

## **CHAPTER THREE**

### **RESEARCH DESIGN AND DATA ANALYSIS PROCEDURES**

#### **3.0 Introduction**

This chapter describes the subjects of the research, the sources of information, and the methods and tools employed to collect data as well as the data analysis procedures used.

#### **3.1 The Subjects**

The subjects in this research were two lecturers and four female Semester Four TESL student teachers from '*Maktab Perguruan Tun Abdul Razak, Kota Samarahan, Sarawak*'. The students were on their phase one school-based teaching experience whilst the lecturers were experienced supervisors of teaching practice on their usual duty of supervising them. This experience of teaching in a primary school was a new phase in their preparation towards becoming competent teachers. Prior to this, they had two weeks of school orientation in the second semester, where they mingled with the teachers and pupils and learned the culture of a primary school and wrote reflections of this experience in their journals. In the first three semesters, they had been exposed to some theories, perspectives and techniques of ESL teaching and learning, worked on improving their language proficiency, and practised microteaching of certain language skills.

The students, who were average in their language competence and considered low to moderate performers by the TESL unit, were specifically chosen by the Head of the Language Department to be under the charge of these two experienced lecturers. The subjects were all females and this homogeneity of the subjects could reduce variation, simplify analysis and facilitate group interviews (Patton, 1990). Another

reason for the choice of subjects was that the trainees were his 'former students' and the lecturers his 'colleagues'. His close professional relationship with the students and their openness and sincerity to him made them a reliable source of data. Similarly, his good working relationship and rapport with the lecturers made them another reliable source.

### **3.2 Data Collection**

This being a qualitative second language research necessitated the use of multiple methods, tools and resources or '*triangulation*' to strengthen the study design (Berg, 2001; Neuman, 1999; Patton, 1990) and to determine the validity, reliability and meaningfulness of the data collected. The researcher employed a few methods and tools as well as different sources of information, which he compared and contrasted to obtain data with the hope that the strengths of one approach would compensate the weaknesses of another (Marshall and Rossman, 1989:79 - 111 in Patton, 1990).

#### **3.2.1 The Sources of Information**

##### **3.2.1.1 The Supervisors**

The three most senior and experienced ESL lecturers from the college who have been teaching these six student teachers since their enrolment at the college, were the main sources of information for this research. The lecturers specifically chose to supervise these students as they were considered to be among the weakest in their group. Having profound knowledge in clinical supervision and reflective practice and both having over ten years of experience in counselling beginning ESL teachers during teaching practice, they were the most suitable to advise and guide these students. In terms of data collection, their rapport and professional relationship with the students were supportive factors, as the students were expected to be more co-operative with them than they would be with the less experienced lecturers.

In performing their duty as teaching practice supervisors, the lecturers acted as non-participant observers on behalf of the researcher. This co-operation and sincere help from his colleagues were very much needed by the researcher because he was not able to be present during the observation and counselling sessions of the teaching practice as he was at the university attending courses at that time. Besides, it required at least three persons to observe the student teachers teaching as the classroom practices were held at around the same time in different schools. Moreover, the presence of a third person during the counselling sessions, would have created an uncomfortable and unnatural situation which could have resulted in less reliable data from the student teachers and lecturers. It is natural for one to put on a show when somebody else is observing one's work (Patton, 1990).

The absence of the researcher should not be considered as a disadvantage to him in terms of reliable and valid data collection as his good working relationship with the lecturers and the exercise being their professional duty assured it. Besides, the lecturers would want as genuine information as possible as they were themselves interested in the outcome of the research, which they hoped would give them insights into their own practice, and be helpful to them in making necessary changes for the next teaching practice. Moreover, the reliability and validity of the data could be ascertained by making comparisons with the other types and sources of data collected.

### **3.1.1.2 The School Mentors**

The mentors were from three primary schools, namely "*Sekolah Kebangsaan St. Michael*", "*Sekolah Kebangsaan St. Martin*" and "*Sekolah Kebangsaan St. John*" of which two were located within a radius of ten kilometers from the college whilst the third about sixty kilometers away. The school mentors were experienced and thought to be dedicated and conscientious English teachers who were selected by their headmasters

to guide the student teachers during the eight-week teaching practice. They had to mentor the teachers in every aspect of teaching - from school culture to classroom teaching. They had to observe them teaching throughout the practice and twice specifically for assessment purpose. As for experience, one has had a single experience of mentoring student teachers whilst the other two have had no previous experience. The College Practicum Committee ran a one-day training for them at the college a week before the teaching practice, which was followed by a briefing by their school administrators at their respective schools.

