

WILL THEY OR NOT? ONLINE FACULTY INTENTIONS TO REPORT STUDENT PLAGIARISM

Susan Stowe, University of St. Francis

ABSTRACT

Faculty often view addressing academic misconduct and plagiarism as a negative aspect of teaching resulting in inconsistent reporting by faculty. With the growing use of part-time adjunct faculty to meet the demands for online learning, needed is a fuller understanding of the influences on reporting of student plagiarism among those faculty members teaching online. The purpose of this quantitative nonexperimental survey study was to examine whether any differences exist among regular full-time faculty members and part-time adjunct faculty members who teach at least one class online related to reporting student plagiarism in terms of the variables from the theory of planned behavior (TPB). Of approximately 651 faculty members teaching at least one class online, from two different Midwestern universities invited to complete voluntarily the Faculty Reporting Plagiarism Questionnaire (FRPQ) 161 faculty members (24.7%) responded (40 regular full-time; 115 part-time adjunct). No significant differences were seen between regular full-time and part-time adjunct faculty members for intention ($p=0.811$), attitude ($p=0.863$), subjective norms ($p=0.443$) and perceived control ($sig=0.097$). With no differences seen, the needed discussions and training regarding reporting student plagiarism can take place equally with both groups. Fit indices demonstrated mixed results for goodness-of-fit of the FRPQ dataset with the TPB variables. As academic communities address the practice and policy of reporting plagiarism with ongoing dialogue and revision, consideration each of the stakeholders' perspectives, including faculty experiences of reporting plagiarism is necessary. With these results, school leaders should address both regular full-time and part-time adjunct faculty members similarly with respects to discussion and policy of reporting student plagiarism.

Keywords: Online faculty, Academic Integrity, Plagiarism, Theory of Planned Behavior, Attitudes.

INTRODUCTION

While complete consensus remains unclear whether more plagiarism occurs online versus the face-to-face classroom (Greenberger, Holbeck, Steele & Dyer, 2016), it is clear that student plagiarism remains a persistent academic issue. Faculty members find addressing student violations an additional burden to their work, have concerns about possible legal actions or retaliation from students and find official policy responses to be too harsh for learners (Flint, Clegg & Macdonald, 2006; Fontana, 2009; Keith-Spiegel, Tabachnick, Whitley & Washburn, 1998; Robinson-Zañartu et al., 2005). Faculty members' attitudes and perceptions of student plagiarism and penalties affect the willingness of faculty members to report plagiarism (Flint et al., 2006; Hard, Conway & Moran, 2006; Hudd, Apgar, Bronson & Lee, 2009). Differences have been seen between regular full-time and part-time adjunct faculty members in perceptions and attitudes toward plagiarism and cheating (Hudd et al., 2009).

The defining of plagiarism can be problematic between intentional versus unintentional, student knowing and unknown skills. Evinger and Moorman (2012) categorize types of

plagiarism as theft, deception and misunderstanding. What is evident is that the complexity of plagiarism in higher education has increased with the growing and widespread use of the Internet in academics, affecting the perceptions of students, faculty and administrators (Council of Writing Program Administrators, 2003; Sutherland-Smith, 2008; Wang, 2008). Contributing to this complexity may be the greater use of part-time adjunct faculty to meet the growing demand for courses, both face-to-face and online (Hudd et al., 2009). A 2012 report from the Coalition on the Academic Workforce (as cited in Magda, Poulin & Clinefelter, 2015) indicates that:

75.5% of faculty members at two- and four-year institutions were in “contingent positions” off of the tenure track. Of this large group, 70% were part-time or adjunct faculty members, making roughly half of all instructors in higher education in 2011 an adjunct or part-time faculty member. (p. 4)

Considering that plagiarism is a threat to the integrity of academics, this study is significant because integrity is an important ethic in teaching and learning (Chapfika, 2008). Being caught by the professor is the only real threat to the student (Heckler & Forde, 2015). Little evidence exists in the plagiarism literature about online faculty member’s behaviours and attitudes regarding student plagiarism. The aim of this study was to gain an understanding of their intentions and behaviours in relation to student plagiarism toward a fuller understanding of plagiarism. The aim of the study was to gain such an understanding.

LITERATURE REVIEW

Academic Integrity Policy

The institutional response to cheating and plagiarism at university and college campuses has been the adoption of integrity policies and honour codes that require faculty report incidents of student plagiarism (Badge, Yakovchuk, Hancock & Porter, 2010; Bretag et al., 2011; Gallant & Drinan, 2006; McCabe, 2005; McCabe, Treviño & Butterfield, 2001; Sutherland-Smith, 2008; Wang, 2008). Differences among faculty have been seen in their perceptions regarding school academic integrity policies and their effectiveness (Ruderman, Kiss & Serra, 2006). 60% of faculty member respondents reported the effectiveness of these school policies was either low or very low. When asked whether they believed faculty members supported the policies, 44% responded that faculty support was either high or very high. Faculty members also indicated they were not sure the process was fair and impartial. Faculty members supported the idea of integrity and its principles but not necessarily the policies in place.

Variations in academic integrity policy implementation resulted in mixed messages and clear disparity between students and faculty. This mixed messaging is supported by Wilkinson’s (2009) findings of 90% of the staff indicated they had given warnings about such actions, while only 9% of the students indicated they had received warnings. In addition, 78% of the faculty members indicated that they believed students received enough information and guidance about acceptable practices; yet 43% of the students believed they were not receiving this information or guidance. So, while universities and colleges have adopted policies in response to academic misconduct, using formal terminology commonly associated with legal environments and processes, such policies have not been proven fully effective in ensuring students learn the conventions commonly misused or ignored in student plagiarism (McCabe, 2005; Ruderman et al., 2006; Sutherland-Smith, 2010).

Faculty Perceptions and Response to Student Plagiarism

Using a survey design with random selection of 352 institutions, 63% of the organizations identified faculty members as the primary champions of academic integrity (Gallant & Drinan, 2006). Yet remarkable was that academic integrity policies in general did not take into account faculty members' views and the complexity of the plagiarism issue (Pincus & Schmelkin, 2003). Faculty members view their roles in these policies as inconsistent with their teaching roles, believing them as only punitive and learning issues ignored (Pincus & Schmelkin, 2003) and experience conflicting sentiments in dual roles: defending the value of integrity value while also upholding their commitment to teaching students and allowing students to explore and learn (Robillard, 2007). Such views have resulted in variations and inconsistencies found among faculty members' responses to student plagiarism (Behrendt, Bennet & Boothby, 2010; Hudd et al., 2009; Keith-Spiegel et al., 1998; Phillips, 2005).

