CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the methods and procedures used in this research which intends to investigate the relationship between attitudes and motivation of M.A Indian students of Arabic at Aligarh Muslim University and their Arabic achievement. The study investigated the relationship of Arabic achievement to five major components of attitudinal and motivation variables from Gardner’s socio-educational model 2005. They were: integrativeness, attitudes toward the learning situation, motivation, language anxiety, and instrumentally. The researcher examined the relationship among the said variables and the influence of all of these on Arabic achievement.

The study used the correlation analysis. The correlation coefficient and multiple regression procedures were used to describe the relationship between variables, to predict the variable of achievement, and to discover how variations in the dependent (criterion variable) variable corresponds to variations in the independent variables (predictor variable)).

There are seven sections in this chapter: research hypotheses, participants, instruments, pilot of the AMTB, validation of the modified AMTB, data collection and data analysis procedures.
3.2 The Participants

This study was conducted in the Arabic Department at the Faculty of Arts, Aligarh Muslim University, Utter Pradesh, India. The total number of participants is 50 students (28 male and 22 female). They are India Muslims who are majoring in M.A. Arabic (literature). Twenty-four were juniors (first-level) and twenty-six were seniors (final level). All of them studied Arabic in Arabic/Islamic religious school (madrasa) from early grades. Their age ranged from 20 to 25 except one male 28 and one female 30. Three of the students had visited an Arabic speaking country (Egypt, United Arab Emirates and Saudi Arabia) for a month. One female was born in Dubai and attended her primary school there in which Arabic was the medium of instruction. The students came from various states of India from Assam, Bihar, Jammu & Kashmir, Kerala, Uttar Pradesh and West Bengal. Thirty-seven were Urdu speakers and seven were Kashmiri and five were Malayalam speakers.

3.3 Instruments:

The instruments used in this research were (1) general background questionnaire (GBQ), (2) the modified questionnaire-Attitude/Motivation Test Battery (AMTB), and (3) Arabic achievement.

3.3.1 The general background questionnaire (GBQ)

This Questionnaire(see Appendix A) solicited information about students, their names, roll numbers, religion, sect, age, gender, schooling background, place
of birth, mother tongues, the languages they know, parents’ educational and occupational background. Students were asked to rate themselves on linguistic skills of understanding, speaking, reading and writing of Arabic and indicate their scores in the last examination and indicate the reasons for learning Arabic.

3.3.2 The Modified Questionnaire-Attitude/Motivation Test Battery (AMTB)

This questionnaire (see Appendix B) was adapted from Gardner’s (1985b) Attitude/motivation Test Battery (AMTB) which was modified for the purpose of this study. Since items which appeared in Gardner’s original AMTB (1985b) were designed for young students, not all were thought to be appropriate for this research context. Therefore, this study used another version of the AMTB (Gardner, Tremblay and Masgoret, 1997) which was designed for university students. As Gardner (2005, p.10) suggests, “the AMTB can be adapted and translated for use in different language communities and directed toward different target languages”. AMTB was developed to assess various individual difference variables based on the socio-educational model. The test has been altered several times to make it appropriate to the populations of specific studies. Adaptations of the AMTB have been used in many studies of L2/FL motivation (e.g., Baker & Macintyre, 2000; Gardner, Day, & Macintyre, 1992; Gardner, Lalonde, Moorcroft, & Evers, 1987; Gardner & Macintyre, 1991; Sawhney & Aghnitora, 1998; Gardner & Macintyre 1993a; Gardner, Tremblay, & Masgoret, 1997; Gliksman,
Gardner, & Smythe, 1982; Tremblay & Gardner, 1995). The reliability and validity of the AMTB have been supported (e.g., Gardner & Gliksman, 1982; Gardner & Macintyre, 1993; Gardner, 1985b).

The subscales in this modified AMTB include: Attitudes toward Arab people (8 items), Attitudes toward learning Arabic (8 items), Desire to learn Arabic (6 items), Interest in Foreign languages (6 items), Instrumental Orientation (7 items), Integrative Orientation (7 items), Motivational Intensity (8 items), Arabic Class Anxiety (6 items) Arabic Use Anxiety (6 items), Arabic Teacher Evaluation (6 items) and Arabic Course Evaluation (6 items). The items were presented in a random order followed by 5-point Likert scale (see Appendix C).

Each item in the modified AMTB was followed by a 5 Likert scale points ranging from strongly agree (5) to strongly disagree (1) for the positively worded statements. In case of negative statements, the same procedure was carried out except these were scored in the reversed direction. That is, the negatively worded statements were reversed from strongly (1) to strongly disagree (5).

