

UNIVERSITY OF SAINT LOUIS
Tuguegarao City

RESEARCH FORMAT
(Students and Faculty Researches; Theses and Dissertations)

A. NUMBER OF PAGES AND LAYOUT

1. **Number of pages:** maximum of seven (7) for research proposal and maximum of fifteen (15) for full paper (8.5 x 11 bond paper) excluding appendices
2. **Text spacing:** single with one space allotted in between sections and paragraphs.
3. **Font type and size:** Arial, 11
4. **Indentation:** 1.5 left margin and 1 " on all sides
5. **Pagination :** top right

B. PARTS OF THE RESEARCH PROPOSAL

- Title
- Table of Contents
- Introduction
 - Background of the Study
 - Statement of the Problem and Research Questions
 - Significance of the Studies
 - Literature Review
 - Underpinning Theory (if applicable) or Linking Statement
 - Discussion of Literature by Themes
 - Hypotheses (if any)
 - Research Paradigm/Research Simulacrum
- **Methods**
 - Participants/Subjects/Respondents
 - Specific Method and Research Design (If applicable)
 - Instruments and Procedures
 - Data Analysis
 - Instrument(Questionnaire, Attitudinaire, etc.)
- Reference
- Appendices
 - Literature Matrix
 - Variable Matrix
 - Synthesis Tally
 - Data Collection Forms

DESCRIPTIONS OF THE PARTS OF A RESEARCH PROPOSAL

BACKGROUND OF THE STUDY

- The background of the study consists of 3-5 paragraphs only to capture the background information on the topic in order to set the larger context of the study. It is here where the discussion of relevant literature mostly figures in.
- For a guide, the following can be answered; what is known (and not yet known) about this subject? What do the experts say? What are the controversies? The gray areas?
- This section should not just enumerate and describe studies done but, rather, critically engage them.
- It assesses both their contributions and limitations and, in so doing, clears the space for the proposed study.
- In the end, the discussion of the background of the study should logically lead to the Statement of the Problem

STATEMENT OF THE PROBLEM AND RESEARCH QUESTIONS

- The problem is borne out of an assessment that something is wrong, amiss, or imperfect in the current state of knowledge (e.g. gap in the literature, conflicting claims, inadequate results or findings, etc or practice (e.g. program that falls short of its goals, a system that can be further improved, etc.). the problem usually comes as a single statement but is followed by paragraphs elaborating on this.
- Having identified the problem, state clearly what you want to accomplish in order to address, answer or illuminate the problem. What do you intend to do and how is this going to contribute towards the resolution of the problem? In other words this is the purpose of your study.

SIGNIFICANCE OF THE STUDY

- This section describes the contribution of the research to the discovery of knowledge. It discusses the following:
 - benefits derived from the investigation
 - worthwhile contribution to the generation of new knowledge
 - general relevance of the study to the readers
- Show how this will respond to the gap of knowledge, issues of theory or method, and social action or policy making.
- For applied researches, you may have to specify who might be interested in the results/findings of the study. Be very specific. Show exactly how these results/findings can be utilized by these interest groups.

LITERATURE REVIEW

- ***Underpinning Theory (If Applicable) Or Linking Statement***
 - Describe in more details the theoretical and methodological underpinnings of your study. Discuss the theories, methodological approaches and variables that are important in your study and demonstrate their interrelations as such. Such interrelations may be illustrated through a diagram, although such diagrams are rarely included in the final manuscript.

- In writing the theoretical framework, start by stating the theory, concept model or principle. Then explain what the theory is all about. End up by contextualizing the theory by relating it to your present study (comes from the researcher).
- Ways of presenting the theoretical framework:
 - This paper is anchored on the theory of _____”
 - The theory of _____underpins this study.
 - Theoretically, this study is anchored on...“
 - The theoretical anchorage of this paper is”
 - The theoretical framework could come first before the related literature or after the related literature.

- **Discussion of Literature by Themes**

Literature should be arranged according to the variables under study.

Example 1:

Research Title: “Cognitive, Affective, Personality and Demographic Predictors of Foreign Language Achievement”

Subheading 1 : Cognitive Variables,

Subheading 2: Affective variables.

Subheading 3: Personality variables

Subheading 4: Demographic variables

Example 2

Research Title : Family Involvement in Pre-Service Education

Sub-Heading 1: Family Involvement: Importance and Benefits

Sub-Heading 2: Family Involvement: Availability

Sub-Heading 3: Family Ethnicity

Sub-Heading 4: Parents/Guardians’ Educational Attainment

Sub-Heading 5: Beliefs and Attitudes toward Family Involvement

Sub-Heading 6: Pre-service Experience

- **Hypotheses (if any)**

The hypotheses are written right after the literature review. It is stated in an alternative form.

- **Research Paradigm/Research Simulacrum**

This represents what variables or conceptual tags investigated in the study. It could be presented in graphical (traditionally called paradigm) or narrative form (especially for qualitative studies) These are supported by hypotheses (quantitative studies) or propositions (qualitative studies) .

METHODS

- **Participants/Subjects/Respondents**

Describe your sample with sufficient detail so that it is clear what population the sample represents. A discussion of how sample was formed is needed for replicability and understanding of your study.

- **Specific Method and Research Design (If applicable)**

The design of the study, whether it is a case study, a survey, a controlled experiment, a meta-analysis or some other type of research, is described in this section.

- **Instruments and Procedures**

A descriptions of your instruments , including all surveys, tests, questionnaires, interview forms and other tools used to provide data, should appear in the materials subsection. Evidence of reliability and validity should be presented.

- **Data Analysis**

Present statistical tools employed in the study and treatment and analysis of data.

C. PARTS OF A FULL PAPER

- Title page
- Table of Contents
- Abstract
- Keywords
- Introduction
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- **Results**
- **Discussion**
- **Conclusion**
- **Recommendation**
- **Reference**
- **Appendices**
 - Literature Matrix
 - Variable Matrix
 - Synthesis Tally
 - Data Collection Forms
 - Data Matrix
 - General tables
 - Other supporting materials

D. DESCRIPTIONS OF THE PARTS OF A FULL PAPER FORMAT

TITLE PAGE

- The header includes the **first two or three words of title** positioned at top right, ½” down. **Skip five spaces, then insert the page number.**
- The running head is flush left, with the **abbreviated title** all capitals and no more than 50 characters including punctuation and spaces. The running head appears only on the title page.
- Center the **title of your paper** (approximately 10-12 words and placed in the upper half of the page), **your name**, and **the name of your institution**. Use uppercase and lowercase letters, capitalizing all words of four letters or more, and double-space between lines
- The title of a research work contains the main concepts of the study. It should validly capture the main problem of the study but it should not claim more for the study than it actually delivers.

ABSTRACT

- An abstract should reveal in concise terms what you studied and why, how you went about it, what you found, and the relevance of those findings. "Type the abstract itself as a single paragraph without paragraph indentation (APA, 2009, p. 27). The maximum length should be 200-250 words. Keywords follow the abstract.

KEYWORDS

- Identify words/phrases which are central to the work but are not reflected in the title (other journals allow the use of same words or phrases in the keywords)
- The field/s where your article may be situated (e.g. patient care, cancer, religious studies, student achievement, indigenous education)
- Not more than ten words/phrases

INTRODUCTION

- Start the introduction with a paragraph or two presenting the investigated problem, the importance of the study and an overview of your research strategy.
- The introductory paragraph is usually followed by a review of related literature. Show how your research builds on prior knowledge by presenting and evaluating what is already known about your research problem.
- The main goal in the introduction is to provide a review of the relevant psychological literature, providing definitions and past research findings that inform the reader on your topic. Your goal is for the reader to understand the need for more research in the area (i.e., your proposed study), and to be able to clearly see the reasoning for your hypotheses. You should organize this section of your paper in such a way that you logically build to your study. You aren't just citing research, you are crafting a line of reasoning which leads to your research question. Avoid simply summarizing each of the different studies you read in a "list" type format. Remember this is a paper and you need to present information in a coherent way that moves from the broad to the specific, and in a way that leads the reader to the gap in the literature

you've noticed. You can accomplish this goal in many ways (look through multiple published articles for ideas).

- In the last paragraph of your introduction, state your research problem or statement of the problem. Statement of the problem consists of variables you intend to study and *generally* what you will be asking your participants to do (e.g. "...we plan to administer a survey measuring both variables X and Y to determine if there is a correlation."). Statement of the problem and objectives of the study have the same characteristics but they differ in form because the former is stated in interrogative or question form and the latter, in declarative form. These statements of the problem or objectives of the study should be stated in researchable terms, that is, through appropriate data gathering and statistical analyses, answers to them could be obtained.

METHODS

- The method section includes separate descriptions of the samples, the materials and the procedures . These are subtitles and may be augmented by further sections if needed.
- Describe your sample with sufficient detail so that it is clear what population the sample represents . A discussion of how sample was formed is needed for replicability and understanding of your study.
- A descriptions of your instruments, including all surveys, tests, questionnaires, interview forms and other tools used to provide data, should appear in the materials subsection. Evidence of reliability and validity should be presented. The design of the study, whether it is a case study, a survey, a controlled experiment, a meta-analysis or some other type of research, is conveyed through the procedures subsection. It is here that the activities of the researcher are described , such as what was said to the participants, how groups were formed, what control mechanisms were employed etc. The description is sufficient if enough details is present for the reader to replicate the essential elements of the study. It is important for the procedures to conform to ethical criteria for researchers.

RESULTS

- The results section is where you tell the reader several things about your data and data analysis. First, provide basic descriptive information about the scales you used (report the mean and standard deviation for each scale). If you have more than 3 or 4 variables in your paper, you might want to put this descriptive information in a table to keep the text from being too choppy and bogged down (see the APA manual for ideas on creating good tables). Most central to the Results section, you tell the reader what statistics you conducted to test your hypothesis (-ses) and what the results indicated.
- Include the following in your results section: (in-order)
- Give the descriptive statistics for the relevant variables (mean, standard deviation). The purpose here is to summarize what your data set "looks like" before you examine your hypothesis. As such, the means, etc. you present in this first paragraph should be the overall means for the entire sample rather than the means broken down by condition.

- Provide a brief rephrasing of your hypothesis (es) (avoid exact restatement). Then tell the reader what statistical test you used to test your hypothesis and what you found.
- Explain which findings were in the predicted direction, and which were not (if any). Were differences statistically significant (i.e., $p = .05$ or below)? Don't merely give the statistical numbers without a supporting sentence. You also cannot use statistics as though they were parts of speech (i.e., nouns). For example **do not** write "The correlation between private self-consciousness and college adjustment was $r(60) = -.26, p = .01$." Instead, translate important data into words and provide the statistics as evidence for your reported results. For example, "The negative correlation between private self-consciousness and college adjustment indicated that increased self-consciousness, predicted poor adjustment, $r(60) = -.26, p = .01$."
- However, don't try to interpret why you got the results. Leave that to the Discussion section
- Note that for t-test and ANOVA findings, the "result" consists of the following in the following order: (1) the t (or F) and the p value; and, if significant, (2) the means. In other words, keep the means together with the related significance tests. In addition, for two or three way ANOVA results, you should first report on any main effects (including indicating non-significant effects) and then report on interactions (including indicating non-significant interactions).
- Also, you need to report the following information either in the text of your paper or in a table: statistic (r, t, z, F, etc.), degrees of freedom (if relevant), and the significance level (p value). APA now asks that you also report effect sizes and power statistics.
- For example, if you are reporting a single correlation for the whole results section, report it in the text of the paper as follows:
 - $r(48) = .26, p = .04$ or $r = -.11, n.s.$
 - *Note:* Use n.s. if not significant; if your result is significant, report the exact p-value.
 - If your result was non-significant, but $p < .10$, it is commonly accepted to still talk about the results. You might write something like the following text in your paper: "While the correlation was not significant using the standard alpha level of .05, the p-value was less than .10." But, you must provide a rationale for why you should still be able to discuss this non-significant correlation (e.g, power, effect size issues). You may cautiously interpret such a correlation. Don't make grand conclusions or use strong language based on the existence of a marginally significant finding. Also, you should indicate that a marginal finding is non-significant in a table; only refer to the statistic as "approaching significance" in the text of the paper.
- If putting your statistics in the body of your results section seems to make the section difficult to read (i.e., if you feel the reader is distracted from your results by too many numbers and statistics), consider putting the statistics in a table. For example, with simple bivariate correlations, you should create a correlation matrix. If you include a table, you should, in the text of the result section, refer readers to your table instead of typing out the statistics for each finding.
- You need to report the actual statistics in some way in your result section, but regardless of whether you use a table or type the statistics in the text, you should put sentences describing the results in this section:

- E.g. “As expected, college adjustment was positively correlated with the amount of contact with friends and family members (see Table 1).”
- E.g. “No significant relationship was found between the importance of one's social life and social adjustment to college, $r = -.11$, *n.s.*”
- E.g. “As shown in Table 1, some of my predictions were supported. There was a significant correlation between extroversion and life satisfaction. However, life satisfaction was not significantly related to college adjustment.”
- It is helpful to write the words of the results section first, and then go back to insert the numbers and statistical information. Really - write the words only first. *Then* go back and add numbers.

DISCUSSION

- In your discussion section, relate the results back to your initial hypotheses. Do they support or disconfirm them? Remember: Results do not prove hypotheses right or wrong; they support them or fail to provide support for them.
- **Include the following information in the following order:**
 1. Provide a very brief summary of the most important parts of the introduction and then the results section. In doing so, you should relate the results to the theories you introduced in the Introduction. Your findings are just one piece among many -- resist the tendency to make your results the final story about the phenomenon or theory of interest. Integrate the results and try to make sense of the pattern of the findings.
 2. In the case of a correlational research, be careful not to use causal language to discuss your results – unless you did an experiment you cannot infer causality. However, it would be impossible to fully discuss the implications of your results without making reference to causality. That is fine. Just don't claim that your results themselves are demonstrating causality.
 3. Talk about any limitations relevant to the interpretation of your findings. All studies have weaknesses or qualifications.
 - If your results **did** support your hypothesis, the limitations section often includes a discussion of possible "third variable" explanations, unmeasured mediators, and/or issues with the generalizability of your results.
 - If your results **did not** support your hypothesis, the section on limitations often includes discussion of various features of the study which might be responsible (e.g., operational definitions, self-report biases, unmeasured moderator variables, the size or composition of the sample). Where possible, support your speculation with references.
 - BE SPECIFIC when discussing limitations. For example, if you claim that a third variable might affect your correlation, tell the reader what that third variable is and how it affects the results. If you think that the fact that the use of a convenience sample (and thus, a non-representative/random sample) is a limitation, you must explain what segment of the population might respond differently than did the participants in your sample and why.
 - Speculate about future directions the research could take to further investigate your question. This might relate back to any weaknesses you've mentioned above (or reasons why the results didn't turn out as expected). Future directions may also include interesting next steps in the research.

