

CHAPTER 3

RESEARCH METHODOLOGY

The purpose of this Chapter is to present the research methodology of the study. The chapter is divided into the following sections: the design of the study, hypotheses and propositions, subject selection, use of vignettes, instrument development, data collection, analysis of the data, and summary.

Research Design

Specific questions the study will address are:

Research Question 1. *Does a relationship exist among students' ratings of the ethicality of business situations involving business communication and selected demographic variables? The demographic variables include (a) major, (b) gender, and (c) family employment background.*

Research Question 2. *Do students' ratings of the ethicality of business situations and the willingness to act in an ethical versus unethical manner when confronted within the same context support selected aspects of Hofstede's theory (1984)?*

To answer the second research question, a set of propositions regarding ethical norms, beliefs, and their consequences on ethical behavior have been developed. These propositions are related to Vitell et al.'s treatment (1993) of Hofstede's cultural typologies (1984, 1991) as illustrated in Table 5.

Table 5

Matrix of Hofstede's Cultural Typology and the Ethical Decision-Making Classifications of Vitell, Nwachukwu, and Barnes (1993)

Hofstede's Dimensions, Cultural Classification ↓	Vitell et al.'s Ethical → Decision-Making Classification	Professional, Industry and Organizational Codes of Ethics and Norms	Self versus Organization as Most Important Stakeholder	Takes ethical cues from superiors versus Fellow Employees	Perceives Ethical Problems	Accepts Negative Consequences of Questionable Actions
Individualism versus Collectivism	<u>High on Individualism</u> US	PIO Codes have less effect on ethical norms Vignettes A, B (Hypothesis 1a) Cell A1	Business people more likely to see self as most important stakeholder Vignettes C, D (Hypothesis 1b) Cell B1	Cell C1	Cell D1	Cell E1
	<u>Low on Individualism</u> Japan	PIO Codes have more of an effect on ethical norms Vignettes A, B (Hypothesis 1a) Cell A2	Business people are more likely to see owners or stockholders as most important stakeholders Vignettes C, D (Hypothesis 1b) Cell B2	Cell C2	Cell D2	Cell E2
Uncertainty Avoidance Index	<u>High on Uncertainty Avoidance</u> Japan	PIO Codes have more effect on ethical norms Vignettes A, B (Hypothesis 2a) Cell A3	Business people are more motivated by group interest Vignettes C, D (Hypothesis 2b) Cell B3	Cell C3	Bus. people less likely to perceive situations as having ethical components Vignettes E, F (Hypothesis 2c) Cell D3	Cell E3
	<u>Low on Uncertainty Avoidance</u> US	PIO Codes have less effect on ethical norms Vignettes A, B (Hypothesis 2a) Cell A4	Business people are more motivated by self-interest Vignettes C, D (Hypothesis 2b) Cell B4	Cell C4	Bus. people more likely to perceive situations as having ethical components Vignettes E, F (Hypothesis 2c) Cell D4	Cell E4

Adapted from Hofstede, (1984, 1991) and Vitell et al. (1993).

(Table 5 continues)

Table 5

Matrix of Hofstede's Cultural Typology and the Ethical Decision-Making Classifications of Vitell, Nwachukwu, and Barnes (1993)

Hofstede's Dimensions, Cultural classification ↓	Vitell et al.'s Ethical → Decision-Making Classification	Professional, Industry and Organizational Codes of Ethics and Norms	Self versus Organization as Most Important Stakeholder	Takes Ethical Cues from Superiors versus Fellow Employees	Perceives Ethical Problems	Accepts Negative Consequences of Questionable Actions
Masculinity/ Femininity Index (US has middle range score and Japan is rated High on this scale, as compared with countries such as Sweden)	<u>High</u> Japan > US	Cell A5	Cell B5	Cell C5	Bus. people less likely to perceive ethical problems in masculine cultures, not defined by the culture as involving ethics Vignettes E, F (Hypothesis 3a)	Cell E5
	<u>Low</u> Japan > US	Cell A6	Cell B6	Cell C6	Business people more likely to perceive ethical problems Vignettes E, F (Hypothesis 3a)	Cell E6

Adapted from Hofstede, (1984, 1991) and Vitell et al. (1993).

The Hypotheses

Vitell et al. (1993) considered the application of Hofstede's cultural typology (1984) in developing some propositions regarding ethical norms, beliefs, and their consequences on ethical behavior. Hofstede's individual dimensions do not imply an exclusive set of norms and consequences on ethical behavior. Rather, a particular ethical belief or behavior may be related to one or more dimensions. For example, adherence to group and intraorganizational gain versus self-interest (Vitell et al., 1993) follow from two of Hofstede's dimensions, high Collectivism and high Uncertainty Avoidance. In Table 5, the matrix illustrates the relationships between Hofstede's dimensions and the ethics classifications of Vitell et al. As mentioned before, this study addresses a selected set of Vitell's propositions. For example, the far right column of the matrix representing the proposition dealing with Accepts Negative Consequences of Questionable Actions, shaded in Table 5, will not be part of the study, nor will Takes Ethical Cues from Superiors versus Fellow Employees.

Proposition 1, Part a--Individualism versus Collectivism and Professional, Industry and Organizational Codes of Ethics

In exploring the Individualism versus Collectivism dimension, Hofstede (1984, 1991) ranks the US high on Individualism and low on Collectivism, whereas Japan is ranked just the opposite. Vitell et al. (1993) argued that individuals in a "collectivist society cannot easily distance themselves from the

various groups to which they belong. . .they will most likely be influenced by the norms of these groups" (p. 755).