Faculty responses to plagiarism ranged from the educational to the punitive, depending upon the determined severity of plagiarism and may include instructors providing individual interventions with students, reporting the incidents to the school administration, not reporting at all or overlooking the incidents altogether. Of note was that educational responses and punitive responses were not viewed as mutually exclusive (Yorke, Lawson & McMahon, 2009). Some have even chosen not to enforce the policies in any way (Gallant & Drinan, 2006; McCabe, 2005). Reasons given for this inaction included anxiety, courage, a time-consuming process and lack of institutional support (Keith-Spiegel et al., 1998). A lack of standardize reporting mechanisms have also been reported as a barrier to reporting (Walker & White, 2014). Another study indicated that faculty considers it important not to have administration involved in responding to plagiarism (Bennington & Singh, 2013).

Significant differences were found in attitudinal differences between full-time and part-time faculty related to the overall culture of integrity (Hudd et al., 2009). Part-time faculty members were more likely to reduce or eliminate sanctions, perceive lower levels of campus cheating and believe faculty members were consistent with their approaches to violations. Part-time faculty members were also less likely to place integrity statements on their assignments and syllabi, discuss integrity issues in the classroom, report violations or offer different versions of examinations. Thus, a gap between policy and practice was apparent both among faculty members as a whole and between the various demographic groups of faculty members.

Theory of Planned Behaviour

The key theoretical framework for this study was Ajzen's (1988) theory of planned behaviour (TPB). The purpose of the theory is two-fold: (a) to predict and understand motivational influences of individual actions that are not fully in the person's control and, (b) to identify how and where to target strategies for changing behaviour.

When using TPB in the questioning of behaviours, such as faculty reporting of student plagiarism, the antecedent of the behaviour is the intention to perform the behaviour (Ajzen, 2006a). Intentions reflect motivational factors that affect behaviour. Factors influencing intention, which are also the predictor variables for TPB, include (a) a person's attitudes, (b) subjective normative factors, and (c) perceived control of the behaviour. Faculty members' attitudes and perceptions regarding plagiarism are important factors in faculty response to plagiarism (Flint et al., 2006; Keith-Spiegel et al., 1998; Wilkinson, 2009).

Attitudes are a person's dispositions toward items, persons and events. They may be favourable or unfavourable (Ajzen, 1998, 2006b). People are more likely to form intention to perform behaviour if they have a positive attitude toward the behaviour (Stone, Jawahar & Kisamore, 2009). The attitude variable reflects the individual's underlying behavioural beliefs about the behaviour. These beliefs indicate the subjective likelihood that an action will result in a certain outcome (Ajzen, 2006b). If faculty members have the attitude that reporting plagiarism does not lead to a positive outcome or perhaps even an unknown outcome, they may be less inclined to act upon the incident.

Subjective norms are the social pressures a person feels to perform behaviour (Ajzen, 1988). These norms affect a person's intention to perform the behaviour (Ajzen, 1988, 2006b). When individuals believe that performing behaviour is important to others, they are more likely to think they should perform the behaviour. The subjective norm variable reflects the underlying normative beliefs about the behaviour. Normative beliefs are the perceived expectations of the individuals important to a person, such as a spouse, family and friends (Ajzen, 2006b). These are like the "unwritten" rules. So with this, if a faculty mentor or dean does not think or react as if reporting plagiarism is important, then it may not get reported by faculty.

Perceived control is not the actual control one has over a situation or behaviour. Rather, it is the control one perceives having over a situation or behaviour. According to TPB, individuals will attempt to perform a given behaviour to the degree they have confidence in their abilities to do so and whether one perceives that make the behaviour easy or difficult to perform (Ajzen, 1988, 2006b). For reporting plagiarism, this may be as simple as, is it easy to report? If a faculty member has to talk to three people to report and then fill out 3 pages of narrative without any support, then the plagiarism may not be reported.

The variables of attitudes, subjective norms and perceived behavioural control are directly related to intention in a unidirectional manner (Figure 1; Ajzen, 2006b). The TPB variables preceding intention are also interactive, each affecting the others.

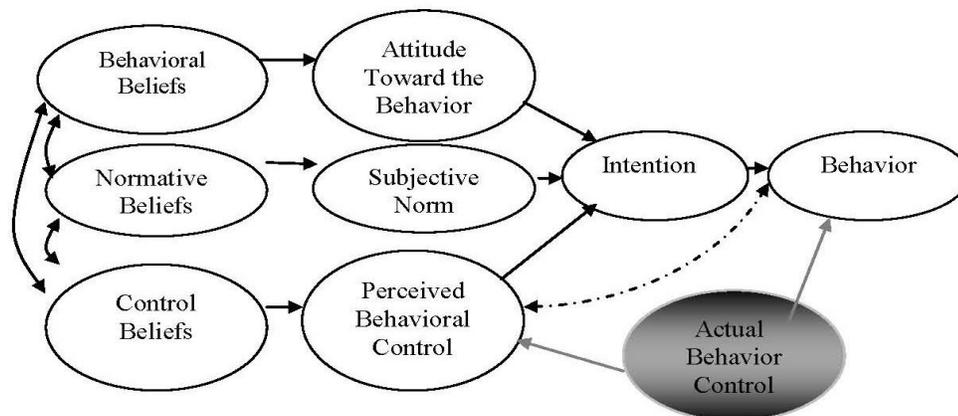


FIGURE 1
MODEL FOR THE THEORY OF PLANNED BEHAVIOR

From *TPB Diagram* by I. Ajzen, 2006. Retrieved from <http://people.umass.edu/ajzen/tpb.diag.html> with permission for non-commercial use. Copyright 2006 by Ajzen

Overall, TPB appears to be a good theoretical underpinning for the examination of faculty members' attitudes toward the behaviour of reporting student plagiarism. Each of the antecedents to intention of reporting student plagiarism can be addressed in policy and practice applications. Guiding attitudes with knowledge, subjective norms with administrative dialogues and perceived control with procedural policies, each of the theory constructs may be addressed. TPB has been widely used in research involving contemporary business, social sciences, healthcare and education literature in examining a variety of behaviours. A meta-analysis by Armitage and Connor (2001) examined 185 independent studies contained in 161 journal articles in which TPB was used to explain and predict intentions and behaviours. A comparison between correlation coefficients using Cohen's *qs* statistic was conducted to evaluate differences in magnitude in Fisher's *z*. Efficacy was established for each of the TPB variables as a predictor of intentions and behaviours. This meta-analysis also showed that perceived behavioural control was an independent predictor of intention, as proposed in TPB. One of the limitations of this meta-analysis concerned the self-reporting of behaviours. The limitations of objective behaviour prediction with self-reported behaviours versus actual observed behaviours were recognized (Armitage & Conner, 2001). Another limitation was that only published articles were used in the analysis, which could result in a publication bias.

