact being met. For example, while a student might recognize that new learning has occurred, we cannot be sure that competence has increased. In fact, when students see a marked-up paper, with lots of wordy explanations as to what needs to be changed or improved, there is a chance that they will not feel competence, autonomy, or relatedness at that time. The marked-up pages, with lots of explanations, could be perceived as a sign that one does not have the skills and abilities needed and could diminish perceived competence. It could also be possible that the marked-up pages, with lots of explanations, could be perceived as being controlled by the instructor and could diminish perceived autonomy; or even be perceived as a personal criticism. This could possibly create discomfort, causing the students to question their connection with the instructor, and reduce the chances of meeting their relatedness need.

In opposition to these outcomes, it is also possible that the marked-up pages, with lots of explanations, could be perceived as a fruitful challenge, knowledge to be absorbed and to build competence.

Another possible perception is that it could be seen as a sign that the instructor cares about the students' learning and development, because she took the time to provide such extensive commentary, potentially building a connection that may satisfy the need for relatedness. Further research into feedback and writing, no matter the current debates, may be more effective if it considers the effects on students' perceptions of autonomy, competence and relatedness. If we cannot be certain that these basic psychological needs are being met then we cannot be certain that motivation has improved. Even if learning occurs, short-term or long term, students may lose their motivation and determination to continue learning and writing.

Praise versus Criticism. Another long-standing discussion with conflicting findings is the effects of feedback focused on *praise* (or positive feedback) or *criticism* (or negative feedback), Deci and Ryan (1985, p. 91) give us examples of conflicting research on the benefits of praise versus criticism, going as far back as Smith (1974), who reported that "positive feedback decreased the intrinsic motivation of college students." Other scholars such as Gee (1972, p. 216) found that "negative criticism and no feedback caused students to write less than students who were praised." And, as we have discussed, if feedback is causing students to write less, then perceived competence may be jeopardized.

While many studies have shown that praise is effective for learning and motivation, other studies have shown that it may be ineffective or even damaging (see Henderlong & Lepper, 2002). For example, some research has shown that praise can decrease motivation by creating narcissistic individuals who become dependent on external validation (Morf & Rhodewalt, 2001; Thomaes et al. 2012). From an SDT perspective, if an individual feels dependent on external validation it can lead to a lack of self-determination, and self-regulation, or even to amotivation. This may

be particularly likely if the praise is considered controlling or manipulative, and perceived autonomy is lost (Henderlong & Lepper, 2002).

Criticism is also not always a terrible thing, and there exist in various fields, those who believe in the power of negative feedback or “constructive criticism.” Some research has even shown advantages to negative feedback. For example Van-Dijk and Kluger (2004) showed that when people are focused on prevention (preventing punishment, or other negative outcomes), negative feedback can actually be more motivating than positive feedback. In SDT, this outcome could occur if the individuals are in an externally regulated, controlled experience. Since there is very little motivation, if any, at this point on the scale (see Figure 1 above), negative feedback that increases one’s fears could be the driving force necessary to keep one going. Or, it could also completely kill the already diminishing motivation, especially if there is no possible sign of autonomy, competence or relatedness needs being met.

Praise versus criticism is one of the few debates relevant to writing that has actually been considered through an SDT lens. The consideration takes us beyond a simple dualistic idea that one is bad and the other good. Deci and Ryan (1985) urge us to look beyond simply considering praise versus criticism, to also consider the feedback style and the recipient’s perceptions. From this foundation, researchers have come to recognize that “what” one is praising or criticizing can make a significant difference in both learning and motivation.

The “What” of Feedback

Person Feedback. The search to understand the “what” of feedback and motivation (i.e. what the feedback is praising or criticizing) has unveiled some fascinating discoveries. For example, some research

has shown that praising or criticizing the person or person's intelligence can create vulnerabilities such as feelings of helplessness (Dweck, 1999; Shell et al., 1995). Dweck (1999, p. 119) explains that "some of that vulnerability may show right away...But some of the vulnerability might show only after a failure experience." The "vulnerability" Dweck is referring to is a vulnerability to hopelessness, lack of competence, or inability to cope, particularly when faced with a challenge, set-back, or failure. Dweck's (1999) research showed that students who received praise or criticism that focused on their person or intelligence, and then experienced a failure found that "their enjoyment and persistence plummeted, as did their assessment of their abilities and their performance" (p. 119). In other words, from an SDT perspective, their intrinsic motivation, self-determination, self-efficacy and competence plummeted, due to vulnerabilities created by person or intelligence praise.

