Individual Assignments and Academic Dishonesty – Exploring the Learning Conundrum

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Abstract

A survey of university business professors[1] focused on their use of individual assignments in courses and their views on cheating and its impact on student learning. Based on responses from 456 professors (37% response rate) from Ontario, Canada. it was concluded that most faculty[2] believe that individual assignments are effective learning tools and that cheating on these assignments is a serious offence. They believe that cheating occurs widely, but continue to use these assessments, with some alterations, to ensure that students obtain learning benefits. The survey findings varied across disciplines and tenure status. A framework is proposed to explain the faculty perspective and the outcomes that professors experience. The adjustments they make to individual assignments are influenced by multiple factors that are internal (university policies and regulations) and external (internet usage) to the university. The discussion centres on the three stakeholders – faculty, students and administration – the need for culture change, and the role of honor codes in controlling cheating and supporting a learning environment.

Introduction

University business programs aim to prepare students for future roles as managers in industry, government, non-profit organizations and a host of other real world situations. To accomplish this objective, business courses must deliver knowledge about a particular topic or subject, build skills, assess student understanding and foster independent learning. An important pedagogical tool to develop these conceptual and practical skills is that of the individual assignment – a task that is completed by an individual without help. Such assignments allow the professor to assess student learning and to give feedback to facilitate and reinforce the learning

taking place. Formative assessment as opposed to summative assessment (Shepard, 2000) can take place throughout the course delivery. In order to reward students for their efforts and give the assignment salience, marks are allocated to the individual assignment. Unfortunately, the phenomenon of cheating is present and these assignments, because of their flexible process, are vulnerable to abuse.

Academic integrity is defined as a commitment to five fundamental values: honesty, trust, fairness, respect, and responsibility (Centre for Academic Integrity (CAI), 2006). This standard is appropriate for the entire university community – faculty, administration and students. In the business community, honesty and good governance is widely supported, though the public has always expressed doubts on the ability of businesses to behave ethically (McCabe & Drinan, 1999), especially in light of the rise of corporate scandals like Enron. Within the university setting, cheating by students has become more salient and has raised ethical concerns. Numerous American studies have provided convincing evidence that academic dishonesty occurs frequently among university students (e.g. McCabe & Trevino, 2002). The cheating phenomenon also appears to be present in Australian universities (Brimble & Stevenson-Clarke, 2005).

The purpose of our study is to provide faculty views on the presence of cheating on individual assignments, adjustments that are made to individual assignments to control cheating, and the impact of these adjustments on student learning. The study is limited to the business programs in Ontario, Canada, which is the most populous province with 12.5 million inhabitants (38.8% of the national population) and 19 universities (Statistics Canada, 2005).

This article begins with a review of the use and value of individual assignments, followed by student motivations for cheating and faculty reactions. This review is followed by a description of the survey method and findings. The article ends with a discussion of a framework on the faculty perspective and the possible role of honour codes.

Purpose of individual assignments

The classroom is the context for communication between professor and students for the purpose of learning. Various evaluation methods – examinations, assignments, projects and presentations – are common techniques used to evaluate student learning and the attainment of course objectives. Most courses use examinations as the final means of evaluation for knowledge retention and learned skills. This 'summative' evaluation can be contrasted with 'formative evaluation' where the latter focuses on the learning process itself and dynamic assessment (Shepard, 2000; Wiggins, 1998). Shepard argued that improving the content of assessments and changing classroom

practices are needed before assessments can be integrated into the learning process. On another front, Smyth (2004) proposed that formative methods of assessment should be linked with the intended outcomes of the course, and should prepare students for the summative assessments. Similarly, Rust, O'Donovan, & Price (2005) argued that a tight alignment of course components enhances learning and is considered best practice. Recently, Gijbels, van de Watering, & Dochy (2005) offered empirical evidence in that multiple essay tasks during the term improved student performance in the final essay exam.

It is particularly through the use of assignments that professors have the opportunity to cultivate and nurture a higher level of skill development. The professor monitors the student's learning, confirms what the student knows, gives feedback to clarify or raise issues, and indicates what adjustments are required to master the task. Formative assessment uses insights into a learner's current understanding to alter the course of instruction, thus supporting the development of greater competence. It is a collaborative process that involves negotiation between instructor and learner about expectations and how best to improve performance (Shepard, 2005). The relationship between assessment and learning is an integral part of the system of education (Havnes, 2004) and provides support for the continued use of individual assignments.

