

CHAPTER 3

METHODOLOGY AND PROCEDURES

3.0 INTRODUCTION

It is important that the purpose of this study be reiterated before describing the methods and procedures used in carrying out this research.

The purpose of this study is to investigate the nature of the creative behaviour of several Malaysian secondary school English Language teachers. Besides that, it also intends to ascertain whether the nature of their creative behaviour is reflected in classroom methodology. In order to do this, consideration will be given to whether fluency, flexibility, originality and elaboration can be enhanced through the utilization of appropriate creative thinking techniques. In addition, this study will also observe whether the creative potential expressed by the teacher during classroom teaching influences students' interest in learning the language.

This chapter describes the methodology and procedures employed in conducting the research, under the following sections:

- Research design
- Instrumentation
- Population
- Pilot study

- Procedures for data collection
- Procedures for data analysis

3.1 RESEARCH DESIGN

This piece of research is a case study as the study is conducted on one particular school and it attempts to provide a portrait of what is going on in that particular setting. The advantage of carrying out a case study is that it is strong in reality, can represent a multiplicity of viewpoints and can also provide a database of materials. In addition to this, the strongest yet advantage of a case study is its accessibility. As the researcher is a teacher, easy access to the participants in one particular school namely hers, was an advantage. Although a research encompassing a number of schools may have provided a more comprehensive overview, the researcher had to consider the time factor and red tape involved in obtaining permission to conduct the study.

This research is ethnographical in nature in that it attempts to obtain insights into classroom practice through naturalistic, 'uncontrolled' observation and description. Ethnography was chosen because "... human behaviour cannot be understood without incorporating into the research the subjective perceptions and belief systems of those involved in the research, both researchers and subjects" (Nunan, 1995). Furthermore, Watson-Gegeo and Ulichny (1988) emphasize the importance of context and subjective perception in ethnography where the focus is on real life situations and settings. Van Lier (1988) supports this view of ethnography by stating that its central characteristic is cultural description and that it is a valid research paradigm in its own right as it is theory-building (Nunan, 1995).

This is also a qualitative research as it assumes a relative and subjective element to all knowledge procured in the area being researched. Choosing this mode of research is justified by the fact that the researcher is close to the data and has the advantage of having the 'insider' perspective.

Also, this research is holistic in nature because both the behaviour of the participants under investigation and the context in which the behaviour occurs, i.e. the classroom, is taken into consideration. In this way, the researcher is able to have a bird's eye view of the whole framework of classroom teaching.

Grotjahn (1987) argued that besides the binary qualitative-quantitative distinction of the pure forms, there are also the 'mixed paradigms', which a researcher can consider when devising a research design. Therefore, with this in mind, this research design has been formulated as a mixed form having an exploratory-qualitative-statistical paradigm. The design here is non-experimental, has qualitative data and also some fairly basic statistical analysis. As the researcher is a novice in the field of research work, this type of framework is advantageous because in the researcher's opinion it is more flexible than other designs and therefore allows more room for exploration.

This research advocates the grounded theory formulated by B. Glaser and A. Strauss (Haig, 1995) that is, a theory based on data, which is studied systematically. It is not singularly a historically based study but is a hands-on form of research where data is required to formulate theory, which can be utilized for the future success of classroom methodology.

The data collected for this research utilized elicitation techniques that is, data was obtained by means of a survey through questionnaires. Surveys are the most commonly used descriptive method in educational research and have been carried out in the form of a small-scale study by a single researcher (Nunan, 1995). Hence, a survey research design incorporating four instruments was used to attain information in order to achieve the aims of the study.

3.2 INSTRUMENTATION

The four instruments used for this study were either adopted, adapted or designed by the researcher. The descriptions of these instruments are as follows:

3.2.1 The Khatena-Torrance Creative Perception Inventory (Appendix A)

The first instrument used was the Khatena-Torrance Creative Perception Inventory (KTCPI). This is an autobiographical measure/test entitled 'Something About Myself' (SAM). This measure is based on the rationale that the personality characteristics of an individual, the thinking strategies he employs, and the products that emerge as a result of creative striving will reflect creativity (Khatena, 1977).