The following 11 scales from the modified AMTB were used to assess the motivational and attitudinal variables. Next to them, the researcher provides the Cronbach’s alpha reliability coefficient and Split – Half method. However, the instrument (AMTB) was chosen on the basis of its high level of reliability and validity, its discriminatory power in prior studies and its relevance to the present research study as mentioned before.
Each scales of the AMTB described below was carefully reviewed and modified slightly and adapted to be appropriate for Indian learners of Arabic. The eleven scales are the following:

1. **Attitudes toward Arab people** (ATAP; alpha=.534, split-half .603). This measure consists of eight items, four positively worded and four negatively worded. This measure investigates the learners’ attitudes about Arab culture and people. A high score reflects a favourable attitude toward Arab culture and people.

2. **Attitudes toward learning Arabic** (alpha=.640, split-half .723). Composed of six items, three positively and three negatively worded comprise this measure. This scale assesses the learner’s attitudes about learning Arabic. A high score reflects a favourable or positive attitude toward learning Arabic. The higher the score, the more favourable the attitude.

3. **Desire to Learn Arabic** (alpha=.324, split-half .378). This scale contains six items that assesses how much the students wants to learn Arabic independent of the amount of effort involved in that task. A high score reflects the students’ strong desire to learn Arabic.

4. **Interest in Foreign Languages** (alpha=.612, split-half .599). This scale consists of six items - three positively-worded and three negatively worded-reflecting an interest in learning or knowing foreign languages in general and not any practical foreign language (there is no specific language). A high score represents an interest in learning or knowing foreign languages.
5. **Instrumental Orientation** (alpha = .459, split-half .454). This measure is composed of seven positively worded statements assessing the degree to which students seek to study Arabic for pragmatic or utilitarian value. A high score reflects the learners perceive such pragmatic reasons for studying Arabic as appropriate to their feelings with no sign of interest in the people whose language is being studied. The higher the students’ score, the more his/her motivation fits the instrumental type.

6. **Integrative Orientation** (alpha=.532, split-half .452). Seven positively worded items comprise this measure which emphasize the importance of studying Arabic in order to interact, preserve and share cultural heritage and/or experiences with the Arabic speaking people. A high score indicates that students perceive the integrative reasons for studying Arabic and recognizes them as personal relevant.

7. **Motivational Intensity** (alpha= .631, split-half .592). Composed of eight items, four positively and four negatively worded items. The measure assesses the amount of effort the students feels he or she expands in learning Arabic. A high score represents a self report of great deal of effort expended to learn Arabic.

8. **Arabic Class Anxiety** (alpha= .760, split-half .846). This measure is comprised of three positively and three negatively worded items about the students’ feelings of anxiety in the Arabic class. A high score reflects a high degree of anxiety felt specifically in the Arabic class environment. A high score
reflects a considerable level of the students' apprehension experienced when called upon to use Arabic in the Arabic classroom.

9. **Arabic Use Anxiety** \( (\text{alpha}=.780, \text{split-half}.769) \). This measure is consisted of three positively and four negatively worded items which relate to feelings of discomfort or anxiety experienced by the students when speaking Arabic. A high score reflects a considerable level of apprehension when called upon to use Arabic even outside the classroom.

10. **Arabic Teacher Evaluation** \( (\text{alpha}=.716, \text{split-half}.700) \). Composed of six items, three positively worded and three negatively worded. A high score reflects the students' favourable evaluation of their Arabic teachers.

11. **Arabic Course Evaluation** \( (\text{alpha}=.667, \text{split-half}.753) \). This measure consists of three positive and three negative items. A high score represents the students' favourable evaluation of the Arabic course.

The AMTB consists of 11 scales that can be grouped into five categories (Gardner, 2005; Gardner, 2001). The five major components assessed in the AMTB, and the subscales that define each construct.