To be sure of the results, Dweck explains that they repeated the experiment "three more times with students in different parts of the country and students of different ethnic and racial backgrounds. We still found the same thing" (p. 119). When people are told that they are "good" or "smart" in association with a success, then a connection between the two is built, and one begins to determine the other. If a failure or fear of a failure occurs, then the influence of this connection causes people to believe they are not good enough or do not have what it takes to be successful, and they come to feel vulnerable, i.e. helpless, and incompetent. Another interesting discovery in Dweck's research was that the students experiencing vulnerability would often lie about their subsequent failures. This is of particular interest for SDT because it shows us that students may be trying to hide or diminish their feelings of incompetence. In addition to attempting to preserve competence (at

least in the eyes of others), the lies could also be preserving relatedness, by maintaining a positive image in others' eyes.

Another form of person praise that has been proven to cause vulnerabilities or other negative effects is *social comparison* feedback (Corpus, Ogle & Love-Geiger, 2006; Krampen, 1987). Social comparison feedback focuses on students' accomplishments as they compare to their peers' accomplishments. While social comparison does not always highlight specific person traits, it highlights the person as compared to the rest of the group, hence still focusing on the person. Furthermore, vulnerabilities similar to the effects of person praise have been shown to develop in participants who received social comparison feedback. Corpus et al. (2006) showed that social comparison praise has the potential of being harmful to intrinsic motivation when students are faced with "uncertainty about the quality of their subsequent achievements" (p. 340) and particularly when students are "subsequently given reason to question their competence" (p. 341). In addition to the potential vulnerabilities it can cause, social comparison feedback has the potential of shifting one along the scale towards amotivation, and away from self-determination and self-regulating behaviors because of its competitive focus. As Ryan and Deci (1992, p.18) explain "competitive behavior is likely to be more extrinsically motivated and thus undermining of intrinsic interest and motivation."

The potential vulnerabilities created by focusing on the person compared to others can not only damage perceived competence, but if students are driven by extrinsically motivating feedback, the locus of control is shifted away from the person, and perceived autonomy is potentially diminished as well. As Corpus et al (2006, p. 343) mention, "competition itself leads them to feel that their behaviors are externally controlled." In addition, there is a potential for a loss of perceived

relatedness, depending on the severity of the competitive environment. For example, if students are pitted against each other, and one person's success means another's failure, then rifts can develop, and instead of connecting with others, students focus on competing against one another (Pintrich & Schunk, 2002; Weiner, 1986). Some advocates of social comparison feedback are convinced of the potential short-term motivation (Pintrich & Schunk, 2002; Wheeler & Suls, 2005); however, in the long run, social comparison feedback has the potential of creating vulnerabilities similar to those created by person praise (Henderlong & Lepper, 2002). There is also a potential for diminishing perceived autonomy, competence and relatedness, thus diminishing intrinsic motivation and integrated extrinsic motivation (Ryan & Deci, 1992).

Research has shown that there are potential risks to diminishing motivation when praising, or providing feedback about one's personal traits or normative standing. Fortunately, research has also shown that there is in fact potential for feedback to increase learning and motivation, as long as the feedback type focuses on the *process* and/or *progress*.

Process and Progress Feedback. The advantage to feedback that focuses on *process* or *progress* is that it highlights efforts or strategies instead of person-traits or end results. Who we are, and certain personal traits are not always controllable, and sometimes whether we succeed or not is beyond our control as well, especially in academia where our success is ultimately determined by others. For example, a common scenario is the student who turns in a paper fully confident that it is an "A" paper only to discover that the instructor felt it was more of a "B" or a "C" paper. Even students who always do their best do not always know for certain that they will be successful. However, our efforts and strategies are controllable, changeable dimensions that come from an inner perceived locus of causality. Indeed, our efforts and strategies can be polished and

claimed as our own, building both competence and autonomy, respectively. A few examples of efforts and strategies relevant to writing might include the time and energy we put into a project, our commitment to the project, our dedication to meeting a deadline, or other strategies we put in place to ensure we achieve our goals (e.g. creating a positive environment for writing, overcoming “writer’s block,” recognizing our limitations and getting the help we need for editing or research, etc.).