SAM is made up of 50 items, which can be easily administered and interpreted. It presents statements to which participants are required to respond with the expectation that the responses will reflect the extent to which they tend to function in creative ways. For each statement in SAM, participants are required to shade the circle marked 'A' on their answer sheets if the statement describes them. Alternatively, if a statement does not describe them,

participants are required to shade 'B' on their answer sheets. SAM yields a creative perception index obtained by counting the number of 'A' responses out of the 50 items listed.

In addition to this index, SAM yields 6 factors or creative orientations (Bledsoe & Khatena, 1973). These orientations are Environmental Sensitivity, Initiative, Self-Strength, Intellectuality, Individuality, and Artistry. Following are the descriptions of individuals who manifest these six creative orientations.

Table 3.1: Characteristics of individuals who manifest the six creative orientations.

Factor Orientation	Description
Environment sensitive	<p>A person who:</p> <ul style="list-style-type: none"> ▪ is open to others' ideas ▪ relates ideas to what can be seen, touched, or heard ▪ is interested in beautiful and humorous aspects of experiences ▪ is sensitive to meaningful relations
Self-strength	<p>One who:</p> <ul style="list-style-type: none"> ▪ has self-confidence in matching talents against others ▪ is resourceful ▪ is versatile ▪ is willing to take risks ▪ desires to excel ▪ has organizational ability
Intellectuality	<p>This type of individual:</p> <ul style="list-style-type: none"> ▪ has intellectual curiosity ▪ enjoys challenging tasks ▪ has imagination ▪ prefers adventure over routine ▪ likes reconstructing things and ideas to form something different ▪ dislikes doing things in a prescribed routine
Individuality	<p>A person who:</p> <ul style="list-style-type: none"> ▪ prefers to work by himself/herself rather than in a group ▪ sees him/herself as a self-starter and somewhat eccentric ▪ is critical of others' work ▪ thinks for himself/herself ▪ works for long periods without getting tired
Initiative	<p>This individual has the ability to:</p> <ul style="list-style-type: none"> ▪ direct, produce and/or play leads in dramatic and musical productions ▪ produce new formulas or new products ▪ bring about changes in procedures or organization
Artistry	<p>One who is inclined towards:</p> <ul style="list-style-type: none"> ▪ the production of objects, models, paintings, carvings ▪ the production of musical compositions ▪ receiving awards or prizes or having exhibits ▪ the production of stories, plays, poems and other literary pieces

The KTCPI can be used with adolescent or adult participants. According to Joseph (1998), this test format has a very high degree of objectivity in its scoring and high inter-scorer reliability. Joseph (1998) further states that validity was established by correlating SAM with other well-known measures and with various indexes of actual creative performance. Therefore, the reliability and validity of the measure have been well established. On the local scene, Palaniappan (1994) has translated the instructions and the 50 statements in the KCPI into Bahasa Melayu, the official medium of instruction in the country. Besides this, Palaniappan (1994) has also validated SAM and found it to be reliable to the Malaysian sample.

The KTCPI (where SAM is in both the English Language and Bahasa Melayu) was obtained from research conducted by Joseph (1998) on the creativity of English Language teachers in primary schools. Firstly, this is because the researcher is doing a study on the creative behaviour of secondary school teachers in a local setting, which is a follow up to the one carried out by Joseph (1998). Secondly, the researcher could not obtain the KTCPI – Instruction Manual. In spite of all these difficulties, the researcher still maintained using the KTCPI as it is an untimed measure for adults. The participants would not have any qualms about completing the test as they could do so at their leisure.

3.2.2 The Teacher Observation Instrument (Appendix B)

The researcher with the help of her supervisor from the Faculty of Languages & Linguistics, University of Malaya, designed this instrument using the one designed by Joseph (1998) as a starting block. For easy administration, this instrument was converted into the table form as seen in Appendix B.