Additionally, violations of the rules are less expected in societies with high Uncertainty Avoidance, as is true with those low on Individualism. Thus, business people in countries high on Individualism (US) will be expected to be less likely to consider professional, industry, or organizational rules (PIO codes) in forming their ethical norms, in comparison to those in countries high on Collectivism (Japan). Responses to Vignettes A and B were used to test the following hypotheses.

Null hypothesis: (Table 5, matrix cells A1 and A2)

$H_0: \mu_{\text{high}}$ (US high-Individualism) = μ_{low} (Japan low-Individualism)

μ = the average score reported by subjects in their responses to Vignettes A and B used to test the hypothesis.

Japanese and US students will report business people to be equally likely to consider PIO Codes when forming their own ethical norms.

Alternative hypothesis: (Table 5, matrix cells A1 and A2)

$H_a: \mu_{\text{high}}$ (US high-Individualism) \neq μ_{low} (Japan low-Individualism)

If the null hypothesis is rejected, further testing regarding whether μ_{high} is greater or less than μ_{low} will be required to validate or reject Vitell et al.'s (1993) proposition regarding PIO Codes.

Each vignette seeks a response from a subject regarding his or her belief about the ethicality of a particular situation and, also, his or her likely behavior when confronted with decision-making under the same situation. On the **Belief question**, Japanese students are expected to report a statistically significant lower rating that PIO Codes are ethical, in comparison to US students. On the **Behavior question**, Japanese students are expected to report a significantly lower rating in their willingness to engage in behavior that violates PIO ethical codes, in comparison to US students.

**Proposition 1, Part b--Individualism versus Collectivism Dimension
and Self versus Organization as Most Important Stakeholder**

According to Hofstede's theory (1984), business people in countries high on Individualism (US) appear to be more willing to be unethical for personal than for organizational gain, in that they perceive themselves to be the most important stakeholder. In countries high in Collectivism (Japan), organizational gain rather than personal gain is the appropriate ethical response. Responses to Vignettes C and D were used to test the following hypotheses.

Null hypothesis: (Table 5, matrix cells B1 and B2)

$$H_0: \mu_{\text{high}} (\text{US high--Individualism}) = \mu_{\text{low}} (\text{Japan low--Individualism})$$

μ = average score reported by subjects as responses to Vignettes C and D used to test the hypothesis.

Japanese and US students will report business people to be equally willing to be unethical for self as for organizational gain.

Alternative hypothesis:

H_a: μ_{high} (US high--Individualism) ¹ μ_{low} (Japan low--Individualism)

If the null hypothesis is rejected, further testing regarding whether μ_{high} is greater or less than μ_{low} will be required to validate or reject Vitell et al.'s (1993) proposition regarding self versus organizational gain as the principle motivation.

With respect to the **Belief question**, Japanese students are expected to report a significantly lower rating, statistically, that motivation for personal gain is ethical, in comparison to US students. With respect to the **Behavior question**, Japanese students are expected to report a significantly lower score that they engage in behavior motivated by personal rather than organizational gain, in comparison to US students.

Proposition 2, Part a--Uncertainty Avoidance Dimension

and Professional, Industry and Organizational Codes of Ethics

In examining this dimension, Hofstede (1984, 1991) ranked the US as low on the Uncertainty Avoidance Index, (UAI) while Japan is ranked high. The proposition of Vitell et al. (1993) posited that business people in countries with high UAI (Japan) will be expected to be more likely to consider PIO Codes when

forming their own ethical norms. Responses to Vignettes A and B were used to test the following.

Null hypothesis: (Table 5, matrix cells A3 and A4)

$$H_0: \mu_{\text{high}} (\text{Japan high-UAI}) = \mu_{\text{low}} (\text{US low-UAI})$$

μ = average score reported by subjects as responses to Vignettes A and B used to test the hypothesis.

Japanese and US students will report business people to be equally likely to consider PIO Codes when forming their own ethical norms. The scores reported is a measure of the subjects' willingness to consider professional, industry, and organizational codes of ethics in forming their own ethical norms.

Alternative hypothesis:

$$H_a: \mu_{\text{high}} (\text{Japan high-UAI}) \neq \mu_{\text{low}} (\text{US low-UAI})$$

If the hypothesis is rejected, further testing regarding whether μ_{high} is greater or less than μ_{low} will be required to validate or reject Vitell et al.'s (1993) proposition regarding PIO Codes.

Japanese students originate from a culture high on Uncertainty Avoidance, i.e., a culture less tolerant of deviations from group norms. Therefore, on the **Belief** question, they are expected to report a significantly higher rating, statistically, that business people use PIO Codes when forming ethical norms, in comparison to US students. On the **Behavior** question, Japanese students are expected to report a significantly higher score that they

engage in behavior in accordance with PIO Codes, in comparison to US students.

Proposition 2, Part b--Uncertainty Avoidance Dimension and Self versus Organization as Most Important Stakeholder

According to Vitell et al. (1993), business people in countries with high UAI scores will be expected to be more willing to be unethical for organizational than for personal gain. Responses to Vignettes C and D were used to test the following hypotheses.

Null hypothesis: (Table 5, matrix cells B3 and B4)

$$H_0: \mu_{\text{high}} (\text{Japan high--Uncertainty Avoidance}) = \mu_{\text{low}} (\text{US low--UAI})$$

μ = the average score reported by subjects as responses to Vignettes C and D used to test the hypothesis.

Japanese and US students will report business people to be equally willing to be unethical for personal and organizational gain.

