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# Responding to plagiarism using reflective means

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## Abstract

Academic integrity violations have become widespread and pervasive in the university. The manner in which we respond to such violations is important. The prevalent approaches based on procedures, policies, appeals, and sanctions are seen as inadequate and may often be viewed as punitive or disciplinary. Even if they may bring about desired changes in behavior, it is not clear whether the behavioral changes are based on fear of punishment or due to transformative inner learning. Drawing upon reflective learning theories, this paper reports and reflects on the exploratory use of reflective means in two courses over four semesters to deal with students who had plagiarized on their class assignments. As there is little prior work in terms of methodology or research or practice addressing reflective approaches dealing with plagiarism, the goal of this study is to explore the feasibility and promise of integrally combining two reflective practices – an initial dialogue between instructor and student and a reflective essay subsequently written by the student. (Anti-plagiarism software was used to help detect plagiarism.) The main finding of this study is that such an approach is sensible, feasible, and promising. The reflective approach calls for mindfulness, empathy, and skillful dialogue on the part of the instructor and appears to encourage critical self-reflection in the student. Innovative reflective approaches warrant further research for inclusion as significant elements of a wise and holistic institutional response to academic integrity violations. Self-reflection may not only reduce the incidence of plagiarism and other academic integrity violations but may also be conducive to the growth of practical wisdom and inner change that spills over into other dimensions of integrity. Implications for institutional practices and further research are discussed.

**Keywords:** Plagiarism; Reflection; Reflective dialogue; Self-reflection; Academic integrity; Dialogue; Mindfulness; Practical wisdom; Transformative learning; Reflective learning; Reflective writing

## Background

Academic integrity violations such as plagiarism, copying, unauthorized collaboration, cheating on examinations, and unauthorized access to examinations have become widespread and pervasive in the modern university setting, aided undoubtedly by the easy availability and proliferation of various technologies (see e.g., McCabe, 2005; Park, 2003; Campbell, 2006 among many other studies). While there may be methodological issues in accurately measuring the rates of prevalence of plagiarism and other violations of academic integrity, discerning leaders of academia too have echoed such observations. For example, according to a 2011 Pew Research Center survey in association with the Chronicle of Higher Education of 1,055 presidents of colleges and

universities (public and private) in the U.S., the majority of college presidents (55%) say plagiarism has increased in the past decade (of which 89% believe that computers and the internet have played a major role in this trend) and a large proportion (40%) believe that it has stayed the same over the past 10 years while a small minority of college presidents (2%) think that plagiarism has decreased over the past decade (Parker et al. 2011).

Although the standard institutional response by universities to cheating has been to articulate academic integrity policies that aim at behavior modification through information, procedures, and sanctions, there is growing recognition that holistic approaches that integrate policies, practices, information providing and learning strategies are needed to address the gamut and complexity of academic integrity issues including plagiarism (MacDonald and Carroll, 2006; Bretag et al. 2011.) It is in this larger context that approaches focusing on empathy, reflection, dialogue, and understanding of the prevalent digital culture of young adults are likely to find a place.

There is increasing evidence from researchers that reflective learning and reflective practices play an important role in higher education (Brockbank & McGill, 2007). However, there has been little research or reporting on the use of reflection in responding to academic integrity violations in general and plagiarism in particular. A detailed search (carried out by the author) of handbooks of academic integrity at leading universities in the U.S. revealed little or no mention of keywords “reflection” and “dialogue”. Although some schools do offer an option of writing a reflection paper, it seems to be treated as a sanction along with probation and other disciplinary actions.

Drawing upon reflective learning theories, this paper reports and reflects on the exploratory use of reflective means by the author (who was the instructor) to deal with students who appeared to have plagiarized on their class assignments in two information systems courses taught during four semesters. Specifically, the study explores the feasibility and promise of combining two reflective practices: a dialogue between instructor and student and a subsequent reflective essay written by a plagiarizing student. Given that there has been little prior work in terms of methodology or research or practice addressing reflective approaches dealing with plagiarism, this study is probably among the first of its kind to explore the use of reflective dialogue in conjunction with reflective essay for this purpose.

This paper is organized as follows. The first section introduces reflection theories and reflective practices, which are then viewed in the context of academic integrity facilitation. The second section describes procedural details of the reflective approach used. The next section reports and reflects on the study’s findings, which is followed by a discussion of the implications of this approach for institutional practices and future research. The paper concludes with some final thoughts.

