

CHAPTER THREE

METHODOLOGY

3.1 Introduction

For the past several decades, the role of social science research has become “broader and virtually unbounded” (Newman, Ridenour, Newman, & Paul DeMarco, 2003, p. 172). During the 1960s, the focus of social science research is on prediction and control. As time passes by, contemporary researchers are more open to the fact that the purpose of a study may be multiple and may change as the study unfolds. Research should no longer be confined between the quantitative and qualitative approaches any more.

Given the present trend in the social science research where both the qualitative and the quantitative approaches are used to explore and determine the essence of an experience, the present study has also decided that it would best capture the counsellor trainees encounter with conflict by combining the two research methods.

There are two main purposes to the research. First, the purpose of the research is to understand the counsellor trainees’ experience with conflict in group counselling. And, the second purpose is to develop and test the effect of an intervention training module on counsellor trainees’ knowledge, conflict management strategies, and attitudes. Thus, a qualitative research design complements with a quantitative approach would be best to

embrace the two purposes. With the qualitative approach, it is possible to uncover the meaning of a phenomenon as experienced by the counsellor trainees, especially in their conflict management strategies, their attitude towards conflict in group counselling and attitude towards group leadership functions. With the quantitative approach, it is possible to assess the effect of a training module on the trainees' knowledge, conflict management strategies, and attitudes.

3.2 Research Design

The study intends to answer two research purposes on the counsellor trainees' experience dealing with conflict in group counselling, and to develop and test the effect of an intervention training module on the trainees' knowledge, conflict management strategies and attitudes. The purposes of the study suggest that mixed methods would do justice in exploring, capturing, and determining the effects surrounding the phenomenon as experienced by the counsellor trainees. There are nine general purposes of social science research as described by Newman, et al. (2003) and they could be categorized as (1) to predict, (2) to add to the knowledge base, (3) to have a personal, social, institutional and/or organizational impact, (4) to measure change, (5) to understand complex phenomena, (6) to test new ideas, (7) to generate new ideas, (8) to inform constituencies, and (9) to examine the past. The purpose of the present study is to understand a phenomenon, test new ideas, and measure change.

Mixed methods as a research design has gone through several decades of refinement before it is well accepted in the field of academic. Interest in mixed methods design began in the 1950s and continued up until the 1980s. The design gains scholarly attention

when Campbell and Fiske (1959) use a collection of multiple forms of quantitative data to study the validation of psychological traits (in Creswell & Plano Clark, 2007). Since then paradigm debates on whether or not to combine quantitative and qualitative research design begin to take place, including at the American Evaluation Association annual meeting. Rossman and Wilson (1985) classify three groups of researchers based on their stands towards combining qualitative and quantitative designs in one study. The purists are those who would not mix between the paradigms, the situationalists who adapt their methods to the situation, and the pragmatists who believe that multiple paradigms can be used to address research problems. Slowly with time, attention begins to shift towards the methods or procedures for designing a mixed methods study. Greene, Caracelli, and Graham's (1989) classic article on mixed methods research design has laid down the foundation for the present work in mixed methods as one of the research designs in its own right. They analyze 57 evaluation studies and develop a classification system of six types and the designs that go into each of the types. In 1991, Morse, a nursing researcher, designs a notation system to convey how to implement the quantitative and qualitative components of a study.

From its formative emergence into the world of research, mixed methods have developed and established itself as one of the popular designs among social science researchers. Creswell (2009) has aligned mixed methods as a third approach alongside quantitative and qualitative approaches. As strong advocates of mixed methods design, Creswell and Plano Clark (2007) offer the following definition of mixed methods.

Mixed methods research is a research design with philosophical assumptions as well as methods of inquiry. As a methodology, it involves philosophical

assumptions that guide the direction of the collection and analysis of data and the mixture of qualitative and quantitative approaches in many phases in the research process. As a method, it focuses on collecting, analyzing, and mixing of both quantitative and qualitative data in a single study or series of studies. Its central premise is that the use of quantitative and qualitative approaches in combination provides a better understanding of research problems than either approach alone (p. 5)

According to Creswell, Plano Clark, Gutmann, and Hanson (2003), the use of mixed methods can neutralize or cancel out some of the disadvantages of certain methods. Mixed methods research provides more comprehensive evidence for studying a research problem than either quantitative or qualitative research alone. Another point that mixed methods approach stands out in social science is because social phenomena are complex to understudy thus different kinds of methods are needed to understand these complexities (Greene & Caracelli, 1997). This advantage of using mixed methods design is highlighted by Creswell and Plano Clark (2007) who claim the design as “practical in the sense the researcher is free to use all methods possible to address a research problem” (p. 10).

Under the mixed methods approach, several designs have been proposed by Creswell, et al. (2003), which include sequential explanatory design, sequential exploratory design, sequential transformative design, concurrent triangulation design, concurrent nested design, and concurrent transformative design. Each design has either given equal or selective emphasized on either qualitative or quantitative approach in its design. And, each design proposes a different level of integration between the data collection and data analysis. In other words, mixed methods research design involves the “collection or analysis of both quantitative and/or qualitative data in a single study in which the data are collected concurrently or sequentially, are given a priority, and involve the integration of

the data at one or more stages in the process of research” (Creswell, et al., 2003, p. 212). For this particular study, to best answer the postulated research questions the researcher chooses the sequential exploratory design. See Figure 5.