Alternative hypothesis:

$$H_a: \mu_{\text{high}} (\text{Japan high--Uncertainty Avoidance})^1 \mu_{\text{low}} (\text{US--Uncertainty Avoidance})$$

If the null hypothesis is rejected, further testing regarding whether μ_{high} is greater or less than μ_{low} will be required to validate or reject the proposition regarding self versus organizational gain as the principle motivation. In countries high on Uncertainty Avoidance (Japan), subjects are expected to be more likely to be motivated by group interest. On the **Belief**

question, Japanese students are expected to report a significantly higher rating, statistically, that motivation by group interest is ethical, in comparison to US students. On the **Behavior** question, Japanese students are expected to report a significantly higher rating that they engage in behavior motivated by group interest, in comparison to US students.

**Proposition 2, Part c--Uncertainty Avoidance Dimension and
Perceives Ethical Problems**

According to Vitell et al. (1993), business people in countries with high Uncertainty Avoidance will also be expected to be less likely to perceive problems or dilemmas as having an ethical component. Responses to Vignettes E and F were used to test the following hypotheses.

Null hypothesis: (Table 5, matrix cells D3 and D4)

$$H_0: \mu_{\text{high}}(\text{Japan high-UAI}) = \mu_{\text{low}}(\text{US -low UAI})$$

μ = average score reported by subjects as responses to Vignettes E and F used to test the hypothesis. Scores reported indicate whether a subject perceives problems or dilemmas as having an ethical component.

Japanese and US students will report business people to be equally likely to perceive problems or dilemmas as having an ethical component, i.e., as being an accepted business practice.

Alternative hypothesis: (Table 5, matrix cells D3 and D4)

$$H_a: \mu_{\text{high}}(\text{Japan high-UAI}) \neq \mu_{\text{low}}(\text{US -low UAI})$$

If the null hypothesis is rejected, further testing regarding whether μ_{high} is greater or less than μ_{low} will be required to validate or reject Vitell et al.'s proposition (1993) regarding the perception of ethical problems.

Japanese students will report business people to be less likely to perceive problems or dilemmas as having an ethical component, than will US students.

On the **Belief** question, Japanese students are expected to report a significantly lower rating, statistically, that business problems or dilemmas have an ethical component, in comparison to US students. On the **Behavior** question, Japanese students are expected to report a significantly lower rating that they engage in behavior that is questionably ethical, in comparison to US students.

Proposition 3--Masculinity/Femininity Dimension
and Perceives Ethical Problems

In cultures high in Masculinity (Japan), business people will be expected to be less likely to perceive problems or dilemmas as ethical or not ethical and more likely to see issues as accepted business practice. Responses to Vignettes E and F were used to test the following hypothesis.

Null hypothesis: (Table 5, matrix cells D5 and D6)

$H_0: \mu_{\text{high}}$ (Japan-higher on Masculinity) = μ_{low} (US-lower on Masculinity)

μ = average score reported by subjects as responses to Vignettes E and F used to test the hypothesis.

Japanese and US students will report business people to be equally likely to perceive problems or dilemmas as having an ethical component, i.e., as being an accepted business practice.

Alternative hypothesis: (Table 5, matrix cells D5)

$H_a: \mu_{\text{high}}$ (Japan-higher on Masculinity) ¹ μ_{low} (US-lower on Masculinity)

If the null hypothesis is rejected, further testing regarding whether μ_{high} is greater or less than μ_{low} will be required to validate or reject Vitell et al.'s proposition (1993) regarding the perception of ethical problems.

Japanese students will be expected to report business people to be less likely to perceive issues to be ethical or not ethical, i.e., more likely to see issues as accepted business practice. On the **Belief** question, Japanese students are expected to indicate a significantly broader range of business practices, statistically, to be ethical, in comparison to US students. On the **Behavior** question, Japanese students are expected to report a significantly higher rating that they would engage in the broader range of business practices, in comparison to US students.

Subject Selection

The subjects consisted of approximately 100 purposefully selected full-time Japanese college students, along with an equal number of US college students attending colleges and universities in West Virginia. The accessible population for this study was approximately one-hundred fifty Japanese

students attending colleges or universities in West Virginia. The subjects were asked not to record their names anywhere on the survey in order to assure their anonymity.

The students provided descriptive demographic characteristics as follows. (a) The students had the option of answering yes or no to the question "Have you lived in the United States for your entire life?" (b) Years in US were the actual years subjects lived in the US. (c) Age was the actual age of the subjects. (d) For perception of their own academic standing, the options were excellent, above average, average, below average, and poor. (e) For educational level, the options were freshman/sophomore, or junior/senior. (f) For family economic status, options were "does at least one of your parents or guardians work for a profit making business," or "does at least one of your parents or guardians work for a non-profit business?" (g) For rural or urban background, options were semi-rural to rural, and semi-urban to urban. (h) For travel, options were never, less than 60 days, traveled more than 60 days, and extensively. (i) For full-time work experience, options were none, one to six months, seven to twelve months, thirteen to twenty four months, and twenty five months or more.

Obtaining Subjects for the Study

With one exception, each registrar in the West Virginia College and University system was mailed a packet of information containing (1) an

introduction letter, (2) two Informed Consent letters, (3) a Study Procedures form, (4) a Statement of Participation form and (5) a letter from the Registrar of Concord College, the researcher's place of employment. The President of one West Virginia college reported to the researcher "no research is allowed to be brought onto this campus;" for this reason, the Registrar at that institution was not contacted. Two faculty members of that College were contacted and they agreed to intercede on behalf of this research, but their requests returned responses from Administrators that "only those linked to the College or doing research in conjunction with our faculty members will be allowed to conduct research on this campus." When other officials of the College were contacted, there was always the same result. An administrative assistant to the Provost assured the researcher this was very well-known policy and relayed the fact that similar requests have been turned down recently. In trying to contact state government officials to request access, the officials looked to the policies of the institution itself.