### **Reflection theories and practices**

Often likened to “looking at oneself into a mirror,” reflection has generally been considered an essential aspect of self-understanding, contemplation, and meditation in philosophies of life. However, reflection is also a common mental learning activity that we carry out when we try to make sense and meaning from daily life experiences. It involves implicitly testing assumptions, beliefs, and knowledge in the light of experiences, which may result in new learning as well as changed perspectives on life. Boud, Keogh

and Walker's 1985 model of reflection in learning (Boud et al. 2013) has two components: a) experience and b) reflection of the experience. They use the term experience as consisting of "the total response of a person to a situation or event: what he or she thinks, does, feels, and concludes at the time and immediately thereafter (p.18)." The subsequent reflective activity based upon the experience is when people attempt to recapture the experience, think about it, mull over it, and learn from it. Although we tend to reflect almost automatically, Boud et al. (2013) believe that conscious reflection enables us to bring unconscious thinking and feelings into the light of awareness, which enhances learning. In the context of education, reflection may be defined per Hatcher and Bringle (1997) as "the intentional consideration of an experience in light of particular learning objectives (p.153)."

The Transformative Learning Theory by Jack Mezirow of Columbia University focuses on perspective transformation that arises from reflection on the "Why" of an experience in contrast to instrumental learning, which focuses on the "What" and the "How" (Mezirow, 1991). Transformative learning attempts to purposively and rationally question and deconstruct the learner's prior assumptions, values, beliefs, feelings, and biases in the interest of personal and intellectual growth of the learner (Cranton 1994). According to Mezirow (1991), transformative learning can be a life-changing experience that starts with a "disorienting dilemma" – a choice of two alternatives – which must be understood and resolved. The dilemma may be triggered by some life crisis or situation and one may have to decide on whether to continue in the existing worldview or paradigm or underlying belief system, or to reflect, deconstruct, learn, and transform to a different level of understanding. Mezirow (1991) theorized that the disorienting dilemma can lead to self-examination with accompanying feelings of shame or guilt, after which one may go through a series of stages involving self-knowledge acquisition, reflection, and exploration, and can end with a new perspective reintegrated into one's life. Mezirow's theory has transformed the field of adult learning and is finding applications in many other domains.

Reflection in practice is referred to as reflective practice, which is about "paying critical attention to the practical values and theories which inform everyday actions, by examining practice reflectively and reflexively. This leads to developmental insight (Bolton 2010)." Starting with the notion of Reflective Practice (Schön, 1983) by Donald Schön in his book "The Reflective Practitioner" in 1983 and followed up by numerous other theorists, reflective practice has now been widely accepted and used by individuals and organizations, particularly in the teaching and health professions. There are numerous forms of reflective practices all embodying the notion of reflection. Reflective essays and reflective dialogues are two key reflective practices introduced next.

A reflective essay is a form of writing in which the writer reflects and contemplates on his or her experiences. A reflective essay may be a personal record of thoughts, feelings and experiences, an evaluation of strengths and weaknesses, or a summary of meaningful learning from those experiences. While a reflective essay is often used as part of a writing or learning portfolio (e.g., Wade and Yarbrough, 1996), there appears to have been little research on its use as an academic integrity tool.

Another reflective practice is to engage in reflective dialogue. Simply defined as "thinking together" (Isaacs, 1999), a reflective dialogue is an objective inquiry in which

self-awareness, intuition, reflection, and listening in a spirit of fellowship are key elements (Bohm, 1996). This notion of dialogue is clearly more than a discussion or a meaningful conversation or interchange of opinions between two or more persons; participants are also engaged in observing their own thought, preconceptions, assumptions, and beliefs during the dialogue. (The term dialogue will be used interchangeably with reflective dialogue henceforth with the understanding that what is meant is reflective dialogue.) This type of dialogue draws upon the inquiry traditions of philosophers such as Socrates (Kahn, 1998), Bohm (1996), and Krishnamurti (1996) and later theoretical underpinnings laid out by organizational management theorists such as Senge (1990) and Isaacs (1999), founder of the MIT Dialogue project, among others. A participant in such a dialogue learns to listen to the other without resistance; suspends or becomes aware of their assumptions, images and biases; is ready to explore underlying causes to get to deeper questions and issues; creatively envisions new possibilities; and creates a collective flow (Isaacs, 1999). There is no established formula or protocol for conducting a reflective dialogue and there appears to be a lot of scope for creativity and spontaneity. Why? "Because the nature of Dialogue is exploratory, its meaning and its methods continue to unfold. No firm rules can be laid down for conducting a Dialogue because its essence is learning - not as the result of consuming a body of information or doctrine imparted by an authority, nor as a means of examining or criticizing a particular theory or programme, but rather as part of an unfolding process of creative participation ... (Bohm et al. 1991)"