Individual assignments require a student to complete the task on his or her own and without help from others, and provide important learning opportunities. Assignments can vary in design and may include tasks such as essay writing, case analysis, problem solving, or research. While examinations must be completed under controlled conditions and a finite time frame, individual assignments are completed according to the student's agenda, and with less time pressure and restrictions. Each student has the opportunity to complete the assignment according to his or her preferred approach. This might involve reading textbook chapters and assigned readings to gain a better understanding prior to completing an assignment, or exploring new resources to gain additional information. There may be no restriction on the resources that the student is allowed to consult or any limit to the number of hours he or she chooses to spend on the assignment. Because each student relies on his or her personal learning style, an individual assignment may be a fairer measure of student learning.

Individual assignments can challenge students to apply their skills. Assignments can be designed to be more difficult than exams, requiring more thought and analysis. Leach (2005) has argued that problem-solving projects integrate learning and skills from a number of areas, develop higher-level thinking skills, provide self-assessment opportunities, and promote independent learning. Individual assignments may also be regarded as a means of helping students to explore and to learn content, prepare

them to become professionals in that discipline, and teach them academic and discipline-specific writing (Storch & Tapper, 2000). When professors adopt the dual purpose of assignments – to assess and to encourage students to think and learn about a subject (Lunsford, 1997; Storch & Tapper, 2000), they recognize the importance of giving students feedback on the content of their writing.

From the student's perspective, instructor feedback provides guidance on corrective action such as adjusting their time allocation on the components of an assignment, expending more effort on key components, and modifying their study habits. That being said, marks are typically assigned to help students focus on the task (Fenwick & Parsons, 2000) and to recognize the effort put into the assignment. Several authors have confirmed that feedback is sought and appreciated by students, and is critically important for student learning and achievement (Weaver, 2006; Nesbit & Burton, 2006; Rust et al., 2005; Gibbs & Simpson, 2002; Rau & Durand, 2000; Black & Wiliam, 1998; Hattie, 1987).

From the instructor's perspective, successful performance on an individual assignment may indicate that the method of course delivery is accomplishing the stated objectives and that students are developing their skills. If performance is unsatisfactory, the instructor can determine what changes are appropriate: modifying the teaching method, the assignment, and/or the expected outcomes. Detailed feedback and open discussion between the instructor and the student about current learning, needs, and future learning motivates the student to achieve higher performance (Smyth, 2004; Taras, 2000; Harris & Bell, 1990).

The rationale and value of individual assignments is widely accepted. However, little is known of the impact of altering the use of individual assignments to reduce the potential for cheating. The following section reviews the evidence that cheating is sufficiently widespread to put at risk the learning benefits of individual assignments.

The cheating environment

American studies have indicated that the majority of university students reported that they had engaged in serious cheating on tests and exams (McCabe, Trevino, & Butterfield, 2001; McCabe & Trevino, 2002). It is noteworthy that these studies have focused on tests and exams, and have ignored other types of learning assessments – namely individual assignments.

The majority of American professors appear to do little to address cheating because preventing and punishing cheating are viewed as problematic (McCabe & Trevino, 2002; Schneider, 1999; Graham, Monday, O'Brien, & Steffen, 1994). Although some

faculty members report the incident to a dean or administrator, others simply lower the student's grade after discussing the matter with the student, or simply give the student a warning. Reporting and following up on cases of academic dishonesty are time-consuming tasks. Gathering evidence, taking reports of witnesses and attending meetings related to the cases create time pressures on professors who are busy with their regular teaching, research and administrative responsibilities.

Cheating on an individual assignment may be defined as intentionally using unauthorized materials, information or study aids (Whitley Jr. & Keith-Spiegel, 2002, p. 17); the student may commit the act alone or in collaboration with another person. In instances where a student is 'suspected' of cheating, it is understandable that a professor may choose to do nothing. For example, an accounting professor may require students to complete an individual assignment comprised of challenging computations to determine the amounts, which should be recorded as transactions by a business entity, and the provision of a full explanation. The professor may note unusual similarities in the assignments of two students, such as the same errors, but the supporting calculations may be formatted differently and the written component may not be identical (i.e. paraphrased). Since strong evidence does not exist, the professor may choose not to confront the students, nor report the incident. With repeated incidents of suspected cheating, the professor is likely to try and correct the 'perceived' cheating.

Students seem to convince themselves that if others are cheating and the institution or individual faculty members are not intervening, they have no choice but to do the same (McCabe & Trevino, 2002). In today's highly competitive environment, otherwise honest students may persuade themselves that they must cheat to keep the playing field level (McCabe & Trevino, 2002). One of the casualties appears to be the learning benefits that the students obtain from independent assignments.