Appendix B contains copies of the letters and forms sent to Registrars. They include the following. (a) Letter from Registrar at Concord College hand-delivered February 22, 1995, to individuals involved in a meeting of state college registrars. The letter asked all West Virginia college and university registrars to participate in this study by identifying the accessible population of all Japanese students and an equal number of US students at their schools. On June 13, 1995, a follow-up letter was mailed to the registrars. (b) The Study

Procedures form explaining the responsibilities of participating registrars, what their students would be asked to do, and materials to be provided by the researcher. (c) The Statement of Participation form designed to allow the registrars to indicate their willingness to help in the study, and to list the number of Japanese students enrolled at their campuses. (d) A letter from the Registrar at Concord College introducing the researcher and asking other registrars in the state to cooperate in the project. Fifteen registrars in the state system agreed to participate in the study. Since the study was not undertaken in the semester planned, the original letters were followed up by individual telephone calls to each Registrar by the researcher to verify their earlier agreements to participate. The telephone calls began the week of March 10, 1997.

Use of Vignettes

In reviewing the literature, the researcher examined similar studies for methodologies used to measure culture-based ethical decisions and found that researchers rely on vignettes to measure individual and group ethics. The use of vignettes, according to Fritzsche and Becker (1982) "provide some of the background information required to understand the dilemma, information which would have to be assumed by the respondents if simple questions were utilized" (p. 292). For this reason, vignettes are believed to elicit an "improvement in the quality of data" in this type of research, more than is possible from simple survey questions (Alexander & Becker, 1978, p. 95). Vignettes have been used

in business ethics research because they allow researchers to (a) present more realistic situations to respondents and (b) obtain some measure of the difference between ethical principles and ethical behavior (Velasquez, 1982; Cavanagh, 1984; Cavanagh, Fritsche, & Fritsche, 1985).

Several studies have endeavored to determine the validity of vignette studies, including those by Murray (1978), Neff (1979), Nosanchuk (1972), and Burstin, Doughtie, and Raphaeli (1980). In Murray, each vignette was subjected to three procedures to determine content validity: (a) the researcher developed the vignettes based on the behavior being investigated, (b) a panel of experts reviewed the vignettes, and (c) the researcher pilot tested the vignettes on subjects similar to those in the sample population. The study revealed seven of the eight vignettes were found to be valid. Nosanchuk concluded this technique seemed to be a well-founded way to conduct inquiries about social status. Burstin, Doughtie, and Raphaeli (1980) used three distinct experiments to evaluate the validity of their vignettes. Their conclusion was that there is support for the validity of the vignette approach.

In general, most vignette-based studies have dealt with business ethics. The benefits of vignettes include: (a) vignettes can pose a comprehensive set of circumstances under which the issue is addressed and (b) they can emphasize or dramatize the aspects of interest to the researcher (Cavanagh et al., 1985). This study utilized vignettes, defined by Alexander and Becker

(1978) as a systematically elaborated description of a concrete situation. Vignettes provide respondents with the background information required to understand the situations described; information they would have had to assume in a typical survey.

Instrument Development

The instrument used in this study was developed in several stages.

Surveying the literature The literature base was surveyed relating to business ethics and business communication in order to create a master list of possible ethical elements. The vignettes developed were based upon the ethical classification scheme of Vitell et al. (1993) and were written in consultation with experts.

Input was provided by four professors from two liberal arts colleges and two universities, including a US professor teaching Business Ethics and publishing regularly in that field, a Japanese professor of Management Information Systems who had lived in the United States for five years, an international studies consultant who arranges cultural exchanges for businesses, and an Asian professor of Finance. Each of the foreign-born professors shared situations bearing elements of cultural conflict they had faced while living in the US, although these were not used in the study. Further, one graduate student and former member of the Peace Corps, married to an eastern professor, offered particular help by reading the vignettes and suggesting revisions.

The first stage of vignette development included a review of the literature for vignettes, cases, and lists of variables. Many lists of stem questions were available in the literature, but few suitable vignettes were found. During this time, the researcher sought the input of colleagues who brainstormed and reviewed ideas relating to business ethics studies that dealt with culture. Upon examination of the literature, it was noted there were few studies using business communication as a background for vignettes. Having taught Business Communications courses at the college level for twelve years, the researcher had an awareness of and interest in the ethical components of communications. Thus, when creating the vignettes, incorporating business communications-related situations was desirable. The vignettes were based on classification schemes that one would find in US businesses.

Initially, thirteen vignettes were developed. Following review by the first panel of experts and revisions, the vignettes were reviewed and edited to a final aggregate of six. Two vignettes were selected from each of the three dimensions or cultural classifications chosen for the study: (a) Professional, Industry and Organizational codes of ethics, (b) Self versus Organization as Most Important Stakeholder, (c) and Perceives Ethical Problems, i.e., distinguishing ethical dimensions in business situations.

Scale Development

The next step was the development of a Likert-type attitude scale to measure respondents' reactions to the behaviors described in each vignette. Two four-point scales were selected to force respondents to agree or disagree with questions relating to each vignette. The response categories ranged from very ethical to very unethical, allowing each respondent to choose one of the following responses on the **Belief** questions: very ethical, ethical, unethical, or very unethical. **Behavior** questions afforded respondents the following choices: yes, probably would, probably would not, and no.