Dweck (1999) and others have shown that feedback focusing on effort and strategy promotes a “mastery-orientation,” such that people believe they have control over their outcomes, seek challenging tasks, and persist in the face of failure. The focus becomes mastering the skills or strategies that will potentially lead to goal satisfaction (e.g. learning new skills or getting a “good” grade on a well-written paper). Dweck’s research showed students who receive effort and strategy praise were “significantly more persistent and constructive” than those who received person praise (1999, p. 114). In addition to these findings, she discovered that students actually “felt okay about their setbacks” (p.114) following effort or strategy praise.

What is even more fascinating is that effort praise seems to shift students’ goals and interests to process and progress. For example, Dweck (1999, p. 118) tells us that “over 90% of the students who received effort praise...were not interested in ensuring success; they were interested in pursuing a potentially fruitful challenge.” When the focus is on students’ success, not with the end-product per se, but with their efforts in the process, then this becomes their goal to master.

Since Dweck’s research, experts in the field of psychology have continued to discover the advantages of praise that focuses on “process-oriented factors,” such as effort, strategy, and self-correction (Corpus & Lepper, 2002, p. 781). Self-correction is essential for the writing student,

because self-editing is such an important piece of the writing process. Moreover, Haimovitz and Corpus (2011) showed that the advantage of process praise extended to college students as well as to the primary school students of previous research. They concluded that “all age groups beyond preschool appear to be more positively affected by process praise than person praise after encountering failure” (Haimovitz & Corpus, 2011, p. 11).

From an SDT perspective, the resilience and self-determined persistence students experience from process praise is due to increased feelings of competence and autonomy. Where process-oriented dimensions can concentrate on competence, self-efficacy or mastery, Ryan and Deci (2008) also advocate for *autonomy support* that focuses on one's autonomy-oriented skills and abilities, particularly those skills evident in the process. In other words, they advocate offering feedback on skills that highlight an individual's “self-orientation and self-regulation of action and experiences” (Ryan & Deci, 2008, p. 188). The positive effects of focusing on process dimensions are particularly obvious when compared to a focus on outcomes, whether they be positive or negative (Ryan & Deci, 2008). In other words, according to Ryan and Deci (2008), process feedback that emphasizes one's autonomy-oriented skills, such as one's abilities to self-manage or self-regulate is more motivating than focusing on one's achievements or failures, or other such outcomes.

In writing, meeting one's need for autonomy might translate into a sense of personal control over factors such as the ability to manage time, overcome procrastination, or stick to a schedule. When students are praised for process and progress, the ensuing boost to competence and autonomy may boost both intrinsic motivation and more autonomous forms of extrinsic regulation. In the domain of writing, Schunk (2001, p. 141) argues that, “feedback indicating progress can substantiate self-efficacy

and motivation." This is particularly significant in the domain of writing because a large portion of the writing process is about progress, with multiple layers of drafts and revisions. When looking through an SDT lens, it makes sense to consider that if students cannot feel competence and self-efficacy regarding their progress, then they may not be motivated to continue the process. Schunk (2001, p. 141) also notes that, "as learners become more skillful, they become better at self-evaluating progress." By focusing on progress, not only do students increase their competence and motivation, but they improve their meta-cognitive ability to reflect on and evaluate that progress. This experience could potentially contribute to an increase in perceived autonomy, as students develop an awareness of and sense of control over their own progress. The more students focus on their efforts, and maintain those efforts, the more the need for competence is potentially satisfied. The value of students focusing on process and/or progress, then, is that it increases both competence and autonomy as they progress toward their goals. Process-oriented feedback therefore has greater potential for increasing learning and motivation than feedback directed at the person, personal traits or social comparisons.

Section II has explored feedback research in psychology, writing studies, applied linguistics and second-language studies. When we consider feedback on writing we must first be aware of the level of our analysis regarding the students' work, e.g. *global* or *local* issues, *form* or *content*. Next, we need to be aware of the content of the feedback statement. Are we focusing on the person or personal, unchangeable traits, or are we focusing on more controllable dimensions of process- and progress-related skills and abilities? And most importantly, we need to ask ourselves, and ask our students, if our feedback is promoting perceived competence, autonomy and relatedness.