CONCLUSIONS AND RECOMMENDATIONS

- The conclusion is a paragraph or set of paragraphs which is a direct answer to the main problem of the study. In other words, it is the captured answer of the main problem of the study concisely stated in a paragraph or set of paragraphs.
- Your conclusion should talk briefly about the broader significance of your findings. What do they imply about human nature or some aspect of it? (Don't wildly speculate, however!) Leave the reader feeling like this is an important topic... you will likely refer back to your opening paragraph of the Introduction here and have partial answers or more specific responses to the questions you posed.
- The researcher offers suggestions based on the findings. No recommendations should be given that are not derived from the findings. The last recommendation should include specific studies to be undertaken by other researchers, which builds on the findings of the present study.

E. REFERENCES

1. *Authors & editors.* . List up to seven *authors* to a work; if there are more than seven list the first six, insert an elipsis, then the last author. Invert all *authors'* names, using first & middle initials. With two or more authors place an ampersand > & < before the final name. Note, unless they are serving in place of authors in a reference, *editors' names go in their normal order* (First. M. Last).
2. *Character Spacing.* Space once after all punctuation except inside abbreviations, ratios, and URLs where no space is required (APA, 2009, p. 87). Space once after the periods in references and initials.
3. *City, State..* City and state, province, or country are now required for all cities. Write: Baltimore, MD; New York, NY; Boston, MA; London, England; Paris, France. Use postal abbreviations for states, provinces.
4. *Date.* Use the month-day-year format for full dates, but see the sample references for newspapers.
5. *E-mail* and other "unrecoverable data" are cited as a personal communication, for example: (A. B. Carter, personal communication, April 1, 2005). These do not appear in the reference list.
6. *Titles of Works.* All titles require sentence caps (all words lowercase except for the first word, first word after a colon, and proper nouns). Article titles are not placed in quotes in references (they are when mentioned in the text). Italicize titles of books, reports, working and conference papers, dissertations, and similar documents.
7. Do not drop digits from (elide) inclusive pages numbers, do not write pp. 1234-38, write pp. 1234-1238. The volume number in references to periodicals is placed in italics (but not the issue number, if any).
7. *Title notations.* A note is added to a reference to help identify a source when it is not a conventional article or book. This follows the title after any material in parentheses, in brackets, with the first word capitalized in plain text (APA, 2009, p. 186).

F. APPENDICES

1. Sample of a Literature Matrix

Research Title: **Study Habits and Attitudes of Freshmen Students: Implications for Academic Intervention Programs**

Authors	Major Objective/s Central Question/ Main Problem	Delineated Factors/ Variables/ Themes	Method, Data Gathering Tool, Subjects/Participants	Major Findings
<p>Awang, M. and Sinnadurai (2010). A Study on the Development of Strategic Tools in Study Orientation Skills towards Achieving Journal of Language Teaching and Research, Vol. 2, No. 1, pp. 60-67, Academic Excellence ISSN 1798-4769</p>	<p>The purpose of this research is: to measure: the study orientation skills: and to provide remedial tools in correcting respondents' study orientation skills faults. The research also measures the relationship between study orientation skills and the academic performance among first year students of University Malaysia PAHANG.</p>	<p>Study orientation skills, study habits, study attitudes, academic performance</p>	<p>The measurement of study orientation skills is done by innovating a website based on a survey of study habits and attitudes questionnaire (SSHA); http://portal.ump.edu.my/survey. The students' study orientation skills are analyzed and sorted into three groups of achievement; the higher achiever, normal achiever and lower achiever. The treatment tools comprise of the treatment website; http://portal.ump.edu.my, a textbook (Study Orientation Skills in Action, Ghani format of note-taking, DVD on the study orientation skills and lecture on study orientations skills aspects. The assessment on the academic performance is based on grade point average (GPA) scores of UMP undergraduates from their first semester and second semester results. The research uses Quasi-experimental design with a pre-test and post-test by comparing both group samples.</p>	<p>The finding has shown that the study orientation skills (SOS) website was able to measure SOS effectively among the respondents in the two groups. There is a significant difference in SOS and academic performance between pre-test and post test scores of the respondents. The results also show that there is a correlation between SOS and GPA scores in pre-test and post-test within and between each group.</p>

2. Sample of a Variable Matrix

Research Title: Disparity in Knowledge, Perception, Motivation and Attitude on Prenatal Care among Adolescent and Adult expectant mothers

VARIABLES OR CONCEPTUAL TAGS	TYPE OF VARIABLE (Independent/Exogenous, Mediating/Moderator, Dependent/Endogenous)	OPERATIONAL DEFINITION OF THE VARIABLES	BEHAVIOR OF THE VARIABLES
perception	Independent	The act or faculty of apprehending by means of the senses or of the mind; cognition; understanding.	Positive Negative
Knowledge	Independent	Expertise, and skills acquired by a person through experience or education; the theoretical or practical understanding of a subject.	Positive Negative
Attitude	Independent	A hypothetical construct that represents an individual's degree of like or dislike for an item.	Positive Negative
Motivation	Independent	The driving force which causes us to achieve goals. It is an internal state of being, or an internal condition that activates one's behavior, giving it direction.	Positive Negative
Prenatal care	Dependent	The medical and nursing care recommended for women before and during pregnancy.	Positive

3. Sample of a Synthesis Tally

Example: *Information technology (13), behavioral intentions(5), attitude towards IT use (12), technology adoption model (24), task technology fit (4), technology investment (32), IT beliefs (4), subjective norm (3), technology training (42), innovation diffusion (32), internet usage (29), technology plan (35), self-efficacy (7), technology decision- making (42), technology infrastructure (32), technology support (28)*

Data Collection Form

These consist of questionnaire, interview guide, standardized questionnaire, attitudinaire.

4. Sample of A Questionnaire

Research Title: **Study Habits and Attitudes of Freshmen Students: Implications for Academic Intervention Programs**

Study Habits Questionnaire

Dear Respondents,

The Unlad Dunong Center is conducting a survey of student's study habits and attitudes as basis for developing remediation programs. Please answer completely every item with all sincerity and honesty. Rest assured that all your answers will be held in strict confidentiality.

Thank you.

Unlad Dunong Office

Name: _____ Gender: Male Female
 Department: _____ Course: _____

Parental Involvement

1. Are you living with your parents? Yes No
 If YES, proceed to item No. 3.
2. If No, which of the following is true? (Please check.)
 Staying with relatives in town
 Boarding
 Others (Please Specify) _____
3. How often do your parents monitor you in your studies?
 once a week
 twice a week
 thrice a week
 daily
 none at all
4. Are your parents involved in your learning? Yes No
5. If YES, in what way? (Check all that apply.)
 monitors me in my homework assignments
 supports or tutors me in doing my homework assignments
 helps me in organizing my study plan
 monitors my progress through regular home-school communication

Extracurricular Activities

1. What extracurricular activities are you involved in this year? (Check all that apply.)
 student organization
 athletic sports
 cultural and art shows (e.g. music, dance, plays, etc.)
 inter and intra-school competitions
 community service
 working
 computer games
 others. *Please specify.* _____
2. On the average, how often do you go or hang out with friends?

- a. Daily during my vacant hours
- b. During weekdays after classes
- c. During weekends

Study Pattern

1. Do you have a study plan (a definite schedule to study your lesson)?
 Yes No
2. If Yes, how religious are you in following your study plan?
 Always Often Sometimes
3. Most often, how do you study?
 Alone With a classmate/friend With Group

Directions:

Read the statements carefully and rate yourself in accordance to what you actually do or feel and not what you think you *should* do or feel. Mark your answers on the answer sheet provided. Please do not omit any of the statements.

Use the legend below to determine your answers:

- R**- Rarely (0 to 15 percent of the time)
- S**- Sometimes (16 to 35 percent of the time)
- F**- Frequently (36 to 65 percent of the time)
- G**-Generally (66 to 85 percent of the time)
- A**-Almost Always (86 to 100 percent of the time)

Items	Almost Always	Generally	Frequently	Sometimes	Rarely
1. When my assignment is extra long or difficult, I either quit or study only the easier parts of the lesson.					
2. In preparing reports, term papers, case studies, etc., I make certain that I clearly understand what is required before I begin work.					
3. I feel that teachers lack understanding of the needs and interests of students.					
4. My dislike for teachers causes me to neglect my school work.					
5. When I get behind in my school work for some unavoidable reason, I make initiative to study my missed lessons.					
6. Difficulty in expressing myself in writing slows me down on reports, examinations					

Items	Almost Always	Generally	Frequently	Sometimes	Rarely
and other academic requirements.					
7. My teachers succeed in making their subjects interesting and meaningful to me.					
8. I feel that I would study harder if I were given more freedom to choose subjects that I like.					
9. Daydreaming about dates, future plans, etc., distracts my attention from my lesson while I am studying.					
10. My teachers criticize my written reports as being hastily written or poorly organized.					
11. I feel that when teachers give grades, they are influenced by their personal like or dislike of the students.					
12. Even though I don't like a subject, I still work hard to make a good grade.					
13. Even though an assignment is dull and boring, I stick to it until it is completed.					
14. I give special attention to neatness on reports, assignments and other work to be turned in.					
15. I believe that the easiest way to get good grades is to agree with everything your teachers say.					

- **Data Matrix**

These are the raw data directly taken from the data collection forms that are readily manipulated for data analysis. It also includes the data output generated from the software or ready reference.

5. Sample of a data matrix

Research Title: **The Effect of Workplace Stressors and Coping Strategies in the Job Satisfaction and Health Status among Filipino Nurses**

Perceive Occurrence of Workplace Stressor

Res.	Dep't	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8	Item 9	Item 10	Item 11	Item 12	Item 13
1	Psyche	4	4	3	3	4	4	5	2	3	3	3	2	4
2	Psyche	5	4	3	3	5	3	5	4	3	3	4	5	3
3	Psyche	3	3	3	3	3	3	3	2	3	3	3	2	3
4	Psyche	5	1	2	2	1	2	1	1	4	3	2	3	3
5	Pedia	4	4	2	2	2	5	4	3	4	1	2	2	3
6	Pedia	4	3	3	2	4	4	3	5	4	3	3	2	3
7	Pedia	4	3	3	2	4	4	3	5	4	3	3	2	3
8	Surgery	3	2	4	2	4	4	2	3	5	4	3	2	3
9	Surgery	4	4	3	3	2	5	4	3	3	4	5	4	4
10	Surgery	4	3	4	4	4	4	5	5	4	4	5	5	4
11	OB	5	3	3	4	4	3	5	3	4	5	4	4	4
12	OB	4	3	2	2	2	3	3	4	4	3	3	3	3
13	OB	4	4	3	2	3	3	1	1	1	2	4	4	3
14	OPD	4	3	3	4	3	4	3	4	4	4	3	2	3
15	OPD	4	3	2	3	3	3	3	4	3	2	4	3	2
1	Pedia	3	1	4	3	4	4	5	5	5	5	5	5	4
2	Pedia	3	2	3	2	5	4	1	4	2	5	3	3	4
3	Pedia	4	2	3	3	2	2	3	3	2	3	2	3	3
4	Pedia	4	2	3	3	2	2	3	2	1	2	3	4	3
5	General	3	2	3	3	2	2	3	3	3	2	3	2	3
6	General	4	4	5	4	3	4	4	3	3	3	3	4	4
7	General	3	3	3	4	4	4	5	5	4	5	5	5	5
8	General	3	3	3	3	3	3	4	4	3	4	3	3	3
9	Pay	3	2	3	2	4	5	4	2	4	3	4	2	4
10	Pay	4	3	3	2	4	3	2	4	4	3	3	3	3
11	Pay	3	2	1	1	1	5	3	3	4	3	3	3	3
12	Pay	5	2	5	3	3	4	4	4	4	4	3	5	4
13	ER	4	3	3	3	2	3	3	2	4	2	3	2	2
14	ER	3	4	3	2	2	2	3	1	5	3	3	3	3
15	ER	5	4	5	4	4	5	3	3	3	2	4	2	3

General tables

General tables are specific tables which describe the item per item analysis which were manipulated to come up with tables that were discussed in the result.

6. Sample of a general table

Research Title: The Effect of Workplace Stressors and Coping Strategies in the Job Satisfaction and Health Status among Filipino Nurses

Table 3. Intercor relation of Stressor in the workplace, job satisfaction and health status

Variables	Mean	Median	Descriptive Value	Pearson r
Workplace Stressor	42.23	39	>39 High occurrence of stress <39 Low occurrence of stress	.364*
Job Satisfaction	120.73	90	>90 Higher Job Satisfaction <90 Lower Job Satisfaction	
Workplace Stressor	42.23	39	>39 High occurrence of stress <39 Low occurrence of stress	.128
Health Status	18.33	15	>15 Better Health Status <15 Poor Health Status	

- Significant @ .05

- **Other supporting materials**

These consist of tables that strongly support the general tables shown in the result of the study.