Each vignette required subjects to respond to the situations described on two dimensions: (a) the degree to which they **believe** the behavior described to be ethical (referred to as the Belief question) and (b) whether they would engage in the described practice or **behave** in such a manner (referred to as the Behavior question). This follows the research of Velasquez (1982) and Cavanagh (1984), who found vignettes to be useful in business ethics research because they allow researchers to . . . "obtain some measure of the difference between ethical principles and ethical behavior" (Cavanagh et al., 1985, p. 279).

Adjusting the Likert Response Scale

The original 4-point Likert-type scale was changed following a review of the survey document. A shift to a six-point scale was made to increase variability, as it was expected to be helpful in final analysis of the data. The

revised response categories ranged from very ethical to very unethical allowing each respondent to choose one of the following responses on the **Belief questions**: ethical, generally ethical, somewhat ethical, somewhat unethical, generally unethical, or unethical. **Behavior questions** were also expanded to a 6-point scale, in those, respondents had the following choices: no, very unlikely, probably would not, probably would, very likely, and yes.

Vignette Development Review Panel

The twelve vignettes labeled A-K and M, were mailed to a panel of experts consisting of three management professors, two at large research-intensive universities, and one at a four-year college; two Asian professors at large universities who have been residents of the US for eleven and four years, respectively; and an attorney familiar with legal ethics. Vignette L had been discarded because it appeared to be too obviously unethical. The respondents answered the following questions asked about each individual vignette.

First, does this vignette realistically portray an ethical decision? (a) If you don't believe it does, do you believe it could be revised to do so? (b) Would you like to offer suggestions for improving the vignette? Second, are the key players well defined? Third, is the vignette easily understood? Fourth, in light of the fact this survey is being distributed to both Japanese and US students, do you believe the language is clear enough? If not,

please circle words or phrases you believe to be a barrier to understanding.

Fifth, add any other comments.

The Second Panel of Experts' Vignette Review Form appears in Appendix C. The experts' responses, suggestions, and critiques of the vignettes were carefully considered in the revision of the vignettes. Based on the responses and concerns of these five experts about the length of the survey instrument, it was revised as follows.

Several of the vignettes were reworded to be more easily understood by the subjects. The original vignettes were revised to exclude ethnic names, based upon the suggestions of one expert and two Dissertation Committee members. Following this review, three more vignettes were developed to provide an equal number of vignettes for each of Vitell et al.'s classifications (1993), labeled N, O, and P. These three vignettes were not reviewed by the original panel of experts, nor were they included in the final survey.

Narrowing the Scope of the Study

In consideration of the experts' responses, it was determined that the number and scope of issues originally planned for analysis was too broad for this study. Concern also existed relating to the length of the original survey, at six pages. For these reasons, the following actions were taken to limit the scope of the study which affected the number of vignettes used. Only three of the Vitell et al. (1993) propositions were finally included in the study. Since

vignettes representing Proposition 5, Accepts Negative Consequences of Questionable Actions, were represented only once in the matrix of Hofstede's typology (1984) and ethics classifications of Vitell et al., while each of the other propositions and typologies were represented two or three times, Proposition 5 was deleted. Vignettes N, and O that related to Proposition 5 were deleted, reducing the number of Vitell's propositions to three and the number of Vignettes to 13.

Further, Hofstede's (1984, 1991) Power Distance dimension was eliminated from the study due to the closeness of Japanese and US students' scores. On this dimension, Hofstede rated the US at 40 and Japan at 54 on a scale ranging from 11-104. These rankings appeared to be too close to discriminate between the two countries in the final analyses. When this proposition was eliminated, Vignettes G and H, developed for it, were also eliminated, resulting in a total of eleven vignettes, A, B, C, D, E, F, I, J, K, M and P. Since the Power Distance Dimension was eliminated, a second ethical decision-making classification of Vitell et al. (1993), "takes ethical cues from superior versus fellow employees" was eliminated. It had been linked only to the Power Distance Dimension and the cells in that dimension no longer intersected with any of Hofstede's dimensions.

Establishing Reliability

To establish reliability of the questions for each vignette, the original vignettes with accompanying questions were sent to a second expert panel for

evaluation. The experts were asked to code responses to each vignette question as they believed Japanese and US students would. Upon receipt of answers to the survey, a data analysis of interrater reliability was made using the Cronbach alpha statistic, a measure of internal consistency based on average inter-item correlation. This measure evaluates whether the scale used is consistent in measuring a construct from one respondent to the next, i.e., it measures the rate of consistency of agreement among raters.

The reliability of a scale can be determined through its use in earlier studies. Since this researcher authored the scale being used in this study, that option was ruled out. A second means for establishing reliability is the analysis of the coefficient alphas of the scales for the experts' responses.

The six experts participating included (a) a professor at a large university who teaches business ethics and travels to and does research in Japan; (b) a professor from a small college who publishes business ethics research and works in the international community, (c) a professor who specializes in international trade at a small college, (d) an Asian professor of computer science specializing in artificial intelligence, and (e) two US missionaries who spent their professional teaching careers, 31 years, in Japan and who have just returned to the US to retire. The missionaries have worked with both high school and college students, with primary responsibilities at a "B" high school, the second highest academically ranked type of school within the Japanese

secondary system. The scores of one expert were deleted as they appeared to be "patterned" responses, 1,6,1,6 throughout, leaving a total of five experts to score the items. The coefficient alpha analysis was based on the initial rating scales which were for questions related to **beliefs**, the odd numbered questions.