According to numerous case studies documented by Isaacs (1999), the dialogue process may generate new transformative insights and perspectives in the minds of participants. In the context of learning, Brockbank and McGill (2007) have observed how dialogues can generate perception shifts by challenging existing assumptions. In their words (p. 45), "For us dialogue that is reflective, and enables critically reflective learning, engages the person at the edge of their knowledge, their sense of self and the world as experienced by them. Thus their assumptions about knowledge, themselves and their world is challenged."

In the context of plagiarism and other academic integrity violations, it would appear then that being caught in a plagiarism situation is a "disorienting dilemma" for a student. A dialogue between an instructor or counselor and the student may enable better listening of one another, perhaps in a less judgmental manner, throw more light on the situation, and along with writing a reflective essay, the whole process may help a student "learn" from their mistakes and transform to a different level of understanding of originality and authenticity. Can these reflective practices really help? The focus of this study was to explore three questions: Is it sensible and feasible to implement a reflective approach for dealing with plagiarism in a course? What does it entail? Can it show promise? The next section describes the use of a reflective approach.

### **Reflective approach**

The author has used a reflective approach with minor variations for four consecutive long semesters starting Spring 2013 to deal with cases of plagiarism in two information systems courses. Both courses included five to seven homework assignments and a project. Plagiarism cases were detected with the help of plagiarism detection software from

Turnitin (<http://turnitin.com>), which is integrated with the Desire2learn learning platform of the university.

This overall approach had the following components:

1. Building student awareness

The students are informed in the syllabus about integrity violations and sanctions, which is discussed during the first week of classes. The fact that plagiarism detection software is being used is reinforced as follows:

You are expected to be aware of all kinds of academic dishonesty. Please check with the instructor if you have any doubts or questions. In particular, any work found to be similar to that on existing websites or similar to work done by current or former students in the past will be considered for plagiarism. *This will be checked by means of suitable software.* Participating in a behavior that violates academic integrity (e.g., unauthorized collaboration, plagiarism, multiple submissions, cheating on examinations, fabricating information, helping another person cheat, unauthorized advance access to examinations, altering or destroying the work of others, fraudulently altering academic records, and similar behaviors) will result in a sanction. Sanctions include: lowering of a letter grade, receiving a failing grade on an assignment, examination or course, receiving a notation of a violation of academic integrity (F!) on your transcript, and being suspended from the University. You have the right to appeal the charge. (Contact details provided here).

Building such awareness in the student early in the semester is helpful and fair. It not only deters students from cheating behaviors but may also mitigate the sense of ignorance, indignation, or unfairness often displayed by students who are caught later in the semester in situations where they have not received prior explicit information on what constitutes academic integrity. The next step in this approach also has similar goals.

2. Providing learning and self-assessment materials

As part of the course content in the first week of the semester, students are pointed to various sources of materials on academic honesty and are expected to understand the meaning and different shades of plagiarism. This is particularly important as students may commit unintentional plagiarism. For example, it was found that some students considered it acceptable to modify a submission of a student from a previous semester to some degree and present it as their own work. Such misinterpretations were brought to light with the help of an open-book miniquiz, administered online at the end of the first week, which contained questions used to assess their understanding of plagiarism.

Students are further required to sign an integrity pledge (which was incorporated in Fall 2014) stating the following:

INTEGRITY PLEDGE: "All my work for this course will be original and independently done. Sentences copied and pasted from the Internet will be placed in quotes and appropriately cited. I understand that special software very sensitive in plagiarism detection (with respect to Internet sources and other student submissions from now and in the past) is used for this course, and if any instance of plagiarism or some other violation is detected, I will get an F\* or an appropriately lowered grade on this course."

### 3. Responding to plagiarism – the dialogue

Each case of suspected plagiarism detected by Turnitin is investigated by the instructor. (Sometimes, a high unoriginality score may appear due to causes other than plagiarism).

For every *prima facie* case of plagiarism suggested by the software, the student is given a blank score on their screen and a comment to meet the instructor the following week during office hours. During the meeting in the office, the instructor treats each student on a case-by-case basis as individuals. Most students deny they have “cheated” but every opportunity is provided to them during a difficult dialogue with the instructor to unfold and own up to their mistake. Instead of being branded as plagiarists, they get a chance to discover their own foibles in a relatively non-threatening space.