In Canada, the evidence on cheating is proprietary to each institution and therefore sparse in the public domain. A review of a sample of Ontario university websites indicated little evidence of public disclosure. Given that there is considerable cultural similarity with the USA, it would lead us to expect that cheating is widespread. This gap in solid information is being addressed by McCabe and associates through the Centre for Academic Integrity at Duke University. Hard Canadian evidence aside, professors are collegial in nature and share their experiences with colleagues within their university and outside. In the authors' experience, the topic of cheating and measures to contain it are often discussed. When a colleague presents a cheating incident, others are prompted to pay more attention to possible infractions in their courses. They may also take preventive measures. Thus, the community of professors may react to both personal and vicarious experiences of cheating.

A survey on individual assignments

Professors who value individual assignments for their learning contribution are faced with a dilemma – that of balancing ethical conduct and learning goals. In the following sections, we report the details of our survey of business university professors and how they dealt with this dilemma. In the authors' opinion, professors are guided in their use of individual assignments by their professional standards and pedagogical objectives, but over time may adjust their use because of their perceptions and experience with cheating.

Method

Sample

This study, conducted in 2005, surveyed professors teaching in business/economics programs across 19 Ontario universities (22 campuses), ranging in size from 10 to 130 professors, with a mean teaching complement of 57 professors per campus. A two-page survey dealing with academic dishonesty for individual assignments and demographic items was mailed to all 1,253 professors listed on the university websites. Participants were asked to anonymously complete and return the survey by mail, e-mail, fax or telephone. An e-mail with the survey attached was sent out 2 weeks after the initial mailing as a reminder, followed with a similar reminder 2 weeks later.

In the first mailing, thirty-two surveys were undeliverable because of wrong addresses. In all, 456 completed questionnaires were received (409 by mail, 44 by email, and 3 by fax), representing an overall response rate of 37.3%. Eighty-four of these respondents taught in Accounting, 32 in Economics, 44 in Finance, 29 in Management Information Systems (MIS), 66 in Marketing, 30 in Operations, 75 in Organizational Behaviour/ Human Resources (OB/HR), 33 in Strategy and the remaining 32 in other subject areas. Note that 31 respondents indicated more than one area of primary teaching responsibility, and were removed from the discipline numbers but retained in the overall total of 456 respondents and in the overall statistics.

The accuracy of the survey was calculated using the maximum variance estimate where the population proportion is 0.50 responding 'Yes' to a Yes/No question. We can be 95% confident that the sample proportion accurately estimates the population parameter with a margin of error of + or – 5% when the sample size reaches N=384 (Cooper & Schindler, 2006, p. 435). Our sample of over 400 satisfies this requirement.

Our data set was compared with the Ontario component of the annual administrative survey conducted by the Canadian Federation of Business Deans. To make the comparison meaningful, our set was adjusted to match their parameters. The two sets proved to be similar in terms of ranks and disciplines, but different with respect to tenure.

Our sample under-represented tenured professors (61% vs. 88%). To evaluate the impact of this bias, the tenured and untenured sub-samples of our study were compared on the variables investigated. The findings are reported in the Results.

Survey instrument

The questionnaire was composed of four sections. First, a definition of an individual assignment was provided along with examples of cheating: 'For the purpose of this survey, an 'individual assignment' is defined to be a task assigned by you to a student, completed by the student, and submitted for grading. The following list depicts some of the common cheating behaviours exhibited by a student when asked to complete an assignment totally on his or her own:

- Receiving unpermitted help on an assignment
- Turning in work, which is copied at least in part from another student
- Helping or completing an individual assignment for another student
- Working on an assignment with others when the instructor specified individual work

Second, eight categorical questions (Yes/No) were asked on cheating and individual assignments, with a few opportunities to make a comment. For some of the questions, respondents were asked to separate their undergraduate teaching experiences into two groups – first year courses and upper year courses (years 2, 3 and 4). Based on the authors' experience, this distinction was made because larger class sizes in first year courses may discourage the use of individual assignments. Furthermore, Donald (2004, p. 57) has argued that upper year students are more active participants in learning; it follows that individual assignments would be more appropriate for them. In particular, respondents were asked about the presence of cheating and any action taken to prevent it. Third, four questions covered respondent characteristics (e.g. How long have you been teaching? _____Years). In the final section, an open-ended question was asked: How do you think academic dishonesty has impacted on your use of individual assignments for grading students?