1. Unethical
2. Generally unethical
3. Somewhat unethical
- 4 Somewhat ethical
5. Generally ethical
6. Ethical

Even numbered questions related to **behavior**, and the results were

1. Yes
2. Very likely
3. Probably would
4. Probably would not
5. Very unlikely
6. No

Following this second Expert Panel's input, the scale for even numbered items was reversed, to be in keeping with the odd numbered items, becoming

1. No
2. Very unlikely

3. Probably would not
4. Probably would
5. Very likely
6. Yes

One benchmark for reliability of scales is a coefficient alpha of .70 or better (Nunnally, 1978). The overall coefficient alpha for the items used in this study was .8841. Based on this criteria, all of the scales, as shown in Table 6, appeared to be reliable.

Based upon the coefficient alpha analysis and recommendations of the experts, several items were dropped from the study. Two items were needed in each of Vitell et al.'s three remaining categories (1993) and the Vignettes were clustered as shown in Table 6: A, B, D, and F related to Professional, Industry and Organizational codes of ethics or PIO; C and E related to the Self versus Organization as Most Important Stakeholder classification; and G, H, I, J, and K related to Perceives Ethical Problems, PEP. Vignettes B and F were dropped from the first category, having the lowest alpha scores. Vignettes C and E remained as they were the only two measures in the second category. Vignettes J, and K were dropped as they had the two lowest alpha scores in this grouping. Vignette I was dropped as 2 experts reported it did not seem to be a strong ethical issue. This left Vignettes A, C, D, E, H, and G, that were relabeled as A, B, C, D, E, and F for use in the final survey.

Table 6

Reliability Outcomes for Experts Responding to the Vignettes as Japanese and US Students Would (n=10)

Vignette	Alpha	Final Vignette Label
Professional, Industry and Organizational Codes (PIO Codes)		
Vignette A, Question 1	0.88	A
Vignette A, Question 2	0.88	A
Vignette B, Question 3	0.89	B
Vignette B, Question 4	0.90	B
Vignette D, Question 7	0.90	
Vignette D, Question 8	0.89	
Vignette F, Question 11	0.88	
Vignette F, Question 12	0.88	
Self versus Organization as Most Important Stakeholder		
Vignette C, Question 5	0.88	C
Vignette C, Question 6	0.88	C
Vignette E, Question 9	0.89	D
Vignette E, Question 10	0.88	D
Perceives Ethical Problems		
Vignette G, Question 13	0.88	E
Vignette G, Question 14	0.88	E
Vignette H, Question 15	0.87	F
Vignette H, Question 16	0.87	F
Vignette I, Question 17	0.88	
Vignette I, Question 18	0.88	
Vignette J, Question 19	0.87	
Vignette J, Question 20	0.87	
Vignette K, Question 21	0.88	
Vignette K, Question 22	0.87	
Overall Alpha	0.88	

Student Pilot Test

This part of the study was begun while the second panel of experts were reviewing the survey. The researcher contacted the Japanese students' group on the Virginia Tech campus. Attempts to arrange a meeting with the Japanese International Students met with little success due to students' schedules at the end of Fall semester 1996. The President of the group sent e-mail to members and then individually called them to ask their help in completing the survey, and only three members were willing to meet with the researcher to complete the pilot study. Finally, the group asked if they could answer the survey by e-mail, so the researcher converted the survey to electronic format and e-mailed it to the students. Three responses were returned. Space was provided on the form so students could offer suggestions about the form itself and its administration. Comments were offered by participants and incorporated in the revisions to the survey.

In trying to contact additional Japanese students, the researcher visited Virginia Tech's library in January 1997, and asked twenty-two US and Asian students to complete the survey for the pilot study. Five Japanese and ten US students agreed to complete the survey in the Library. In a further effort to obtain Japanese subjects for the study in January, the researcher joined the following LISTSERV groups on the Internet and asked Japanese students to complete a survey: Asian American Student Association, Japanese Teaching

and Instructional Technology, Japanese Information, and the NIKON Lists. Positive responses were received from willing students and faculty members alike. Narrowing the list to students only, eighteen students were e-mailed the converted form and six completed and returned the survey. Three of the responses were from Asians not of Japanese culture, so just three of the responses could be used. These efforts resulted in eleven Japanese and ten US students' responses to the Pilot Survey.

The following adjustments were made to the survey following the Student Pilot Study. The directions for filling out the survey were reworded to instruct participants to record their answers directly on the survey form, not on an OpScan form. The formatting of the instrument was altered so that all of the survey items and demographic questions fit on the front and back of one page. The following responses were added to the items (Appendix E, page 217):

Question 13-- (c) other

Question 25--(b) less than 60 days (2 months)

Questions 26--(a) none

Three paragraphs were added at the close to (a) thank respondents for their participation, (b) direct students in returning the survey to the researcher; and (c) provide information relating to prize drawings that were held, \$5.00 each for the first ten surveys returned; and two final prize drawings of \$50.00 and \$100.00 respectively. Following editing and revisions, review and analysis of

the returned surveys, the survey was finalized, proofed, and readied for mailing. The Vignette Development Table shown in Appendix D contains a summary of the changes made to the items used in the study.

Data Collection

The procedures for collecting study data are detailed here. The topics include contacting registrars, survey administration, follow-up procedures, sequence for responses, and gaining Internal Review Board for Human Subjects approval.

Contacting Registrars

In February 1995, a letter was hand delivered to each Registrar in the State College System, asking for help in administering the survey. Registrars were asked if they would be willing to send a written survey to each Japanese student and to a matching number of US students on their campuses. They were asked to sign the form agreeing to participate in the research. If they could not make that decision, they were asked to send the letter to an appropriate official or Human Subjects Committee member who could make the decision.