More closely related to the area of plagiarism was a study of student academic misconduct (Stone, et al., 2009). This quantitative work was designed to test whether TPB was predictive of student misconduct and intentions of cheating. Multiple scale points were used to test each variable and had a Cronbach's coefficient alpha of 0.80. The TPB attitude variable was found to support the predicting of academic dishonesty. Using a three model confirmatory factor analysis (CFA), TPB was also found to be a good fit for use in student misconduct studies (Stone et al., 2009).

In the examination of faculty confronting students suspected of cheating behaviour, TPB was also found to be a good fit in terms of predicting the target behaviour of faculty speaking face-to-face with a student suspected of cheating (Coren, 2012). Singh and Bennington (2012), using the target behaviours of faculty intention to address suspected acts of student plagiarism and the intention to report future acts of student plagiarism, found at one school all three TPB variables were significantly correlated to the likelihood of faculty directly addressing student plagiarism (Behavioural Beliefs: $R=0.842$, $p=0.000$; Normative Beliefs: $R=0.812$, $p=0.000$; Control Beliefs, $R=0.909$, $p=0.000$). And the second target behaviour, reporting future incidents of student plagiarism, demonstrated high correlation to all three TPB variables as well (Behavioural Beliefs: $R=0.920$, $p=0.000$; Normative Beliefs: $R=0.938$, $p=0.000$; Control Beliefs, $R=0.893$, $p=0.000$).

METHOD

The purpose of this quantitative non-experimental study was to examine differences in the intention to report student plagiarism between regular full-time and part-time adjunct faculty members who teach at least one class online. MA cross-sectional survey design was employed. This method is appropriate in light of the theory underpinning the study and the fact that the actual reporting behaviour was not being examined.

The initial research question was whether the survey instrument used was a good fit for the TPB variables. For this question, a confirmatory factor analysis was used. Subsequent questions then were whether among a sample of regular full-time and part-time adjunct faculty members from two Midwestern universities, teaching at least one class online, what differences,

if any, exist in 1) the intention to report student plagiarism; 2) attitude toward reporting student plagiarism; 3) perceived social pressures toward reporting student plagiarism; and 4) perceived control in reporting student plagiarism?

Using a purposive sampling technique, the Faculty Reporting Plagiarism Questionnaire (FRPQ) was distributed via Survey Monkey to a sample of approximately 651 faculty members from two different universities who teach at least one class online, 180 regular full-time members and 471 part-time adjunct faculty members. The sample was drawn from the rosters of faculty members, who have taught at least one class online, from two separate four-year degree-granting universities, both located in the U.S. Midwest and with degree programs delivered entirely online. School 1 was located in central Michigan; the other was in northeast Illinois. The faculty sample data for each school in the study is presented in Table 1

	School 1		School 2	
	<i>n</i>	%	<i>n</i>	%
Total # Faculty	470	72.2	181	27.8
# FT	100	21.3	80	44.2
# PT	370	78.7	101	55.8

Participants were asked in the questionnaire to confirm that they teach one class online. Faculty members were also asked to approximate the percentage of course work that they teach online. The information was used to describe and evaluate the faculty members working in both environments.

Prior to any contact with faculty participants, Institutional Review Board (IRB) approvals were attained and IRB contact information was included as part of the consent form. The invitation to participate was delivered to individual faculty members through their university e-mail addresses and included information about the purpose, associated risks and benefits and voluntary nature of the study and its importance, along with consent information. The hyperlink to the Survey Monkey survey instrument was also included. Sufficient participation was obtained with the initial invitation and a second emailed reminder message.

Instrument and Data Collection

The Faculty Reporting Plagiarism Questionnaire instrument was designed to measure beliefs and attitudes toward the specific behaviour of reporting student plagiarism. It was modelled after and adapted from the 48 item questionnaire created by Stone Jawahar and Kissamore (2009), which demonstrated reliability in measurement of the TPB variables (intention, attitude, subjective norms and perceived behavioural control) with acceptable Cronbach's alpha coefficients for all of the TPB variables: attitude ($\alpha=0.81$), subjective norms ($\alpha=0.85$), perceived behavioural control ($\alpha=0.80$) and intention ($\alpha=0.90$). Stone et al. (2009) also used a CFA to confirm that questionnaire measures loaded to each of the variable factors. In cases where questions were not adaptable because of differences in the specific student cheating behaviours being assessed, guideline questions that are direct measurements of the TPB variables

presented in Francis et al. (2004) were adapted to reflect the faculty members' reporting behaviour. Face validity of the instrument was also examined and enhanced by the expert panel review and recommended changes with this review process. In making the adaptations, the changes made to the measured items were to adjust the behaviour from student cheating to reporting student plagiarism. In the cases where questions could not directly adapt, question stems or sample questions from published guidelines for developing TPB questionnaires by Ajzen (2006a) and Francis et al. (2004) were used. The FRPQ consists of two sections.

Section 1. Using multiple questions associated with each TPB variable results in improved reliability for these self-report measures (Ajzen, 2006a; Francis et al., 2004). Responses for each of the 28 items are based on either a Likert-type scale or a semantic differential scale.

Intention, in TPB, is a proximal measure preceding behaviour (Francis et al., 2004). In the FRPQ, faculty participants were asked about "how likely they would be to report student plagiarism?" The intention scale measurement consisted of four items. Higher scores indicated high intent to report student plagiarism.