The table has an x-axis with vertical columns and a y-axis with horizontal rows. The x-axis consists of the type of lesson being observed namely grammar, comprehension and literature. The researcher has left out the oral lesson (listening and speaking) because in this particular school environment, most lessons start off with an oral discussion and end with some kind of written work. In the school where the respondents were studied, teachers have been instructed to give students written exercises during every English lesson conducted. Also if a lesson is an entirely oral lesson, class control might not be at its best. Therefore, the oral component was not observed. Besides this, a lesson that ended with an essay writing exercise was also not given priority. This is because when all the students were busy trying to finish their work within the time frame allocated by the teacher, there was nothing much for the researcher to observe by way of creative techniques utilised by the teacher.

The y-axis consists of the 4 dimensions of creativity as advocated by Torrance (1966) and Guilford (1967) and 4 creative thinking techniques as proposed by Davis (1992) & LeBoeuf (1986). The dimensions of creativity include fluency, flexibility, originality and elaboration. After much consideration the researcher decided to observe four main techniques of creativity namely creative problem solving, questioning technique, brainstorming and synectics. Based on the literature review conducted, the researcher is of the opinion that it is these four techniques which are the best developed, most well established and utilised. In addition, the researcher feels that all the other creative techniques ultimately fall under the umbrella of either one or more of these four particular techniques. A row was added to the Teacher Observation Instrument table to acknowledge any other technique that participants might apply in the course of their English lesson. Below that another row for teaching aids was included.

The instrument was designed in this way to collect the necessary data in the easiest way possible. This instrument is user friendly in that anyone with a basic knowledge of the dimensions and techniques of creativity will be able to utilise it. In addition, this instrument helps to determine the extent to which a teacher has given students the opportunity to be divergent thinkers in the 4 dimensions of creativity utilising the 4 techniques of creativity mentioned earlier.

3.2.3 The Student's Questionnaire (Appendix C)

The researcher with the help of her supervisor designed this instrument to elicit information from the students' point of view. This instrument comprises two bilingual sections, Bahasa Melayu and English, where students were required to tick the appropriate answers, give one-word answers or short responses as required.

Section A of this instrument consists of 10 questions about the students' general liking or dislike for the English Language. Students were required to state their preference in the areas of learning English (i.e. grammar, writing skills, reading and listening), and liking towards their English Language teachers. Besides this, students were also questioned on their exposure to and the importance of new methods of teaching English. Students were also required to give reasons for all of these viewpoints.

Section B pertains to students' responses to assessment of teaching effectiveness. Here there was only one question, which required students to state whether they found a particular lesson interesting by ticking the appropriate box. Then students were required to

give reasons for their answer keeping in view aspects such as teacher's teaching methodology, topic taught and other factors.

This questionnaire is based on the rationale that the manifestation of a teacher's creative ability in the teaching-learning process of the English Language will affect the students' interest in the language. If a teacher is more creative, he/she is obviously expected to conduct a more creative lesson i.e. more interesting lesson, which will arouse students' interest and ultimately improve students' grasp of the language.

3.2.4 The Teacher's Questionnaire (Appendix D)

This instrument was adapted from the one designed by Joseph (1998). Participants were required to tick the appropriate answers, give one-word answers or short responses as required.

Section A of this instrument comprises 11 items for the purpose of soliciting general information on the participants. Here, participants are required to provide information related to qualification, gender, age, subject option in university, duration of teaching experience, special positions held, experience teaching in private institutions, subject taught in private institutions, attendance to TESL courses, English periods per week and classes taught.