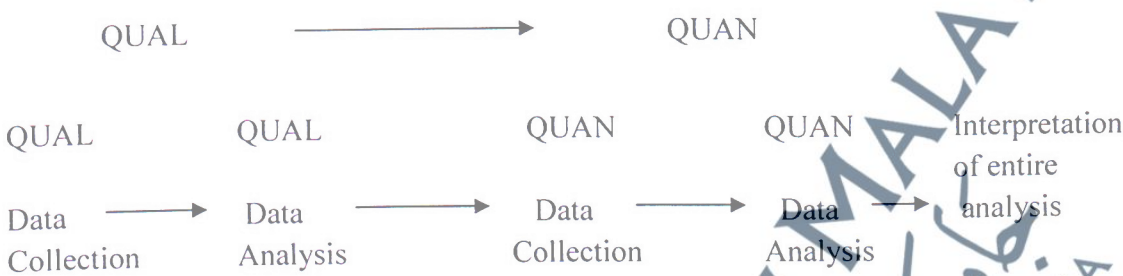


Figure 5: Sequential Exploratory Research Design

The sequential exploratory design involves two stages. This design is characterized by an initial phase of qualitative data collection and analysis, followed by module and instruments development, and then by a phase of quantitative data collection and analysis. This researcher chooses the design for three reasons. First, to explore a phenomenon which the researcher is very much interested in but lack in-depth understanding. Hopefully, by exploring the real experience of counsellor trainees the researcher could get a holistic picture of their experience with conflict in group counselling, attitudes, and conflict management strategies. Second, this method allows the researcher to translate the qualitative data collection into a training module that could respond to the needs of counsellor trainees. And, third this method provides the opportunity for the researcher to test the effects of the training module on another bigger group of counsellor trainees. Even though Creswell et al. (2003) caution researchers applying this method of substantial length of time involved to complete data collection phases, the present researcher still prefers this method for its unique attribute. The

systematic sequence embedded within the research design permits the phenomenon under study to be explored in depth, the data being used sensitively, and a module to be developed and tested within the same framework of the original research.

One of the challenges in mixed methods approach is how and when to mix the data collected from the quantitative and qualitative datasets. There are three ways in which mixing of data occurs in the mixed methods design: merging or converging the qualitative and quantitative datasets by bringing them together, connecting the two datasets by having one build on the other, or embedding one dataset within the other so that one type of data would provide a supportive role for the other dataset (Ary, Jacobs, & Sorensen, 2010).

The proposed method, the sequential exploratory design is similar to the study conducted by Myers and Oetzel (2003). Their study is to create and validate an instrument for measuring organizational assimilation. They begin their study with a qualitative exploration of the dimensions of organizational assimilation. During the first phase, they conduct semi-structured interviews with 13 participants. After creating the organizational assimilation instrument from the qualitative findings, the study moves into its second, quantitative phase. They, then conduct a survey with 342 employees across diverse industries. The researchers analyze the survey responses for scale reliability, factor analysis, and construct validity. In summary, both Myers and Oetzel (2003) collect both qualitative and quantitative data to, respectively, explore a phenomenon and measure it.

The following discusses in detail the research designs chosen to meet the purposes of the study. For the qualitative approach, phenomenological design is used to explore the experience of the counsellor trainees dealing with conflict in group counselling. As for the quantitative approach the one-group pretest-posttest experimental design is used to measure the effects of a training module on counsellor trainees.

3.2.1 Phenomenology

There are various types of qualitative research such as grounded theory, ethnography, case study, narrative, and phenomenology. As a research design, qualitative approach places emphasis on understanding through looking closely at people's words, actions and records. Qualitative research examines the patterns of meaning which emerge from the data, to find patterns within those words (and actions) and to present those patterns for others to inspect while remaining as close to the construction of the world as the participants originally experienced it (Van Maanen, 2011). For the present study, the researcher chooses the phenomenological research design to study the counsellor trainees experience with conflicts and group leadership functions in group counselling.

As a research design, phenomenology describes how people experience the objects of the external world and explains how objects of experience are constructed. Phenomenology emerges out of Husserl's work and whose ideas are further developed by others, including, Schutz, Merleau-Ponty, and Gurwitsch (in Creswell, 2009). Phenomenology literally means the study of phenomena. Phenomena may be events, situations, experiences or concepts (Merriam, 2009). These phenomena may exist because the

phenomenon has not been overtly described and explained or the understanding of the impact it makes may be unclear.

Phenomenological research begins with the acknowledgement that there is a gap in the understanding and that clarification or illumination will be of benefit (Creswell, 2009). Since the phenomenological research only focuses on a specific phenomenon as experienced by a group of participants it may not necessarily provide definitive explanations for the general population (Ary, et al., 2010). Although this may be viewed as a weakness, phenomenological approach has the potential to raise awareness and insight among individuals involved into understanding the phenomenon from new perspective without taking into account its psychological origin (Creswell, 2009; Merriam, 2009). Essentially, the goal of phenomenology is to enlarge and deepen understanding of the range of immediate experiences (Creswell, 2009). In other words, phenomenology becomes the critical reflection on the conscious experience, rather than the subconscious motivation of the respondents.

There are several challenges for any researcher to employ phenomenological approach as her major method of study. According to Creswell (2009) and Ary, et al. (2010) a researcher applying the method might need to acquire the knowledge of the design, be selective with her participants, need to bracket her experience from interfering with data collection, and decide on how and in what way her personal experiences will be introduced into the study. The researcher needs to overcome these challenges because failure to do so may threaten a full understanding of the phenomenon under study.

Even though the challenges of employing the phenomenological approach are present from the beginning of the research until its completion, the researcher has taken several measures to ensure the challenges do not interfere with the data collection procedure. The researcher has continuously reminded herself to set aside her personal views and tried to understand the participants' frame of reference as they relate their experiences dealing with conflict and group leadership functions in group counselling. The most challenging part is when the researcher feels the urge to propose the "right" words to help certain participants who are struggling to describe their experience. By letting the participants describe the experiences using their own words and expressions the participants feel more in control of their story. Many times during the phenomenological exploration, the researcher is surprised with the array of words the participants used to describe their experience.

In short, the present study uses the phenomenological research design because it helps the researcher explore the counsellor trainees' experiences with conflict in group counselling. The approach provides the trainees with the opportunity to share their feelings, thoughts, and actions. They are free to convey their meanings of the experience as much as and as in depth as they feel comfortable without being subjected to the researcher frame of reference. Phenomenological approach gives the participants the ownership to their experience and the researcher learns to respect their rights by allowing them the freedom of expression of their sharing.