Results

Quantitative results

The survey results are reported in Tables 1, 2 and 3 below. The primary teaching responsibilities listed in each table were condensed to reduce the number of overall categories. Some of the groupings include Accounting (Taxation); Operations (Management Science); Strategy (Policy); and Other (Ethics, International Business and Entrepreneurship).

	Primary Teaching Responsibility									
	Accounting	Economics	Finance	MIS	Marketing	Operations	OB/HR	Strategy	Other	Total
N	84	32	44	29	66	30	75	33	32	456[a]
Are you tenured?										
Yes	57%	59%	66%	55%	46%	71%	60%	64%	59%	57%
Academic rank?										
Full Professor	11%	41%	25%	10%	17%	33%	32%	28%	43%	24%
Associate Professor	34%	28%	34%	31%	27%	41%	26%	30%	16%	29%
Assistant Professor	24%	22%	30%	39%	33%	23%	27%	30%	19%	28%
Lecturer	27%	6%	9%	17%	18%	3%	12%	6%	19%	15%
Other	4%	3%	2%	3%	5%	0%	3%	6%	3%	4%
Years of teaching (mean)	16	16	15	10	13	18	14	15	19	15

[a] Thirty-one respondents indicated more than one area of primary teaching responsibility. They are included in the overall statistics (N=456) but omitted from each discipline.

Table 1: Profile of Respondents

Description of the respondents Fifty-five percent (55 %) or more of the respondents held tenure (with the exception of the marketing faculty at 46%). Only 11% of the accounting faculty members were full professors, compared to 24% of the total sample; these respondents likely have professional accounting designations rather than doctoral degrees. Faculty members who teach management information systems, a relatively new discipline, also appear to be under represented in the rank of full professor. Across disciplines, the mean number of years of teaching ranged from 10 to 19 years, indicating ample teaching experience.

Tenured versus untenured respondents Based on chi-square analysis, it was found that the tenured professors have more years of teaching experience (90% vs. 27% with 10+ years, $p<.05$) and occupied more senior ranks (42% vs. 0.6% full professors, $p<.05$). They were more likely to think that altering the use of individual assignments reduces the learning value for students (55% vs. 41%, $p < .05$) and more likely to alter their use of individual assignments (67% vs. 54%, $p < .05$). However, both groups had similar views on the offensiveness of cheating (97% vs. 96%) and on the usefulness of individual assignments (94% vs. 95%).

Individual assignments Most respondents agreed that individual assignments were a useful component for grading students and a majority made use of them (see Table 2). The lower rates of 27% (first year courses) and 65% (upper year courses) reported by Finance faculty are consistent with the authors' experience that finance courses have a strong mathematical component, and in-class tests are preferred.

Presence of cheating Most professors agreed that cheating was a serious offence, indicating a widely shared norm across all disciplines (Table 2). The reported presence of cheating (caught or suspected) were high, with results comparable to previous studies including Graham et al. (1994) who found that 79% of faculty observed cheating. In our study, 71% of those teaching first year courses reported cases of cheating ranging from 40% (Finance) to 100% (Other, which includes Ethics faculty). The overall percentage for upper year courses was higher (76%), ranging from 64% (Strategy and Policy) to 86% (Accounting). The prevalence of cheating is indicated by the finding that 63% of respondents with 0-4 years of teaching experience (n=65) reported cheating.

	Primary Teaching Responsibility									
	Accounting	Economics	Finance	MIS	Marketing	Operations	OB/HR	Strategy	Other	Total
N	84	32	44	29	66	30	75	33	32	456[a]
Do you think cheating on an individual assignment is a serious offence?										
Yes	96%	100%	91%	97%	98%	97%	97%	100%	94%	96%
Do you think individual assignments are a useful component for grading students?										
Yes	92%	94%	76%	97%	99%	93%	100%	100%	100%	94%
Do you currently use individual assignments for grading students?										
Yes (First year students)	81%	67%	27%	90%	91%	60%	80%	73%	92%	77%[b]
Yes (Upper year students)	87%	86%	65%	91%	91%	78%	88%	79%	96%	85%[b]
Have you ever caught or suspected a student cheating on an individual assignment?										
Yes (First year students)	84%	55%	40%	67%	57%	50%	63%	78%	100%	71%[b]
Yes (Upper year students)	86%	74%	74%	74%	75%	72%	76%	64%	80%	76%[b]

[a] Thirty-one respondents indicated more than one area of primary teaching responsibility. They are included in the overall statistics (N=456) but omitted from each discipline.