On March 16, 1997, each of the Registrars who had agreed to participate in the study when first contacted in 1995, were called by the researcher. Their interest in participating was confirmed again and the number of Japanese students attending their institutions was verified. Other state college system

registrars were also called and attempts were made to interest them in participating in the study, with one success.

During March, the survey packets were assembled and readied for mailing. The possible "pool of students" is detailed in Table 7, with numbers of Japanese students available at the ten institutions ranging from four to more than 100. However, the Registrar at the institution with more than 100 Japanese students, as noted in Table 7, declined participation. In addition, one of the institutions with 25 Japanese students declined participation.

Knowing the approximate number of Japanese students at the institution designated as Institution 10, and the need for their participation in the study, the researcher obtained a copy of the institution's telephone directory, listing over 20,000 students, faculty, and staff. Meeting with Asian students on the researcher's campus, the researcher took a lesson in identifying Japanese names, and scanned the institution's telephone directory. Further, West Virginia's on-line network (WVNET) database of students at Institution 10 was searched letter by letter to find names and addresses of Japanese students. A total of 97 names was identified through these two procedures.

The Internet was also searched for possible respondents at Institution 4, and e-mail surveys were sent to these students. A follow up reminder was also e-mailed to them, and a second set of surveys was e-mailed at the same time standard mailings were sent.

Table 7

Pool of Possible Respondents in the Study

Designation of Institution	Number of Japanese students	Institutional Participation
1	13	yes, sent names of participants to researcher before study began
2	15	unable to participate, too busy
3	16	yes
4	25	no, against policy of Center for International Programs to conduct surveys on international student population on this campus
5	4	yes
6	8	yes
7	25	yes
8	3	no, didn't have time
9	1	yes, sent names of students to researcher before study began
10	<u>±</u> 100	no, did not have resources to help with study, breach of student confidentiality to allow study to go forward on that campus; suggested researcher find an intact class on the campus to survey. Researcher identified 97 Japanese and US students at the institution by telephone directory and on-line resources.

Copies of the letters mailed to the Registrars, the Issues in Business survey, the Informed Consent letter, and Prize Notification cards are included as Appendix E, Final Survey Packet.

Survey Administration

Upon receipt of a positive Statement of Participation found in Appendix B, approval of the vignettes by the expert review panels, input from pilot study subjects, and interrater reliability scores analysis, the researcher sent each identified registrar in the West Virginia State College and University system a packet of surveys with self-addressed, stamped envelopes enclosed. The registrars identified the full-time Japanese students, along with an equal number of US students of the same major and class. The packets containing surveys were mailed by the registrars to both groups. The culture of each subject was verified by self-report on the survey instrument in Question 13.

The registrars, or their assistants, addressed the stamped packets containing surveys, kept a list of the students' names and the number of the packet they were mailed, and mailed them to students selected for the study. Inside each envelope mailed to a subject, there were two copies of the Informed Consent form, an explanation of the study and the subjects' roles, and directions for completing the survey; a copy of the survey consisting of six vignettes and demographic questions; a cash Prize Winner Notification Card and instructions for using it, and 2 stamped, self-addressed envelopes.

A paragraph of directions and procedures directed subjects to read the vignettes carefully, then to answer the two questions following each one. The first question for each vignette asked subjects to answer a "Do you believe this action to be ethical" stem question (Belief question). The second question asked subjects to answer a "would you engage in this practice" stem question (Behavior question). They were asked to read and respond to 6 vignettes, each approximately two paragraphs long.

After the subjects completed the 12 vignette questions, they were asked to complete a demographic survey containing fourteen questions. Finally, they were asked to submit the signed Informed Consent Letter, the survey, and the post card to the researcher in the stamped, addressed envelope. The survey's directions indicated to the subjects that their answers would be kept confidential and only the combined data and resulting statistics would be made available for publication. Responses from Japanese students who had lived in the US since birth were discarded.

The accessible pool of Japanese students was small in West Virginia colleges and universities and each subject's response was important, therefore, the researcher devised a "cash prize drawing" with one \$100, one \$50, and ten \$5 prizes, to encourage students to return responses on the surveys. An attorney, an intermediary party, agreed to receive the Prize

Winner Notification Cards and surveys and to handle the drawing in order that participants' names remain anonymous.

Cash Prize Winner Notification Cards were mailed to subjects along with the study survey. Students were asked to return the signed Informed Consent form and Prize Winner Notification form in one stamped envelope addressed to the attorney. They were asked to return the fully completed survey directly to the researcher. The cash Prize Winner Notification Cards were printed on the same paper as the surveys, and students' names, addresses, and telephone numbers were requested. The attorney opened the envelopes returned by subjects, and kept the Prize Winner Notification Cards and Informed Consent Forms until instructed to hold the drawing for the prizes. Since each of the Prize Winner Notification Cards contained the subjects' names, the researcher was able to identify and locate the winners. The winners of the prizes were mailed checks for their winnings.

Follow-up Procedures

The literature reveals that personalized, professional looking, and attractive surveys are more likely to be returned (Linksky, 1975). The researcher endeavored to prepare a survey that met those requirements by using an easy to complete design.

After the first, second, and third mailings, the researcher contacted each registrar with the names of participants who had returned surveys. In this way,

non-respondents were able to be contacted and encouraged to return completed surveys. Registrars were asked to mail subjects the additional follow-up mailings, as was necessary.