Section III – Feedback to Motivate Writers: Considerations for Application

This section explores the application of the theoretical approaches and empirical considerations we have covered thus far. It is a tremendously complex task because the effects of feedback involve more than just the feedback's written or spoken words. How we present them (modality), our intentions, the student's perceptions, timing, environment and numerous other factors also play an important role in the feedback process. This final section ends with an exploration of potential challenges to consider, as well as recommendations for future research.

Written Feedback Promoting Competence, Autonomy and Relatedness

From the research we have seen, written feedback appears to potentially satisfy students' needs for autonomy and competence when it is carefully constructed and intentionally developed to meet these needs. When feedback addresses process and progress, highlighting efforts, strategies and self-correction skills, there is the potential of meeting students' basic psychological needs and increasing their motivation and self-regulation. The following section considers in more detail how written feedback may accomplish these goals.

Opportunities to Provide Feedback. The first thing to consider when designing a curriculum that can offer process or progress feedback is that students need opportunities to show their effort, their writing strategies, and their self-correction skills. When students can show they possess the process skills, it provides an opportunity for instructors to make note of these skills and offer individualized process feedback. In a writing course this could include, for example, assigning multiple drafts and putting those drafts through various

assessments (e.g. self-assessments, multiple layers of instructor feedback). This recommendation is offered for a number of reasons. The first, as mentioned, is to provide opportunities for instructors to praise and encourage process or progress skills, such as efforts, strategies and self-corrections. Additionally, Beason (1993) explains that revisions presented in smaller chunks may be preferable because students are often resistant to large-scale revisions, and do what they can to avoid them. While Beason does not provide a detailed explanation of why students are so resistant, it could be due to a lack of time or cognitive energy, or feeling overwhelmed by the volume of revision required. Giving students the opportunity to revise papers in smaller increments also offers more opportunities for students to feel competent in the process.

The other benefit of multiple drafts is the opportunity for instructors to layer their feedback. With writing, for example, the first layer might only look at *form*; the next layer might look at other *global* issues; and the final layer might look at the *local* issues. In this way not only the work, but also the writing issues addressed in the feedback are presented in manageable chunks that are focused on one type of correction, for more focused learning. If the work is less overwhelming, the feedback offered in smaller amounts, and the praise focused on process skills, then there is a greater chance students will feel competent, get their work done on time, and exert increasingly greater effort in the process. And most importantly, interest and motivation may potentially increase in future writing endeavors.

Frequency of Feedback. Requiring multiple drafts as an opportunity for instructors to provide frequent feedback can potentially offer the same benefits that come from feedback after frequent testing in other domains. Research in education has shown that frequency of feedback, particularly post-test feedback, can improve class participation and preparation (Marcell, 2008). Frequent feedback after testing has been shown to improve both performance and motivation (Kulik et al., 2000; Stipek, 2002). Recent research in neurological

science has also shown that the more frequent the feedback the more potential there is for long-term learning and competence-building, especially in any area where practice is an important factor in achieving learning goals (Wlodkowski, 2008). Wlodkowski (2008, p. 319) explains,

[E]very skill and bit of knowledge exists as a neural circuit. When we learn, the connecting fibers—the axons and dendrites—join with thousands of other fibers and neurons to create more complex knowledge and skills...*myelin*, a membranous wrapping around nerve fibers, thicken in response to the frequency of impulses traveling along a particular circuit...the more we practice, the more we myelinate the circuits particular to each skill.

The challenge for both the students and the instructors comes when students have developed erroneous writing habits. “The erroneous techniques have a neural circuitry that is probably well myelinated...new learning through feedback may seem too difficult or confusing because of slow signal speeds along unmyelinated and undeveloped circuitry” (Wlodkowski, 2008, p. 319-20). Hence, it is important with writing that instructors know their students' challenges and limitations, that they are patient with students, that they encourage students to be patient with themselves, and they create opportunities for frequent practice and feedback so that new circuits can be formed or reformed and become well myelinated.