Table 1: Knowledge on prenatal care between adult expectant mothers and the adolescent mothers

Knowledge	Adult Expectant Mothers		Adolescent Expectant mothers	
	Freq	Percent	Freq	Percent
6	4	16	3	12
7	3	12	7	28
8	13	52	13	52
9	4	16	2	8
10	1	4	0	0
Total	25	100	25	100

Table 2: Perception on Prenatal Care between adult expectant mothers and the adolescent mothers

Perception	Adult Expectant Mothers		Adolescent Expectant mothers	
	Weighted	Descripti	Weighted	Descriptive

	mean	ve Value	mean	Value
1. Prenatal care is important and should be initiated early	4.88	Strongly Agree	4.68	Strongly Agree
2. Prenatal care is available and accessible to all pregnant mothers regardless o status	4.28	Agree	4.24	Agree
3. Prenatal care is needed only if a pregnant woman feels it	3.68	Agree	3.52	Agree
4. Pregnancy is a normal event not needing medical supervision	2.8	Disagree	2.88	Disagree
5. Prenatal care is avoidable as long as you maintain a healthy lifestyle	2.4	Disagree	2.56	Disagree
Overall Weighted Mean	3.61	Agree	3.58	Agree

G. (A sample of a quantitative research from Master of Nursing students' research, 2010)

**DISPARITY IN KNOWLEDGE, PERCEPTION, MOTIVATION AND ATTITUDE ON
PRENATAL CARE AMONG ADOLESCENT
AND ADULT EXPECTANT MOTHERS**

Anthony P. Olalia Jr., Donnalisa A. Tuliao, Lyndon P. Duarte and John Paul C. Balisi

Parts	Specifics
Abstract	The study aims to determine the disparity in Knowledge, perception, motivation, and attitude of adult and adolescent expectant mothers towards prenatal care. The data utilized was taken from the survey conducted by the researchers at the City Health Office of Tuguegarao, Cagayan 3500. The study showed a difference in attitude between the 2 groups of respondents with the adult expectant mothers having a more positive attitude towards prenatal care. The disparity in attitude was linked to the differences of motivators but not on the degree of motivation received by the expectant mothers.
Keywords	Prenatal care ,Perception ,Knowledge,Attitude, ,Motivation
Introduction	<p>According to United Nations Children's Fund (UNICEF) Philippines, 160 Filipino women die for every 100,000 births. Among the leading direct causes of maternal deaths in the country are: post-partum hemorrhage, hypertensive disorders of pregnancy, abortion-related complications and obstructed labor (Tulali, C. 2010). The maternal mortality rate is intimately linked to the quality of the health system's prenatal and delivery services.</p> <p>The State of the World's Children 2009 report of the UNICEF, articulated that the Philippines is among 68 countries, which contributed</p>

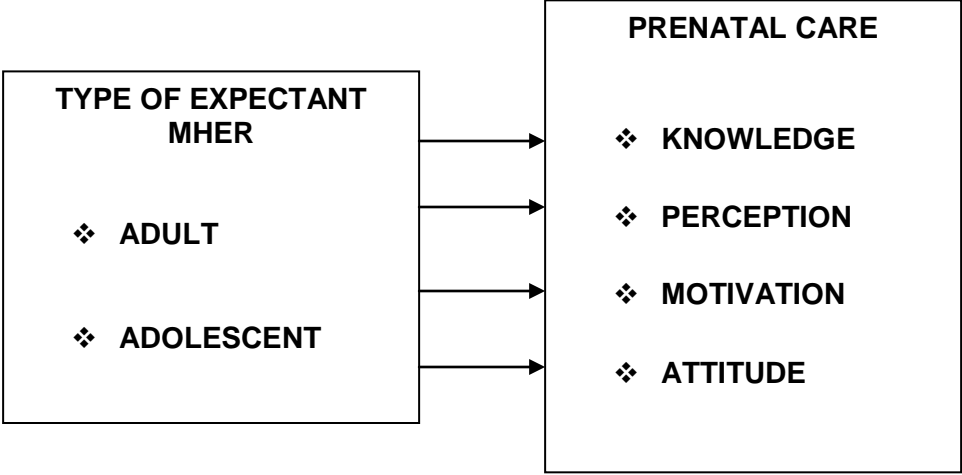
Parts	Specifics
	<p>to 97 percent of maternal, neonatal, and child health deaths worldwide. Statistics also show that almost half of the deaths of Filipino children under five years old are within the first 28 days of life which suggest a lack of concern to maternal health during the prenatal period (Tulali, C. 2010). Complications in childbirth are attributed to hemorrhage, sepsis, hypertension and abortive outcomes, which are actually preventable.</p>
Background of the Study	<p>Based from the article “Healthy Moms, Healthy Babies,” prenatal care is the most important thing a woman should do during her pregnancy (Padilla, L. 2010). Therefore, In an attempt to curb the rising tide of neonatal and pregnancy death due to noncompliance to prenatal care of many women in our nation, the study have been shaped by the researchers to determine the behavior towards prenatal care of expectant mothers, both adolescent and adult. Afterall, pregnant adults do not mirror the obstetric status of all pregnant mothers so as pregnant adolescents do not speak to all pregnancy status. They have differences which makes them more or less compliant with prenatal services.</p> <p>According to Philippines today, 16.5 million Filipinos belong to the 15-24 year old age where 30% of all births belong to this age group that by the age of 20, 25% of the youth are already mothers. The National Statistics Office supports this figure by indicating that at national level, approximately 2 % of all women aged 15-19 were reported to be currently pregnant with their first child. Along with this statistics is an account of the reality that the country’s health system on prenatal and delivery services overlooks the differences in prenatal care requirement among adolescent and adult expectant mothers disregarding the fact that aside from disparity in behavior, young women are the most vulnerable populations in terms of physical and psychological complications associated with pregnancy; hence, they require a different approach to encourage prenatal compliance.</p> <p>According to Rebecca Singson of the Philippine Daily Inquirer (2008), Teenage mothers are less likely to seek regular prenatal care which is essential for monitoring the growth of the fetus. In addition teenage pregnancy is closely associated with a greater risk for malnutrition, abortion, fetal deaths and the acquisition of cervical cancer because of obvious non-adherence to prenatal care. As to why adolescent expectant mothers seemed less compliant is not clearly known but much has to do with their behavior towards the pregnancy.</p> <p>Many extensive studies have been made but little showed factors affecting the differences between the compliance of prenatal care to both adolescent and adult expectant mothers. With the existing gaps in literatures, the researchers therefore decided to conduct a study regarding this aspect with emphasis on the disparity between the behaviors of adult and adolescent expectant mothers which is credited significantly on their present knowledge, attitude, motivation, and perception about prenatal care.</p>

Parts	Specifics
Research Questions	<p>This study aims to answer the following questions:</p> <ol style="list-style-type: none"> 1. Who among the two groups of expectant mothers (adolescent and adult) are more compliant in terms of prenatal care attendance? What makes one more compliant? 2. Do the two groups of expectant mothers have differences in knowledge, attitude, motivation and perception regarding prenatal care? 3. What are the different motivators for prenatal compliance in adult and adolescent expectant mothers? 4. How motivated are the 2 groups of expectant mothers to go for prenatal checkups?
Significance of the Study	<p>Prenatal care is the most important thing a woman should do during her pregnancy. The aim of good prenatal care is to detect any potential problems early, to prevent them if possible, and to direct the woman to appropriate specialists, hospitals if necessary. The availability of routine prenatal care has played a part in reducing <u>maternal death</u> rates and <u>miscarriages</u> as well as <u>birth defects</u>, <u>low birth weight</u>, and other preventable infant problems. Although prenatal care is made available to all women of reproductive age and capacity, many of these women know nothing of their reproductive rights. In some cases, pregnant women disregard the importance of prenatal care for some reasons.</p> <p>Hence, the purpose and importance of this study will look into such factors that make a difference in the observance of prenatal care among adolescent and adult expectant mothers. In doing so, significant information on the hindering and facilitating factors to prenatal care compliance will be elicited and consequently bridge the gap in terms of prenatal care success between these two groups of expectant mothers. This study seeks the necessity of improved prenatal care compliance which would make a significant contribution to the welfare of the woman, the mother, the baby, the family and to the community.</p>
Review Of Related Literature	<p>The purpose of this study was to develop a conceptual model that describes the differences adolescent and adult expectant mothers have in terms of knowledge, motivation, attitude, and perception towards prenatal care compliance. This section takes account of the theory of reasoned action and planned behavior which explains the framework of the research. This chapter generally presents the review of related research of the components of the conceptual model that highlights the disparity of behavior between adolescent and adult expectant mothers towards observance of prenatal care. Included are the relevance of prenatal care in the achievement of a successful labor and delivery experience. An account of the status of prenatal care in the Philippines is also conferred. Predominantly, the literature about the relationship of prenatal care adherence with that of an expectant-mother's respective knowledge, motivation, attitude, and perception on prenatal care are</p>

Parts	Specifics
	discussed individually in this chapter.
Underpinning Theory	<p data-bbox="529 275 1365 306">Theory of Reasoned Action and Theory of Planned Behavior</p> <p data-bbox="529 331 1468 730">The theory of reasoned action states that individual performance of a given behavior is primarily determined by a person's intention to perform that behavior. This intention is determined by two major factors: the person's attitude toward the behavior and the influence of the person's social environment or subjective norm. The theory of planned behavior adds to the theory of reasoned action the concept of perceived control over the opportunities, resources, and skills necessary to perform a behavior. The concept of perceived behavioral control is similar to the concept of self-efficacy -- person's perception of his or her ability to perform the behavior. Perceived behavioral control over opportunities, resources, and skills necessary to perform a behavior is believed to be a critical aspect of behavior change processes.</p>
<p data-bbox="279 739 477 833">Discussion of Literature by Themes</p> <p data-bbox="279 1104 464 1136">Hypothesis 1</p>	<p data-bbox="529 739 906 770">Knowledge and Perception</p> <p data-bbox="529 806 1484 1171">In a study entitled "Factors affecting perception of pregnancy risk in the adolescent" Perception of pregnancy risk, fertility knowledge, and probability-based teaching examples of risk were assessed in 104 primiparous urban adolescents 13–18 years of age in their second and third trimester of pregnancy. Perception of risk was not associated with age, actual frequency of intercourse, or level of fertility knowledge. Sexually active adolescents were surprised at subsequent conceptions. Adolescents were unable to utilize concepts of risk taking, even after concrete examples and teaching techniques had been presented <u>We hypothesized that adolescent expectant mothers perceive prenatal care compliance differently with that of adult expectant mothers.</u></p> <p data-bbox="529 1226 1484 1692">Meanwhile, certified childbirth educators have the ideal preparation for prenatal education, but they likely need to enhance their approach for adolescent clients. First, young mothers in the United States are presenting with increasingly diverse backgrounds, requiring cultural awareness of childbirth educators and others who wish to effectively meet their prenatal health care and education needs. In addition, adolescents who become pregnant are an extremely vulnerable group and, therefore, require special concern. Pregnant adolescents are unique from other groups of pregnant women in all major aspects of assessment: their social environment; their personal, social, and psychological development; and their physical response. Therefore, prenatal care and childbirth education designed for the typical population are unlikely to best serve the pregnant adolescent (Tilghman J, Lovette A. 2008).</p> <p data-bbox="529 1713 1484 1869">Adolescents are more influenced by outside factors such as peer pressure and social status than by their older sisters and mothers. Knowledge about the adolescent developmental stage is important in understanding adolescents' responses to prenatal education and care. Adolescents' perception about prenatal care could be based upon the</p>

Parts	Specifics
<p>Hypothesis 2</p>	<p>influence of peers or parents, which may have an effect on their perception of its relevance, importance, or need. Prenatal educators who identify this perception may find that working with the adolescent's peers (especially other pregnant adolescents) and with parents is an effective way to build a support network for these young clients. <u>Thus, we hypothesized that adolescent expectant mothers have different degree of knowledge regarding prenatal health compared to adult expectant mother</u></p> <p>One way to work toward the best practices in childbirth education for adolescents is to ask them what they would like to know and to learn directly from them what their values are. Cox et al. (2005) implemented a qualitative study with focus groups of six pregnant adolescents and 10 parenting adolescents, ages 16–21 years old, of African American, Latina, and Haitian descent. The researchers collected data over a 6-month period. The teens receiving prenatal care stated they desired comprehensive health care (i.e., care for themselves and their children) in one setting. They also felt most cared for and comfortable if they saw the same provider at each visit. Among the prenatal teens, basic reproductive information, including fetal development and prenatal medical health, was especially important. Department of Health (DOH) data show that poor and uneducated women who are living in rural areas or in urban poor communities have a high risk for neonatal and maternal death.</p> <p>Daniels, Noe, and Mayberry (2006) conducted a qualitative study to identify attitudinal and psychosocial determinants of early prenatal care among African American adolescents who were of low socioeconomic status, aged 16–36 years old, and were attending or had attended local clinics for prenatal care within the past 2 years. The researchers found that early initiators of prenatal care possessed “positive attitudes towards pregnancy, were knowledgeable about pregnancy signs and symptoms and thought prenatal care was important” (p. 192), while late initiators perceived clinical staff to be “insensitive” (p.192). Using the term <i>insensitivity</i> is a way to describe care that is not culturally competent.</p> <p>Childbirth educators can play a primary role in promoting, advocating for, and providing care to two especially vulnerable and needy groups today: pregnant adolescents and, in turn, their infants. Certified childbirth educators who decide to focus on serving pregnant adolescents need to ensure they have assessed the culture of their adolescent population, maintained current knowledge of the unique health risks of pregnancy in adolescence, and evaluated the adolescent and her stage of development. In this way, childbirth educators can provide an extremely valuable and effective service where it is greatly needed and make a positive difference in the lives of young mothers and their babies.</p> <p>Attitude</p> <p>In a study entitled “Adolescent Girls' Attitudes Toward Pregnancy,”</p>

Parts	Specifics
Hypothesis 3	<p>The girls who were ambivalent about pregnancy were not significantly different from the girls desiring pregnancy. In unadjusted analysis, girls desiring pregnancy or who were ambivalent about it were more likely to be Hispanic, unemployed, to not attend school, to live with neither natural parent, and to have lived away from home for more than 2 weeks. In adjusted analysis, the reported attitude of the boyfriend toward having a child was the only significant predictor of adolescent girls' attitude toward pregnancy (July 2010).</p> <p>The best predictor of an adolescent girl's attitude toward pregnancy is her perception of her boyfriends' desire for a baby. Primary care providers should include boyfriends in any efforts to delay pregnancy in at-risk adolescent girls. Teenagers who are ambivalent about whether they want to be pregnant do not differ significantly from those desiring pregnancy, and should be considered just as high risk (Cowley C et.al. 2006)</p> <p>Early adolescent childbearing is associated with a wide range of adverse consequences and restricted life opportunities for young girls and the children they bear. Helping adolescents delay early childbearing has long been a goal of healthcare providers, researchers, and policymakers. Although the adolescent pregnancy rate in the United States is decreasing in most groups, it is still disturbingly high, particularly among Hispanic girls (Cowley C et.al. 2006).</p> <p>Most efforts to prevent or delay adolescent pregnancy have been directed at providing birth control, but this intervention is likely to fail if teens are not interested in preventing pregnancy. Although several studies have examined the factors and motivations underlying adolescent contraceptive behavior, teen attitudes toward pregnancy are still poorly understood. Adolescents may not share the same negative view of their childbearing as do adults concerned with preventing it. Retrospective studies suggest that as many as 60% to 80% of teenage pregnancies are "unintended." Other studies examining pregnant and parenting adolescents' attitudes toward childbearing suggest that the percentage of pregnancies that are truly unintended may be lower than commonly believed.[10,17-19] A significant percentage of never-pregnant adolescents harbor either highly ambivalent or positive attitudes toward early childbearing.[19-21] A better understanding of the factors associated with a desire for pregnancy among adolescents may help health care providers better predict the most at-risk adolescents. <u>Therefore, we hypothesized that adolescent expectant mothers and adult expectant mothers have a disparity in terms of attitude towards prenatal care compliance.</u></p> <p>Motivation</p> <p>In a journal entitled "Pregnant teenagers' reasons for seeking or delaying prenatal care," it says that The informants' self-reported reasons for seeking early prenatal care included feeling ill, being worried about themselves, wanting a pregnancy test, and the teen's mother insisting that she begin prenatal care. Reasons for delaying care included not</p>