3.2.2 One- Group Pretest-Posttest Experimental Design

In the quantitative part of the research design, the study applies a one-group pretest-posttest experimental design to test the effects of a training module on counsellor trainees' knowledge, conflict management strategies, and attitudes. A one-group pretest-posttest experimental design is a type of evaluation that aims to determine whether a program or intervention has the intended effect on study participants. While a true experiment includes (1) pre-posttest design, (2) a treatment group and a control group, and (3) random assignment of study participants, the one-group pretest-posttest experimental design lacks one of these design elements (Dunn, 2009). As for the present study, it lacks the control group but takes into consideration the elements of pretest and posttest, and random selection of participants into its experimental group.

The one-group pretest-posttest experimental design aims to evaluate interventions on a specific population and to demonstrate causality between an intervention and an outcome (Ary, et al., 2010; Dunn, 2009). For this particular study, the researcher uses the one-group pretest-posttest experimental design for three reasons. The first is the number of population involved is small for an experimental and a control groups to be established. The total number of graduate students from the Guidance and Counselling program at the time of the study is 53 and according to Cohen's size effect 32 subjects are required for the quantitative data analysis. As the students have completed all the core counselling courses including the group counselling course, and have encountered conflict in group counselling, the researcher randomly selects them to be in the one-group pretest-posttest experimental group. To prepare for any dropout, the researcher selects 35 subjects. It is

quite a challenge to divide the 35 students into an experimental and a control groups due to its small number and because of mobility issue. Some of them do not reside around UPM area and some are living as far as Terengganu, Sabah, or Sarawak. Thus, keeping track of the students' whereabouts is difficult. Due to that, randomization of the subjects into control and experimental groups proves to be a challenge.

The second reason is due to sharing of information among the participants, which could pose a threat to research internal validity (Dunn, 2009). Since the number of students is small, they have developed a close-knit social group where sharing of information among them is quite high. When the words are out that the researcher is conducting a study on conflict management in group counselling and is looking for subjects, they voice their interest. Given the strong networking they have established, dividing them into a control group and an experimental group might pose a threat to the research findings. For that reasons plus the interest from the counsellor trainees to participate in the study, the researcher, after consulting with her research supervisor, has randomly selected the students to be part of the training workshop participants.

After consulting with her supervisor and looking at the positive and the negative effects of randomizing the trainees into two groups, all the trainees are included in the study. If a control group is designed, sharing of information among them could not be prevented. The same could be said about the teaching and coaching of group skills and conflict management strategies among them. If this is to happen, Creswell (2009) and Dunn (2009) claim that the diffusion of imitation might affect the posttest performance of the

comparison group. It might jeopardize the researcher ability to understand the effects of the intervention module on the trainees.

The third reason the researcher uses the one-group pretest-posttest design is for ethical consideration. Group counselling deals with helping individuals work through their problems and to do that the counsellor in charge should be competent in group counselling theories and group skills. Moreover, during the process of group development, conflict is inevitable to happen. At the time the study is conducted the trainees are all undergoing internship training, thus the researcher believes every counsellor trainees should be given equal chance to participate in the workshop to enable them to better handle critical events including conflicts in groups. To deprive them from taking part in the training workshop may deprive them from acquiring the knowledge and skills needed to deliver meaningful group experience to their clients. Due to these three reasons, the researcher decides not to include a control group, thus focusing on the one-group pretest posttest experimental design.

A one-group pretest-posttest experimental design requires that one collects data on the trainees' level of performance before the intervention takes place (pre-), and that one collects the same data after the intervention is completed (post-). In this study, a single pretest observational measurement (O) is made, an intervention (X) is implemented, and a posttest measurement (O_1) is carried out. See Figure 6.

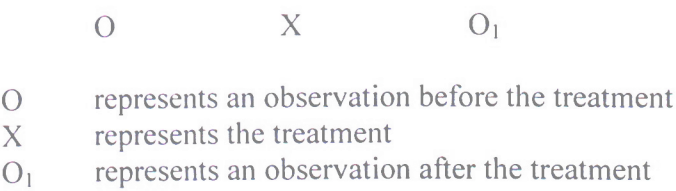


Figure 6: A One-Group Pretest-Posttest Experimental Design

The inclusion of a pretest provides some information about what the acquisition rate might have been had the intervention not occurred. This is a commonly used research design, especially in the medical fields when new treatment or medication is introduced to treat certain types of diseases or groups of patients (Harris, McGregor, Perencevich, Furuno, Jingkun Zhu, Peterson, & Finkelstein, 2006). The pretest-posttest design allows the researcher to make inferences on the effect of the intervention by looking at the difference in the pretest and posttest results. However, interpreting the pretest and posttest difference need to be done with caution since one cannot be sure that the difference in the pretest and the posttest is causally related to the intervention (Evans & Rooney, 2011).

According to Cherulnik (2001) the weakest part of the one-group pretest-posttest design is it cannot make a definitive causal inferences about the effects of an intervention and it caters to a general research question like “what is the effect .. ?” type of question. Since the design has no control group, the question is on how to determine that the effect of the intervention has resulted in changes in the treatment group. In order to analyze the outcome data, Ary, et al. (2010) propose that the data is quantitative in nature like implementing a set of quantifiable questionnaire to the trainees to respond to before and

after the treatment. Ary, et al. (2010) and Creswell (2009) suggest that the quantitative data be supplemented with additional form of qualitative data. Qualitative data, in the form of the trainees' feedbacks could provide valuable information that might explain the quantitative results.

Taken the suggestions given by Ary, et al. (2010), Creswell (2009), and Creswell and Plano Clark (2007), the researcher has, in addition to the development of the conflict management training module, also constructs four sets of questionnaires to measure the trainees' knowledge, conflict management strategies, and attitude towards conflict and towards group leadership functions. To complement the findings, the researcher asks the workshop participants to provide written feedbacks of their experience after completing the training. Their testimonials would enhance the research results both in pointing out the weaknesses and the strengths of the intervention module.