In the author’s experience, in many cases, the initial meeting would start with student denials, followed by acknowledgement and justification, but over time, for some students, it would take a critically reflective turn followed by what seemed to be tears of remorse and a sense of understanding. Each dialogue unfolded differently and spontaneously because each student and each interaction was different. Even the instructor’s frame of mind was not the same for every interaction. Some of the critical questions explored by the instructor with the student were: Why did you do what you did? What are the implications of taking someone’s work and presenting it as one’s own? How would you do it differently and why? Why are sanctions necessary and why they should be viewed as learning experiences? What is the importance of authenticity and originality in learning? How do such actions spill over into daily life?

Students are then informed about the sanction they will receive, which may be a zero on the assignment (or in some cases, a lowering of their grade) but are also given a choice on how to deal with their integrity violation: attend an integrity violation session facilitated by an integrity counselor or to write a reflective essay. The next step applies to students who opt for the reflective essay.

### 4. Responding to plagiarism – the reflective essay

The reflective essay is meant to encourage honesty and awareness of thinking. It read as follows:

#### **Reflective essay**

You have chosen to take up this reflective assignment, which has the potential to be life-changing if done with care, mindfulness, and attention.

Nobody is perfect and we all make mistakes. But can we truly learn from our mistakes? Write a short personalized essay (generally about a page but there is no max. length restriction) on being an authentic and original learner and what authenticity, originality, and integrity mean to you in academics and life going forward. You may also include your observations about your thinking processes while writing the essay. Be honest in your reflections and attempt to think and feel with a fresh mind. Do not worry about what this instructor will think or how he might respond because you will not be judged or evaluated even though your submission will be read attentively. I do not judge “you”; I look only at individual actions. We are all capable of right actions when we act from right understanding.

(Upload your submission to the special submissions box calling it “Reflective Essay” anytime from now on but before the last day of classes and send me an email when you have done so. After submitting the essay, you can modify it as many times as you wish until semester-end, and upload multiple versions. I will read your final version at semester-end.)

#### 5. Reading the reflective essays and reflecting on the process

The instructor at this stage reads the reflective essays, gets a sense of the spirit of learning they embody, reflects on the entire process, and assesses the effectiveness of this reflective approach, making changes as needed for the future.

### Findings

Given that it is difficult to find reflective models suggested by prior research or practice in dealing with cases of plagiarism in a university environment, the goal of this study was to explore the feasibility and promise of a reflective approach. The main finding is that the reflective approach described in the previous section makes sense, is feasible to implement, and has the potential for numerous learning benefits. A limitation of this study is that with the small sample sizes involved, and the changes made in the dialogue process and reflective essay specifications each semester resulting from new learning during each trial, the study should be considered exploratory; it would have been premature to conduct studies looking for hard effectiveness data without first experientially exploring and understanding reflective processes for this new use. Nevertheless, several observations can be made from this study that can point to future research and practice directions.

The number of students detected to have deliberately plagiarized relative to the total number of students enrolled were 16 in 149, 4 in 133, 3 in 140, and 3 in 92 in Spring 2013, Fall 2013, Spring 2014, and Fall 2014 respectively for a total of 26 in 514. So the detected plagiarism rate was slightly over 10% in Spring 2013 and dropped off to the 2 to 3% range in subsequent semesters. Though the detection mechanism (Turnitin) and the assignments largely remained the same, it is not clear what factors caused a drop-off in plagiarism rates. (Three cases of inadvertent plagiarism were let off with a cautionary note and were not included in this report).

During the dialogue, all 26 students admitted to plagiarism (some later than others). Given the nature of the assignments, it was clear (and supported by software results) that the copying was from prior student submissions, where inadvertent plagiarism (e.g., from poor academic writing skills) is unlikely or impossible. All 26 students received zeroes on the assignment in question and four students also received a lower overall grade in the course for the severity and egregiousness of their plagiarism. All of them opted to write a reflective essay instead of attending an integrity violation resolution meeting that would have gone on their academic record in the university. Other than one student who copied textbook definitions of plagiarism and integrity from an Internet source without attribution (!), the other students had low Turnitin scores (<10%) of similarity with other sources on their reflective essays, suggestive of original writing.