Parts	Specifics
<p>Hypothesis 4</p>	<p>recognizing pregnancy symptoms, denying being pregnant, fear of parents' response to the pregnancy, and lack of financial resources. The findings suggest that pregnant adolescents who sought early prenatal care had adequate family support and a stronger knowledge base about pregnancy than those who delayed care. Nurses and other health care personnel in clinical practice should provide information about the symptoms and signs of pregnancy and about the importance of initiating early prenatal care, in all encounters with preadolescent and adolescent girls and their mothers, to increase the likelihood that teens will seek early prenatal care if they become pregnant (1995).</p> <p>In order to achieve compliance one must first gain insight of the matter at hand added with the right motivation, attitude and perception. Adherence to prenatal care is more apt if the person concerned is given information of its importance and the likely consequences when disregarded. Meanwhile, the attitude of the concerned party must also be investigated because it affects how well the person is motivated to perform such role. <u>Thus, we hypothesized that adolescent expectant mothers and adult expectant mothers differ in terms of motivators and the degree of motivation about prenatal care compliance.</u></p>
<p>Research Paradigm</p>	 <pre> graph LR subgraph MHER [TYPE OF EXPECTANT MHER] A[❖ ADULT] B[❖ ADOLESCENT] end subgraph PC [PRENATAL CARE] K[❖ KNOWLEDGE] P[❖ PERCEPTION] M[❖ MOTIVATION] AT[❖ ATTITUDE] end A --> K B --> P A --> M B --> AT </pre>
<p>Methods</p>	
<p>Research Design</p>	<p>This study uses the results of the survey questionnaires made by the researchers, which measures the differences in knowledge, perception, motivation and attitude of adult and adolescent expectant mothers towards prenatal care. The research thus involved the floating of the said questionnaire to expectant mothers who goes for prenatal checkup at the Tuguegarao City Health Office located at Barangay San</p>

Parts	Specifics																																															
<p>Criteria of the selection of respondents</p> <p>Respondents of the Study</p> <p>Sampling Procedure</p> <p>Data Analysis</p>	<p>Gabriel.</p> <p>a. Criteria for the selection of population sample</p> <table border="1" data-bbox="558 348 1477 583"> <tr> <td data-bbox="558 348 1023 449">AGE</td> <td data-bbox="1029 348 1477 449">Adult: 20 – 40 Years of Age Adolescent: 15 – 19 Years of Age</td> </tr> <tr> <td data-bbox="558 449 1023 520">NUMBER OF PREVIOUS PREGNANCIES</td> <td data-bbox="1029 449 1477 520">None</td> </tr> <tr> <td data-bbox="558 520 1023 583">LOCATION OF HOUSEHOLD</td> <td data-bbox="1029 520 1477 583">Within Tuguegarao City</td> </tr> </table> <p>The 25 adult and 25 adolescent expectant mothers who satisfy the above qualification are selected to be representative of Adult and adolescent expectant mothers of the City of Tuguegarao.</p> <p>Purposive Sampling was utilized in which a criterion was utilized in the selection of 2 sample population from the general population of Expectant mothers who goes for check up at the City Health Office of Tuguegarao. The study covered 50 respondents of which 25 are within the age range of 20-40 categorized as adult expectant mother. 25 are within the age range of 15-19 categorized as adolescent expectant mother.</p> <p>T-test for independent sample was employed to determine the significant differences of the knowledge, perception, motivation and attitude between adult expectant mothers and adolescent expectant mothers.</p>	AGE	Adult: 20 – 40 Years of Age Adolescent: 15 – 19 Years of Age	NUMBER OF PREVIOUS PREGNANCIES	None	LOCATION OF HOUSEHOLD	Within Tuguegarao City																																									
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<p>Results</p>	<p>The following tables show the most relevant data which are derived from the survey conducted by the researchers which elaborates the respondents, Knowledge, Perception, Motivation and attitude towards prenatal care.</p> <p>TABLE 1. Significant differences of the knowledge, perception, motivation, and attitude between adult expectant mothers and adolescent expectant mothers.</p> <table border="1" data-bbox="565 1444 1477 1801"> <thead> <tr> <th data-bbox="565 1444 743 1507">Variables</th> <th data-bbox="750 1444 912 1507">GROUP</th> <th data-bbox="919 1444 967 1507">N</th> <th data-bbox="974 1444 1071 1507">Mean</th> <th data-bbox="1078 1444 1143 1507">t-value</th> <th data-bbox="1149 1444 1230 1507">Sig.</th> <th data-bbox="1237 1444 1477 1507">Decision</th> </tr> </thead> <tbody> <tr> <td data-bbox="565 1516 743 1579" rowspan="2">Knowledge</td> <td data-bbox="750 1516 912 1547">Adult</td> <td data-bbox="919 1516 967 1547">25</td> <td data-bbox="974 1516 1071 1547">7.8000</td> <td data-bbox="1078 1516 1143 1547" rowspan="2">.905</td> <td data-bbox="1149 1516 1230 1547" rowspan="2">.370</td> <td data-bbox="1237 1516 1477 1547" rowspan="2">Accept Ho</td> </tr> <tr> <td data-bbox="750 1547 912 1579">Adolescent</td> <td data-bbox="919 1547 967 1579">25</td> <td data-bbox="974 1547 1071 1579">7.5600</td> </tr> <tr> <td data-bbox="565 1587 743 1650" rowspan="2">Perception</td> <td data-bbox="750 1587 912 1619">Adult</td> <td data-bbox="919 1587 967 1619">25</td> <td data-bbox="974 1587 1071 1619">20.0400</td> <td data-bbox="1078 1587 1143 1619" rowspan="2">.193</td> <td data-bbox="1149 1587 1230 1619" rowspan="2">.848</td> <td data-bbox="1237 1587 1477 1619" rowspan="2">Accept Ho</td> </tr> <tr> <td data-bbox="750 1619 912 1650">Adolescent</td> <td data-bbox="919 1619 967 1650">25</td> <td data-bbox="974 1619 1071 1650">19.8800</td> </tr> <tr> <td data-bbox="565 1659 743 1722" rowspan="2">Motivation</td> <td data-bbox="750 1659 912 1690">Adult</td> <td data-bbox="919 1659 967 1690">25</td> <td data-bbox="974 1659 1071 1690">28.4800</td> <td data-bbox="1078 1659 1143 1690" rowspan="2">.470</td> <td data-bbox="1149 1659 1230 1690" rowspan="2">.641</td> <td data-bbox="1237 1659 1477 1690" rowspan="2">Accept Ho</td> </tr> <tr> <td data-bbox="750 1690 912 1722">Adolescent</td> <td data-bbox="919 1690 967 1722">25</td> <td data-bbox="974 1690 1071 1722">29.1600</td> </tr> <tr> <td data-bbox="565 1730 743 1793" rowspan="2">Attitude</td> <td data-bbox="750 1730 912 1761">Adult</td> <td data-bbox="919 1730 967 1761">25</td> <td data-bbox="974 1730 1071 1761">59.4800</td> <td data-bbox="1078 1730 1143 1761" rowspan="2">3.325</td> <td data-bbox="1149 1730 1230 1761" rowspan="2">.002</td> <td data-bbox="1237 1730 1477 1761" rowspan="2">Reject Ho</td> </tr> <tr> <td data-bbox="750 1761 912 1793">Adolescent</td> <td data-bbox="919 1761 967 1793">25</td> <td data-bbox="974 1761 1071 1793">53.4400</td> </tr> </tbody> </table> <p>It is only the attitude towards prenatal care that caused the difference between adolescent expectant mothers and adult expectant mothers.</p>	Variables	GROUP	N	Mean	t-value	Sig.	Decision	Knowledge	Adult	25	7.8000	.905	.370	Accept Ho	Adolescent	25	7.5600	Perception	Adult	25	20.0400	.193	.848	Accept Ho	Adolescent	25	19.8800	Motivation	Adult	25	28.4800	.470	.641	Accept Ho	Adolescent	25	29.1600	Attitude	Adult	25	59.4800	3.325	.002	Reject Ho	Adolescent	25	53.4400
Variables	GROUP	N	Mean	t-value	Sig.	Decision																																										
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Parts	Specifics
	<p>Other variables such as knowledge, perception and motivation did not cause any variation between the two groups of respondents. Nevertheless, based on the survey although there were no significant differences in knowledge and perception, the adult expectant mothers apparently had higher results in the examination and had showed a slightly more positive perception on prenatal care. The adolescent expectant mothers on the other hand showed a higher degree of motivation compared to adult expectant mothers; the difference was not that significant though.</p>
<p>Discussion</p>	<p>In terms of motivation both adult and adolescent expectant mothers are fairly motivated to comply with their prenatal care check-up. The difference lies on their motivators. The primary motivators identified by the respondents are the Husband / Partner for adult expectant mothers and the Baby for adolescent expectant mothers. On one hand, the least significant motivators for adult and adolescent expectant mothers are the Health Care Provider and the family, respectively.</p> <p>A substantial number of studies with various populations report that social support exerts a positive impact on a pregnant woman's psychological well-being, as well as on the health of her newborn (Carmichael et al., 2003; Dunkel-Schetter et al., 2001; Feldman et al., 2000). However, as shown in the table above, in the case of adolescent expectant mothers the primary motivators identified do not necessarily come from social support systems. In fact, the adolescent expectant mothers identified family, health care providers and friends as the least factor that encourages them to comply with their prenatal care responsibility; while, the baby, herself and her health which relies independently on the mother are the top three motivators. Lacking social supports from friends and family means that the motivation should come from the person herself.</p> <p>Studies stated that some teenage parents are lucky enough to have the support of their family, but this isn't always the case. For some, judgement from their parents or family members means that they go through this difficult time with little, if any, support. While older parents get to celebrate their pregnancy and the birth of a child, many teenage parents miss out on the celebration because they are busy 'dealing with it' or making the most of their 'mistake.' In addition, teenage years are a time of socialising and building friendships, but the responsibility of bearing a child means many teenage parents lose all social contact with their peers. While friends may visit in the short term, the inability to just drop everything and go means that friendships change. Many pregnant teens feel like they no longer fit in with their peers.</p> <p>Adolescents are more influenced by outside factors such as peer pressure and social status than by their older sisters and mothers. Knowledge about the adolescent developmental stage is important in understanding adolescents' responses to prenatal education and care. Adolescents' perception about prenatal care could be based upon the influence of peers or parents, which may have an effect on their perception of its relevance, importance, or need. Prenatal educators who</p>

Parts	Specifics
	<p>identify this perception may find that working with the adolescent's peers (especially other pregnant adolescents) and with parents is an effective way to build a support network for these young clients.</p> <p>According to the Department of Health (DOH), <u>as many as 17 percent of all unsafe abortions in the country are done on teenage or young mothers. The reasons identified as to why teens most often give</u> for having an abortion are; not wanting their lives changed by the birth of a baby, not being able to afford a baby, and not feeling mature or responsible enough to raise a child. In addition to this, those who continue with their pregnancy have seemingly immense concern and compassion to their unborn child that they look past the difficulties of having a child at a young age. These expectant mothers then develop a sense of responsibility over their pregnancy most particularly their baby/babies, hence; they are motivated to go for prenatal checkups.</p> <p>Meanwhile, for adult expectant mothers the prime motivator identified is the partner or husband. This is in relation to the reality that most of the pregnancies that happen in this age group are planned; hence, the husband or partner has all out support to the mothers pregnancy. Having planned the pregnancy also means that the adult expectant mothers look forward to having a baby, hence it becomes a great motivation to go for prenatal checkup. As they look forward to having a child, they also make sure that they maintain healthy well aware that many complications and possible illnesses may happen which can be detrimental to the child as well as the baby. (Ezine, A. etal 2010).</p> <p>In terms of attitude, there is a significant difference in the attitude of adult and adolescent expectant mothers. The adult expectant mothers displayed a more positive attitude. Based from the result of the survey on the expectant mothers' attitude toward prenatal care, the adult expectant mothers seemed more compliant in terms of coming to the clinic early, attending every scheduled prenatal check-up, and following the physician's orders. The result of the survey also reveals that the adult expectant mothers are more health conscious now that they are pregnant. In fact, they reported that they take their prenatal supplements faithfully as prescribed by the physician. In addition the adult respondents also are less worried about the financial cost of prenatal care.</p> <p>Similarities seen among the respondents may it be adult and adolescent expectant mothers are; both respondents don't mind the long clinic waits. In terms of the prenatal check-up hindering their school/work schedule and whether they care if the obstetrician is a man both group of respondents answered sometimes. Both respondents moderately fear medical procedures as well as the other's reaction to the pregnancy while they both agreed that they never feared health providers.</p> <p>Daniels, Noe, and Mayberry (2006) conducted a qualitative study to identify attitudinal and psychosocial determinants of early prenatal care among African American adolescents who were of low socioeconomic status, aged 16–36 years old, and were attending or had attended local clinics for prenatal care within the past 2 years. The</p>