3.3 Sampling Procedures

3.3.1 Location of Study

The study is conducted at the Faculty of Educational Studies, University Putra Malaysia (UPM). The university is located in Serdang, a small town in the state of Selangor Darul Ehsan, Malaysia. The university has a population of about 20,000 undergraduates and 5,000 of postgraduate students in 2012. It offers various study programs for students, ranging from social science programs to engineering to health sciences including medical and veterinary studies.

Faculty of Educational Studies is one of the many faculties in UPM. The programs of study offered by the Faculty are endorsed by the Ministry of Higher Education (MoHE). Among the programs of study offered at the undergraduate level include Guidance and Counselling, Teaching of English as Second Language (TESL), Teaching of Bahasa Malaysia as First Language (PBMP), Home Economics Science (SRT), Agriculture Science (SP), Human Resource Development (HRD), and Sports Science (PJ). In addition to the undergraduate programs, the Faculty also offers several post graduate studies to meet the need of the local and international students. Among the many programs offered are Guidance and Counselling, Educational Psychology, Human Resource Management, TESL, PBMP, and Educational Administration. At the current semester of 2012, the Faculty has about 1,200 undergraduate students and about 500 postgraduate students.

3.3.2 Population of the Study

The study focuses on the graduate students from the Guidance and Counselling program. The program offers a Master of Education (M.Ed) and a Master of Science (M.Sc) in guidance and counseling. In both program of studies, students are required to complete 48 credit hours of coursework. The only difference between the programs is the M.Ed students will take a 6-credit project paper whereas the M.Sc students will complete a 12-credit thesis. Given the scenario, most of the students would complete their studies at various times depending on their academic progress. Most of the M.Ed students would finish their study during the fourth or fifth semesters compared to the M.Sc students who would acquire one or two additional semesters. At the time of the present research, the

total number of graduate students in the program is 138 and about 108 are registered. There are 25 students in the first semester, 30 in the second semester, 20 in the third semester, 23 in the fourth semester, and 10 in the fifth semester.

Since the present study stresses on the completion of the counselling core courses, only students who have completed and passed the courses are considered as potential subjects. As a result, 53 students from the third, forth, and fifth semesters are considered as the population under study. Students beyond the fifth semester are not included because they need to focus on finishing their thesis writing.

3.3.3 Sampling

The sampling of the study comes from the graduate students from the Guidance and Counselling program. Since the study is employing the sequential exploratory research design, two groups of independent sample are required for data collection. The first group is intended for the qualitative data acquisition whereas the second is for the quantitative data. According to Creswell and Plano Clark (2007), the qualitative data collection should be a smaller sample than the quantitative data collection. On the other hand, the bigger size in the quantitative data collection can increase the inference quality or internal validity and generalizability of the research. "To do this, there is often a need for two types of samples: a probability sample (to increase generalizability/ transferability) and a purposive sampling (to increase inference quality)" (Kemper, Stringfield, & Teddlie, 2003, p. 284). Kemper, et al., (2003) claim that purposive sampling is only used occasionally to generate data from the qualitative and quantitative data collection.

In the phenomenological study, a smaller sample size is usually used to gather rich data. In many cases, the samples are selected through purposive techniques (Kemper, et al., 2003). Purposive sampling requires the researcher to use some criterion or purpose to choose her samples. "The logic and power of purposive sampling lies in selecting information-rich cases for study in depth" (Patton, 2002, p. 169). The underlying focus of purposive sampling is to select specific cases that will provide the most information for the questions under study.

Following the suggestion made by Kemper, et al. (2003) the researcher decides to employ simple random sampling of subjects into the experimental group and purposive sampling for the phenomenological approach. The following section explains how the students are selected as participants in the study using the different sampling procedures.

3.3.4 Selection of Participants

Participants for the study are the graduate students from the Guidance and Counselling program. They have completed and passed all the core counselling courses including the group counselling course. All of them have a cumulative grade point average of 3.68 to 4.00 at the time of the research. They have experienced conducting group counselling and have encountered conflict in the group during the process. Due to that, to allow for equal chance for each of them to be selected to participate in the training workshop, the researcher employs simple random sampling. To decide on the appropriate number of subjects for the one-group pretest-posttest experimental design, the researcher has to determine the minimum effect size for inferential statistics to be administered. According to Cohen's effect size, 32 subjects would justify for the running of inferential statistics

(Sidek Mohd Noah, 2005). To ensure there are enough subjects at the end of the study, taking into account the possibility of some dropout cases, the researcher decides to increase the number to 35.

The researcher has obtained the list of 53 Guidance and Counselling graduate students from the Office of Graduate Studies, Faculty of Educational Studies, UPM. The researcher writes down their names individually on a piece of paper, rolls the paper, and places them in a bowl. Then the researcher pulls out, one by one, 35 names for the experimental group.

For the phenomenological approach, the researcher uses the remaining 18 graduate students. Creswell (2009) states that usually in the phenomenological approach purposive sampling is employed to meet the needs of a project. Patton (2002) recommends that qualitative sampling design specify minimum samples based on expected reasonable coverage of the phenomenon given the purpose of the study. The researcher has determined the criteria the students need to fulfill to be eligible as interviewed respondents. These criteria are important as the researcher seeks to gather information about their experience, and for them to provide real examples to support their claims and stories. In order to qualify as interview respondents, they have to meet the following criteria:

1. have encountered some type of conflicts when leading group counselling,
2. have engaged in some kind of conflict management strategies, and
3. could give full commitment till the completion of the study.

No restrictions are imposed on gender, age, ethnicity, or marital status of the participants.

All the 18 students meet the criteria to be eligible for the interview session. The researcher meets with them to explain about the objectives of the study and the purpose of the interviews. She ensures the participants that the content of the interviews would be kept confidential and would only be used for research purposes. Their names and identity would not be revealed to any third party. The researcher then schedules appointment times with them.