The initial dialogue with the student was seen as very important in setting the tone for the student’s subsequent reflection. Being confronted by a disorienting dilemma, consistent with the research of Park (2003), many students would start by denying they

had plagiarized at all and later, when they knew they were discovered, would rationalize or make light of their actions until experiencing feelings of grief or shame. Getting them to focus on their “wrong” actions that brought them to this situation without being perceived as accusatory and judgmental of the entire person required mindfulness on the part of the instructor. It was important for the instructor to be able to engage in reflective dialogue listening to each student as a unique person facing a unique situation and to respond spontaneously without following a patterned procedure. The importance of the dialogue interaction is suggested in comments such as the following, made by students in their essays.

I felt very ashamed and at the same time scared while standing outside your room, waiting for my turn to speak with you. But you made that horrible experience very pleasant by speaking in a very positive way and patiently listening to my explanation. That interaction with you has completely changed a part of me in a positive way and made me look at things in a new perspective. (Student 4, SAD, Spring 2013).

There were instances when I ... chose a shortcut to success. After my interaction with you I realized the gravity of the mistake I did and had regretted (sic) for it. (Student 8, SAD, Spring 2013).

Many students pointed out the importance of authenticity and original work. This type of acknowledgement is reflected in comments such as the following.

Honesty, being authentic and original is one of the must-have virtues. (Student 21, ERP, Spring 2014).

The primary objective is learning and more importantly being original. ... Primarily, what many of them and even I failed to understand is that you are not cheating the instructor you are cheating yourself. The instructor has nothing to lose, you will be the loser. (Student 10, SAD, Spring 2013).

Many students expressed a sense of regret about their action and a sense of learning from the experience. This was coupled in several cases with a sense of gratefulness at being provided this opportunity. Some suggestive comments follow.

I am not proud of this, but ashamed and humbled by this and something that I might never forget in my entire life. (Student 12, SAD, Spring 2013).

I felt guilty and had (sic) decided never to get into any such situation where my integrity comes into question. (Student 8, SAD, Spring 2013).

I have positively taught myself to treat this situation as “The First and The Last’.

(Student 25, Fall 2014).

First I would like to thank the course instructor for being considerate about my mistake, giving me this opportunity to rectify myself and learn from the mistake. (Student 22, ERP, Spring 2014).



Many students attempted to justify their behavior in some sense before acknowledging their mistakes. Students from other countries brought cultural differences (Sutherland-Smith, 2008) and other factors in their understanding of academic integrity, suggested in the following comments.

I am not sure if it is the pressures of being in the campus away from family, coping with the coursework, age, cultural or language barriers that caused it but I always felt I wasn't welcome. And it's definitely not that I did not try. (Student 21, ERP, Spring 2014).

I was short of time in submitting the assignment, and I referred [to] my friend's assignment. (Student 26, ERP, Fall 2014).

Now considering that, I am from (another country) and since my childhood I have been seeing lots of people, who are corrupt and now everyone thinks like it is a part and parcel of life. And this very thing has a deep effect on me because I have seen lots of corrupt people (Politicians, Police, Government employees, even people in my Father's Office) making huge profits and having no regrets whatsoever. (Student 17, ERP, Fall 2013).

That day I thought it was just an assignment, and who would care about an assignment (because back in my home country, assignments were not a big thing, only exams were the prominent grading factors). (Student 12, SAD, Spring 2013).

For some students, the learning extended to observing other facets of themselves and also going beyond academic integrity to fairness and doing the right thing in life. Observations reflecting this sense include the following.

All of this has made me a better person now and has made me put in thought in the smallest of activities I perform. (Student 15, SAD, Spring 2013).

During my undergraduate studies I had been never serious about learning new things or doing something innovative or out of the box. ...I started realizing the importance of gaining knowledge instead of just gaining a degree. (Student 6, SAD, Spring 2013).

One of the best takeaways of this semester would be that I would always take the path that is right no matter how difficult or hard it might be. (Student 8, SAD, Spring 2013).

I have always tried to abide and inculcate these virtues in my life and I expect to keep them with me for the rest of my life as well. (Student 21, ERP, Spring 2014).

## **Discussion**

The approach discussed in this paper provides an opportunity for a student caught cheating to acknowledge and face their action and to reflect and learn from it. It can

also be a significant learning experience for the instructor or counselor in terms of learning to listen and observe human nature. The major finding of this study is that this novel approach based on combining reflective dialogue and a reflective essay to deal with a student who has indulged in deliberate plagiarism is feasible, promising, and befitting of future research. The use of appropriate anti-plagiarism software is very helpful as it leaves the instructor with little doubt that they are dealing with a definite case of plagiarism. A typical academic sanction for academic plagiarism may be necessary but is, in the opinion of this author, generally perceived by students as punitive and disciplinary. However, as an element of a holistic approach that encourages self-reflection, the sanction itself may be seen as a transformative learning experience – a process conducive to the growth of practical wisdom that may create lasting change that spills over into other domains. The dialogic process by which self-reflection is encouraged and allowed to grow is as (if not more) important than a specific outcome in a given situation as it can be the seed for future transformative learning.