Timing of Feedback. Timing is an important aspect in the application of feedback. Research in education has shown that, particularly with testing, when students are provided with immediate feedback long-term retention is more likely to occur (Kornell et al., 2009; McDaniel et al., 2007; Richland et al., 2009). In most cases, the more immediate the feedback the more effective it will be, but it does not necessarily *have* to be immediate (Hattie & Timperley, 2007, Wlodkowski, 2008). Wlodkowski (2008, p.318) explains that there are times when a delay is actually more appropriate, “For example, after they perform in public,

waiting for learners to reduce their anxiety or talk with peers seems entirely appropriate.” In most cases, with feedback on written drafts, instructors should do their best to be prompt, but also be aware there are times that waiting will be more effective for learning and motivation. For example, in our attempt to satisfy our students’ needs for competence and autonomy with self-regulation, it might be best if some of the drafts have a self-correction stage, (i.e. revision stage where students autonomously self-edit). Wlodkowski (2008, p. 385) tells us that instructors can use “self-assessment methods to improve learning and to provide learners with the opportunity to construct relevant insights and connects,” and by doing so instructors are able to “engender competence.” In addition to these benefits, opportunities for self-correction also provide an opportunity to praise the students’ self-corrective abilities in specific areas of writing, both *global* and *local*, thus individualizing the message, and enhancing the feedback’s potential to motivate.

Self-Assessment Feedback. Wlodkowski (2008) mentions that the value of “self-assessment” is that it helps improve learning and build confidence. In addition to self-assessing students’ work, a more meta-cognitive self-assessment could be invaluable to learning and motivation. Self-assessment could be particularly beneficial by focusing on students’ efforts, strategies and self-corrections, as well their perceived competence, autonomy and relatedness. These types of focused self-assessments could assist the instructor in gaining greater insights about their students’ actual versus speculative learning and motivation. Whetten (2009, p.350) advocates for assigning “time to reflect,” considering it important for student engagement and motivation. Adding a meta-cognitive piece to the learning process, according to SDT, is another way to assist with the integration and self-regulation process. Students are given an opportunity to assess and own their own learning process, effort, strategies and progress, which supports autonomy.

When class time is limited, or instructors are hesitant to assign one more thing to do at home and turn in, Whetten (2007) recommends incorporating reflection time with a *minute paper*. Usually at the end of class the instructor asks the student to consider one thing, and free-write on this reflection for one minute. If the question for reflection is too complex, it may require more of a 3-5 *minute paper*. Or the questions could be simplified and differ for each class, each with a singular focus, such as the following:

- How do you feel about your time-management this week (or with this current project)?
- What is your greatest time management strategy?
- Recently, what are the best techniques you have found to overcome writer's block? If you have not had writer's block please explain (e.g. process, habits, environment)
- How do you feel about the composition you are currently working on?
- How would you describe your relationship with writing this week (or with this current project)?
- What have you noticed are your greatest strengths in the writing process?
- What has been your greatest challenge in the writing process this week (or with this current project)?
- What strategies have you used to overcome challenges with writing?

It is possible that through self-assessments and minute papers, the level of sharing with their instructor could possibly contribute to a deeper connection, and might even satisfy the students' need for relatedness. Self-assessments or minute papers that ask focused questions shows that the instructor cares about the skills that will help students succeed in life, such as their self-efficacy skills, not just their end products and final results. These devices can also help instructors understand how students perceive their competence, autonomy and self-regulation skills with writing. This awareness can then help instructors understand where students feel they need more support, and offer additional support or

alternative strategies for further learning. In this and other ways, the information gives instructors a chance to know their students better and provides a basis for individualizing their feedback.

Providing Feedback with Conscious Intention. While words are not the only important part of feedback, the words we choose and our tone (written or verbal) are critical factors in how the feedback will be received. What we assume about our students defines them, and if they buy in to our assumptions, it can affect the way they come to define themselves. If we begin our relationship assuming that each student is competent and capable of building his or her own self-regulating skills, then our feedback will reflect these beliefs. Our support or lack of confidence will be obvious in our wording and in our tone. In addition to the unintentional effects of our words, it is also possible to phrase our feedback with conscious intentions. There are ways we can deliberately phrase our feedback to show we believe our students are competent. McGarrell and Verbeem (2007, p. 232) recommend using *probing questions* such as “what do you mean here exactly?” By acknowledging the students’ expertise with the content, instructors can show they already believe their students are competent, in at least one piece of the process. In contrast, phrases like “meaning unclear,” or “confusing,” do not necessarily assume competence, and might even have the opposite effect.