Attitude is the overall evaluation of the behaviour. Direct measures of this construct should include two measures: (a) instrumental items that refer to whether the behaviour achieves something and (b) experiential items that refer to how it feels to perform the behaviour (Francis et al., 2004). Adjectives were selected to reflect both instrumental and experiential items. Items with negative endpoints were recoded so that the higher number reflects the positive attitude. Eight items were used to measure attitude.

For perceived behavioural control measurement, nine items were used. This measure reflects faculty members' perception of both self-efficacy and controllability. Self-efficacy pertains to the perceived difficulty in performing and confidence in completing the behaviour (Francis et al., 2004). Controllability refers to whether the respondents perceive performance of the behaviour is within faculty members' control and whether other contributing factors beyond their control exist (Francis et al., 2004). Items on the FRPQ were presented in such a fashion that each participant will receive the questions for each variable measure in a different order.

Section 2. The second section of the FRPQ contains five demographic items. Demographic data collected will include number of years teaching online

and employment status. These two items were asked to help describe the sample and answer each of the research questions. Pretesting the FRPQ instrument using an expert panel was done to examine content and convergent validity and the reliability of the measuring instrument.

Data collection took place through the Survey Monkey online survey platform. Participants who gave their informed consent would then be asked to confirm teaching at least one class online in the last 12 months by clicking a yes or no button to indicate their response. If no, they were taken to a disqualification page. If the respondents answer yes, they were directed through to the survey instructions to respond to the 28 questionnaire items relating to their perceptions of reporting student plagiarism. The questionnaire items will be set up for random order delivery through Survey Monkey.

After the invitation to participate was e-mailed to faculty members, the survey questionnaire was available to participants for a total of 6 weeks. The number of attempts made in contacting the sample participants has been a key determinant in response rates to surveys and interviews (Schaefer & Dillman, 1998). Therefore, after an initial 2 week period, a second e-mail contact was sent to remind and again to invite participants to complete the questionnaire.

RESULTS

Factor Analysis

Reliability testing for each of the TPB variable items on the FRPQ was examined using Cronbach's alpha (Intention $\alpha=0.944$; Attitude $\alpha=0.791$; Subjective Norm $\alpha=0.735$; Perceived control $\alpha=0.262$). Subsequent validity testing using factor analysis was used to determine whether the associated items on the questionnaire align to each of the constructs of the respective TPB variable. Factor analysis is a technique used to reduce observed variables into a smaller number of unobserved latent variables (Schreiber, Stage, King, Nora & Barlow, 2006). In this study, the goal of the confirmatory factor analysis was to assess the degree of congruence between the data of the observed variables and a model of the unobserved variables or factors, in this case the FRPQ data and the TPB model.

Regression values for each of the variables in relation to the behaviours have been shown in Figure 2. Each variable, except perceived control, showed positive r values greater than 0.5. This indicated a positive relationship between the behaviour of reporting student plagiarism and the TPB variable. The correlation of perceived control and the reporting behaviour was less ($r=0.060$), indicating a weaker relationship to the behaviour of faculty reporting student plagiarism. Standardized parameter estimates (E values) with correlations between latent/unobserved variable and percent of variability in the latent variable that is explained by the variability factor (R²).

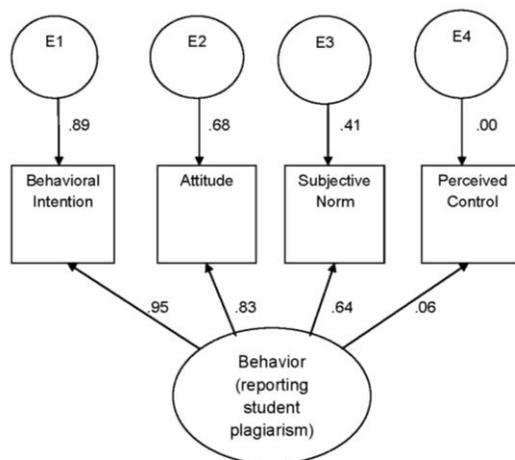


FIGURE 2
STANDARDIZED REGRESSION AND VARIANCE OF THE FACULTY REPORTING PLAGIARISM QUESTIONNAIRE (FRPQ) WITH THE THEORY OF PLANNED BEHAVIOR MODEL.

Goodness-of-fit indices are statistics to show the ability of a model to consistently reproduce data; in other words, how well a model fits the sample data (Hooper, Coughlan & Mullen, 2008; Kenny, 2012). The fit indices used by Stone et al. (2009) were used to perform this factor analysis. Stone et al. (2009) reported chi-square (X^2), root mean square error of

approximation (RMSEA) and comparative fit index (CFI) indices. When these were performed with the FRPQ data, the results were as follows: X^2 (8.121, $n=155$); RMSEA=0.138; CFI=0.973.

Chi-square is the traditional measure for fit, an assessment of the differences between the sample and the fitted covariance (Hooper, Coughlan & Mullen, 2008). With two degrees of freedom, the FRPQ chi-square statistic was 8.121, with a probability statistic of 0.017, which was less than significant at 0.05.

The second fit index used was RMSEA, an absolute measure of fit quite popular in the literature (Kenny, 2012). Cut-off points for this index have changed over the years and range from 0.05 to 0.10, with 0.08 showing a good fit and 0.08-0.10 a fair fit (Hooper et al., 2008). Other researchers have used 0.01, 0.05 and 0.08 to indicate excellent, good and mediocre fit, respectively (MacCallum, Browne & Sugawara, 1996). Current recommendations are a cut-off of 0.06, with an upper limit of 0.07 (Harrington, 2009; Hooper et al., 2008). The RMSEA for the FRPQ dataset fit to the TPB model was 0.138, which was above any of these limits.

The third fit index used by Stone et al. (2009) was a CFI. This is an incremental fit index, which performs well with smaller sample sizes and is based on the null hypothesis that all variables are uncorrelated (Hooper et al., 2008). The range of this statistic is 0 to 1, with values closer to one indicating a good fit. A cut-off to ensure that mis-specified models are not accepted has been identified at ≥ 0.95 (Harrington, 2009; Schreiber et al., 2006). The fit of the FRPQ data to the TPB model resulted in a CFI of 0.973, indicating goodness-of-fit. Goodness of fit for the FRPQ was met with mixed results using three different indices. However, CFI, which is ideal for smaller sample sizes, did demonstrate a good fit here.