Section B comprises 18 items and is aimed at eliciting information regarding creative thinking. In this section, participants were required to provide information regarding creative thinking courses attended, articles contributed for publication and papers

presented. Besides this, participants were also asked whether they believe incorporating creative thinking techniques is essential in the teaching of English and whether they consciously incorporate creative thinking techniques in their English Language lessons. Participants were also required to give their opinions on the extent of their own knowledge of creative thinking skills and techniques. Finally, they were asked if they personally felt that they needed further training on ways to incorporate creative thinking skills in the classroom.

The aim of this instrument was to glean information on the background of participants in order to obtain a more comprehensive picture of the overall abilities and opinions of the participants involved in this research. The questions in Section B are of extreme significance in that they may provide a link between participants' personal views on their own knowledge of creative thinking and their actual creative capabilities as manifested in the classroom.

3.3 POPULATION

The respondents for the study were eight permanent English Language graduate teachers from SMK (L) Methodist Sentul. As this is a double session school, the researcher selected four respondents from the afternoon session and four from the morning session. This was done so that there would be an equal ratio of afternoon to morning session teachers taken into consideration for the purpose of fair distribution.

The teachers observed were teaching the Form 1, 2, 4 and 5 classes. The Form 3 classes were exempted because those classes do not have the literature component

incorporated into their English syllabus as yet. Moreover, at the time classroom observations were being conducted, one of the two Form 3 teachers was on maternity leave.

Of these eight teachers, four were Indians, two were Malays and two were Chinese. The element of racial distribution was however, not a factor to be considered in this research. Also, a larger group of teachers could not be observed due to time constraints and administration encumbrances.

This sample of Malaysian teachers of Malay, Chinese and Indian origin was drawn from SMK (L) Methodist Sentul, a Grade B school having a total student enrolment of 1800. Even though a Grade A school with a bigger teacher population would have had provided a more varied range of teachers from different backgrounds with different attributes and creative behaviours, the researcher is of the opinion that a Grade B school nevertheless, is just as suitable in terms of teaching professionalism, personnel, educational programmes, facilities and resources. This particular school was selected because the researcher herself teaches here and hence there was easy access to the sample population.

3.4 PILOT STUDY

Of the four instruments used in this study, the one that was adopted without any changes made to it was, the KTCPI. Palaniappan (1994) first translated the KTCPI, all the instructions and the 50 statements, into Bahasa Melayu for his doctoral thesis. Then Joseph (1998) for her master's thesis had a school inspector who is competent in both English and Bahasa Melayu check the language of the instrument. In addition, the researcher who is

also competent in both these languages checked the translated version of the KTCPI and found it to be satisfactory. Therefore the KTCPI was adopted as it stood.

The second (The Teacher Observation Instrument) and the fourth instrument (The Teacher's Questionnaire) were scrutinized and vetted by the researcher and her supervisor. Based on her supervisor's comments and recommendations, the researcher revised these instruments accordingly for easy administration. These two instruments were not administered in the pilot study because they were adapted from the ones designed and used successfully by Joseph (1998). Hence the researcher made the assumption that these two instruments were reliable and could be administered without any trouble.

The third instrument is the Student's Questionnaire. This is the instrument that was devised wholly by the researcher with the help of her supervisor. After careful scrutiny, this instrument was field tested by the researcher in her own class, which consisted of 25 Form 4 students, in the month of July, 2000.

The researcher administered Section A first and did not give any prior instructions or aid to the students in answering the questions. The students willingly obliged by completing the questionnaire. Based on the students' queries and inquiries for clarification on some of the questions, the researcher was able to assess and make a mental note of the areas that needed explanation before students actually filled out the questionnaire. Then the researcher revised the instrument accordingly for better clarity.

Section B of the instrument was administered to the same class on a different day. Here again, to test the effectiveness and clarity of the questionnaire, the researcher adopted the

same procedure as with the administration of Section A. Amendments were then made accordingly.