Be Aware of Students’ Interest, Effort, and Self-Efficacy. As we have seen, when people are interested in something they are more motivated to act, because there is a connection between interest level and intrinsic motivation. Lipstein and Renninger’s (2007) research showed that there is a positive correlation between interest in writing and feelings of self-efficacy as well such that efficacy increased as interest deepened. SDT would also claim the flip side to be true, that interest will deepen as feelings of self-efficacy (competence) increase. Based on over 15 years of research on the connections between effort, self-efficacy, writing and feedback, Lipstein and Renninger (2007)

designed a schematic to indicate how preferences for feedback may differ depending on students' level of interest, as reproduced in Figure 2 below.

Table 2: Phases of interest for writing and student perceptions of effort, self-efficacy, and feedback

	Phases of interest for writing			
	Triggered situational	Maintained situational	Emerging individual	Well-developed individual
Effort	Most feel that writing takes a lot of effort; perceive even small tasks as arduous	Most do not feel that writing takes an overwhelming amount of work; do not invest more effort in writing than other school assignments	Most expend a lot of effort by choice and keep working until they are personally satisfied; do not feel that the work they put into writing is arduous	Most expend a lot of effort by choice and keep working until they and others are satisfied; do not feel that the work they put into writing is arduous
Self-efficacy	Most feel that they are poor writers (this perception is often reinforced by low grades)	Most are generally comfortable with their abilities as writers (this perception is often reinforced by high grades)	Most are confident in their abilities as writers (often, but not always, this perception is reinforced by grades)	Most are confident in their abilities as writers; have a realistic sense of their abilities relative to peers and published authors; do not need to have their abilities confirmed by others
Feedback preferences	All want to be heard; want comments that require few changes and feel manageable; afraid of audience censure and being thought of as "stupid"	All want to hear positive feedback and specific directions to improve their work; look to teacher for standards of performance	All want their ideas to be heard and have their work appreciated; want audience reactions that are open-ended; do not want to hear specific directives or questioning of their decision making	All want their ideas to be heard and want honest feedback in any form, whether reactive or constructive criticism; prefer initial feedback on content, followed by feedback about technique

Figure 2 Phases of Interest for Writing and Student Perceptions (from Lipstein & Renninger, 2007, p. 123)

While Lipstein and Renninger's (2007) feedback examples focus primarily on *end results*, hence *post*, not *process* assessments, what they do highlight is that different students have different needs with feedback, depending on how competent they feel and their level of interest. Research in this area is important

for confirming the findings in SDT research, since this research shows a connection between perceived competence (self-efficacy) and effort with writing students. The significance of this chart is the message that writing instructors need to individualize their feedback. They need to take the time to ask questions, listen to what their students have to say, know their learning goals and challenges, and pay attention to their improvements.

Moreover, “individually oriented” or “highly personalized” feedback engages learners in the writing process, can potentially improve learning (Krampen, 1987; Whetten, 2007) and increase competence (McGarrell & Verbeem, 2007). Individualizing feedback is also one way to build a connection between students and instructors, and can potentially satisfy students’ need for relatedness. Because written feedback is less personal, however, it may not guarantee meeting a need for relatedness. To better ensure that this need is being met, one-on-one meetings are often recommended.

Building Relatedness with One-on-One Meetings

Bitchener et al.’s (2005) research on written corrective feedback showed us that a combination of direct written and direct oral feedback (i.e. one-on-one conference with the instructor following written feedback) produced more skills improvement than either written feedback alone, indirect feedback, or no feedback. To increase the potential for meeting students’ needs for relatedness, whenever possible, instructors should incorporate one-on-one meetings throughout the course. In addition to the opportunity to increase the instructor-student connection, and potentially meeting students’ need for relatedness, one-on-one meetings have additional benefits.