[b] 159 respondents used individual assignments in First Year, and 366 did so in the Upper Years. The percentages for these rows are based on these figures.

Table 2: Opinions and Experience with Individual Assignments

Adjustments to individual assignments Table 3 illustrates actions taken by faculty to contain cheating in their courses. Sixty percent reported that they had altered their use of individual assignments to reduce the potential for cheating; the percentage ranged from 44% (OB/HR) to 73% (Operations). Forty-eight percent of respondents believed that altering assignments reduced the learning value for students, ranging from a low of 36% (Other) to a high of 58% (Strategy and Policy). Two-thirds reported making only one adjustment, and the remaining third mentioned two or three (rare) adjustments. Alterations included giving unique assignments, using safeguards, changing the weighting of individual assignments, providing formal or informal instruction, and other actions (see Table 4 for details). The most frequent first action was introducing unique assignments, followed by diminishing the weight of the marks. The most frequent second action was using safeguards, followed by unique assignments.

	Primary Teaching Responsibility									
	Accounting	Economics	Finance	MIS	Marketing	Operations	OB/HR	Strategy	Other	Total
N	84	32	44	29	66	30	75	33	32	456[a]
Have you altered the use of individual assignments?										
Yes	71%	50%	71%	70%	57%	73%	44%	63%	65%	60%[b]
Specific action taken:										
Unique assignment	18%	37%	13%	18%	30%	18%	29%	37%	35%	26%
Safeguards	14%	14%	10%	29%	36%	11%	41%	37%	35%	23%
Weighting of marks	42%	28%	23%	29%	2%	39%	3%	0%	0%	21%
Eliminate individual assignments	14%	21%	38%	18%	11%	18%	6%	13%	12%	16%
Formal & informal instruction	4%	0%	3%	6%	19%	7%	9%	13%	18%	7%
Other	8%	0%	13%	0%	2%	7%	12%	0%	0%	7%
Does alteration reduce the learning value for students?										
Yes	56%	48%	46%	42%	49%	52%	51%	58%	36%	48%

[a] Thirty-one respondents indicated more than one area of primary teaching responsibility. They are included in the overall statistics (N=456) but omitted from each discipline.

[b] Of the 60%, two-thirds reported taking only one action; the remaining third reported either two or three (rare) actions. The percentages given under the section "Specific action taken" summarize all of the actions taken.

Table 3: Faculty Action Taken as a Result of Having Caught Students Cheating on Individual Assignments

To explore the link between specific adjustments and their possible impact on learning, data on the second adjustment were omitted, as well as the two less frequent adjustments (instructions, and other), chi-square analysis was performed on the

remaining data. Compared to colleagues who were not concerned, professors who indicated that altering assignments reduced their learning value had a different pattern of adjustments ($p<.001$). They were more likely to diminish the marks allocated to the assignments (44% vs. 19%) or eliminate the assignments (25% vs. 14%). They were less likely to use safeguards (15% vs. 31%) or introduce unique assignments (16% vs. 36%).

Unique assignments
- Assignments based on new industry or product that cannot be copied from past work
- Different assignments for each student
- Base assignments on unique individual experiences

Safeguards
- Use software to check for plagiarism
- Search for evidence of copying on term papers
- Keep sample on file for future comparison

Weighting of marks
- Less weighting on assignments and more on exams
- Count assignments as part of participation only

Eliminate individual assignments
- All evaluation now proctored exams
- Replaced with group assignments

Formal & informal instruction
- Verbal and written reinforcement of policy and procedure
- Require submission of signed statement of 'academic integrity'

Other
- Use assignment questions on midterm exams to reinforce importance of completing assignments
- Students must have a passing average on tests in order to pass the course

Table 4: Specific Actions Taken by Faculty as a result of Cheating

The above pattern for the first adjustment was repeated when tenured professors were compared to their non-tenured colleagues ($p=.01$). Tenured professors were more likely to diminish the marks allocated to the assignments (33% vs. 21%) or eliminate the assignments (23% vs. 11%). They were less likely to introduce safeguards (21% vs. 30%) and unique assignments (24% vs. 38%). This repeated pattern is consistent in that, as previously indicated, tenured professors were more likely to believe that adjustments diminished the learning value of these assignments (55% vs. 41%). It appears that tenured professors tend to take a more pragmatic and minimalist view to adjustments: simply diminish the marks involved or abandon the individual assignment as an assessment tool. Alternatively, they may be unwilling to compromise their ethical and instructional standards. In contrast, non-tenured professors appear more optimistic and zealous in their pursuit of student learning.