From an *a priori* power force analysis using the statistical power analysis program G*Power 3.1.3, a total of 156 participants were needed to obtain adequate power for two-tailed *t*-tests of independent samples. In addition, at least 43 regular full-time faculty members and at least 113 part-time adjunct faculty members were needed to complete the questionnaire to obtain a ratio similar to the population of regular full-time to part-time adjunct faculty members at these two schools.

Sample Demographic Data

Of the 651 invited faculty members, a total of 161 faculty members responded to the invitation by completing the FRPQ, constituting a response rate of 24.7%. Of those responding, 40 (25.8%) were regular full-time and 115 (74.2%) were part-time adjunct faculty members. Summary of the demographic data can be viewed in Table 2.

	Regular time (n=40)	Full-time Adjunct (n=115)	Total Sample (N=155)		
	<i>Range</i>	<i>Range</i>	<i>Range</i>	<i>M</i>	<i>SD</i>
Years Teaching	1-33	1-30	1-33	9.24	6.177
% of teaching assignment online			10-100	82.99	26.71

	n	%	n	%	n	%
Years Teaching online >5 years	35	90	85	73.9	120	73.4
% with teaching assignment entirely online	15	35.7	76	66.1	91	58.9
Dealing with Current Issue of plagiarism	5	27.8	13	72.2	18	11.4
Has received training on plagiarism	14	25.5	39	74.5	53	34.2

A summary of the descriptive statistics for the dependent variables of the study: intention, attitude, subjective norms and perceived control scores can be viewed in Table 3. Of the entire faculty sample, the theory of planned behaviour (TPB) antecedent variable with the highest scores was attitude ($M=3.93$, $SD=0.65$). Intention scores, reflecting an overall intention to report student plagiarism, had a median score of 4.00 ($M=3.89$, $SD=1.099$). Intention scores for regular full-time faculty ($M=3.89$, $SD=1.137$) were similar to those of part-time adjunct faculty ($M=3.880$, $SD=1.107$). This was also true for attitude and subjective norm scores: The means were almost identical; with full-time faculty showing neither higher nor lower mean scores than part-time adjunct faculty. Lower mean scores were found for perceived control, with part-time adjunct faculty members scoring only slightly higher ($M=3.0377$, $SD=0.48868$) than regular full-time faculty members ($M=2.9890$, $SD=0.45437$).

Variables	Regular Full-time (n=40)		Part-time Adjunct (n=115)		Total Sample (N=155)		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	Median	<i>M</i>	<i>SD</i>
R1 Intention	3.8436	1.13748	3.8928	1.10768	4.0000	3.8913	1.09873
R2 Attitude	3.9344	0.58287	3.9137	0.67233	4.1250	3.9282	0.65123
R3 Subjective Norm	3.4750	0.72421	3.3709	0.74177	3.4000	3.3890	0.74087
R4 Perceived Control	3.1212	0.42871	3.0823	0.52412	3.1429	3.0955	0.49857

With hypothesis testing, because the tests for normality were met for the variables of intention, attitude and subjective norm, two-tailed independent samples t-tests were performed for each of these variables. The non-parametric Mann-Whitney test was performed for perceived control because previous analysis showed these data were not distributed normally. Tables 4 and

5 show summaries of the results of these tests. These results are reported in the sections related to each of the research questions.

Variables	<i>M</i>						
	Regular full-time (N=40)	Part-time adjunct N=115	t	df	Sig. (p) (2-tailed)	MD	SE
Behavioural intention	3.844	3.893	0.239	153	0.811	-0.049	0.20474
Attitude	3.934	3.914	0.173	153	0.863	0.0271	0.11944
Subjective norm	3.4750	3.371	0.769	153	0.443	0.140413	0.13535

Perceived control	Mean rank		Z	Mann Whitney	Asymp. sig. (2-tailed)
	Regular full-time	Part-time adjunct			
	87.54	73.98	-1.659	1878.5	0.097

The following results were analysed then relating to the second portion of the research questions of whether among a sample of regular full-time and part-time adjunct faculty members from two Midwestern universities, teaching at least one class online, what differences, if any, exist in 1) The intention to report student plagiarism; 2) Attitude toward reporting student plagiarism; 3) Perceived social pressures toward reporting student plagiarism; and 4) Perceived control in reporting student plagiarism?

Research Question 1. Scale scores of intention to report student plagiarism for regular full-time faculty ($M=3.844$; $SD=1.137$) were lower than those for part-time adjunct faculty ($M=3.892$; $SD=1.108$). For behavioural intention, the results indicated that regular full-time faculty ranked the general intention to report student plagiarism slightly lower, on average, than part-time adjunct faculty did. The mean difference between regular full-time and part-time adjunct faculty was -0.049 , with a significance statistic of 0.814 ($p>0.05$). Thus, a statistically significant difference did not exist between regular full-time and part-time adjunct faculty with respect to their self-reported scale scores of intention to report student plagiarism.

Research Question 2. Attitude scores for regular full-time faculty were only slightly higher ($M=3.93$, $SD=0.583$) than those for part-time adjunct faculty ($M=3.914$, $SD=0.672$). The mean difference between regular full-time and part-time adjunct faculty members was 0.111 , with a p statistic of 0.186 . The p -value was more than the 0.05 Type I alpha error rate selected for

both items. Therefore, no statistically significant difference existed between regular full-time and part-time adjunct faculty with respect to their self-reported attitude scores toward reporting student plagiarism

Research Question 3. Subjective norms scale scores for regular full-time faculty ($M=3.48$, $SD=0.724$) were higher than those for part-time adjunct faculty ($M=3.37$, $SD=0.742$) on the average. The mean difference between regular full-time and part-time adjunct faculty was 0.104, with a p statistic of 0.769. Thus, no statistically significant difference existed.

Research Question 4. Because the data of perceived control were not distributed normally, as indicated earlier with Levene's test, this hypothesis was tested using the nonparametric Mann-Whitney U test. In addition, the reliability of this measure on the FRPQ items was not established as strongly ($\alpha=0.262$) as the other variables, perhaps related to the independency of this variable as a predictor as indicated by Armitage and Connor (2001).