Sequence for Responses

Ten days after mailing the surveys, the researcher mailed non-respondents a reminder card in which the importance of the study and need for a high response rate was emphasized. Ten days after the reminder postcard was mailed, a letter was mailed to the remaining non-respondents to again emphasize the need for a high response rate. A second survey was included in this mailing, for those who discarded the original survey, along with the original Informed Consent forms, and addressed stamped envelopes. According to Fowler (1990, p. 55), "if the researcher is persistent, and if" the study is "reasonably well-conceived and well-designed, acceptable response rates can be obtained by mail." Response rates for this study were 30.7%.

Since the mailings did not produce high response rates, the researcher asked Registrars to provide telephone numbers of subjects so they could be polled using only the demographic questions to determine if the non-respondents were significantly different than the respondents. For students at Institution #10, the researcher had the telephone numbers acquired from the research in finding the subjects' names and addresses. The length of the vignettes prohibited them from being read to subjects over the telephone.

Internal Review Board for Human Subjects

The Application for Approval of Research Involving Human Subjects was prepared. A letter dated January 23, 1997, indicated the Internal Review Board for Human Subjects had approved the survey and the research.

Data Analysis Procedures

The data analysis procedures explain subjects' responses to the instrument and the procedures used to analyze the data. If culture and demographic variables have little effect on student responses to the questions asked of subjects, then the Japanese and US student groups should show equal responses to the questions. If culture and demographic variables are important, there should be noticeable differences among the group means. The intent of the researcher was to have as close to 150 returned surveys with an approximately equal number of Japanese and US students' responses.

Research Question 1

Does a relationship exist among students' ratings of ethically-based business vignettes involving business communication and selected demographic variables? The demographic variables included (a) major, (b) gender, and (c) family employment background.

To answer Research Question Number 1, correlations were used to determine the nature and degree of relationship between the variables. A correlation matrix displayed the intercorrelations among variables on belief and

behavior scores, major, gender, and profit or not-for profit business backgrounds. The interpretation of the correlations was based on the Hinkle, Wiersma, and Jurs (1979) recommendations that follow.

.90 to 1.00 (-.90 to -1.00)	Very high positive (negative) correlation
.70 to .90 (-.70 to -.90)	High positive (negative) correlation
.50 to .70 (-.50 to -.70)	Moderate positive (negative) correlation
.30 to .50 (-.30 to -.50)	Low positive (negative) correlation
.00 to .30 (0.00 to -.30)	Little, if any, correlation

Research Question 2

Do students' ratings of the ethicality of business situations and their willingness to act in an ethical versus unethical manner when confronted within the same context support selected aspects of Hofstede's theory (1984, 1991)?

To answer the second research question, a set of propositions regarding ethical norms, beliefs, and their consequences on ethical behavior have been developed that relate to the treatment by Vitell et al. (1993) of Hofstede's cultural typologies (1984).

The data analysis was broken into two parts; preliminary analysis and primary analysis, in order to determine whether the selected demographic variables would influence how subjects responded to the vignettes. In the preliminary analysis, a chi square test was performed to determine if the subjects who differ in gender, major, and family background responded to the

vignettes in a significantly different way, statistically. If the subjects did not, this outcome was reported. However, if the subjects did differ significantly, the variable was included in the analysis as an independent variable in the primary analysis, which tested the specific hypotheses.

Analysis of Variance

Belief and behavior scores for the two groups were obtained. With Belief or Behavior scores as the factors, an Analysis of Variance was used to examine differences between Belief scores of the two groups, with demographic characteristics included as additional variables (SPSS Base 7.5 for Windows, 1996, p. 211). The additional variables used were the ones that were statistically significant between Japanese and US students in the preliminary analysis. Interaction effects were examined to determine the extent to which the demographic variables contribute to the total variance between the two groups. Table 8 contains details for the variables used in the ANOVAs.

Summary

The methods used in this study were presented in this chapter. The procedures employed were displayed in this order. (a) The literature base was surveyed to create a master list of possible ethical elements. (b) In consultation with experts, the researcher developed 15 vignettes based upon the Vitell et al.

Table 8

Analysis of Variance Factors

Variables	Score Range
Belief scores (Japanese versus US students)	1-6 ^a
Behavior scores (Japanese versus US students)	1-6 ^b
Major	
Business	0
Other	1
Gender	
Male	0
Female	1
Family employment background	
At least one parent or guardian owns or works for a profit-making business	
Yes	0
No	1
At least one parent or guardian owns or works for an entity such as government, state educational institution, or charitable organization	
Yes	0
No	1

^a Scale for **Belief** scores: 1=Unethical, 2=Generally Unethical, 3=Somewhat Unethical, 4=Somewhat Ethical, 5=Generally Ethical, 6=Ethical

^b Scale for **Behavior** scores: 1=No, 2=Very Unlikely, 3=Probably Would Not, 4=Probably Would, 5=Very Likely, 6=Yes

(1993) ethical classifications and incorporated business communications-related situations into them. (c) The vignettes were sent to a first review panel and later revised to reflect the suggestions made by panel members. (d) The vignettes were sent to a second panel of experts to determine the reliability of the vignette items. The experts were asked to code each vignette as they believed Japanese and US students would. (e) The vignettes were reviewed, revised, and edited to an aggregate of 6. (f) Originally, a 4-point Likert-type attitude scale was developed to measure respondents' reactions to the vignettes. The scale was later adjusted to a 6-point scale to allow for more variability in the data. (g) Two questions were developed relating to each vignette, i.e., in an effort to measure the difference between respondents' ethical principles and ethical behavior; one asked the degree to which they believed the behavior described to be ethical, the other asked whether they would engage in such a practice or behave in such a manner. (h) The data analysis procedures were presented.