Qualitative results

Thirty-one percent (n=141) of respondents answered the question: 'How do you think academic dishonesty has impacted on your use of individual assignments?' In all, 227 distinct comments were considered relevant. In the analysis, no distinction was made on the basis of tenure because the data were incomplete.

The great majority reiterated that they had made some adjustments, and continued to use individual assignments because of the learning benefits for the students. In addition to the adjustments already identified that decreased the potential for cheating, a number of respondents pointed out that they exercised greater vigilance as their first line of defence:

> 'I have had to be much more vigilant in grading assignments.'
>
> 'I am more aware of sharing information (on cheating) with colleagues teaching other sections of the same course.'
>
> 'I have to check everything.'

Adjustments to individual assignments Possible adjustments ranged from minor (increased vigilance) to radical change (eliminating individual assignments). Professors disagreed on how to handle potential cheating. Some felt strongly about cheating and either discontinued their use of individual assignments or introduced multiple adjustments to control its occurrence. In contrast, the majority accepted a compromise that retained the learning benefits of these assignments but diminished the impact of cheating by, for example, diminishing the weights given (maximum of 5% to 10% of overall course grade).

> 'Because of cheating, I decided not to use individual assignments. It is very sad because it is a very important and useful channel of learning.'
>
> 'It is more important for me to provide opportunities to students who want to learn than to compromise the value of assignments to address potential issues of cheating.'
>
> 'I treat individual assignments as guided self-study that will help them perform well on exams. The grades awarded are a small part of the overall grade, just a small incentive for doing them.'

Aside from elimination of individual assignments, the other adjustments impacted on the professor's workload:

> 'I don't repeat any assignment which means that additional work is required each time the course is taught to come up with something new.'
>
> 'Marking workload is intense.'
>
> 'Academic dishonesty requires additional time to institute checks.'

Impact of university administration The professors believed that the administration sets the tone through academic integrity policies, procedures and enforcement. Most comments were critical:

> 'I have been consistently disappointed by the 'weak' penalties imposed on those students who have been charged with plagiarism/misconduct. All penalties are handled by the Dean.'
>
> 'Unless we catch them in the act, our administration will not punish cheaters.'
>
> 'The procedures for dealing with cheating were so cumbersome that it was simply not worth dealing with it. The system greatly favors the dishonest student.'

Respondents also noted that the administration has increased class sizes and seemed unconcerned about the additional workload created by adjustments made for potential cheating:

> 'We lack resources to develop new assignments every term and have limited grading assistance.'
>
> 'I think that there is more cheating than I can stop or handle given the large size of classes and limited resources at my disposal to monitor the cheating.'

Impact of Internet Most professors viewed the internet as a rich source of information but felt that many students abuse it when doing individual assignments. Cut-and-paste and poor referencing mean that professors are forced to check whether the assignment handed in is original. Plagiarism software and services such as those provided by Turnitin.com facilitate checking, but are not the definitive safeguard (Scanlon, 2003).

> 'If you ask students to write a report, they will go on the web and copy-paste whatever they can find on the subject.'
>
> 'The biggest issue for me is internet plagiarism.'
>
> 'Students have a difficult time understanding what constitutes plagiarism in a cut-and-paste world.'

Professorial outcomes The majority of respondents have adjusted their use of individual assignments to maintain a balance between their standards and teaching objectives, and their perceptions of student cheating. Reaching this balance is made more difficult by intervening variables, namely the university administration and the internet.

They felt that the administration is only moderately serious about controlling cheating. Furthermore, they viewed the internet as a modern information tool that can help students access current and timely information, but that it also leads to higher levels of plagiarism. The end result is that the many professors adopt a strategy of cheating containment, are concerned about compromising student learning, and experience some dis-satisfaction.

> 'I don't care. The students can cheat if they wish. It's their choice ultimately.'
>
> 'As the years pass, I am less vigilant in looking for academic honesty.'
>
> 'Academic dishonesty impacts virtually everything I do as an instructor.'

Limitations of the study

Our findings deserve caution because they are based only on the opinions and perceptions of professors. The quantitative data is more robust than the qualitative data, and the latter should be viewed as supportive and illustrative of the quantitative-based findings. Tenured professors were somewhat under-represented in our sample. Compared to untenured professors, they are more inclined to modify the assignments and more worried that modifications lower the learning benefits for students. It remains unclear whether their approach is based on teaching experience, secure employment, or some other factor such as ethical standards.