- **Integrativeness**
  - Integrative Orientation (IVO)
  - Attitudes toward Arab people (ATAP)
  - Interest in Foreign Languages (IFL)
• *Attitudes toward the Learning Situation*
  
  Evaluation of the Arabic Courses (ACE)
  Evaluation of the Arabic Teachers (ATE)

• *Motivation*
  
  Motivational Intensity (MI)
  Desire to Learn Arabic (DLA)
  Attitudes toward Learning Arabic (ATLA)

• *Language Anxiety*
  
  Arabic Class Anxiety (ACA)
  Arabic Use Anxiety (AUA)

• *Instrumentality*
  
  Instrumental Orientation (INO)

As can be seen there are 11 measures in the AMTB. Following Gardner’s (2005a) in the present study, Motivation was measured on three subscales or subtests: (1) Motivational Intensity, consisting of 8 items; (2) Desire to Learn Arabic, containing 6 items; and (3) Attitudes toward Learning Arabic, comprised of 6 items. Integrativeness was measured by three subtests: (1) Integrative Orientation, consisting of 7 items; (2) Interest in Foreign Languages, consisting of 6 items, and (3) Attitudes toward Arab People, comprising 8 items. Attitudes toward the Learning Situation was measured by two subtests: (1) Arabic Teacher Evaluation consisting of 6 items and (2) Arabic Course Evaluation composed of 6
items. Language Anxiety was measured by two subtests: (1) Arabic Class Anxiety consisting of 6 items, and (2) Arabic Use Anxiety containing 6 items.

Gardner (1985) recommends that the questionnaire (AMTB) should not be administered during times which will unduly affect responses to the various scales, such as round exams, holidays or other special occasions. When it comes to the programme evaluation, he also suggests having a length time between the questionnaire administration at the beginning or end of the programme. Keeping these suggestions in mind, the General Background Questionnaire (GBQ) and AMTB administered to MA Arabic students of the Arabic department in two different sessions. At the same time of the academic year the two questionnaires (GBQ and AMTB) were administered to the fresh entrants of the same department i.e. at the second semester of their course. The two questionnaires were given to the students during their class session.

3.3.3 Arabic Achievement

The students' achievement in Arabic was measured based on their scores in the regular examinations. The examination scores are necessary component of any teaching course since this reflects the achievement level of the students. This was obtained in a formal way from the controller of examination in the university. The Arabic achievement was assessed in terms of the students grade (scores) which itself was based on a composite of two main assessments made throughout the first and second semesters. These assessments along with their percentage contribution
to the final mark were internal assessments (25%) and written examination (75%) for ten courses throughout the year. The maximum mark for each course was 100 and out of this 100 marks 75 marks were given for written examination and 25 marks for internal assessment of students' achievement based on every course material covered the semesters. All of the students completed the same final exam in the end of every semester and each course instructor marked the exam of the course which he taught for his or her students. The second measure of the internal assessment (25%) comprised of a series of assignments and classroom presentation in the class. Each instructor determined the content of each assignment as well as the number of presentations that could be given. Finally the achievement score of each student has been taken in terms of their marks obtained in the final annual exam. This is the achievement score of student which the researcher has taken for the analysis and interpretation of research findings.

3.4 Pilot study of the AMTB

A pilot study of the adapted and modified AMTB was conducted on ten students to evaluate the clarity of the language as well as the meaning fullness of the items and the time taken for answering the questionnaire. The test was administrated on a sample of the students who willingly accepted to participate. The pilot study had given us an idea of the clarity of the instructions, the relevance of the content and the clarity of items. The students' feedback was taken into consideration when revising the AMTB for the present study.
3.5 Item analysis

Initially 86 items were modified and distributed to the students. After the item analysis, some items from the AMTB questionnaire were eliminated since they rendered either the components or the subcomponents highly unreliable. Those items showed either negative correlation or weak correlation. In total, 12 items were deleted to strengthen the internal consistency of the AMTB Questionnaire. The 74 items which remained part of the AMTB because they yielded acceptable reliability values were provided in parenthesis as was mentioned before. The items which showed significant positive correlations were retained for final composition of the AMTB.

It must be pointed out that the 3 items of the instrumental and 3 items of integrative scales were added to those which were adapted in the AMTB. When general background questionnaire was distributed, the students were asked to write their own reasons for learning Arabic. Thus, the two scales included such items that attempted to tap into some integrative and instrumental reasons for learning Arabic because the items were relevant to the participants and the context in which the study was carried out. The extra items i.e. that do not form a part of Gardner’s questionnaire were marked with an asterisk (*) in the questionnaire (see Appendix B). If this is the case, the scale underlying these items is similar to the integrative and instrumental orientations in Gardner’s.
In addition to that, the six extra items were analysed and classified as either integrative or instrumental according to the Lambert’s (1974) definition of motivation and Gardner’s (2005a). Integrative motivation, according to Gardner (1985a, p.133), related to an interest in learning second or foreign language because of “a sincere and personal interest in the people and culture represented by other language group” (Lambert 1978, p.98; in Gardner, 1985, p.133). Instrumental motivation, on the other hand builds on “the practical value and advantages of learning a new language” (Lambert 1974, p.98, in Gardner, 1985, p. 133). In a recent formation, Gardner defines integrativeness or integrative motivate on in his revised model 2005 as a genuine interest in learning the L2/FL in order to come psychologically closer to the other language community. The concept reflects “an openness to other cultures in general, and an interest in the target culture in particular” (p.10). They (Gardner and Lambert) never meant that one wanted to become a member of the other cultural community.