Perceived control scores for regular full-time faculty (mean rank=87.54) were ranked higher than those for part-time adjunct faculty (mean rank=73.98). The difference in rankings was not significant ($z=-1.359$; $p \leq 0.05$). The significance for a two-tailed test was 0.097, which is more than the level set for a Type I alpha error ($p \leq 0.05$). Thus, no statistically significant difference existed between regular full-time and part-time adjunct faculty with respect to their self-reported perceived control scores toward reporting student plagiarism.

DISCUSSION & CONCLUSION

Factor Analysis

Multiple fit indices are used and to avoid finding a single index with fit and misrepresenting the goodness-of-fit (Hooper et al., 2008). In fitting the FRPQ data to the TPB model, fit indices similar to those used by Stone et al. (2009) were extrapolated, not so much for comparison but for examination of the adequacy of the model fit for the reporting behaviour in question. With the FRPQ, some degree of fit was evident with CFI (0.973). However, given the rotational matrix of the analysis and the low association with perceived control, a better fit could be possible with a different model. Further exploration of factors should be undertaken. In addition, many of these fit indices were dependent on sample size. This was true for the RMSEA and CFI. Therefore, this sample size, though adequate, may not be large enough to determine goodness-of-fit adequately.

Reporting Student Plagiarism

Researchers have shown that differences exist among regular full-time faculty and part-time adjunct faculty in terms of defining and responding to student plagiarism (Hard et al., 2006; Sutherland-Smith, 2008; Wilkinson, 2009). Over time, the expansion of online sources as a learning delivery method in higher education has resulted in a corresponding increase in the use of part-time adjuncts and the shifting of regular full-time faculty into online course work (Eckel & King, 2004; NCES, 2010; Stenerson, Blanchard, Fassiotto, Hernandez & Muth, 2010; Tipple, 2010). It could be speculated that some of these same differences are to be found in those teaching in the online environment as well. The results of the study indicated that regular full-time faculty members did not show any higher degree of intention to report student plagiarism than part-time adjunct faculty members did. This does not necessarily mean individual full-time

faculty and part-time adjunct faculty members share a similar degree of intention. It does suggest that differences in intention may be seen in both groups of faculty and that for online faculty the intention to report student plagiarism remains an individual decision not appearing to be influenced by faculty employment status of whether regular full-time or part-time adjunct.

In terms of intention toward reporting, normally distributed individual scale scores ranging from 1.8 to 5 ($M=3.93$, $SD=0.651$) among the sample for all faculty participants reflect the variety among faculty previously shown in other studies in the literature regarding attitudes toward plagiarism (Hudd et al., 2009; Pincus & Schmelkin, 2003; Sutherland-Smith, 2008; Wilkinson, 2009). However, even with this variation, significant differences were not shown between regular full-time and part-time adjunct faculty members. These results do not align with the differences shown by Hudd, Apgar, Bronson and Lee (2009). Thus, attitudes and perceptions toward plagiarism remained a factor in faculty addressing and reporting student plagiarism, although no significant differences between regular full-time and part-time adjunct faculty were found in the present study.

Faculty attitude, subjective norm and perceived control findings were not significant and reflect literature showing the variety of definitions for what constitutes plagiarism and how student plagiarism is managed in colleges and universities. As faculty members recognize that reporting is the right thing to do, however it also creates more work with a potentially negative experience. Keith-Spiegel, Tabachnick, Whitley and Washburn (1998) indicate the negative aspect of reporting student plagiarism. Nursing faculty expressed risks in addressing plagiarism not only in their relationships with students but also among their colleagues (Fontana, 2009). Thus, faculty members must also deal with various pressures in dealing with incidents of student plagiarism. School communities and faculty would be served well by developing clear policy and easy procedures to support faculty in the reporting (Devlin, 2002; Singh & Bennington, 2012; Walker & White, 2014). These academic and procedural policies need to consider faculty members' attitudes as a part of the complexity of student plagiarism. Even with these policies in place, a continued dialogue with and among faculty regarding plagiarism and the implications for the academic community is important to reveal faculty attitudes and their experience of reporting student plagiarism. These results may also reflect the variety of outside pressures faculty experience, whether real or perceived in them of reporting, including pressures from students, administrators and other faculty (Sutherland-Smith, 2008). In the present study, differences in perceived control were not evident between full-time and part-time faculty. Therefore, no differentiation should be necessary in dealing with faculty believing they are able to report student plagiarism. Support of faculty in reporting was an identified factor in their reporting student plagiarism (Behrendt et al., 2010).

STRENGTHS, LIMITATIONS & RECOMMENDATIONS

Strengths of this study are the use of TPB as the model in the examination of the behavioural action of faculty reporting student plagiarism. The model is well documented as a predictor of actions based on the variables of attitude, subjective norms and perceived control. In addition, the use of two different universities offers better reflection of the online faculty population and experience of reporting behaviours.

Limitations of the study include the use of a self-report instrument and issues with demographic data collection accuracy. Faculty reported a greater number of years teaching online and a greater than expected percentage reported teaching online 100% of the time.

Another limitation considered was an interaction of history and treatment effect. This limit was addressed with the collection of data regarding whether participants were currently dealing with an issue of plagiarism and whether they had some type of faculty develop or training on reporting student plagiarism. Of the sample participants, 11.4% responded that they were currently dealing with a plagiarism issue. Of greater concern was that 64% of the faculty responded that they had not received any type of faculty training on plagiarism within the past 6 months. Faculty having a greater knowledge of policy has been positively correlated with the prevention of student plagiarism (Hard et al., 2006). Therefore, ensuring that faculty are knowledgeable about their own attitudes and perceptions, as well as about university policy on student plagiarism, could be beneficial to everyone involved in academic integrity.

Limitations also existed with the FRPQ, as shown in the factor analysis performed with this faculty dataset indicating a limited goodness of fit with the sample data in relation to the TPB constructs. Sample size was also a limitation. Although adequate for moderate power and for factor analysis, the sample size was small. Also with the use of a self-reporting instrument, a selection bias may also be present, in particular with the number of part-time faculty members responding. This may lead to the part-time faculty participants' responses appearing similar as full-time and not fully representative of a part-time perspective. A larger sample from a variety of university experiences might make a difference in the scale score results of the FRPQ and the enhancement of power. These indicate the need for further modelling and study.