No data was collected from students and university administrators. Such data would help to validate the perspective of professors, and would also introduce new elements such as learning objectives (intellectual development vs. job preparation), legal guidelines for respect of the individual, proof and discipline (the penalty must match the severity of the offence). In addition, the impact of collegiality should be covered by asking respondents what they have heard from colleagues about cheating and measures taken. With only one perspective (that of professors) represented in the survey, the full picture has not been captured.

Our definition of cheating on individual assignments may need broadening because it covered only copying from another student. The respondents indicated a strong link between the internet and plagiarism. Our survey measured the presence of cheating but did not give a clear time reference. A better measure would be to ask the number of cheating incidences encountered in the past year and how many students the professor taught in the last year. A clearer distinction between an incidence of cheating and suspicion of cheating should also be made.

Discussion

The survey findings are consistent – most business professors have encountered cheating on individual assignments. They continue to use them because of the learning benefits for students. Figure 1 summarizes the perspective of Canadian professors on this issue. Antecedent variables (values, objectives and perceptions) influence the adjustments made to individual assignments to prevent cheating. This relationship is modified by two types of intervening variables – university administration and the internet; these variables can either increase or diminish the potential for cheating. Adjustments made to assignments lead to the professorial outcomes of containment of cheating, concerns on student learning, and level of satisfaction with the status quo.

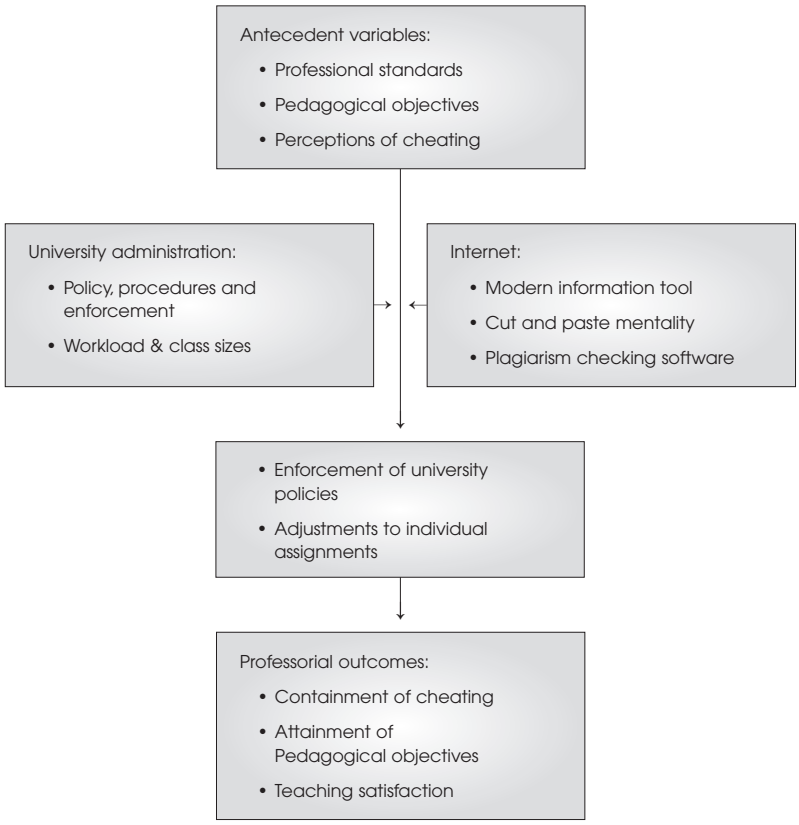

Figure 1: Framework of Faculty Perspective on Individual Assignments and Cheating

Business professors adhere to academic and professional standards of ethical conduct. It is therefore not surprising that most respondents indicated that cheating on individual assignments is a serious offence. The professors are also cognizant that they are pursuing the dual pedagogical objectives of learning as a process and learning as an outcome.

Individual assignments are considered an important tool to reinforce learning throughout the academic term, to practice advanced forms of learning, and to encourage initiative. However, it would appear that professors perceive that cheating is sufficiently widespread to warrant action, such as altering the use of individual assignments. The stakes may include the credibility of the educational system through its relationship with wider community values (Havnes, 2004).