During the interviews, only 12 participants are involved. The reason the researcher does not include all the 18 participants is that when the researcher interviews the tenth participant, the data reaches its point of saturation. The point of saturation is when the researcher could no longer extract new information from the additional participant (Merriam, 2009). Or, when the experience shared by the participant is similar to the sharing of earlier participants. However, to make sure the data has reached the point of saturation, two more trainees are interviewed, making the total participants twelve.

As for the subjects for the experimental approach, the researcher contacts the 35 graduate students inviting them to participate in a two-day conflict management training workshop. Out of the 35 students, only 32 gave their consent to participate in the study. The other three do express their interest but decline the invitation because they are either living outside Selangor or are busy with other commitments.

All the 32 counsellor trainees who agree to participate in the study are either in the process of completing their internship and/ or project paper. They are divided into four small groups of 7 to 9 people per group. The information on the dates and venues of the

workshop is emailed to the trainees and they could choose the date as seemed convenient. For all the workshop dates, one week before it is conducted the researcher sends a reminder to the trainees using the emails as well as telephone messaging like sms to remind them of the event.

Even though 32 trainees agree to participate in the workshop, one trainee fails to complete the two-day training. She attends the first day of training but due to some emergency at work decides to withdraw from the study. As a result, only 31 trainees finish the two-day training to make up for the quantitative data collection. See Figure 7.

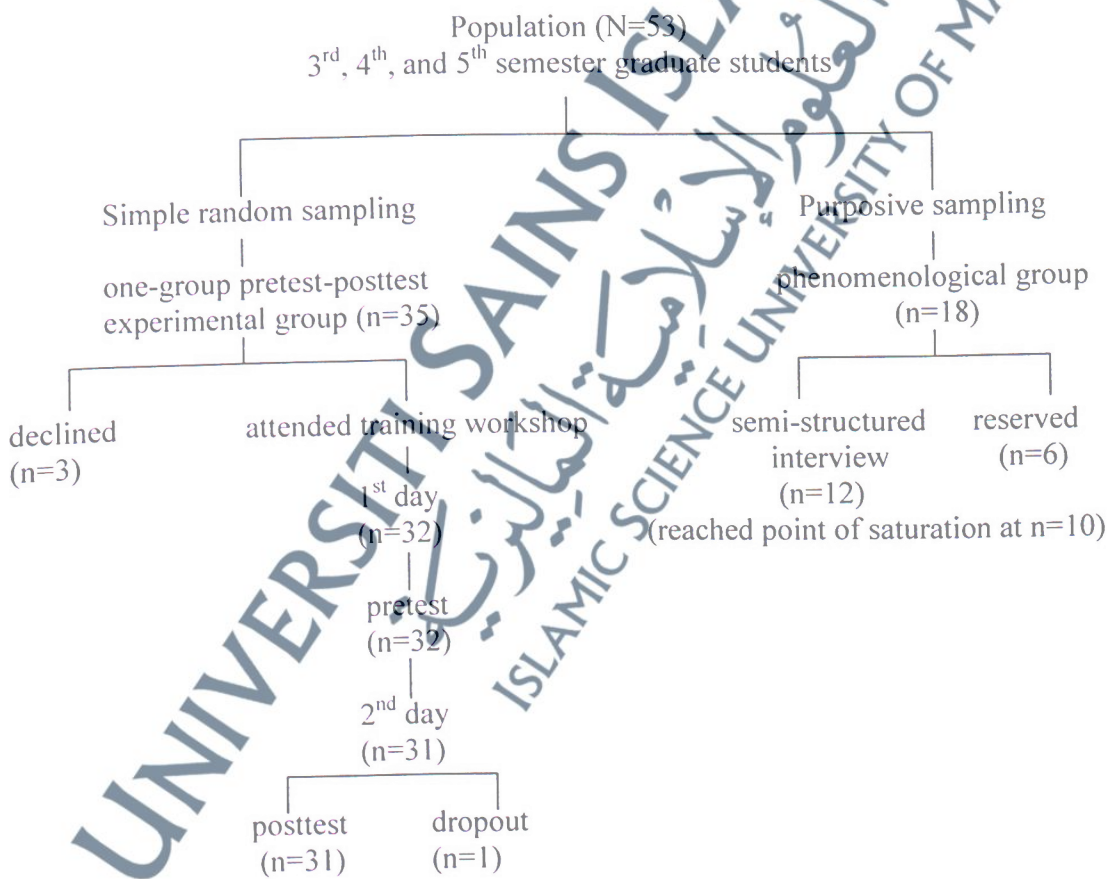


Figure 7: Sampling Procedure

3.4 Data Collection

Under the exploratory sequential research design, different types of data collection methods are designed to meet the specific needs of the study. For the phenomenological approach, data are collected through semi-structured interview. For the one-group pretest-posttest experimental design, a set of questionnaires is used. The questionnaires are constructed using the themes from the interview and from past research.

3.4.1 Semi-Structured Interview

Interview is the major source of information gathering in the exploratory part of the study. Patton (1990) states the purpose of interview specifically as "to find out what is in and on someone else's mind", and that is exactly what the target of the phenomenological study focuses on, the perception of lived experience. Kvale (1996), who says that interview would help "unfold the meaning of peoples' experiences, to uncover their lived world prior to scientific explanation" (p. 1), shares the same view with Patton. Kvale also stresses that an interview is a conversation that has structure and purpose.

There are two advantages to using interviews in this research. Firstly, the interview is a flexible and adaptable way of finding things out (Robson, 1998). The interview process is like a form of discourse (Mohamed Sharif Mustaffa, 2002). An interview is a joint product of what the interviewees and the interviewer talk about together and how they talk with each other (Van Manen, 2011). Interview provides an avenue to directly ask the trainees about their feelings and thinking as they occur.