Parts	Specifics
	<p>researchers found that early initiators of prenatal care possessed “positive attitudes towards pregnancy, were knowledgeable about pregnancy signs and symptoms and thought prenatal care was important” (p. 192), while late initiators perceived clinical staff to be “insensitive” (p.192).</p> <p>Many researches supported the idea that the best predictor of an adolescent girl’s attitude toward pregnancy is her perception of her boyfriends’ desire for a baby. Primary care providers should include boyfriends in any efforts to delay pregnancy in at-risk adolescent girls. Teenagers who are ambivalent about whether they want to be pregnant do not differ significantly from those desiring pregnancy, and should be considered just as high risk. The research conducted by Carol Cowley, MSN, NP and Tillman Farley, MD of Brighton and Fort Lupton, Colorado found out that the strongest predictor of an adolescent girl’s attitude toward pregnancy was her stated belief about whether her boyfriend wanted a baby. In light of the powerful influence of the girl’s perception of her boyfriend’s attitude toward pregnancy, no other factors are significantly associated with her own attitude toward pregnancy. This finding suggests that family physicians and other health care providers working with teenaged girls should include the boyfriend in any discussions aimed at delaying pregnancy. This explains the seemingly less positive attitude of the adolescent respondents on prenatal adherence; they receive less motivation from social support systems including their partner’s. the adult however has more favorable amount of motivation from social support like the family, peers and her partner (see table 2).</p> <p>Girls ambivalent about pregnancy are markedly similar to those desiring it, differing only in the degree to which they believe their partner want a baby. It may be that some of the ambivalence about pregnancy arises from a difference of opinion between the girl and her support systems. Girls ambivalent about pregnancy were least likely to know others true opinion on the subject. It may be that young girls who are ambivalent about pregnancy are also those with more limited interpersonal communication skills, making it difficult for them to discuss critical reproductive health issues with their families or their partners. Health care providers may have a role in facilitating improved communication by specifically addressing family and partner communication when seeing girls individually, as well as by inviting members of the family or the partner to be present and more actively involved in clinic visits. More appropriate and effective interventions may be those that explore the extent to which her social support attitudes shape her own critical reproductive health decisions, and encourage greater dialogue between a girl and her partner with respect to contraceptive and childbearing decisions.</p> <p>Childbirth educators can play a primary role in promoting, advocating for, and providing care to two especially vulnerable and needy groups today: pregnant adolescents and, in turn, their infants. Certified childbirth educators who decide to focus on serving pregnant</p>

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	<p>adolescents need to ensure they have assessed the culture of their adolescent population, maintained current knowledge of the unique health risks of pregnancy in adolescence, and evaluated the adolescent and her stage of development. In this way, childbirth educators can provide an extremely valuable and effective service where it is greatly needed and make a positive difference in the lives of young mothers and their babies.</p>
Conclusion & Implications	<p>In terms of attending scheduled clinic visits for prenatal care the adult expectant mothers were more faithful; hence, adherent. Overall, the adult respondents showed more positive attitude on prenatal care while they both have almost equal degree of perception, motivation and perception towards prenatal care compliance.</p> <p>Much of the difference on the attitude lies on the respondents' disparity when it comes to motivating factors. As several studies suggest, a more positive attitude towards prenatal care is significantly related on encouragements coming from support systems, most especially that of the partner. This is supported by the result of the survey which reveals that adolescent expectant mothers rely primarily on their own as motivation to continue with their pregnancy and their responsibility to adhere with prenatal care. Social support like the family, friends and the partner as motivation to comply with prenatal care was more observed with adult expectant mothers. In this group of expectant mothers, the husband usually comes along to their clinic visit which is a great show of support to the pregnancy and the responsibility to prenatal care.</p> <p>The result of the research is of significant importance to initiate a plan for continuing obstetric care that merges adolescent-oriented and adult oriented prenatal care. Basing from the result of the survey effective orientation to prenatal care is one that address family and partner communication particularly to adolescent expectant mothers. Inviting members of the family or the partner to be present and more actively involved in clinic visits, is a must to allow for an outlet of positive perception towards prenatal care particularly to the partner. More appropriate and effective interventions may be those that explore the extent to which her social support attitudes shape her own critical reproductive health decisions, and encourage greater dialogue between a girl and her partner.</p>
Recommendations	<p>The following are recommendations for future researches similar to this one</p> <ol style="list-style-type: none"> 1. Conduct the survey and interview at the respondent's home as much as possible. This is to avoid the rushing of the interview as well as the answering of the questionnaires. This will also limit the interference to the respondent's clinic visits. 2. Translate the questionnaire in a language that is easier for the respondents to comprehend.

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	3. Include data from the respondents OB book. This is to monitor more closely if the pregnant mother really adhere to the scheduled prenatal exams as well as the necessary health adjustments during pregnancy.

H. (A sample of a quantitative research from *The Journal of Educational Research* 94, No.1 October, 2000)

COGNITIVE, AFFECTIVE, PERSONALITY AND DEMOGRAPHIC PREDICTORS OF FOREIGN LANGUAGE ACHIEVEMENT

Anthony J. Onwuegbuzie, Philip Bailey, Christine E. Daley

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Abstract	<i>The ability of cognitive, affective, personality and demographic variables to predict second language acquisition among college students was investigated. An all possible subsets of regression analysis was used to compare the proportion of variance in foreign language achievement explained by each variable. The analysis revealed that variables from each of the 4 domains were important predictors of foreign language achievement. Overall, academic achievement as measured by GPA average was the best predictor, explaining 11.5% of the variance in foreign language achievement. Foreign language anxiety, the next best predictor, explained 10.5% of the variance. The educational implications of these findings for understanding foreign language achievement are discussed along with suggestions for future research.</i>
Keywords	cognitive variable, affective variable, personality variable, demographic variable, foreign language achievement
Introduction	<p>Foreign language instructors are accustomed to observing a wide range of performance in their courses. Whereas, some students excel in learning a foreign language, many students underachieve, or do not achieve their desired level of proficiency. In an attempt to understand that phenomenon, researchers have investigated a multitude of factors that may affect language learning. Although Ehrman and Oxford (1995) noted that majority of those studies focused on cognitive variables (e.g. language aptitude, cognitive ability, study habits), affective (e.g. anxiety, self-perceptions), personality(e.g. locus of control, individualism, and demographic (e.g. age, number of previous foreign language studied) variables also seem to be related to foreign language achievement (Ehrman & Oxford, 1995; Gardner, Tremblay, & Masgoret, 1997).</p> <p>Only a few studies have examined the role of cognitive, affective, personality, and demographic variables concurrently. Gardner et. al (1997) stated that “ there is a lack of research examining the relationships among all those variables simultaneously “ (p.344). two studies that investigated the relationship of several classes of variables to foreign</p>

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	<p>language achievement are Gardner et al (1997) and Ehrman and Oxford (1995). Specifically , Gardner et al. (1997) found substantial relationships between foreign language achievement and non-cognitive variables. Those authors noted that when foreign language achievement in French classes is assessed using relatively objective measures that are administered at the same time as other measures, foreign language anxiety, self confidence and perceived foreign language ability are most highly related to achievement. Unfortunately, Gardner et al. tested 34 variables simultaneously with only 102 participants. Because the subject to variable ratio was only slightly more than 3:1, less than 5:1 minimum recommendation for multivariate analysis(Thompson, 1990), the subsequent path coefficient likely were unstable.</p> <p>Ehrman and Oxford (1995) , whose students comprised a large sample o adults enrolled in intensive training language courses at te Foreign Service Institute, reported that cognitive variables exhibited the strongest correlation with foreign language achievement, followed by the affective actors, then personality variables. However, because those authors reported only zero order correlation coefficients, the impact of each variable was considered in isolation. As such, it is not clear how each o the variables relates to foreign language achievement in the presence of other factors. Moreover, no comparisons were made with respect to the proportion o variance explained in foreign language achievement. That consideration is potentially important because, as Pedhazur (1982) noted, "Inspection of zero order correlation is not sufficient to reveal the potential usefulness of variables when they are used simultaneously to predict and explain a dependent variable (p.104).</p> <p>Thus, the purpose of the present study was to examine further the role o various cognitive, affective, personality and demographic variables in foreign language achievement. That is, we investigated which variable domain best predict second language acquisition among college students by comparing the proportion o variance in foreign language achievement explained by each possible combination of factors. Proportion of variance explained is the measure of effect size recommended for regression analyses by research methodologies and statistician (Cohen, 1988) . the study used the following three cognitive variables: overall academic achievement (as measured by GPA), study habits, and student's expectations of their performance in a foreign language course. In addition, four affective variables namely , foreign language anxiety, perceived intellectual ability, perceived scholastic competence and perceived self-worth were used. The four personality variables comprised level of cooperativeness, competitiveness, individualism and locus of control. Finally the following seven demographic factors: gender, age, semester course load, number of countries visited, number of high school foreign language courses taken, status of present foreign language course (i.e. required or elective) and foreign language proficiency of immediate family members were considered. Thus, 18 independent variables were selected to keep the ration o the participants to variables greater than 10to 1(i.e. 184 students to 18 variables) which exceeds the minimum recommended ratio in multiple regression analyses for obtaining reasonably stable effect size estimates. (Tabachnick & Fidell, 1989).An</p>

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	<p>extensive review of the literature revealed that the majority of studies published in the area o foreign language achievement reported an inappropriate subject variable ratio.</p>
<p>Literature Review</p> <p>Theoretical Framework</p>	<p><i>Cognitive Variables</i></p> <p>According to Sparks and Gauschow (1991, 1993a, 1993b), the acquisition of foreign language is impeded primarily by native language learning difficulties in mastering the phonological, syntactic, and semantic codes of language. As such, those authors contend that affective variables (e.g. anxiety) are not causes of foreign language learning problem but are side effects o having difficulties coding the native language (Sparks & Gauschow, 1991, 1995). Sparks and Gauschow first termed that theory <u>the Linguistic Coding Deficit Hypothesis (, Spark & Gauschow , 1991, 1993a, 1993b) before renaming it the Linguistic Coding Differences Hypothesis(LCDH; Sparks and Gauschow 1995)</u>. Apparently, the LCDH is based on the work of Velutino and Scanlon (1986) who found that poor readers have difficulty processing the formal and structural characteristics of written and spoken words.</p> <p>According to Sparks and Gauschow (1995) , support for the LCDH stems from comparisons of low and high achieving foreign language learners, which have revealed consistently that the former have significantly lower levels of native language ability and foreign language aptitude. Because college students with native language deficits (i.e. differences) tend to have lower levels of overall academic achievement tan do their counterparts, one may reasonably assume, to the extent that the LCDH prevails, students’ overall GPA would be related to foreign language performance. That is, students with overall GPA would be related to foreign language performance. That is, students with overall high academic achievement also tend to have the native language aptitude that were found by Sparks and Gauschow (1991, 1993a, 1993b, 1995) to predict high levels o foreign language achievement. One would expect that finding to be true especially at universities like the one in the current study, where the vast majority of foreign language students are enrolled to fulfill a Bachelor of Arts degree requirement for majors that traditionally require stronger verbal skills. Positive relationships between mathematics proficiency and foreign language achievement and between reading performance and foreign language achievement have been reported (Hart, 1993). Yet surprisingly, to date no study appeared to have used GPA to investigate the relationship between second language acquisition and academic achievement at the college level.</p> <p>Research has shown repeatedly that the most successful learners are those who use learning strategies that tend to be the most optimal for second language acquisition (Ehrman, 1989; Ehrman and Oxford, 1990; Oxford, 1989; Oxford and Crookhall, 1989; Skehan, 1989). Because learning strategy use is a component o study habits, it is likely that the latter would be related to foreign language achievement. Oxford (1989) noted that” language learning strategy research has suffered from an overemphasis on metacognitive and cognitive strategies, which are admittedly very important, at the expense o other strategy types that are</p>

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<p>Hypothesis 1</p>	<p>also very useful”(p.2). hus, the inclusion of study skills in the present investigation represents an attempt to use a more global measure of learning strategies to respond to that concern. A positive relationship between study skills and academic performance has been reported consistently in the literature. (Al-Hilawani & Sartawi, 1997; Blustein et al, 1986; Jones & Slate, 1992). Moreover, Jones, Slate, Perez and Marini (1996) concluded on the basis of a series of studies conducted by Jones and Slate (1992) that study skills account for approximately 15% of the variance in undergraduate students’ grades. Onwuegbuzie, Slate, Peterson, Watson, Schwartz (2000) documented that study habits explain approximately 5% of the variance in achievement in research methodology courses. <u>We hypothesized that study habits would be related to foreign language achievement.</u></p> <p>Gauschow and Sparks (1991) noted that students’ perceptions of the ease of learning foreign languages are the foremost indicators of their propensity to experience foreign language difficulties. According to Horwitz (1990), students enroll in foreign language classes with pre-conceived beliefs about how to learn a language, together with expectations as to their ability to accomplish the task. Apparently those beliefs and expectations can affect students’ foreign language performance. Gauschow et. al. (1994) theorized that negative beliefs and expectations possessed by some students enrolled in foreign language classes have been acquired because their written and oral language skills have prevented them from attaining the same levels o academic achievement as their counterparts who competently use their native language. Furthermore, the low expectations of many foreign language students make them unreceptive to language input. thereby, debilitating the learning process (Krashen, 1980). Students’ expectations of their final grades also are likely a measure of their confidence in learning foreign languages, which Clement and his colleagues (Clement, 1980; Clement & Kruidenier, 1985; Clement, Dornyei, & Noels, 1994) have shown is related positively to achievement. Onwuegbuzie, Bailey and Daley (1999) found that students ‘ expectations of their future performance is the best predictor o their level of language anxiety. Thus, <u>we hypothesized that students’ expectations of their achievement in foreign language courses may be related positively to their ultimate performance.</u></p>
<p>Hypothesis 2</p>	<p><i>Affective Variables</i></p> <p>A myriad of studies have documented that language anxiety is one of the primary predictors of second language acquisition (Horwitz, Horwitz, & Cope, 1986; MacIntyre & Gardner, 1989, 1991a, 1991b). Specifically, a moderate negative relationship between language anxiety and various measures of foreign language achievement consistently has been found (Gardner, Lalonde, Moorcroft, & Evers, 1987; Gardner & MacIntyre, 1993; Gardner, Moorcroft, & MacIntyre, 1987; Gardner, Symthe and Lalonde, 1984; Horwitz, et al, 1986; Macintyre & Gardner, 1991c; Mettler, 1987; Philips, 1992; Price, 1991; Trylong, 1987; Young, 1986). Moreover, Gardner and MacIntyre (1991) found that language anxiety is the best</p>