The instructor or integrity counselor's understanding of this process is critical for the reflective approach to work. It calls for mindfulness, empathy, and skillful dialogue on the part of the instructor and encourages critical self-reflection in the student. The reflective approach places greater demands of time, attention, and effort on the part on the instructor or counselor. It calls for critical reflection on the part of the instructors, the counselors, and the university administrators on their own preconceived assumptions, beliefs, and standards.

This study has several implications for future research and practice. First, there is a diversity of definitions and frameworks for reflection and reflective practice but there is no single right way to implement a reflective practice (Hickson, 2011) and hence there is scope for creativity, innovation, and experimentation in determining best reflective practices for dealing with plagiarism. Second, research is needed to systematically examine the conditions under which such reflective approaches as described in this paper are effective and how they may foster honesty (McCabe and Pavela, 2004). A few of many questions that can be posed: What is an appropriate protocol for conducting a dialogue, if a formalized protocol is needed in the first place? (Given the spontaneous unfolding in a dialogue, a protocol if any may have to be loosely structured and flexible.) Will it be helpful to have a second subsequent dialogue after the submission of the reflective essay? Can the directions for writing the reflective essay be improved and expanded to include other emotions? An important question is how to measure and assess the effectiveness of any reflective approach for this purpose. Transformative learning theory (Mezirow 2000) suggests that the process of perspective transformation has three dimensions: psychological (changes in understanding of the self), convictional (revision of belief systems), and behavioral (changes in lifestyle). It may be useful to subsequently survey or investigate students to look for psychological, convictional, and behavioral changes as a result of having experienced a reflective approach due to their plagiarism.

At the institutional level, it will be useful to examine the role of such approaches in a more holistic context of academic integrity violation. Academic integrity counselors or facilitators are meant to help a student realize the consequences of their decisions and have been trained in university procedures. As commendable as such efforts are, surveys in multiple countries have found that the efficacy of such policies are still not clear

and student support and understanding of the policies is low (e.g., Glendinning, 2014). Should dealing with plagiarism be the role of a course instructor or an academic integrity counselor? Should the proposed approach (or a modified version of it) be used as a replacement for or in conjunction with standard procedural approaches of dealing with academic integrity violations? How can instructors or counselors be trained in holding dialogues with a student to encourage reflection? To address such questions, we need more experimentation and research with reflective means for academic integrity issues.

## **Conclusion**

Academic integrity violations have become widespread and pervasive in the university. The manner in which we respond to such violations is important. The prevalent approaches based on sanctions may often be viewed as punitive and while they may bring about desired changes in behavior, it is not clear whether the behavioral changes are based on fear of punishment or transformative inner learning. If change arises from fear of detection and fear of punishment, a person may cheat again in situations where they perceive they are unlikely to be caught or punished. However, if change arises from within, the student is unlikely to fall into the trap of quick illegitimate short-cuts. Reflective practices by a student or an instructor working with a student on their act of plagiarism have the potential to produce inner change that leads to original work by a student and other changes in outward behavior that are long lasting and harmonious.

As educators and administrators, we must critically reflect on the effectiveness of current approaches in dealing with academic integrity from the perspectives of: teaching versus preaching (Pfatteicher, 2001), creative experimentation and innovation versus application of institutionalized policies and procedures, and the use of character development and critical thinking strategies versus behavior modification strategies (Roberts-Cady 2008). Clearly, none of the choices mentioned earlier are binary; rather plagiarism as recognized by many academics (see e.g., Macdonald and Carroll, 2006) is a complex multi-faceted phenomenon that requires a holistic approach, beyond just a policy of information, deterrence, and sanctions.

It appears that the standard institutional approach emphasizes behavior modification through information, policies, procedures, processes and external sanctions (typically punitive or disciplinary), but lacks an adequate focus on reflection, inner understanding, and dialogue in an integrated manner. Hence, consistent with the call for wisdom in understanding the importance of academic integrity and ethics to higher education (Bretag et al. 2011), policies and practices that emphasize reflection, mindfulness, and transformative learning deserve a place in a holistic institutional framework of academic integrity.

## **Competing interests**

The author declares that he has no competing interests.

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