Next, the researcher field-tested the same instrument on different classes so as to get a better picture of the overall comprehension of the students of the questions in the questionnaire. Section A of the instrument was administered to a Form 3 class where the students were of a lower proficiency in English. This was conducted with the rationale that if weaker students could understand and fill out the questionnaire satisfactorily, then the questionnaire should also be comprehensible to all other students. Section B was administered to another Form 3 class to obtain a wider perspective on the effectiveness of the instrument. This second round of field-testing was carried out also in the month of July 2000 and the students' responses to the instrument in both sections were satisfactory. However, two items in Section A required slight alterations. The researcher with the help of her supervisor dealt with this accordingly. Only then did the researcher deem this instrument sufficiently satisfactory to be distributed to the actual student sample.

3.5 PROCEDURES FOR DATA COLLECTION

As this study was carried out in the researcher's school, permission from the principal was sought and obtained without any problems. The researcher conducted the actual study during the first semester, from the months of January to July, of 2001.

First the researcher identified the eight teacher participants who would be involved in the study. Two teachers from every form were observed for a fairer overview. The details are as follows:

- ◆ Form 5 – Respondents 1 and 6
- ◆ Form 4 – Respondents 2 and 8
- ◆ Form 2 – Respondents 3 and 5
- ◆ Form 1 – Respondents 4 and 7

Then the researcher had to ascertain the timetables of all the participants in order to fix a schedule for classroom observations. Before going in for the observations, the researcher had to reassure all the participants that their lessons would not be graded or judged in any way and that the researcher was only interested in the sequence of how each lesson progressed. This was done to alleviate any unnecessary anxiety on the part of the participants as a result of being observed by the researcher. The researcher purposely did not mention to the participants that she was specifically looking for creative techniques so as not to alert the participants to the requirements of the study; this would then allow for a more realistic picture of the actual teaching and learning process. However, the researcher did inform the participants earlier of the types of lessons that would be observed i.e. a grammar lesson, a comprehension lesson and a literature lesson. The participants were requested to teach each lesson using a double English Language period. This was necessary for the purpose of uniformity and standardization.

The afternoon session participants were observed first as the researcher did not have to juggle her own teaching timetable to do so. After that, the morning session participants were observed for the same type of lessons. The researcher did not disrupt any other teachers' teaching timetable and managed to observe the morning session participants during her free periods. Therefore the administration of the school was not burdened with

the necessity of rescheduling timetables for the researcher to conduct her study. This is one of the main reasons why a case study of only one school was chosen i.e. minimal disruption of actual teaching schedule.

During classroom observation, the teacher observation instrument was used to obtain the necessary information and data. The researcher adopted the role of a non-participant observer by sitting in as inconspicuously as possible at the back of the classroom for each lesson observed. In addition to the general observation, notes and pertinent points were also taken down during the observations. These notes were of great help as a check balance to validate the data of the teacher observation instrument.

In the last five minutes of each lesson the participant had to leave the classroom so that the researcher could administer Section B of the student's questionnaire. This section was administered in the absence of the respective English Language teacher so as to put the students at ease. Undoubtedly students will feel intimidated in the presence of their teacher when answering a questionnaire pertaining to the assessment of teaching effectiveness.

Next, the administration of Section A of the student's questionnaire was carried out. As in the previous stage of the study, the researcher had to first ascertain the timetables of all the participants in order to schedule when Section A of the student's questionnaire could be administered. The researcher requested the last 20 minutes of any English lesson, for Section A to be administered. This was non-inclusive of the three types of lessons identified for teacher observation. The researcher, with reference to the pilot study that was carried out, came to the conclusion that this particular time frame was sufficient. The researcher monitored the students so as to make sure that all items were answered. This

was done in the absence of the English Language teacher i.e. the participant, for the same reasons as stated in the administration of Section B of the student's questionnaire. In addition, the researcher assured the students of confidentiality and anonymity when analyzing the results of the study.

For both Sections A and B students were allowed to answer in either English or Bahasa Melayu, as many might not be able to express themselves properly in English.