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Hypothesis 3	<p>single correlate of achievement. Foreign language anxiety has been related to performance in oral examinations (Philips, 1992; Scott, 1986), to production of vocabulary (Gardner, Moorcroft, & MacIntyre, 1987), and to teachers' ratings of achievement (Trylong, 1987). Because foreign language anxiety appears to be one of the best predictors of foreign language achievement (Gardner, 1985), any model that seeks to predict foreign language achievement that does not include a measure of foreign language anxiety likely would be underspecified.</p> <p>Horwitz et al (1986) contended that perhaps no other field poses as much of a threat to students' self concept as does language study. Clement and his associates (Clement, Dornyei & Noels, 1994; Clement, Gardner, & Smythe, 1977, 1980; Clement & Kruidenier, 1985) found that self-confidence tend to have lower motivation to learn a foreign language (Clement, 1980). because perceptions o self-confidence with respect to foreign language learning also have been found to be related to foreign language achievement (Clement et al, 1994), other sefl-perception dimensions may play a role in foreign language classes. in particular, <u>we hypothesized that perceived intellectual ability , perceived scholastic competence, and perceived self-worth may be predictors of foreign language achievement.</u></p> <p><i>Personality Variables</i></p> <p>A review of the literature examining personality variables and foreign language achievement yielded reductive and oversimplified theoretical frameworks that resulted in meager results (Dunkel, 1947; Kawczynski, 1951). However, even studies that included many potential personality factors have generated few significant findings. Lalonde and Gardner (1984), for example, examined 18 personality measures taken from the Jackson Personality Inventory (Jackson, 1974) and found that the only significant relationship was a negative one between innovation, a characteristic of person who value new ideas and achievement. This study may have suffered from lack of situation-specific focus in some of the measures , suggesting that Lalonde and Gardner may have been premature in their conclusion that personality plays no direct role in foreign language achievement.</p> <p>Other researchers since Lalonde and Gardner have highlighted some significant relationships. For example, social interdependence has been found to play a role in the foreign language learning context. Specifically, Reid (1987) reported that foreign language students typically do not report being engaged in cooperative learning activities. Oxford (1989) contended that the lack of opportunity may stem form the fact that many foreign language instructors, consciously or unconsciously, incorporate instructional methodologies that promote competition and deemphasize cooperation. Limited research (Gunderson & Johnson , 1980; Jacob & Mattson, 1987;;Sharan et al., 1985) has shown that when students are taught specifically to be cooperative , their foreign language skills tend to improve, as do their motivation levels ,altruism, and attitudes towards peers.</p> <p>Furthermore, the fact that foreign language may be the subject</p>

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Hypothesis 4	<p>most necessitates continual evaluation by the instructor, as well as regular and overt peer evaluation because of its emphasis on public speaking, may often give students the impression that their foreign language competence is being rated against that of their peers (Horwitz et al, 1986). Thus, it is likely that level o social interdependence may play a role in determining the levels of foreign language achievement. Because no prior research has examined the roles of individualism, competitiveness, and cooperation within the same study, we investigated their simultaneous contributions to student performance. Oxford (1990) indicated that the three components” deserve far greater attention that they have received from researchers and teachers”(p.44)</p> <p>Locus of control is considered to be a primary factor in determining the level of academic achievement among college students (Linder & Janus,1997), high school students (Sterbin & Rakow, 1996), and even at risk students (Whilhite, 1990). That phenomenon is defined as a polar construct in which individuals attribute their successes and failures either to their own behavior (i.e. internal locus o control) or to external factors that they cannot control (i.e. external locus o control; Tomlinson, 1987). In her qualitative analysis of student interviews, Price (1991) found that the “discrepancy between effort and results” led even some high achieving students” to feel less in control in language classes than in other courses” (p. 105). Thus, <u>we hypothesized that locus o control may be a predictor o foreign language achievement.</u></p> <p><i>Demographic Variables</i></p> <p>Oxford (1993) reported that gender differences exist with respect to language learning strategies. Specifically, women tend to use more conscious strategies. In particular, women are more apt to use strategies that are metacognitive (i.e. planning, evaluating and organizing); affective (i.e. emotional and motivational); and social (Oxford, 1993). Women also have been found t posses better listening skills than men (Larsen-Freeman & long, 1991); however, few studies at the college level have compared the foreign language performance of men and women . gender comparisons conducted on the language development o first language learners have led to evidence that women have a greater propensity for native–language learning than do men. Among the explanations provided to explain the gender differences, the neurolinguistic and socialization theories appear to be the most popular. Wit respect to the former theory, some researchers (Kimura, 1987) contended that the advantage that women have over men regarding native language development results men’s brains being more laterized than those of women. According to those theories, the language centers of men are more concentrated in the left hemisphere, whereas, for women , they are more globally represented.</p> <p>Regarding socialization, Chambers, 1995 and Tannen (1991) posited that the superiority of women over men in language development stems from their greater motivation and determination to conform to social structures and norms through language. those authors argued that women are more socially sensitive in their language use. Chambers</p>

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Hypothesis 5	<p>(1995), who reviewed the literature in that area, concluded that women tend to use “fewer stigmatized and non-standard variants than do men of the same social group in the same circumstances” (p.103). Those theories of native language learning, coupled with the limited research on learning strategies on second language learning, <u>led us to hypothesize that women may have higher levels of foreign language achievement than men do.</u></p> <p>Scarcella and Oxford (1992), Schleppegrell (1987) and Singleton (1989) found that age is related to second language acquisition. According to Ehrman and Oxford (1995), younger students are more likely to attain fluency learning a foreign language, whereas older individuals are more able to comprehend and to apply grammatical rules and to bring their extensive life experiences into the foreign language into the foreign language learning context. Oxford (1992) theorized that the relationship between age and foreign language achievement depends on the stage at which the language is being learned, the prior experience of the student, the level of cognitive maturity, and the mode in which the language is being received, as well as various other social-psychological factors.</p> <p>Lieberman (1984) and Newport (1986) reported that the ability to acquire mastery of the fine points of language such as phonology and morphology, as well as the capacity to speak a second language without an accent, deteriorates severely with age. Moreover, it is possible that older adults perform more poorly than do their younger counterparts on a variety of cognitive tasks in which a quick response is needed as is often the case when learning a foreign language-in part because of situational and motivational variables that are extraneous to ability. According to Onwuegbuzie, Bailey and Daley (1999), cautiousness is one such extraneous ability variable, in which lower levels of second language performance reflect, in part, students’ reluctance to pronounce, translate, or to write words in the target language about which they are uncertain. Research suggests a positive relationship between cautiousness and age past adulthood (Schaie & Gribbin, 1975). In addition, experimental studies indicate that older adults tend to make more errors of omission than commission (Okun, 1976; Okun, Siegler, & George, 1978). Given those findings, together with the results of Onwuegbuzie et al. (1999), that older students tend to have higher levels of foreign language anxiety, <u>we hypothesized that there may be a negative relationship between age and foreign language achievement.</u></p>
Hypothesis 6	<p>Because foreign language courses often are rated by students as being among the most difficult in their degree programs (Onwuegbuzie et al, 1999), those who carry a heavy semester course load while enrolled in foreign language classes likely will have insufficient time to learn the target language. It is logical to expect that the more courses that students take overall, the more likely they will be to underachieve in foreign language courses because of competing demands for study time. Thus, semester course load was included in the study as a potential predictor of foreign language achievement. <u>Also, we hypothesized that elective status of the course may be related positively to foreign language achievement.</u></p>
Hypothesis 7	<p>Research has shown repeatedly that language aptitude is positively related to foreign language achievement (Gardner et al, 1997). Sparks and Gauschow (1991) and Sparks, Gauschow, and Patton (1995)</p>

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Hypothesis 8	<p>argued that language aptitude is the foremost predictor of foreign language achievement . Thus, because it is reasonable to assume that the more high school foreign language courses a student takes, the greater her or his language aptitude, we hypothesized that the former also may be a predictor o second language acquisition.</p> <p>Motivation refers to a student's attitude, interest, and effort to learn a foreign language (Gardner et al, 1997).According to Gardner and his colleagues(Gardner, 1985;Gardner et al, 1997) , motivation plays a fundamental role in foreign language learning. Oxford and Shearin (1994) theorized that motivation levels will be high only if students expect to succeed and value that success. Because students who take foreign language classes as an elective are more likely to expect success or to value the learning context that are students who take these classes as a degree requirement, the former will likely experience higher levels o achievement.</p> <p>Similarly, one may assume that students have visited many foreign countries and shoes immediate family speak one or more foreign language proficiently are more inclined to appreciate the benefits of foreign language acquisition, and, consequently, are more motivated to learn a language than are their counterparts. That is, it is likely that the number of foreign countries visited by an individuals is an indication of levels of integrative motivation. According to Clement (1980) integrative motivation pertains to individuals' positive affective predisposition toward the second language community. Clement (1980)theorized that, provided that contact with members of the target language is positive, the more frequent the contact, the more motivated an individual will be to learn the foreign language and the more confident he or she will be to use it. Thus, <u>we hypothesized that the number of countries visited and the foreign language proficiency of immediate family members may be related positively to foreign language achievement.</u></p>
Method	
<i>Participants</i>	<p>The sample comprised 184 students enrolled in Spanish (60.3%), French (27.2%), German (9.8%), and Japanese (2.7%), introductory, intermediate, and advanced courses at a midsouthern university. Students participated voluntarily and were required to sign an informed consent documents. A Kruskal Wallis one way analysis of variance (ANOVA) revealed no differences in foreign language achievement ($p>.05$) among students enrolled in the four language areas. In addition, ANOVA revealed no achievement differences ($p>.05$) with respect to level of courses (i.e introductory, intermediate, and advanced). Therefore, the responses o all participants were combined.</p> <p>The ages o the respondents ranged from 18 to 71 ($m= 22.5$, $S.d.= 6.4$); 34.2% were men. The participants consist of freshmen (16.4%), sophomores (18.6%), juniors (30.1%), seniors (31.7%) and graduate students (3.3%). Those students who represented more than 30 degree programs from the College of Business Administration, Education, Fine Arts and Communication, health and Applied Science, liberal Arts, and Natural Sciences and mathematics with a mean GPA o 3.1 ($SD= 0.6$). The</p>

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	<p>majority of students (60.3%) were required to take the language course as part of their degree program. the overall course load of the participants ranged from 1 to 9 (M= 5.1, SD= 1.2). In addition, 84.8% of the participants had studied a foreign language normally in high school, whereas, 33.2% had done so in college. The majority of students (56%) had never left the United States, of those who had, the number of countries visited ranged from 1 to 9. Approximately one fifth (18.5%) o the students had immediate family members whose native language was not English.</p>
<p><i>Instruments & Procedures</i></p>	<p>A battery of instruments use din the study included the Foreign Language Classroom Anxiety Scale (FLCAS), the Self-Perception Profile for College Students (SPPCS), the Social Interdependence Scale (SIS), the Academic locus of Control Scale (ALC), The Study Habits Inventory(SHI), and the Background Demographic Form (BDF) . Participants were given the questionnaire packet containing the six instruments during the fourth week o the semester. They were instructed to complete the battery of instruments at home and return it within two weeks.</p> <p>The FLCAS developed by Horwitz et. al (1986) is a 33 item likert type questionnaire that assesses the degree to which students feel anxious during language class. the scale has been shown to be both reliable and valid, with an alpha coefficient of .93 and an 8 week test – retest coefficient of .83 (Horwitz, 1991); Horwitzet.al , 1986). Validity was established (Horwitz, 1991) via significant correlation with communication apprehension , as measured by Mc Croskey(1970) Personal Report of Communication Apprehension and with test anxiety as measured by Sarason’s (1978) Test Anxiety Scale . Aida (1994), using a sample of 96 students in a second year Japanese course, reported a Cronbach’s alpha coefficient of .94.</p> <p>The SPPCS is a 54 item scale comprising 13 subscales (Neemann & Harter, 1986). Many of the subscales were not considered relevant for this study (e.g. perceived athletic competence, romantic relationships close relationships, parent relationships and morality). Thus, we need the following three subscales: a) perceived intellectual ability, b) perceived self worth. According to Neemann and Harter, the reliabilities of the subscales as assessed by coefficient alpha, range from .84 to .86.</p> <p>The SIS, developed by Johnson and Norem-Hebeissen (1979) is a 22 item , 5 point (likert type questionnaire measuring individuals’ comparative, competitive and individualistic perception . Scores on the cooperative (7 items) and individualistic (7 items) scale range from 7 to 35, whereas scores on the competitive, or individualistic the respondents consider themselves to be. Scores on the scales are relatively independent so that a student conceivably could receive a high school on all three scales. Jones, Slate and Marini (1995) found that reliability as measured by coefficient alpha, is .94 for the cooperative scale, 0.85 for the competitive scale and 0.73 for the individualistic scale.</p> <p>The ALC developed by Trice (1985), has 28 true –false items related to personal control over academic outcomes. Scores range from 1 (strongly internal locus) to 28 (strongly external locus). Coefficient alpha reliability has been found to range from 0.68 (Agnew, Slate, Jones, &</p>

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	<p>Agnew, 1993) to 0.70 (Trice, 1985)</p> <p>The SHI, developed by Jones and Slate (1992) consists of 63 true-false items that assess the typical study behaviors of college students. Thirty items describe effective study behaviors and 33 items specify ineffective study behaviors. The latter items are key reversed such that the total scale scores range from 0 to 63, with high scores indicating good study skills. The SHI has been found by its author to be reliable, as measured by a mean alpha coefficient of .85 and a 2 week test-retest coefficient of 0.82. Validity of the SHI has been established through significant correlations with students' grades (Jones & Slate, 1992). The BDF developed specifically for this study extracted relevant demographic information such as age, sex, ethnicity, degree program, year of study, native language and countries visited.</p> <p>Finally, foreign language achievement was measured using students' course averages. The global measure was selected over isolated measures of specific skills to maximize the external validity (i.e. generalizability) of the findings. Use of numerical averages according to the diverse achievement measures reflected in the course grades of this study is consistent with Gardner & MacIntyre's (1993) recommendation to include "many different measures of second language achievement in studies concerned with affective correlates of achievement" (p.182). To adjust for differences in teacher characteristics (e.g. effectiveness, experience, motivation and testing and scoring standards), we used standardized course averages instead of raw averages. Standardized course average (i.e. z scores) were computed for each student by subtracting the average achievement scores of the foreign language class to which the student belonged from the student's course and then dividing by the class standard deviation.</p>
<i>Data Analysis</i>	<p>Pearson product moment correlation coefficient (i.e. zero order correlation coefficient) was used to assess the relationship between foreign language achievement and each of the 18 independent variables. Correlation coefficients, which can vary from -1 to +1, help to determine both the magnitude and direction of pairwise relationships. The sign of the magnitude verifies whether the relationship is positive or negative, whereas the numerical part of the correlation coefficient indicates the magnitude of the correlation. The closer the correlation coefficient is to 1 or -1, the greater the relationship between the variables.</p> <p>Unfortunately, although correlation coefficient is perhaps the most common inferential statistics used by researchers, it is subject to serious limitation. Specifically, because a correlational analysis can be viewed as assessing the contribution of an independent variable in isolation to an dependent variable, it typically does not honor, in the optimal sense, the nature of reality that most researchers want to study. The reason is because most phenomena involve multiple effects. Tatsuoka (1973) asserted the following:</p> <p>The often heard argument, "I'm more interested in seeing how each variable in its own right, affects the outcome" overlooks the fact that any variable taken in isolation may affect the criterion differently from the way it will act in company of other variables. It</p>