Secondly, face-to-face interviews offer the possibility of modifying one's line of inquiry that self-administered questionnaires cannot (Ary, et al., 2010). In addition, it provides rich and highly illuminating material (Robson, 1998). These aspects of the interview help the researcher capture the intriguing and complex meanings of the trainees' experience when they describe their group counselling works. This personal and rich information could only be arrested through verbal description as uttered by the trainees. Mohamed Sharif Mustaffa (2002), who uses interview to accumulate the experience of school counselors, views it as a tool that goes beyond the spontaneous exchange of views of everyday conversation.

Before the researcher begins the interview sessions, a pre-field work is conducted with the counsellor trainees. At the pre-field work stage, the researcher is acquainted with the 18 graduate students who have agreed to volunteer in the study. During the first meeting, the researcher briefs the trainees on the nature of the study, the objectives, their roles, and the data collection procedure. During the briefing, questions from the trainees are entertained. They want to know about the period for the research to complete, whether they would be given a copy of the research findings, and issues surrounding confidentiality of the interview session.

After the briefing, the researcher distributes consent forms for the trainees to sign. The consent form is an important part of a research and it is also part of ethical guidelines to be followed before a research could be conducted (Creswell, 2009). A copy of the signed consent form is given to the trainees to keep as reference. Finally, the researcher reminds

them that once the interview reaches its saturation point, some of them might not be called for the interview session.

The interview sessions with the trainees are done in a relax and informal manner. A general interview guide is developed as a basic checklist during the interview to ensure the phenomenon under study is fully understood. The trainees can take as much time as they like to respond to the questions.

During the interview, a list of questions is given to the trainees. See Table 1. They could decide to answer the interview questions without any fixed order. They also could go back and add new information to any of the questions as they think necessary. This permits greater flexibility than the closed-ended type of question and allows for a more valid response from the trainees’ perceptions of reality. It is as if he or she is having a discussion and reflective session with the researcher. The interview takes about 45 to 70 minutes to complete. Most of the trainees finish the interview within one hour.

Table 1: List of Questions for Semi-Structured Interview

Objectives	Questions
1. to explore the counsellor trainees’ experience with conflict in group counselling.	What is your definition of conflict in group counseling? What is your experience with conflicts in group counseling?
2. to explore the counsellor trainees’ conflict management strategies in managing conflict in group counselling.	How did you manage conflicts in group counseling?

3. to explore the counsellor trainees' attitude towards conflicts in group counselling.

How did you feel when conflict happened in the group?

What were your thoughts about the conflict when it happened in the group?

What was your reaction towards the conflict when it happened in the group?

4. to explore the counsellor trainees' perceptions of group leadership functions during conflict in group counselling.

How do the counsellor trainees' define group leadership functions in group counselling?

What is the trainees' perception of their roles in group counseling?

What are their leadership functions during the conflict in group counseling?

To reduce the occurrence of misinterpretation of the trainees' message, the researcher frequently uses clarifying, paraphrasing, reflecting, and summarizing skills. The researcher would ask the trainees to clarify on their sharing when (i) they seem to hesitate in giving their response, (ii) they leave some sentence hanging, or (iii) they use idioms or metaphors to describe their experience. This is to avoid the researcher from making her own interpretation of the trainees' experience. Through the interviews, the researcher gets to know the personal meaning counselling has in the trainees life and the obstacles they encountered to become counsellors. During the interviews, the trainees are in full control of the process.

Most of the interviews are conducted in English. However, the choice of language is up to the trainees. They are free to speak in either Bahasa Malaysia or English. The trainees' use of language is fascinating in its own right. Mohamed Sharif Mustaffa (2002) has made similar observation. Some trainees use analogy and metaphors to convey their

message. The interview sessions are recorded and transcribed into the language they speak. For the Bahasa Malaysia transcribed work, only the quotations to be used for data analysis are translated into English.

After all the interviews are completed, they are transcribed verbatim. Transcribing is the procedure for producing a written version of the interview (Creswell, 20079). It is a full script of the interview. Good quality transcribing is not simply transferring words from the tape to the page (Mohamed Sharif Mustaffa, 2002). Tone and inflection are good indicators of a whole range of feelings and meanings. According to Hancock (1998), when transcribing the interview the researcher should consider how these feelings and meanings could be communicated on paper by using punctuation marks, and techniques like upper case lettering, underlining, and emboldening.

As a conclusion, the semi-structured interview as a qualitative data collection tool allows the participants to be in full control in relating their personal experience. They enjoy the flexibility of choosing which questions to respond first, and most important they feel relax and not pressured to quickly respond to the research questions.

3.4.2 Questionnaires

For the quantitative data collection, the study uses a set of questionnaires to measure the effects of the conflict management training module. These questionnaires assess the trainees' knowledge on conflicts, conflict management strategies, attitude towards conflict in group counselling, and attitude towards group leadership functions. The questionnaires are constructed from the themes extracted from the interview data and

message. The interview sessions are recorded and transcribed into the language they speak. For the Bahasa Malaysia transcribed work, only the quotations to be used for data analysis are translated into English.

After all the interviews are completed, they are transcribed verbatim. Transcribing is the procedure for producing a written version of the interview (Creswell, 2007). It is a full script of the interview. Good quality transcribing is not simply transferring words from the tape to the page (Mohamed Sharif Mustaffa, 2002). Tone and inflection are good indicators of a whole range of feelings and meanings. According to Hancock (1998), when transcribing the interview the researcher should consider how these feelings and meanings could be communicated on paper by using punctuation marks, and techniques like upper case lettering, underlining, and emboldening.

As a conclusion, the semi-structured interview as a qualitative data collection tool allows the participants to be in full control in relating their personal experience. They enjoy the flexibility of choosing which questions to respond first, and most important they feel relax and not pressured to quickly respond to the research questions.