The next stage was the administration of the KTCPI. The participants were given the KTCPI to be completed in their own time. The researcher was always receptive towards participants' queries to clarify any doubts that they might have concerning the questions and statements presented in the KTCPI. In this way the reliability of the test was maintained, as there was minimal stress, tension and ambiguity among the participants when answering the test individually.

Finally, the teacher's questionnaire was administered. This measure was distributed among the participants in the same way and with the same criteria as was used for the KTCPI. As with all other measures, the honesty of the participants in answering this measure was stressed, as it is paramount to the reliability of the measure. Lastly, the answers from the teachers' questionnaires were analysed, tabulated and discussed.

It must be noted that the KTCPI and the teacher's questionnaire were intentionally administered only after conducting classroom observations and administering the student's questionnaire. This was so that the participants would not be sensitized to the nature and aims of the study. Hence a more naturalistic classroom atmosphere was more possible as

participants did not feel inclined to artificially conduct a more 'creative' lesson since they were not aware of the researcher's objectives.

3.6 PROCEDURES FOR DATA ANALYSIS

The information from all the measures has been analysed, codified, tabulated and discussed in depth in Chapter 4.

Firstly, the information from the KTCPI was analysed, codified, tabulated and discussed to procure a clearer picture of the creative behaviour of the participants. As the researcher was unable to obtain the KTCPI-Instruction Manual, the analysis was based on the methods used by Joseph (1998) and they are as follows.

1 or 0 points were awarded for each of the 50 items in the KTCPI. 1 point was awarded for each 'A' or positive response. 0 point was awarded for each 'B' or negative response and to all blank responses. Then a simple frequency count of participants' positive responses on the total scale was carried out. All points received out of the total of 50 were added to ascertain the creative perception index (CPI) for each participant.

Since the researcher could not obtain the KTCPI Instruction Manual and there are no conversion tables relating to the local population, the raw scores were not converted into standard scores for the CPI. The total raw scores of the CPI were rank ordered. The CPI obtained by each participant was arranged beginning with the highest and ending with the lowest score i.e. in descending order. In this way, the creative potential of each respondent was ascertained.

Next the factor orientation scores (FOS) were determined. This was done by counting the points awarded to each set of items according to the factor combinations of items. The scoring of responses towards items belonging to each of the six factors was done.

1 or 0 points were awarded for each item of each specific factor grouping. 1 point was awarded for each 'A' or positive response. 0 point was awarded for each 'B' or negative response and to all blank responses. In the same way as for the CPI, a simple frequency count of participants' positive responses towards the factors was carried out. Then the score for each participant was recorded. The 6 factor groupings were given a total score of 43 points as tabulated below.

Table 3.2: Tabulation of factor groupings.

FACTOR	ABBREVIATION	NO. OF POINTS AWARDED	ITEMS
Environmental sensitivity	ES	6	18, 27, 28, 33, 37 and 40
Initiative	IN	6	12, 16, 21, 41, 47 and 49
Self-strength	SS	10	2, 10, 13, 14, 20, 22, 24, 32, 46 and 48
Intellectuality	IT	10	1, 3, 4, 9, 19, 25, 34, 36, 43 and 45
Individuality	ID	6	5, 26, 35, 38, 39 and 44
Artistry	A	5	6, 7, 8, 23 and 31

As mentioned earlier, since the KTCPI Instruction Manual was unavailable, the FOS was then converted into simple percentages for a clearer view of the factor orientation of each participant. Finally the FOS of each participant was discussed.

At the next phase, the information gathered using the teacher's observation instrument inclusive of short notes and points was analysed and discussed at length.

Then, information from the student's questionnaire was thoroughly scrutinized, analysed, codified, tabulated and discussed. The same was done for the information from the teacher's questionnaire. From these were obtained a general description of students' likes and dislikes pertaining to the English language classroom and an overview of the background, interest, knowledge, skills, and expertise of the participants pertaining to creative thinking.

On the whole, wherever necessary, tabulation was done using simple frequencies and percentages for easy comprehension.