For example, Beason’s (1993) research shows that face-to-face meetings provide clarity and increase the students’ consideration and application of feedback in later revisions. Deci and Ryan (2007, p. 288) explain “students

reported significantly higher perceptions of both self-determination and competence when teachers listened more," and "encouraged conversation." This research also supports Fife and O'Neill's (2001) recommendation that instructors see feedback with writing as a dialogue between student and instructor—an interactive experience. When revision has an element of "mutual investigation with the teacher" (Fife & O'Neill, 2001, p.16), there is a potential for multiple benefits, such as developing writing and "independent problem solving" skills. In other words, when students are engaged and interactive with their instructors in the revision process, they are more likely to improve their writing and self-regulating abilities.

Another way to build relatedness may be to bring personal tutors into the instructor-student relationship. Cramp (2011) administered an assessment of a "feedback intervention" program that brought personal tutors into the feedback process. This program, implemented at a four-year university, asked the personal tutors to help clarify and assess feedback for a group of first-year college students. Bringing a personal tutor into the loop allowed the students to build a relationship with an outside party who was not a person in a position of power to determine grades. This person was seen as a support person (tutoring in multiple subjects as needed), and established a relationship with the students. By both communicating with professors to confirm expectations, and clarifying students' misinterpretations of feedback, tutors were able to reduce students' anxiety across disciplines and "engaged students more fully in their use of written feedback" (Cramp, 2011, p. 11). Meeting students' need for relatedness in this way reduced students' fear, anxiety and other negative emotional reactions to feedback, and improved students' ability to engage in and apply their instructor's feedback.

Whichever type of one-on-one interaction offered, what is important is that some type of connection is being built and that students feel their need for relatedness is being met. Stipek (1998) recommends a student-teacher

questionnaire to understand the student-teacher relationship. While we have already mentioned the idea of student-assessment questionnaires, instructors might consider adding some questions about “relatedness.” A few examples might include: “I can/cannot count on my instructor to be there for me when I need him/her (circle and please explain)” or “My instructor cares about my ability to succeed (Yes/No – Circle and please explain).” It is important that instructors are aware of the quality of their relationship with students, as research has shown that praise is only effective to the extent that students have a high quality relationship with their instructors (Henderlong, 2003).

There are numerous benefits that come from meeting the need for relatedness in the feedback process through one-on-one meetings with an instructor or personal tutor. But there are also other people in the writing course who can help satisfy relatedness needs. It has also been shown across disciplines that interacting with peers has many benefits. Stipek (1998, p. 185) tells us that “relationships among students affect their enjoyment and their abilities to concentrate on academic tasks.” And, particularly in the writing process, Davis’s (2008, p. 307) research shows that, “students need to talk with peers about papers they are working on, and they benefit from hearing or reading what their peers have written.” Interest, learning and motivation have the potential of improving when students are given opportunities to work together.

Learning Communities and Peer Feedback – Building Relatedness with Peers

Pajares et al. (2007) showed that if, during the writing process, students have some control (autonomy), work together with others (relatedness), and have opportunities for group autonomy, there is a certain commitment to the group that builds, and students become more motivated to write. This research showed that with group autonomy, learners became more self-regulating, applying new strategies and skills. Further, students’ perceived competence was

also increased in this process. Other research has shown that interactions with peers in group writing activities can improve students' image of themselves as writers (Bernardi & Antolini, 2007). Educational psychologist, Susan Nolen advocates for building "literary communities" in the classroom. As we have seen, the more interest people have in a subject the more likely they are to be intrinsically motivated to apply themselves. Nolen's research shows that "interest in writing develops in social contexts, and in particular, within the classroom community" (2007, p. 253). The needs for competence, autonomy and relatedness with writing have the potential to be satiated in a community learning structure.

There is value in developing relatedness among peers. However, students might need examples of what optimal feedback looks like, and to be made aware of the goals underlying peer feedback. In order to ensure an effective feedback process among peers, students may need a brief training and list of considerations before providing feedback. One effective device is a one-page handout and a brief discussion on feedback during the first days of class. The handout would list important considerations (e.g. the value of using probing questions when the meaning is unclear), and examples of what autonomy- and competence-oriented process or progress feedback looks like. It might also be helpful to explain why we should avoid person, intelligence and outcomes feedback. Encouraging and training students to be part of the feedback process is an opportunity for shared control of the process, potentially satiating their need for autonomy.