For data collection, the mentors were given questionnaires to complete, as it was not convenient for the researcher to interview them personally due to time constrain. It was also the advice of the supervisors not to interview the mentors as they were shy and lacked confidence, which was thought, could result in inappropriate responses. Information from the mentors about the attitude, dedication, and performance of the student teachers, and their collaboration with the college supervisors was essential for the purpose of triangulation. By comparing the similarities and differences of the mentors' data with that of the supervisors' and students' minimised possible discrepancies and errors.

### **3.2.1.3 Written Documents**

To enhance the reliability, validity and meaningfulness of the data generated from this inquiry, the researcher collected the students' lesson plans and journals, and the lecturers' field notes and written comments.

#### **i The Lesson Plans**

For checking the validity of the interview data and also for analysis, the researcher selected two lesson plans from each subject, which had been discussed with



and checked by the supervisors, and amended by the students. The information from this source was essential in determining the effectiveness of the pre-observation dialogues in guiding the students' to use their knowledge and skills to prepare lesson plans for their particular situations.

## **ii      The Students' Journal**

The journals were valuable sources of information to the researcher as they, firstly, indicated if the students' had actually listened to and understood their supervisors' advice during the advisory dialogues before and after the observations of their teaching. Secondly, they showed whether the subjects had really reflected upon their practice and attempted to solve their teaching problems in the following lessons through a planned course of action.

## **iii     The Field Notes**

The supervisors made jottings and descriptions of their observations in their notebooks for the counselling dialogues, which they also used for the assessment. These notes were a vital source of information for the researcher as the lecturers were his eyes and ears in observing the verbal and non-verbal reactions of the teachers and pupils during the lessons, which he needed for making sense of the pre and post observation conversations that were audio recorded. Social science researchers (Berg, 2001; Neuman, 1999, Patton, 1990) assert the importance of field notes in determining the reliability of qualitative research data.

## **iv      The Written Feedback**

After the counselling dialogues the supervisors provided the students with written comments on the observations and the feedback sessions to help them write

reflections of the lessons and make entries in their journals. These written comments told the researcher how meticulous the lecturers were during the observations and feedback sessions, and how observant they were in identifying the needs of the beginning teachers, as well as how they guided and supported the students towards independent solving of their problems. They were also useful in determining the efficiency of the lecturers and the effectiveness of the counselling sessions in fostering the students' growth towards making them autonomous thinkers and decision-makers. Additional written comments were given in the assessment forms which were based on their lesson planning, stages of the teaching and learning process, reflective thoughts and written reflection, and personal traits and professionalism, which acted as a guide for the observations. The grades and comments given in the assessment were meant to guide the students' progress during the practice.

#### **3.1.2.4 The Student Teachers**

The student teachers themselves were a crucial source of information as the research was on the changes of their teaching behaviour, which was influenced by the process of counselling and reflective practice during the teaching practice. The students' opinions, perspectives and feelings of the whole process of clinical supervision and reflective practice were invaluable for validating and collating the data collected from the different sources and methods.

#### **3.2.1.5 The Researcher**

The researcher was a school teacher for nineteen years before joining the college as a teacher trainer. Of his nineteen years of teaching experience, fourteen years were in the primary schools, which has given him an in-depth knowledge and invaluable experience of primary classroom situations. As a college lecturer, he has had one

experience of the second phase supervision of teaching practice, but was not involved in the actual counselling and supporting processes. He only observed the manner in which they were conducted. His knowledge and experience of teaching in the primary schools makes him a useful resource for this research. Furthermore, his acquaintance and rapport with the subjects ensured the reliability of the information, which was necessary for him to collate and analyse the data to draw out meaningful insights and interpretations.

### **3.2.2 Methods and Tools of Investigation**

The multiple methods of data collection used by the researcher were observations, interviews, and a questionnaire, and the tools involved were audio recordings and field notes.

#### **3.2.2.1 Observation**

In qualitative studies, the major data collecting technique is observation, be it participant or non-participant (Berg, 2001; McDonough and McDonough, 1997; Neuman, 1999). In second language teaching and learning settings especially, it is a very useful method to gather first hand data on the teaching and learning behaviours in the classroom (McDonough and McDonough, 1997). And observation is the main means of collecting data during teaching practice for college supervisors to gauge their students' performance and identify their problems so that they can guide them during the counselling sessions toward developing their teaching competency (Wallace, 1991; Richards and Nunan, 1990).

In this research, the college supervisors acted as non-participant observers in the absence of the researcher, making notes of the important incidences throughout the lessons. The students were not informed of the research at that point, to avoid

distractions so that they would perform naturally and concentrate on their business of teaching and increase the reliability of the data produced. However, they were a little apprehensive of the observations due to the element of assessment present in the process (related during the interviews) although they knew the lecturers well. This is despite the supervisors' assurance that the main aim of this practice was to help them develop their teaching competence. To reduce their tension, the supervisors sat at the back of the classroom during the observations.