3.4.2 Questionnaires

For the quantitative data collection, the study uses a set of questionnaires to measure the effects of the conflict management training module. These questionnaires assess the trainees' knowledge on conflicts, conflict management strategies, attitude towards conflict in group counselling, and attitude towards group leadership functions. The questionnaires are constructed from the themes extracted from the interview data and

from other relevant readings on group counselling and conflicts. The questionnaires are administered to the trainees before the start of the conflict management training workshop and after the completion of the workshop. They are scored for changes in the trainees' knowledge on conflict, conflict management strategies, attitude towards conflict in group counselling, and attitude towards group leadership functions.

3.5 Development of Conflict Management Training Module for Group Counsellors (CMTM)

After the qualitative data has been transcribed and analyzed for themes and subthemes, the work to develop the training module begins. The principle of Conflict Management Training Module is that counsellor trainees could develop positive attitude and be trained to manage conflict effectively by allowing them to explore the different facets of conflict and group leadership functions, and teaching them relevant conflict management strategies. This would then lead them to better manage conflict in group counseling.

In order to develop the Conflict Management Training Module (will be referred to as CMTM), the researcher follows the step outlined by Jamaludin Ahmad, Nurul Fatin Muhamad Arshad, and Saifuddin Kumar Abdullah (2009), Sidek Mohd Noah (2005), and Rusell (1974). The steps include (i) identify the target participants, (ii) set objectives, (iii) prepare and organize module content, (iv) select training methods and prepare materials, (v) organize the training course, (vi) develop evaluation strategy, and (vii) check for content validity.

3.5.1 Step 1: Identify the Target Participants

Who are the subjects for the developed module? The CMTM is designed specifically to meet the needs of counsellor trainees to constructively manage conflict in group counselling. The needs may result from (i) not having enough understanding of the conflict functions, (ii) having limited strategies to manage conflict constructively, (iii) having inadequate knowledge on group leadership functions, or (iv) possessing negative attitude towards conflict and towards group leadership functions. The module is designed for those who have completed the group counselling course but are still unsure of their ability to effectively manage conflict in group counselling. The module acts as an intervention tool to improve their skills and change their attitude to be more positive towards conflict and towards group leadership functions.

3.5.2 Step 2: Set Objectives

The purpose of the module is to increase the ability of counsellor trainees in managing conflict in group counselling. The CMTM is developed to meet the following objectives:

1. to improve the counsellor trainees' understanding of group leadership functions in group counselling.
2. to improve the counsellor trainees' understanding of conflict functions in group counselling.
3. to guide the counsellor trainees' application of conflict management strategies in group counselling.
4. to assist the counsellor trainees to develop positive attitude towards conflicts in group counselling.

5. to assist the counsellor trainees to develop positive attitude towards group leadership functions in group counselling.

The objectives of the training module takes into consideration that in order to help the trainees develop positive attitude, they need to be equipped with knowledge on conflicts and leadership functions, and also to experiment with the different conflict management strategies.

3.5.3 Step 3: Prepare and Organize Module Content

In order to prepare and organize the content of the CMTM, the researcher explores and reads in details various type of readings pertaining to training of counsellors and of conflict management available on the websites, textbooks, and journal articles. The readings include those on group counselling skills acquisition (Guth & McDonnell, 2004; Romano & Sullivan, 2000; Smaby, et al., 1999; Toth, 1996), business organization (Shechtman, 2007; Myers & Oetzel, 2003), student organizations (Rashid, 2005), group conflicts (Brown, 2009; Ivey, et al., 2001; Kotler, 2001; Kellermann, 1998; Rybak & Brown, 1997; Whitaker, 2001), and interpersonal conflicts (Folger, et al., 2009; Guerrero & La Valley, 2006; Roloff & Miller, 2006). Most of the readings highlight the use of interpersonal strategies and counselling skills in the training. Skills like paraphrasing, reflecting, reframing, clarifying, and summarizing are among the frequently taught skills for individuals who work to manage conflict between people or groups (Brown, 2009; Clark, 1998; Corey & Corey, 2010; Ivey, et al., 2001; Rashid, 2005; Yalom, 1985).

The information gathered from the readings and from the interviews with the 12 graduate students become the foundation of the module contents. Except for the writings by Brown (2009), Folger, et al. (2009), Ivey, et al. (2001) and Kellermann (1998), most writings on conflict tend to focus on the interpersonal conflict rather than on intrapersonal or group level conflict. Group counselling involves assisting group members to deal with personal as well as group issues. Group members bring to the group unresolved issues from their past and they, at the same time, are exposed to interpersonal and group issues resulting from the interaction with other group members (Folger, et al., 2009; Whitaker, 2006). Thus, the CMTM takes into account the three different types of conflicts, intrapersonal, interpersonal, and group level conflict, that counsellor trainees might encounter in group counselling.

Unlike the business organization or ethnic disputes which require the leader to resolve the conflict, the CMTM is more interested in teaching the counsellor trainees how to manage conflicts in group counselling. Conflict in group counselling is not viewed as win-win or win-lose situations but rather as the process of why or how it happens and what can be done to manage it (Brown, 2009; Ivey, et al., 2001; Kellermann, 1998). And, on how the trainees can guide the members to focus on the growth value embedded in the process of dealing with conflicts. In other words, the process of managing the conflict is treated as more important and valuable than the result.

One of the often-played roles of the leader in dealing with conflict in groups is for him or her to become a mediator between the dispute parties or individuals. Mediator is one of the embedded roles in the leadership functions. Kottler (2001) and Brown (2006; 2009)

emphasize on the mediating role as being highly recommended for counsellors to engage in when dealing with conflict. As a mediator, the counsellor does not take sides. She focuses on giving the parties in conflict ample time to share and explain their sides of the story. In the training of counsellor trainees, the ability to manage conflict using various strategies appropriate to the situation is more important than to resolve or negotiate the conflict.

The content of the module highlights several themes to achieve its objectives in improving the ability of counsellor trainees to manage conflict in group counselling. Thus, the module includes topics on conflicts, group leadership functions, exploration of attitudes, and conflict management strategies.