Further research should include conducting qualitative and in-depth case studies with both regular full-time and part-time adjunct online faculty members to identify and understand individual actions in reporting student plagiarism in terms of attitude, subjective norms and perceived control.

Key recommendations include a call for discussions and action between faculty and administration regarding the negative aspects of reporting student plagiarism. In addition, routine policy evaluation and revision, along with regular and repetitive training and faculty development is key to policy understanding and implementation. Cumbersome policies have been correlated with poor policy compliance (Gallant & Drinan, 2006). Institutions of higher education have sent mixed messages regarding the reporting of plagiarism for all involved in academic integrity. The faculty experience must also be considered when developing or revising policy for addressing student plagiarism. Faculty members bear the initial burden of a decision in how and whether to respond when violations are discovered. TPB could be a useful model for framing these discussions and revisions of policy, examining the various aspects of faculty member behaviour in terms of intention to report. For example, re-examining current policy and practice using the TBP concepts of faculty attitudes, subjective norms and perceived control may help guide policy makers and faculty toward a more realistic and less burdensome practice policy and root out where reporting practice issue may lie. If faculty groups believe that plagiarism can be a teachable moment, rather than a punitive moment, policy guidelines can allow for a teaching intervention, rather than an immediate punishment or if faculty receive no input into sanctions, thereby feeling they have no perceived control over the student outcome as a result of reporting, then policy modification might include increased faculty consultation in this area of policy or having a communication mechanism on outcomes to close this feedback loop.

This framework also may aid focused and on-going discussions among faculty and administration at conferences beyond institutional frameworks and while the results of this study showed no differences among online faculty with the TPB variables in reporting student plagiarism, this does inform university administrators that when considering faculty development

initiatives addressing student plagiarism the need to differentiate faculty based upon employment status is not necessary; all faculty members must have such policy information to guide their behaviours. Leaders can also work to include the part-time faculty attitudes, subjective norms and perceived control perspectives here as well in discussion and policy.

The progress of online course delivery, the on-going growth in the use of adjunct faculty and the wide availability of Internet resources have served to magnify the issues of academic integrity. Colleges and university communities must address the mixed messages sent to students regarding plagiarism behaviours. Schools should also undertake policy clarification and implementation that takes into consideration each of the stakeholders' perspectives, including faculty experiences of reporting plagiarism. Given the results of the present study, school administration should address both regular full-time and part-time adjunct faculty members similarly with respects to discussion and policy of reporting student plagiarism.

REFERENCES

- Ajzen, I. (1988). *Attitudes, personality and behavior*. Chicago, IL: Dorsey Press.
- Ajzen, I. (2006a). *Constructing a TpB questionnaire: Conceptual and methodological considerations*. Retrieved from <http://people.umass.edu/aizen/pdf/tpb.measurement.pdf>
- Ajzen, I. (2006b). Theory of planned behavior diagram. *Theory of Planned Behavior*. Homepage. Retrieved from <http://www.people.umass.edu/aizen/tpb.diag.html#null-link>
- Armitage, C.J. & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British Journal of Social Psychology*, 40(4),471-499.
- Badge, J.L., Yakovchuk, N., Hancock, A. & Porter, A. (2010). Working together to reduce plagiarism and promote academic integrity: A collaborative initiative at Leicester. In S. Little (ed.), *Staff-student partnerships in higher education*. <http://hdl.handle.net/2381/9108>
- Behrendt, L.S., Bennett, K.K. & Boothby, J.L. (2010). Encouraging faculty reporting of plagiarism: Implications for administrators. *Journal of Faculty Development*, 24(3), 15-20.
- Bennington, A.J. & Singh, H. (2013) Faculty expectations of administration: Predictors of intention to report student plagiarism. *Academy of Educational Leadership*, 17(4),63-76.
- Bretag, T., Mahmud, S., East, J., Green, M., James, C., McGowan, U. & Wallace, M. (2011). Academic integrity standards: A preliminary analysis of the academic integrity policies at Australian universities. In *Proceedings of the Australian Quality Forum*, Melbourne, Victoria, Australia: AUQA, 1, 48-54.
- Chapfika, B. (2008). The role of integrity in higher education. *International Journal for Educational Integrity*, 4(1), 43-49.
- Coren, A. (2012). The theory of planned behaviour: Will faculty confront students who cheat? *Journal of Academic Ethics*, 10(3), 171-184. doi: 10.1007/s10805-012-9162-7
- Council of Writing Program Administrators. (2003). *Defining and avoiding plagiarism: The WPA statement on best practices*. Retrieved from <http://wpacouncil.org/positions/WPAplagiarism.pdf>
- Devlin, M. (2002). *Strategies to minimise plagiarism in higher education*. Centre for the Study of Higher Education, The University of Melbourne. Retrieved from <http://www.cshe.unimelb.edu.au/assessinglearning/03/plagMain.html#36>
- Eckel P.D. & King, J.E. (2004). An overview of higher education in the United States: Diversity, access and the role of the marketplace. Retrieved from <http://www.acenet.edu/AM/Template.cfm?Section=Search§ion=reports2&template=/CM/ContentDisplay.cfm&ContentFileID=5100>
- Evering, L.C. & Moorman, G. (2012). Rethinking plagiarism in the digital age. *Journal of Adolescent & Adult Literacy*, 56(1), 35-44.
- Flint, A., Clegg, S. & Macdonald, R. (2006). Exploring staff perceptions of student plagiarism. *Journal of Further and Higher Education*, 30(2), 145-156. doi:10.1080 /03098770600617562
- Fontana, J.S. (2009). Nursing faculty experiences of students' academic dishonesty. *Journal of Nursing Education*, 48(4), 181-185.
- Francis, J.J., Eccles, M.P., Johnston, M., Walker, A., Grimshaw, J., Foy, R. & Bonetti, D. (2004). *Constructing questionnaires based on the theory of planned behavior. A manual for health services researchers*.