Generally the lecturers observed the overall teaching of the student teachers with more emphasis on the students' language accuracy, the flow of the lesson from one stage to another and the conducting of the planned activities for the teaching of the content. Although the underlying purpose of the observations was to evaluate the student teachers' performance according to specified categories in the assessment form, the lecturers used these categories only as a guide for the observations as their focus was on identifying areas of students' strengths and weaknesses that they could talk on during the feedback dialogue. They made jottings and descriptions in their notebooks with carbon copies to be given to the students after the post observation dialogues. The lecturers did not interrupt the lessons so as not to disorientate the student teachers (related during the interview), which they felt was necessary to collect reliable data.

The pupils did not cause any misrepresentation of the data. Their anxiety level was minimised by the fact that the settings for the observations were their own classrooms and that they knew the teachers, as they had been teaching them for about a week. This natural environment allowed the pupils to behave naturally, which is a criterion for effective observation and obtaining reliable and valid data in qualitative research (McDonough and McDonough, 1997; Neuman, 1999; Patton, 1990).

### 3.2.2.2 Interviews

Unlike observations that are limited to the external behaviours of subjects, interviews permit the researcher to explore their '*internal states*' (Patton, 1990:253). For this research, interviews were conducted between the researcher and the lecturers and the researcher and the student teachers with the '*assumption*' that their '*perspectives*' are '*...meaningful, knowable and able to be made more explicit*' (Patton, 1990:278). The main purpose of the interviews was to get the overall perspectives and retrospective views of the supervisors and student teachers about the teaching practice experience, as the researcher was not able to observe the supervision of the teaching practice himself. Another purpose is to make comparisons of the lecturers' perceptions and practice. It was also for the purpose of triangulation and to make links between the data collected from the various sources. The small number of subjects too made it feasible for conducting the interviews within the restricted time available to the researcher. Moreover, interviews are personalized and more flexible than any other instruments, which allow the interviewees to respond freely, and the researcher to probe for in-depth and often unforeseen data (Seliger and Shohamy, 1989).

The researcher was faced with time constrain because he was only able to conduct the interviews towards the end of the college semester – a time when the lecturers and student teachers were busy preparing for a graduation ceremony. To make best use of the limited time available, the researcher devised a few predetermined open-ended questions together with a guide of topics and subject areas. This allowed the researcher to explore, probe and ask questions to generate in-depth information of that particular subject area in a conversational style (Patton, 1990:283). This also allowed the interviewees the freedom to express their opinions, perspectives, and feelings about the issues within the specified limits. The predetermined interview questions were based on certain categories: background-qualification and experience; pre-observation

conference; observation; post-observation conference; reflective practice; other activities and matters related to the students' motivation and attitude.

The interviews substantiated the audio taped data from the pre and post observation dialogues between the supervisors and the student teachers. Personal matters essential to the investigation emerged during the interviews, which were not available in the audio recording of the dialogues. The interviews were audio taped so as not to miss out any important information.

### **3.2.2.3 The Questionnaire**

There were a few reasons for the use of structured open-ended questionnaires with the school mentors. Firstly, it was nearing the end of the semester and the teachers were very busy with their final examination and marking, and it was not convenient to arrange for a suitable time for a lengthy interview. Secondly, upon the advice of the college supervisors, it was better to use a questionnaire with them, as they were quite shy and lacked confidence, which was thought, could result in skewed data. Moreover, a questionnaire could give the teachers more time to think and answer at their own pace giving in-depth thoughts to the questions. Although an interview would provide better room for exploring the views of the mentors, the open-ended nature of the questionnaire was adequate for them to speak their minds without fear or favour.

The questionnaire (Appendix G) was structured based on the issues addressed by the interview questions and guide. The information gathered was for the purpose of triangulation and to get their opinions on the collaboration between the school and college in providing guidance to the student teachers. After a short explanation and upon their request, the teachers were given approximately one month to complete the questionnaire, which they did.