3.6 Validation of the Modified AMTB

It is true that the situation in India is different from many countries elsewhere in the world, with regard to the educational background, the policy of language teaching and socio-cultural milieu. Therefore, the modified and adapted questionnaire AMTB was shown to and discussed with Arabic language teaching teachers and experts at Aligarh Muslim University, India (A.M.U.) They validated the modified instrument AMTB in terms of items validity and appropriateness of
the items in the study. Thus the content validity of the modified AMTB was determined by the teachers and experts in A.M.U. Their remarks and comments were taken into account before the administration of the said questionnaire for final use. The questionnaire was given to the respondents in English not translated into Arabic because the respondents’ proficiency in English is good.

3.7 Data Collection Procedures

The data of the modified Attitude/Motivation Test Battery (AMTB) and the General Background Questionnaires (GBQ) were collected in a classroom situation. The researcher explained the purpose of the study to the participants. They were asked to complete the two questionnaires by giving immediate and accurate reaction to each of the items. The participants were also requested, as per the written instructions given on the questionnaires, to give their immediate reaction and respond as accurately as possible. They were also properly informed that the data would be collected anonymously and confidentiality will be maintained. Confidentiality was assured by using numbers in data analysis instead of their names. Respondents were given as much time as required to complete the questionnaires. After the students had participated they received a book about internet as compensation for their participation.

3.8 Data Analysis Procedures

The following procedures were used in this research:
The data were coded, tabulated, and transferred into a data and were processed on the computer using the Statistical Package for the Social Sciences (SPSS 12.0). Descriptive statistics such as Mean, SD and Correlation analysis were used to analyse the data and finally Multiple Regression analysis was applied to make predictors of achievement among Arabic majors students who are studying Arabic language in the department of Arabic at A.M.U.

The SPSS computer program compiled a correlation and a multiple regression analysis. The stepwise multiple regression analysis was employed to test the hypotheses. The correlation analyses were used because they present the correlation between the independent variable and dependent or criterion variable with the influence of other independent variables removed from the independent variable being correlated. The squares of correlation coefficients tell us the amount of variance contributed by the separate independent variables of the regression equation (Kerlinger and Pedhazur, 1982). Therefore, correlation of multiple regression is a means of analyzing the overall contribution of each independent variable with the influence of other independent variables controlled. It is also a means of evaluating the contribution of total independent variables to the total explained variation in the dependent variable.

Major output statistics from the stepwise multiple regression procedure include the multiple correlation coefficient R, and R square which is a measure of the magnitude of relationship between the criterion variable and a predictor variable or some combination of predictor variables. The value of R will increase
with each variable that enters the multiple regression analysis (Borg and Gall, 1989). The $R^2$ squared will yield a statistic known as the coefficient of determination.

Kerlinger and Pedhazur also (1982) report that there are two basic applications for regression analysis. One focuses on obtaining an accurate mathematical formula for prediction of the dependent variable while the other focuses on explaining the way that prediction works. The regression analysis yields various coefficients. Beta weights and multiple $R^2$ squared are usually interpreted. Beta weights inform researchers of how much credit is given to a particular variable for predicting the dependent variable values while multiple $R^2$ squared informs the researcher of what percentage of the variance in the dependent variables is explained by the variance of predictor variables.

The results of the multiple regressions analysis can be shown in SPSS as follows:

$R^2$ squared equals the amount of variance of the dependent variable that was explained by the set of independent variables. Percent of the variance of the dependent variable that was explained by the set of independent variable. For example, if $R^2=30$, 30% of dependent variable was explained by the independent variables and the relationship was strong and statistically significantly. However, while the $R^2$ squared will never explain 100% of the variance, researchers should try to explain as much variance as they can. $F$ statistic is the level of statistical significance of $R^2$-level of probability that the $R^2$ squared would have occurred by
chance. Beta weight coefficients have positive and negative values explain the unique contribution of each independent variable on the dependent variable.

By doing regression analysis in this study, the researcher will examine relationships among variables. The multiple regression analysis provides an understanding of the important of each variable. In the next chapter, the findings are presented and discussed.