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	<p>also overlooks the fact that multivariate analysis –precisely by considering all the variables simultaneously-can throw light on how each one contributes to the relation (p. 273).</p> <p>Thus, multiple regression was the major analysis used in the present study. Multiple regression is a statistical procedure in which scores on one or more variables (i.e. independent variables) are used to predict score on another variable (i.e. dependent variable). Specifically, we used all possible subset (APS) multiple regression. (Thompson, 1995) to identify an optimal combination of cognitive, affective, personality and demographic variables (ie. independent variables) that predicted levels of foreign language achievement (dependent variable) . All possible models involving some or all of the independent variables were examined. (Thompson, 1995) In APS regression, separate regressions are computed for all independent variables singly, all possible pairs of independent variables, all possible trios of independent variables, and so forth, until the best subset of independent variables is identified according to some criterion. For this study, the criterion used was the maximum proportion of variance explained (r^2), which provides an important measure of effect size (Cohen, 1988). That is r^2, which lies from 0% to 100%, measure the extent to which the independent variables involved in the model combine to predict the dependent variable. The utility of the effect sizes is that they can be compared across studies. According to Hocking (1976), APS regression leads to an identification of the model with the largest r^2 for each of the number of variables considered. APS regression is different from stepwise regression, in which the order of entry of variables is based solely on statistical criteria. Stepwise regression is not guaranteed to find the model with the largest r^2(Hocking , 1976), and thus most statistician do not recommend this type of analysis , preferring the use APS regression (Hubert , 1989; Thompson, Smith, Miller & Thomson, 1991).</p> <p>We also used multiple regression techniques to assess relative contribution of each of the independent variables to the prediction of foreign language achievement (Tabachnik & Fidell, 1989). Specifically, we used squared semi partial correlation coefficient and squared partial correlation coefficients to assess each variable's unique contribution. Squared semi partial correlation coefficients, also known as part correlations, represent the amount by which r^2 is reduced if a particular independent variable is removed from the regression equation. That is, squared semi partial correlation coefficient express the unique contribution of the independent variable as a proportion of the total, variance of the dependent variable (Cohen, 1988). According to Tabachnik & Fidell (1989, p.151), "the squared semi-partial correlation is a very useful measure of the importance of an independent variable". Similarly, squared partial correlation coefficient express the unique contribution of the independent variable as a proportion of r^2. In this study, we used squared partial correlation coefficients like r^2 directly as effect size estimates. (Cohen, 1988).</p> <p>We used Cohen's (1988) criteria to assess the contribution of the independent variables. According to Cohen, for multiple regression models in the behavioral sciences, squared partial correlation values</p>

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	<p>between 2% and 12.99% suggest small effect sizes, values between 13% and 25.99 % indicate medium effect sizes; and values of 26% and greater suggest large effect sizes. These same criteria were used to assess the proportion of the variance explained by the independent variables r^2 was suggestive of a small, medium or large effect.</p>																																														
<p>Results</p>	<p>Table 1 reports the correlation between foreign language achievement scores and each of the cognitive, affective, personality and demographic profiles.</p> <p>Table 1: Correlation between Cognitive , Affective , Personality and Demographic Variables and foreign language Achievement</p> <table border="1" data-bbox="516 632 1425 1598"> <thead> <tr> <th data-bbox="522 632 1190 737">Variables</th> <th data-bbox="1190 632 1419 737">Foreign Language Achievement</th> </tr> </thead> <tbody> <tr> <td colspan="2" data-bbox="522 737 1419 768">Cognitive</td> </tr> <tr> <td data-bbox="522 768 1190 800">Academic Achievement</td> <td data-bbox="1190 768 1419 800">.37***</td> </tr> <tr> <td data-bbox="522 800 1190 831">Study habits</td> <td data-bbox="1190 800 1419 831">-.06</td> </tr> <tr> <td data-bbox="522 831 1190 905">Expectation of foreign language achievement</td> <td data-bbox="1190 831 1419 905">.35***</td> </tr> <tr> <td colspan="2" data-bbox="522 905 1419 936">Affective</td> </tr> <tr> <td data-bbox="522 936 1190 968">Foreign language anxiety</td> <td data-bbox="1190 936 1419 968">-.33***</td> </tr> <tr> <td data-bbox="522 968 1190 999">Perceived intellectual</td> <td data-bbox="1190 968 1419 999">.14*</td> </tr> <tr> <td data-bbox="522 999 1190 1031">Perceived scholastic competence</td> <td data-bbox="1190 999 1419 1031">.29***</td> </tr> <tr> <td data-bbox="522 1031 1190 1062">Perceived self-worth</td> <td data-bbox="1190 1031 1419 1062">.02</td> </tr> <tr> <td colspan="2" data-bbox="522 1062 1419 1094">Personality</td> </tr> <tr> <td data-bbox="522 1094 1190 1125">Cooperativeness</td> <td data-bbox="1190 1094 1419 1125">-.22**</td> </tr> <tr> <td data-bbox="522 1125 1190 1157">Competitiveness</td> <td data-bbox="1190 1125 1419 1157">.12</td> </tr> <tr> <td data-bbox="522 1157 1190 1188">Individualism</td> <td data-bbox="1190 1157 1419 1188">.15*</td> </tr> <tr> <td data-bbox="522 1188 1190 1220">Locus of control</td> <td data-bbox="1190 1188 1419 1220">-.08</td> </tr> <tr> <td colspan="2" data-bbox="522 1220 1419 1251">Demographic</td> </tr> <tr> <td data-bbox="522 1251 1190 1283">Gender</td> <td data-bbox="1190 1251 1419 1283">.16*</td> </tr> <tr> <td data-bbox="522 1283 1190 1314">Age</td> <td data-bbox="1190 1283 1419 1314">-.07</td> </tr> <tr> <td data-bbox="522 1314 1190 1346">Semester course load</td> <td data-bbox="1190 1314 1419 1346">.03</td> </tr> <tr> <td data-bbox="522 1346 1190 1377">Number of countries visited</td> <td data-bbox="1190 1346 1419 1377">.04</td> </tr> <tr> <td data-bbox="522 1377 1190 1451">Number of high school foreign language courses taken</td> <td data-bbox="1190 1377 1419 1451">.17*</td> </tr> <tr> <td data-bbox="522 1451 1190 1482">Status of present foreign language course</td> <td data-bbox="1190 1451 1419 1482">-.11</td> </tr> <tr> <td data-bbox="522 1482 1190 1556">Foreign language proficiency of immediate family members</td> <td data-bbox="1190 1482 1419 1556">-.04</td> </tr> </tbody> </table> <p data-bbox="516 1598 862 1629">*$p < .05$, **$p < .01$, ***$p < .001$</p> <p data-bbox="516 1703 1000 1734"><i>Correlations with Cognitive Variables</i></p> <p data-bbox="516 1734 1492 1898">Of the three cognitive variables, two were significantly related to foreign language achievement. Those variables were academic achievement and a student's expectation of her or his achievement in a foreign language course. Specifically, students with the lowest levels of foreign language performance tended to have the lowest levels of overall</p>	Variables	Foreign Language Achievement	Cognitive		Academic Achievement	.37***	Study habits	-.06	Expectation of foreign language achievement	.35***	Affective		Foreign language anxiety	-.33***	Perceived intellectual	.14*	Perceived scholastic competence	.29***	Perceived self-worth	.02	Personality		Cooperativeness	-.22**	Competitiveness	.12	Individualism	.15*	Locus of control	-.08	Demographic		Gender	.16*	Age	-.07	Semester course load	.03	Number of countries visited	.04	Number of high school foreign language courses taken	.17*	Status of present foreign language course	-.11	Foreign language proficiency of immediate family members	-.04
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	<p>academic achievement and the lowest expectations of their achievement in the foreign language course.</p> <p><i>Correlations with Affective Variables</i></p> <p>Three of the four affective variables were significantly related to foreign language achievement, namely foreign language anxiety, perceived intellectual ability, and perceived scholastic competence. Only perceived self-worth was not associated with foreign language performance. Those findings suggest that low foreign language achievers tended to have the highest levels of foreign language anxiety and the lowest levels of perceived intellectual ability and perceived scholastic competence</p> <p><i>Correlations With Personality Variables</i></p> <p>Levels of cooperativeness and individualism were associated with foreign language achievement. Specifically, students with the lowest levels of foreign language achievement tended not to be individualistic but were oriented toward cooperativeness.</p> <p><i>Correlations With Demographic Variables</i></p> <p>Two of the seven demographic variables significantly correlated with foreign language achievement: gender and the number of high school foreign language courses taken. That is, low foreign language achievers tended to be men and to have taken the least number of high school foreign language courses.</p> <p><i>Multiple regression findings</i></p> <p>Table 2 Selected Multiple regression Model for Predicting Foreign language Achievement</p> <table border="1" data-bbox="516 1297 1481 1881"> <thead> <tr> <th>Variables</th> <th>Regression Coefficient</th> <th>Standard error</th> <th>r-Value</th> <th>Standardized regression coefficient</th> <th>Squared semipartial Correlation coefficient (%)</th> <th>Squared partial correlation coefficient (%)</th> </tr> </thead> <tbody> <tr> <td>Intercept</td> <td>-0.64</td> <td>0.89</td> <td>-0.73</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Foreign language Anxiety</td> <td>-0.40</td> <td>0.09</td> <td>-4.28**</td> <td>-0.29</td> <td>10.5</td> <td>13.8</td> </tr> <tr> <td>Gender</td> <td>0.34</td> <td>0.12</td> <td>2.82*</td> <td>0.17</td> <td>3.6</td> <td>5.1</td> </tr> <tr> <td>Academic Achievement</td> <td>0.50</td> <td>0.10</td> <td>5.08**</td> <td>0.32</td> <td>11.5</td> <td>14.9</td> </tr> <tr> <td>Expectation of foreign language Achievement</td> <td>0.02</td> <td>0.01</td> <td>2.39*</td> <td>0.17</td> <td>5.0</td> <td>7.0</td> </tr> </tbody> </table>	Variables	Regression Coefficient	Standard error	r-Value	Standardized regression coefficient	Squared semipartial Correlation coefficient (%)	Squared partial correlation coefficient (%)	Intercept	-0.64	0.89	-0.73				Foreign language Anxiety	-0.40	0.09	-4.28**	-0.29	10.5	13.8	Gender	0.34	0.12	2.82*	0.17	3.6	5.1	Academic Achievement	0.50	0.10	5.08**	0.32	11.5	14.9	Expectation of foreign language Achievement	0.02	0.01	2.39*	0.17	5.0	7.0
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	Cooperativeness	-0.31	0.10	3.11*	-0.19	3.6	5.1
<p>Note Model $r^2 = .342$, $F(5, 178) = 18.47$; Adjusted $R^2 = .323$ *$p < .05$, **$p < .01$, ***$p < .001$</p>							
<p>The APS multiple regression analysis revealed that the following variables that contributed significantly ($p < .001$) to the predictors of foreign language achievement: foreign language anxiety, gender, academic achievement, expected overall average for current language course and value placed on cooperative learning. The five items comprised two cognitive variables (academic achievement, student's expected level of achievement in their foreign language course), one affective variable (Foreign language anxiety), one personality variable (cooperativeness) and one demographic variable (gender), which combined to explain the 34.2% of the variation in foreign language achievement. We used Cohen's (1988) criteria to assess the predictive power of a set of independent variables in a multiple regression model; the proportion of variance explained indicates a large effect size because it exceeded 26%.</p>							
<p>The selected regression model suggests that students with the lowest levels of foreign language achievement tended to have at least one of these characteristics: male, low academic achievers, high levels of foreign language anxiety, low expectations of their overall average for the current language course, and valued cooperative learning. The squared semi partial correlation coefficient indicates that the overall academic achievement was the best predictor, explaining 11.5% of the variance in foreign language achievement. Foreign language anxiety, the next best predictor, explained 10.5% of the variance. Expectation of overall average for the current language course explained 5% of the variance, followed by gender and value placed in cooperative learning, each of which explained 3.6% of the variance. Table 2 also reports the squared partial correlation coefficients. As recommended by Cohen (1988), we used the values the effect sizes with respect to each of the selected independent variables. The criteria set by Cohen (1988) for squared partial correlation coefficients suggest that the effect sizes pertaining to academic achievement and foreign language anxiety approached moderate levels, whereas those pertaining to expectation to overall average for the current language course, gender and values placed on cooperative learning, were small.</p>							
<p>Correlational Analysis</p>							
<p>The correlational analyses revealed that the following nine variables were significantly related to foreign language achievement: foreign language anxiety, gender, academic achievement, expected final foreign language course average, and cooperativeness; perceived scholastic competence, perceived intellectual ability, individualism and number of high school foreign language courses taken. The APS regression analysis indicated that the following five variables predicted foreign language performance: Foreign language anxiety, gender, academic achievement, expected final foreign language course average, and cooperativeness. A comparison of the sets of variables indicates a high degree of similarity.</p>							