Challenges and Future Research

Despite instructors' best efforts, sometimes there are difficult challenges to providing the ideal feedback process that we must consider. For example, research has shown that sometimes the instructors' intentions with their

feedback do not match the students' perceptions of the feedback (Ferris et al., 2011; Guènette, 2007; Hyland, 2003; Montgomery & Baker, 2007). Some studies have shown discrepancies with perception of feedback volume, for example, Montgomery and Baker (2007, p. 82) showed that "students perceived receiving more feedback than teachers perceived giving." Other studies have shown a discrepancy with perceptions of feedback type or focus, such as instructors who believed they were primarily focusing on *form* and other *global* issues, when in fact their feedback focused on more *local* issues than they had thought (Ferris et al., 2011; Montgomery & Baker, 2007).

Another consideration is the challenges that the education system imposes. For example, it might be impossible to offer the one-on-one time necessary for every student in each course, since instructors are often restricted by time (Ferris et al., 2011; Urdan & Turner, 2005). While it does not replace the full benefits of a one-on-one meeting, sometimes ending class five to ten minutes early, so people can come up and ask questions one by one, might be all some students feel they need. Another challenge the education system imposes that is counterproductive to a process-oriented feedback focus is the grading system. Urdan and Turner (2005, p. 307) explain that "In classrooms students are often given mixed goal messages. For example, students may be encouraged to focus on their own improvement [progress], but may be evaluated in either normative or absolute grading systems that disregard improvement." In other words, even if our feedback focuses on progress skills such as efforts and strategies, if the system maintains its current post-assessment, reward-punishment structure then these "other" influences might reduce intrinsic motivation and integrated extrinsic motivation, and deter self-regulation.

Future research with feedback and writing would do well to consider the impact of feedback on perceived autonomy, competence and relatedness. Most current-day research on feedback with writing has primarily been concerned with learning, rather than how students' motivations may be

affected, and future learning encouraged or thwarted. It is possible that what promotes learning may, in fact, be counter-productive for motivation. We cannot truly know, for example, if *corrective feedback* has damaging effects on motivation until we know its influence on perceived autonomy, competence and relatedness. The same goes for other writing-related feedback types such as feedback focused on *global versus local errors*, direct or indirect, positive or negative, or other writing-specific correction types. Future research could help determine whether these writing-specific feedback types are productive or counterproductive to students' motivation. Other significant explorations might include research on perceived autonomy, competence and relatedness with process and progress feedback in the writing classroom. While these types of feedback have proven to be effective in other academic setting, one question might be: To what extent does process or progress feedback develop self-motivated, self-regulated writers?

Conclusion

Beginning with an historical overview, we were able to examine the development of more current theories on motivation, particularly SDT and its related sub-theories. An exploration of SDT provided a theoretical lens for determining the motivational qualities of feedback for writing, particularly through the lens of students' needs for competence, autonomy and relatedness. As Deci and Ryan (2000, p. 74) argue, "commitment and authenticity reflected in intrinsic motivation and integrated extrinsic motivation are most likely to be evident when individuals experience supports for competence, autonomy and relatedness." I have argued here that feedback focusing on students' process and progress skills such as effort, strategy and self-correction will enhance students' feelings of competence and autonomy, bringing about improvements to motivation and potentially learning. The final

piece, equally significant, is the value of meeting students' needs for relatedness, through instructor and/or tutor conferences, as well as with peer learning and feedback opportunities.

Across disciplines, instructors review written assignments and usually offer some type of feedback. It is essential that educators at all levels of the education system and across disciplines understand that their feedback should not be considered lightly. It is clear that students are commonly affected by the feedback they receive. Feedback can potentially become a valuable contribution to students' learning and motivation, or potentially have damaging effects, thwarting both learning and motivation. Fortunately, as we have seen, feedback has the potential to motivate students to keep writing, and possibly even increase students' future interest and motivation to become better writers. Shute (2008, p, 176) advises that "we [educators] need to continue taking a multidimensional view of feedback where situational and individual characteristics of the instructional context and learner are considered along with the nature and quality of the feedback message." A multidimensional perspective of feedback is essential to learning and motivation, but that takes time and energy beyond what some instructors are able to provide. The challenge for all educators becomes finding ways, within their means, to maintain this multidimensional view and remain aware of students' efforts, strategies, skills, perceived competence, autonomy and relatedness. In this process, it is essential that we individualize feedback, build relationships, and know our students' perceptions of our feedback.

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