#### **3.2.2.4 Audio Recording**

The supervisors did audio recording first, during the pre and post observation dialogues. They used a palm-sized tape recorder so as not to distract or intimidate the students, which according to one of them could result in distorted information. Generally, the lecturers did their best to put the students at ease throughout the dialogues, but at times, one lecturer raised her voice due to the negative attitude of her students towards the teaching practice. These recordings were done at the respective schools, four in the staff room and four in the school computer room. Despite the noise of teachers in the staff room and pupils in the background, the counselling sessions were carried out with minimal distractions as the lecturers were experienced and got the students intensely involved in the dialogues. One major factor that affected the quality of the counselling sessions, especially the post observation conferences was the arrangement of the timetables that forced the lecturers to meet the students in between lessons which was not convenient for both parties. Two pre-observation dialogues were done just before the lessons at the school, which affected the quality of the counselling, and the teachers taught without making major changes to their lessons.

The researcher did the second series of audio recording during the interviews between him and the lecturers, and him and the student teachers. These recordings were done in the college self-access room, which was away from disturbances. The tape-recorder used was however, a little too large for the comfort of the students, who seemed to be intimidated by its size and the microphone. The researcher was not able to get a smaller tape recorder or hide the one he used. The lecturers on the other hand were apparently not affected by the size of the tape recorder. Contrary to the adverse effects of the large tape recorder and the microphone the physical setting of the quiet air-conditioned room was conducive enough for the interviews.

Four dialogues and four interviews were transcribed for the analysis.

### **3.3 Research Procedure**

#### **3.3.1 Obtaining Consent**

The research involved teachers from three primary schools in Sarawak, and student teachers and lecturers of the '*Maktab Perguruan Tun Abdul Razak, Kota Samarahan*', Sarawak. As such, the researcher had to get the consents of the Sarawak Director of Education (Appendix H (i)) and the Principal of the Teachers Training College (Appendix H (ii)) to conduct it. Prior to getting the consent of the college principal, the researcher discussed with the Head of the Language Department of the college to get her opinion on the manner of conducting the research and the choice of student teachers and lecturers. To meet the school mentors, first he had to get the permission of the headmasters of the respective schools, which he did producing the letter from the Sarawak Director of Education.

#### **3.3.2 Preparing the Instruments**

There were no formal pilot studies conducted for the semi-structured interview questions and the questionnaire due to time constraint. It was also not possible for the researcher to consult his supervisor on the questions because he had to leave for Sarawak to conduct the research as it was nearing the end of the school and college final semester.

To avoid inefficient instrumentation, the questions were prepared at the college with the help of lecturers from the college Language Department and Research Department, as well as with reference to the methodology and social science research literature reviewed. The researcher's knowledge and experience as a primary school teacher as well as his survey of literature on clinical supervision and reflective practice were other contributing factors that ensured the effectiveness of the instruments.



Besides, the semi-structured interview questions were felt adequate for the study as the researcher could correct any shortcomings as they occur.

### **3.3.3 Conducting the Interviews**

Before conducting the semi-structured interviews the researcher had to explain to the lecturers and student teachers the purpose of the study and got their consent on audio recording the interviews and publishing the findings. This was done in accordance to the need to observe ethical matters such as honesty, openness of intent, respect for subjects, confidentiality, anonymity and willingness of subjects to participate voluntarily (Berg, 2001; Neuman, 1999).

The face-to-face interviews were carried out first with the lecturers and then with the respective students. The researcher asked predetermined specific questions allowing the lecturers and students to elaborate on their answers within limits. The researcher had to modify the questions to suit the ability of the different students to comprehend and provide suitable answers. As the student teachers were ladies and the time of the interviews was in the evening, the researcher had to interview them in pairs. Another reason for interviewing them in pairs was their low proficiency and confidence level. Interviewing the students in twos according to the schools they went to, and their supervisors was also more convenient for the purpose of analysis. By doing so, the researcher was able to get sufficient data from the students as they complemented and supported each other on the matters they were not able to explain or elaborate. However, the researcher was careful not to allow them to influence each other's answers to avoid collecting unreliable data.

The first lecturer interviewed commented on the researcher's formal way in questioning, which made her feel quite uncomfortable when providing the answers. This led the researcher to change his manner of questioning to a more conversational style

with the others and there were no comments after that. The students seemed comfortable with his style of questioning although the large tape-recorder and the microphone were intrusive.

The interviews (two with the lecturers and two with the students) were conducted over a period of two weeks (not on consecutive days) and each interview lasted between one hour and one and a half hour. The researcher had to stay at the college hostel for the interviews, as he had to use the college self-access centre after office hours to suit the time available to the student teachers.

#### **3.3.4 Administering the Questionnaire**

The researcher met the school mentors at the respective schools after obtaining the headmasters' permission. Before explaining the questionnaire, he got their consent on publishing their comments, assuring them of their anonymity and confidentiality. He left the questionnaires with them providing self-addressed 'Express Post' envelopes to be returned to him by the end of November 2002, which they did. The long period given was because of the open-ended nature of the questions which required in-depth thinking and reflection on the part of the teachers and also that it was a hectic time for them. The researcher explained to them the purpose of the research and the importance of honest answers for the validity and reliability of the data, with the hope of minimizing the possibility of them consulting other teachers or fabricating the answers.