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	<p>nevertheless, although perceived scholastic competence, perceived intellectual ability , individualism , and number of high school foreign language courses taken were identified by the correlation analysis, they did not appear in the multiple regression model. That apparent consistency should not be surprising because of the differences between correlational and multiple regression analysis, In most cases, univariate and multivariate analyses o the same data tend to yield results that differ with respect to statistical significance and effect sizes(Fish, 1988).</p> <p>Table 3 Intercorrelations Among Independent variables With Significant Zero Order correlation with Foreign language Achievement</p> <table border="1" data-bbox="516 632 1490 1423"> <thead> <tr> <th data-bbox="516 632 751 663">Variables</th> <th data-bbox="751 632 854 663">1</th> <th data-bbox="854 632 941 663">2</th> <th data-bbox="941 632 1029 663">3</th> <th data-bbox="1029 632 1117 663">4</th> <th data-bbox="1117 632 1205 663">5</th> <th data-bbox="1205 632 1292 663">6</th> <th data-bbox="1292 632 1380 663">7</th> <th data-bbox="1380 632 1490 663">8</th> </tr> </thead> <tbody> <tr> <td data-bbox="516 663 751 747">1.Foreign Language Anxiety</td> <td data-bbox="751 663 854 747"></td> <td data-bbox="854 663 941 747"></td> <td data-bbox="941 663 1029 747"></td> <td data-bbox="1029 663 1117 747"></td> <td data-bbox="1117 663 1205 747"></td> <td data-bbox="1205 663 1292 747"></td> <td data-bbox="1292 663 1380 747"></td> <td data-bbox="1380 663 1490 747"></td> </tr> <tr> <td data-bbox="516 747 751 779">2. 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Expected final Foreign language course average</td> <td data-bbox="751 842 854 978">-.46***</td> <td data-bbox="854 842 941 978">-.02</td> <td data-bbox="941 842 1029 978">.20** *</td> <td data-bbox="1029 842 1117 978"></td> <td data-bbox="1117 842 1205 978"></td> <td data-bbox="1205 842 1292 978"></td> <td data-bbox="1292 842 1380 978"></td> <td data-bbox="1380 842 1490 978"></td> </tr> <tr> <td data-bbox="516 978 751 1062">5. Cooperativeness</td> <td data-bbox="751 978 854 1062">-.11</td> <td data-bbox="854 978 941 1062">-.01</td> <td data-bbox="941 978 1029 1062">-.03</td> <td data-bbox="1029 978 1117 1062">.06</td> <td data-bbox="1117 978 1205 1062"></td> <td data-bbox="1205 978 1292 1062"></td> <td data-bbox="1292 978 1380 1062"></td> <td data-bbox="1380 978 1490 1062"></td> </tr> <tr> <td data-bbox="516 1062 751 1146">6.Perceived scholastic competence</td> <td data-bbox="751 1062 854 1146">-.40***</td> <td data-bbox="854 1062 941 1146">-.10</td> <td data-bbox="941 1062 1029 1146">.30** *</td> <td data-bbox="1029 1062 1117 1146">.21*</td> <td data-bbox="1117 1062 1205 1146">.07</td> <td data-bbox="1205 1062 1292 1146"></td> <td data-bbox="1292 1062 1380 1146"></td> <td data-bbox="1380 1062 1490 1146"></td> </tr> <tr> <td data-bbox="516 1146 751 1230">7.Perceived intellectual ability</td> <td data-bbox="751 1146 854 1230">-.37</td> <td data-bbox="854 1146 941 1230">-.12</td> <td data-bbox="941 1146 1029 1230">.06</td> <td data-bbox="1029 1146 1117 1230">.13*</td> <td data-bbox="1117 1146 1205 1230">.07</td> <td data-bbox="1205 1146 1292 1230">.62***</td> <td data-bbox="1292 1146 1380 1230"></td> <td data-bbox="1380 1146 1490 1230"></td> </tr> <tr> <td data-bbox="516 1230 751 1293">8. 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Number of high school foreign language taken</td> <td data-bbox="751 1293 854 1423">-.20**</td> <td data-bbox="854 1293 941 1423">.23** *</td> <td data-bbox="941 1293 1029 1423">.05</td> <td data-bbox="1029 1293 1117 1423">.17**</td> <td data-bbox="1117 1293 1205 1423">-.13*</td> <td data-bbox="1205 1293 1292 1423">.01</td> <td data-bbox="1292 1293 1380 1423">-.04</td> <td data-bbox="1380 1293 1490 1423">.04</td> </tr> </tbody> </table> <p data-bbox="516 1461 1490 1890">An analysis of the intercorrelations among the nine independent variables helps us explain why four variables that emerged as significant in the correlational analysis were no longer identified as important in the regression analysis. Perceived scholastic competence was related to three variables that were significant predictors of foreign language achievement, namely: foreign language anxiety, academic achievement, and expected final foreign language course average. (Table 3)That finding suggests that once the three variables are in the regression model, the predictive power of perceived scholastic competence is diminished. In other words, by itself, perceived scholastic competence is an important predictor o foreign language achievement. However, in explaining second-language acquisition, knowledge o students' perceived scholastic competence does not appear to be as important as does</p>	Variables	1	2	3	4	5	6	7	8	1.Foreign Language Anxiety									2. Gender	.14*								3.Academic Achievement	-.03	.02							4. Expected final Foreign language course average	-.46***	-.02	.20** *						5. Cooperativeness	-.11	-.01	-.03	.06					6.Perceived scholastic competence	-.40***	-.10	.30** *	.21*	.07				7.Perceived intellectual ability	-.37	-.12	.06	.13*	.07	.62***			8. Individualism	.16**	.05	.08	-.09	-.64***	-.04	-.08		9. Number of high school foreign language taken	-.20**	.23** *	.05	.17**	-.13*	.01	-.04	.04
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2. Gender	.14*																																																																																										
3.Academic Achievement	-.03	.02																																																																																									
4. Expected final Foreign language course average	-.46***	-.02	.20** *																																																																																								
5. Cooperativeness	-.11	-.01	-.03	.06																																																																																							
6.Perceived scholastic competence	-.40***	-.10	.30** *	.21*	.07																																																																																						
7.Perceived intellectual ability	-.37	-.12	.06	.13*	.07	.62***																																																																																					
8. Individualism	.16**	.05	.08	-.09	-.64***	-.04	-.08																																																																																				
9. Number of high school foreign language taken	-.20**	.23** *	.05	.17**	-.13*	.01	-.04	.04																																																																																			

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	<p>knowledge of their GPA, their expected final foreign language course average, and their level of foreign language anxiety. That result is not surprising especially with respect to the latter two variables, because they are more directly pertinent to foreign language learning than is perceived scholastic competence, which is more global construct. Also, overall academic achievement is more important than is perceived scholastic competence to predict foreign language achievement, probably, because performance is a more reliable indicator than is self-perception.</p> <p>Similarly, failure for perceived intellectual ability to be included in the regression model, despite being significantly correlated with foreign language achievement, can be explained by the fact that the variable was related to both foreign language anxiety and expected final foreign language course average (Table 3). That failure indicates that perceived intellectual ability does not add to the prediction of foreign language performance once the variable are in the model.</p> <p>Because individualism was related to foreign language anxiety and cooperativeness (Table 3), the latter two variables, once in the regression model, likely made the inclusion of the former variable redundant. In particular, the high correlation between individualism and cooperativeness ($r = -0.64$) indicates a large degree of overlap between the variables, cooperativeness appeared to dominate individualism with respect to the prediction of foreign language achievement.</p> <p>Finally, the presence of foreign language anxiety, gender, expected final foreign language course average, and cooperativeness in the regression model apparently diminished the role of number of high school foreign language courses taken. In particular, it is likely that little or no exposure to high school foreign languages courses tends to induce low expectations of one's ability to perform in foreign language classes, in addition to relatively higher levels of foreign language anxiety. Consequently, once anxiety and course expectation are modeled, knowledge of students' foreign language exposure in high school is no longer particularly informative in terms of foreign language performance.</p>
Discussion	<p>The purpose of this study was to explore the contribution of various cognitive, affective, personality, and demographic variables with respect to the prediction of foreign language achievement. This study is unique for the following reasons: (a) achievement at all levels in the college foreign language curriculum and in more than one foreign language was studied., (b) a global measure of achievement was used., (c) raw scores were converted to standardized scores to adjust the differences in teacher grading characteristics, and (d) an adequate subject to variable ratio was maintained.</p> <p>The major finding of this study is that each class of variables was represented in the selected regression model. The fact that a cognitive variable (academic achievement) explains the greatest proportion of the variance in foreign language achievement is consistent with Ehrman and Oxford (1995), who found that this class of variables occupies that first tier relating explanatory power. The finding that an affective variable (foreign language anxiety) was the next best predictor of foreign language achievement also in accordance with those authors, because they</p>

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	<p>concluded that “affective factors... are clearly the second echelon” (Ehrman & Oxford,1995 p.82). Academic achievement and foreign language anxiety combined to explain approximately 22% of the variance in foreign language achievement, which represents a medium to large effect size.</p> <p>Two prior investigations in particular reported that foreign language anxiety explains a greater proportion of variance in foreign language achievement than that found in the present study. Sanchez-Herrero and Sanchez (1992) reported that student anxiety in learning a foreign language accounted for 38% of the variance in English achievement among sixth, seventh and eighth grade students in public school in Madrid, Spain. However, those authors used stepwise regression procedures and an anxiety instrument with only modest internal consistency reliabilities. Thus, their findings should be viewed with caution. Horwitz (1991), after partialling out test anxiety, estimated that foreign language anxiety accounts for approximately 25% of the variance in foreign language performance. Because sample size in that study was extremely small (n= 29), however, the 10.5% of the variance explained by foreign language anxiety in this study is likely more accurate reflection. Nevertheless, researchers should investigate the predictive power of foreign language anxiety in the presence of other variables.</p> <p>To the extent that overall GPA may be a global measure of native language aptitude, the finding that overall academic achievement is the best predictor of foreign language achievement is consistent with Sparks and Gauschow (1991, 1993a, 1993b), who contended that native language learning difficulties in mastering the phonological, syntactic, and semantic codes of the language play the largest role in impeding the acquisition of the foreign language (Sparks & Gauschow, 1991, 1993a, 1993b). However, the fact that foreign language anxiety also is an important predictor appears to contradict the additional claim of those authors that affective variables are mere side effects of having difficulties in coding the native language (Sparks & Gauschow, 1991). Because the percentage of variance in achievement explained by foreign language anxiety in the present study remained large, even after controlling for academic achievement (i.e. an indicator of native language problems), it is unlikely that Sparks and Gauschow (1995, p.240) are justified in their contention that “the problems of most foreign language learners will not be found by studying the affective variables but by investigating how language differences affect foreign language learning.”</p> <p>If foreign language anxiety was solely a consequence of native language differences, then, after controlling for academic achievement, anxiety would have had no, or at least substantially lower, predictive power. It is possible that for some individuals, native language learning problems are the main reason for their low levels of foreign language performance, whereas, for other students, anxiety is a debilitating factor. Thus, researchers should continue to explore the extent to which students with no diagnosable native language learning differences suffer from the debilitating effects of foreign language anxiety.</p> <p>The fact that both low-achieving and high anxious students tend to have the lowest levels of foreign language achievement seems to</p>

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	<p>contradict Onwuegbuzie et al. (1999) , who found that high academic achievers tend to have higher levels of foreign language anxiety than do their low achieving counterparts. On closer examination, however, the two sets o findings suggest that instructors should not assume that students who have high levels o academic achievement do not experience difficulties while learning foreign languages. It is likely that, although many high levels of performance in foreign language classes, they still experience high levels of foreign language anxiety. In the last year, an author o this study used several students' reports of anxiety to ascertain that two of them were suffering from partial hearing loss and a third from previously undiagnosed Attention Deficit Hyperactivity Disorder (ADHD). The GPA of the two students with hearing loss was 3.8 on a 4 point scale. Those observations underscore the importance o determining anxiety levels of students with both low levels and high levels o academic achievement. Also, our findings suggest that interventions focusing on anxiety management and reduction may be helpful for both groups of students. In any case, researchers should investigate the potential causal relationships, among academic achievement, foreign language anxiety and foreign language performance.</p> <p>Level of expectation, the second cognitive variable, was the third most important predictor of foreign language achievement. the finding that students who have low expectations o their foreign language ability tend to have low levels of foreign language achievement might reflect the fact that students have an accurate perception o their foreign language ability. However, that finding also suggests that a self-fulfilling prophecy prevails in which students who have low expectations of their foreign language ability exhibit behaviors that may lead to underachievement. Onwuegbuzie et al (1999) found that students with low self-perceptions of academic competence and foreign language performance were more anxious. Macintyre, Noels and Clement (1997) reported that, with actual language proficiency controlled, anxious students tended to underestimate their competence relative to less anxious students. Researchers should continue to explore the relationship between student expectations and achievement.</p> <p>Gender, a demographic variable, explained 3.6% o the variance in foreign language achievement. men appear to have lower levels of foreign language achievement than do women. That finding may reflect Oxford and Ehrman's (1993) observation that women tend to use more conscious learning strategies (e.g. metacognitive planning) than do men. However, further research is needed to determine the generalizability of that finding. To the extent that that result has high external validity, a female oriented foreign language culture, which is similar to the female based "library culture" reported by Jiao, Onwuegbuzie ,and Lichtenstein (1996) and Jacobson (1991) may exist, in which men (a) are less comfortable in that particular learning context, (b) may perceive that the domain is more female based, and (c) act in ways that do not maximize their ability to learn. Marsh (1995) found that female middle school students had more positive attitudes about foreign language study than did their male counterparts</p> <p>A personality variable, cooperativeness, was the final factor that</p>

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	<p>made an important contribution to foreign language achievement. the finding that students who are oriented toward cooperative learning tend to underachieve in their foreign language classes suggest that instructors might consider using cooperative learning groups to solve in – class problems, Cooperative learning “ refers to a particular set of classroom techniques that foster learner interdependence as a route to cognitive and social development” (Oxford, 1997 p. 443). Although no single method is likely to increase student achievement, instructors could consider emphasizing group work in a variety o formats (Koch & Terrell, 1991). As recommended by Foss and Reitzel (1988), students could be asked to practice reading a script orally to members of their group before reciting it in front of the whole class. Cooperative groups also could be used to practice any role-playing activities. Assigning roles such as secretary or reporter to individual students may improve self-esteem for some learners and increase effectiveness of cooperative groups.(oxford, 1997). use of such groups also could reduce the need for instructors to call on students at random, because that action appears to increase anxiety levels(Daly, 1991).</p>
Conclusion	<p>The findings from this study largely parallel those of Ehrman and Oxford (1995) because, in this study, cognitive and affective factors appear to play the largest role in predicting foreign language achievement. Thus, the present research represent a step nearer to determining the “degree to which... (Ehrman and Oxford’s results utilizing an) FSI sample –older, well educated , exceptionally highly motivated, and with a fairly clear personality structure-can be generalized to other, more common population such as college students” (Ehrman & Oxford, 1995 p. 84). the finding that all four classes o variables were represented in the regression model highlights the complex nature of individual differences in foreign language achievement. Although, including factors such as motivation(Clement et al, 1994; Gardner, 1985; Gardner& MacIntyre, 1991; Tremblay & Gardner, 1995) and more specific measures of native language aptitude (Sparks & Gauschow, 1991; Sparks, Gauschow & Patton, 1995) possibly would have increased the percentage of variance explained , by maintaining the recommended subject to variable ratio we provide reliable evidence to account for more than one third of the variance in foreign language achievement at the college level. Using Cohen’s (1988) criteria, more than 65% of the variance remains unexplained. Thus, researchers should investigate the contribution made by other cognitive, affective, personality and demographic variables to the prediction o foreign language achievement in college,.</p>