- Newcastle upon Tyne, United Kingdom: Centre for Health Services Research. Retrieved from <http://people.umass.edu/aizen/pdf/Francis%20etal.TPB%20research%20manual.pdf>
- Gallant, T. & Drinan, P. (2006). Institutionalizing academic integrity: Administrator perceptions and institutional actions. *NASPA Journal*, 43(4), 61-81.
- Greenberger, S., Holbeck, R., Steele, J. & Dyer, T. (2016) Plagiarism due to misunderstanding: Online instructor perceptions. *Journal of the Scholarship of Teaching and Learning* 16(6), 72-84.
- Hard, S.F., Conway, J.M. & Moran, A.C. (2006). Faculty and college student beliefs about the frequency of student academic misconduct. *Journal of Higher Education*, 77, 1058-1080.
- Harrington, D. (2009). *Confirmatory factor analysis*. Oxford, England: Oxford University Press.
- Heckler, N.C. & Forde, D.R. (2015) The role of cultural values in plagiarism in higher education. *Journal of Academic Ethics*, 13, 61-75 doi 10.1007/s10805-014-9221-3
- Hooper, D., Coughlan, J. & Mullen, M.R. (2008). Structural equation modelling: Guidelines for determining model fit. *The Electronic Journal of Business Research Methods*, 6(1), 53-60.
- Hudd, S.S., Apgar, C., Bronson, E. & Lee, R. (2009). Creating a campus culture of integrity: Comparing the perspectives of full- and part-time faculty. *Journal of Higher Education*, 80(2), 146-177.
- Keith-Spiegel, P., Tabachnick, B.G., Whitley, B.E. & Washburn, J. (1998). Why professors ignore cheating: Opinions of a national sample of psychology instructors. *Ethics & Behavior*, 8(3), 215-227. doi:10.1207/s15327019eb0803_3
- Kenny, D. (2012). *Measuring model fit*. Retrieved from <http://davidakenny.net/cm/fit.htm>
- MacCallum, R.C., Browne, M.W. & Sugawara, H.M. (1996). Power analysis and determination of sample size for covariance structure modelling. *Psychological Methods* 1, 130-149.
- Magda, A.J., Poulin, R. & Clinefelter, D.L. (2015). Recruiting, orienting & supporting online adjunct faculty: A survey of practices. Louisville, KY: The Learning House, Inc. Retrieved from <http://wcet.wiche.edu/sites/default/files/OnlineAdjunctFacultySurveyReport.pdf>
- McCabe, D.L. (2005). Cheating among college and university students: A North American perspective. *International Journal for Education Integrity*, 1(1).
- McCabe, D.L., Treviño, L.K. & Butterfield, K.D. (2001) Cheating in academic institutions: A decade of research. *Ethics & Behavior*, 11(3), 219-232.
- National Center for Education Statistics (NCES). (2010). *Digest of Education Statistics 2010*. Washington, DC: Department of Education. Retrieved from http://nces.ed.gov/programs/digest/d10/tables/dt10_253.asp
- Phillips, R. (2005). *Audit of academic integrity and plagiarism issues in Australia and New Zealand*. Retrieved from: <http://www.tlc.murdoch.edu.au/project/acode/index.html>
- Pincus, H.S. & Schmelkin, L.P. (2003). Faculty perceptions of academic dishonesty. A multidimensional scaling analysis. *The Journal of Higher Education*, 74(2), 196-209. doi:10.1353/jhe.2003.0017
- Polit, D.F. & Beck, C.T. (2008). *Nursing research: Generation and assessing evidence for nursing practice* (8th ed.). Philadelphia, PA: Lippincott Williams & Wilkins.
- Robillard, A. (2007). We won't get fooled again: On the absence of angry responses to plagiarism in composition studies. *College English*, 70(1), 10-31.
- Robinson-Zañartu, C., Peña, E.D., Cook-Morales, V., Peña, A.M., Afshani, R. & Nguyen, L. (2005). Academic crime and punishment: Faculty members' perceptions of and response to plagiarism. *School Psychology Quarterly*, 20, 318-337. doi:10.1521/scpq.2005.20.3.318
- Ruderman, J., Kiss, E. & Serra, M. (2006). *Academic integrity in undergraduate life at Duke University: A report on the 2005-2006 survey*. Duke University. Retrieved from <http://integrity.duke.edu/reports/index.html>
- Schaefer, D.R. & Dillman, D.A. (1998). Development of a standard e-mail methodology. *Public Opinion Quarterly*, 62, 378. doi:10.1086/297851
- Schreiber, J., Stage, F.K., King, J., Nora, A. & Barlow, E.A. (2006). Reporting structural equation modelling and confirmatory factor analysis results: A review. *The Journal of Educational Research*, 99, 323-337.
- Singh, H. & Bennington, A.J. (2012). Faculty on the frontline: Predicting faculty intentions to address college student plagiarism. *Academy of Educational Leadership Journal*, 4(16), 115-128.
- Stenerson, J., Blanchard, L., Fassiotto, M., Hernandez, M. & Muth, A. (2010). The role of adjuncts in the professoriate. *Peer Review*, 12(3), 23-26.
- Stone, T., Jawahar, I.M. & Kisamore, J.L. (2009). Using the theory of planned behaviour and cheating justifications to predict academic misconduct. *Career Development International*, 14(3), 221-241. doi:10.1108/13620430910966415
- Sutherland-Smith, W. (2008). *Plagiarism, the internet and student learning*. New York, NY: Routledge.
- Sutherland-Smith, W. (2010). Retribution, deterrence and reform: The dilemmas of plagiarism management in

- universities. *Journal of Higher Education Policy and Management*, 32(1), 5-16. doi:10.1080/13600800903440519
- Tipple, R. (2010). Effective leadership of online adjunct faculty. *Online Journal of Distance Learning Administration*, 13(1). Retrieved from <http://www.westga.edu/~distance/ojdla/spring131/tipple131.html>
- Wang, Y. (2008). University student online plagiarism. *International Journal on ELearning*, 7, 743-757.
- Walker, C. & White, M. (2014). Police, design, plan and manage: Developing a framework for integrating staff roles and institutional polices into a plagiarism prevention strategy. *Journal of Higher Education Policy and Management*, 36(6), 674-687. doi:10.1080/1360080X.2014.957895
- Wilkinson, J. (2009). Staff and student perceptions of plagiarism and cheating. *International Journal of Teaching and Learning in Higher Education*, 20(2), 98-105.
- Yorke, J., Lawson, K. & McMahon, G. (2009). Can we reliably determine intent in cases of plagiarism? *International Journal for Educational Integrity*, 5(2), 39-46.