#### **3.3.5 Conducting Clinical Supervision**

The supervisors conducted the observations at the respective schools beginning in August through to September 2002. Each of them observed two student teachers twice, one of which was with the school mentor, over a period of eight weeks. The pre-observation dialogues, the observations and the post observation dialogues were

conducted based on their perceptions of clinical supervision and reflective practice. Two pre-observation conferences and two post observation conferences were supposed to be audio taped by each supervisors. However, due to some miscommunication, only two sets of the dialogues were complete and done accordingly to be suitable for the analysis.

Every time they met, the supervisors and mentors discussed the students' attitude and performances throughout the whole practice and during the lessons that the mentors observed, to collaboratively monitor the students' progress. They also checked the students' journals and wrote comments in them.

### **3.4 Data Analysis Procedures**

The ultimate goal of the teaching practice program is to develop the student teachers' teaching competence and independence in seeking solutions for their own teaching problems, which is done by integrating their learned theoretical and pedagogical knowledge and skills and experiential knowledge through reflective practice. Since the college supervisors (besides the school mentors) play an important role in developing these qualities among the student teachers during the clinical supervision, their perceptions and views and practice of supervision are the focus of this analysis.

From the collected data only two sets of counselling dialogues were found to be complete, having the pre and post conferences. As such, the researcher chose to analyse the transcripts of these two sets of dialogues in depth, together with the interview transcripts of the two respective lecturers and two student teachers, the two respective mentors' questionnaire responses and the relevant written documents (Ch. 4, Sec. 4.1 and 4.2).

The first step of the analysis was to transcribe the counselling dialogues and interviews so that the contents could be laid out for scrutiny. The transcripts (Appendix

A – Appendix D) were numbered according to the verbal Turns between the lecturers and the student teachers for easy reference (Silverman, 1993). Please check page xii for acronyms and symbols used for the transcription.

The second step of the analysis was to explore the contents of the raw data from all the sources and methods used by comparing the emerging patterns. This was to ascertain the similarities in the different sources to check their validity as emphasised by Seliger and Shohomy, (1990) of qualitative research. The perceptions and views of the supervisors, the student teachers and the mentors in the interviews and questionnaire, as well as the written comments and reflections of the students were examined meticulously to facilitate the comprehension of the researcher of the observable patterns. Checking his own biases, the researcher eliminated information that was considered misleading or bias towards any of the participants.

Following this, a macro content analysis (Patton, 1990) (Chapter 4, Sec. 4.1 and 4.2) of the primary data was done to reduce it into distinguishable categories under the broad titles 'Supervisor's Role', 'The Three Stage Cyclical Process', 'Reflective Practice', 'Supervisor - Mentor Collaboration' and 'Benefits to Student Teacher', based on the theories and principles of the cyclical stages of clinical supervision: the pre-observation conference, the observation, the post observation conference, and action plan. Although the titles were "*analyst typologies*" and not "*indigenous typologies*" (Patton, 1990), they were related to the emerging patterns in the data, preserving the authenticity and immaculate quality of the lecturers' perceptions and views and practice.

Finally, a micro cross-case inductive analysis (Patton, 1990) (Chapter 4, Sec. 4.3) of the data was done to draw out the converging and diverging patterns between the two lecturers' practices. These patterns were categorised under the titles 'Focus', 'Supervisors Roles', 'Helping Atmosphere', 'Supervisory Styles', 'Interventions' and 'Critical Thinking', which gave insights into the actual manner in which the two college

lecturers provided help and supported the student teachers' professional development within the three stages of clinical supervision.

The presentation of the analysis is first by narrating the case-by-case study of the perceptions and views and practices of the two college supervisors on the titles mentioned above (Sec. 3.4). The perspectives, opinions and feelings of the student teachers and mentors were incorporated under the relevant titles at appropriate points. This is followed by a description of the cross-case study of the counselling dialogues, observations and action plans.

### **3.5 Summary**

This chapter first discussed the subjects of the research who were three college lecturers and six student teachers followed by a discussion of the sources of information: the college lecturers, the school mentors, written documents, the student teachers, and the researcher. Then it discussed the multiple methods and tools used in the investigation: observations, semi-structured interviews, a semi-structured questionnaire, audio recording, and field notes. Finally it discussed the procedures of analysing the content of the data, which are case studies of the two lecturers and a cross-case analysis of their practice to determine the convergence and divergence of patterns between them.