Figure 1 highlights that most professors have opted for containment of cheating by indirect means, because direct solutions are not considered realistic in the current environment. Consequently, faculty morale suffers (Whitley & Keith-Spieger, 2002, p. 5). The framework also suggests that a comprehensive solution would require a concerted and systemic effort by the university community – administration, faculty, and students (Alschuler & Blingling, 1995; Havnes, 2004). There is a spectrum of possible goals and strategies. At one extreme is the traditional academic model of teaching excellence and zero tolerance for academic dishonesty. It requires strict entrance requirements, student compliance and strong enforcement (Park, 2004). Moral development is given minimal attention. At the other extreme is the modern student-centred model of learning and shared responsibility (Emes & Cleveland-Innes, 2003; Shepard, 2000), and includes the moral development of the student (Sankar, 2004; Jagers, 2001; Von Dran, Callahan, & Taylor, 2001). It calls for a strong culture of trust and joint action. It recognizes that ethical conduct (and the critical thinking that supports it) can be learned as part of the educational process (McCabe et al., 1999; Carter, 1996). While the traditional model has appeal in its simplicity, the student-centred model is less authoritarian and reaches out to the students.

Whitley and Keith-Spiegel (2002, p. 150) have argued that learning-oriented institutions are typically characterized by small class sizes, multiple activities focused on intellectual development, and an atmosphere of collegiality and mutual respect among students, faculty members, administrators, and staff members. It is noteworthy that these institutional characteristics are common ground for the effective use of an honour code, which is an institutional strategy for academic integrity.

An honour code has three components: a clear statement of the expectations placed on students with regard to academic honesty accompanied by a written pledge signed by each student; a strong student role in a judicial or hearing body for cheating incidences; and privileges such as unproctored exams. Some universities have opted for a modified honour code including a clear communication to students of the importance of academic integrity, and have given students a significant role in the judicial process and in the promotion of ethics. To be effective, the honour code is embedded in a strong university culture more typical of small universities. Students are expected to monitor and report on each other. The use of honour codes has decreased the incidence of cheating (McCabe

et al., 1999; 2001; 2002; 2003). While there is a history of honour codes in the United States, no similar development is evident in Canada. Furthermore, there has been little research that assesses whether honour codes actually enhance learning.

Honour codes offer some promise for dealing with academic dishonesty, but their implementation may require a cultural change. The experience of the University of Maryland highlights the difficulties of implementing a cultural change aiming for a 'just' business school and the persistence of high frequencies of cheating behaviours such as unauthorised student collaboration (Von Dran et al., 2001). Several years of effort may be required to revise the cultural foundation of a complex organization like a university (its assumptions and values), create a new problem-solving approach to cheating, and enhance the learning process (LeBrasseur, Whissell, & Ojha, 2002; Wilber, 1998; Tsang, 1997). Gayle, Tewarie, & White (2003) argue that a serious dialogue must take place among the administrators, faculty and students (and trustees) about the relationship between teaching, learning and governance. Professors are not a homogeneous body (ex. tenured vs. non-tenured) and such a dialogue would initially help to surface the important differences. Assistance from an organization such as the Centre for Academic Integrity in the United States could facilitate the desired changes. This consortium of educational institutions has created a forum for discussing successful policies, enforcement procedures, research, curricular materials, and education/prevention programs (CAI, 2006). It is noteworthy that 30 Canadian universities, 12 from Ontario, are currently members.

Members of the Centre receive assistance in evaluating the climate of integrity on campus. guidance for faculty members in developing pedagogies that encourage adherence to fundamental values of academic integrity, and consultation on ways to encourage and sustain a climate of integrity and commitment to ethical learning, teaching, research, and service (CAI, 2006). The large number of Canadian universities with membership in the American Centre suggests that it is timely for a similar institution to be established in Canada. A Canadian centre could focus on issues that are unique to the university system in this country; it could address the long-term challenge of creating and sustaining a culture that values both integrity and learning, with the participation of the three main stakeholders – faculty, students, and administration.

Conclusion

Many business professors in Ontario, Canada have adjusted their use of individual assignments to maintain learning benefits while preventing cheating. However, they acknowledge that cheating is an on-going challenge and requires attention. A more satisfactory solution may arise if there was a concerted effort by faculty, students and administration. The resources and commitment needed to tackle the cheating

phenomenon are not on the horizon, and student learning and academic integrity continue to be compromised. Meanwhile, this exploratory study offers a framework to help explain the faculty perspective. In the long term, a part of the solution may be the creation of a Canadian centre for academic integrity that would provide a forum for discussion and leadership, and hopefully help to reverse the deterioration of the learning environment.

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Endnotes

[1] The term 'professors' refers to academics
[2] Lower case 'faculty' refers to teaching staff

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