The Conflict Management Training Module emphasizes on the three stages of learning process introduced by Urbani, Smith, Maddux, Smaby, Torres-Rivera and Crews (2002): (a) exploring, (b) understanding, and (c) acting. During the exploring stage, the participants explore their knowledge and attitude towards conflict and group leadership functions. During the understanding stage, they learn about the effects of their cognitive scripts and attitude towards conflict and their roles as group counsellors. Finally, at the acting stage, they apply the conflict management strategies and learn to assimilate the strategies with different types of conflicts and leadership functions.

3.5.4 Step 4: Select Training Methods and Prepare Materials

To make sure the module achieved its objectives, delivery methods become important consideration. Appropriate delivery methods ensure the messages contained in the

module will be better delivered and accepted, skills are successfully acquired, and attitudes change makes possible. There are many creative delivery methods available to achieve the objectives. Some of the means include mini lecture, discussion, role play, games, story telling, and artistic approaches like drawing, coloring, and dancing (Clark, 1998; Furr, & Barret, 2000; Gladding, 2012; Nystul, 2011; Smaby, et al., 1999).

The focuses of the module are to improve knowledge, skills and change attitudes. To achieve the objectives, the delivery modes should include a combination of several approaches. To increase the knowledge, mini lectures combine with small group discussion would be suitable. To acquire the skills, modeling and role-playing activities are used. The model should be someone who is competent in the skills and could guide the participants throughout the learning process (Brown, 2009; Corey, et al., 2011; Kottler, 2001). The model serves as the expert on how the skills should be appropriately performed. In the teaching of counselling skills, role-playing has been the frequently used method (Corey, 2010; Romano & Sullivan, 2000; Smaby, et al., 1999; Toth, 1996). Role-playing makes learning more interactive and skills acquisition easier because it gives focus to immediate feedbacks from other participants (Bandura, 1986; Fishbein & Ajzen, 2010; Urbani, et al., 2002). Thus, modeling and role-playing are seen as two powerful tools in teaching the conflict management strategies to the participants.

To enhance the delivery process, the participants are required to engage in self-reflective activity. They need to reflect on the message gathered from mini lectures as well as from the role-play. They talk about their self-learning in small groups. By doing this, they can be aware of their perceptual biases or faulty beliefs. Brown (2009) observes that these

perceptual biases towards the roles of counsellors in individual and group counselling have caused counsellors to underestimate the complexity of group leadership functions.

In addition, the self-exploration process becomes the starting point for better understanding and formation of new attitudes. Fishbein and Ajzen (2010) and Ajzen and Fishbein (2005; 1980) suggest that by asking the participants to verbalize their new attitude, the probability of the attitude to be remembered and internalized would be higher. If they could understand their leadership functions, verbalize their feelings about the functions, and learn to perform them properly, then they might become more positive towards their roles as counsellors in group counselling.

Similarly, the same change may occur with their attitudes towards conflict in group counselling. As they gain different perspectives of conflict functions and conflict types in group counselling, and are exposed to the different approaches to conflict management, they may start to experience changes in their reactions towards conflict. These positive changes in their understanding of conflict and its management, according to Kellermann (1998), may lead them to acquire a positive attitude towards conflict in group counselling. In short, the module relies on several delivery modes like mini lectures, role-playing, modeling, self-reflective, and small group activities.

In administering the module, time plays an important factor. Time, too short or too long, may bring negative consequences (Sidek Mohd Noah & Jamaludin Ahmad, 2005; Sidek Mohd Noah, 2005). The module is organized for a two-day workshop. It consists of six sessions with three sessions per day. Each session runs for two hours. The first session focuses on leadership functions, the second session is on conflict functions and types, the

third session focuses on conflict scripts, the fourth and the fifth sessions focus on conflict management strategies, and the sixth session is on stress management. Counsellor trainees have to complete the two-day training workshop for them to meet the objectives.

3.5.5 Step 5: Organize Pilot Test of the Module

Once the contents of the module and the modes of delivery are decided, a trial test of the module is conducted with a group of ten counsellors from the Department of Public Services. The researcher tries the module during the group counselling leadership workshop organized by the department where the researcher is one of the appointed facilitators. The researcher briefs the counsellors on the purpose of the module and seeks their consent to conduct the training module. Once the training module is completed, the researcher asks the counsellors to provide written feedback of their experience. Following are some of the feedbacks given by the counsellors.

Counsellor A: *The workshop provides various approaches to handling conflicts in group counselling. With such exposure, I have more ideas on managing conflicts in group counselling. Learn a lot. But, more practices during the workshop would be better.*

Counsellor B: *The workshop is something new to me. Can provide more example of situations for all levels of conflicts during the role-play, so that I can practice the skills.*

Counsellor C: *The workshop has changed many of my perceptions and thoughts about conflict. I used to believe that when conflict happens in the group, I was to be blamed because of my inefficiency as the group leader. I enjoyed the workshop very much.*

Counsellor D: *Through this workshop, I gain knowledge and learn some effective skills to manage conflict. This workshop helps me to assess every conflict differently and apply conflict strategies appropriate for the situation. The workshop helps me be sensitive with my responsibilities as the group leader.*

Besides the encouraging feedbacks, the counsellors also suggest that more time be allocated for skills acquisition so that every participant has adequate time to practice the conflict management strategies. Given the suggestion, the researcher has a discussion with the supervisor. The following changes are made to the module content. The first session focuses on group leadership functions, the second session is on conflict and stages of conflict development, the third session focuses on critical incidents and conflict scripts, the fourth session focuses on intrapersonal conflict management strategies, the fifth session is on interpersonal conflict management strategies, and the sixth session is on group conflict management strategies. In short, the second day gives focus on acquisition of conflict management strategies. These changes allow ample time for the trainees to role-play the various group skills and conflict management strategies.

3.5.6 Step 6: Develop Evaluation Strategy

In order to evaluate the effects of the module, four sets of questionnaires are developed. They are the Knowledge on Conflict (KC), Conflict Management Strategies (CMS), the Attitude towards Conflict in Group Counselling (ATC), and the Attitude towards Group Leadership Functions (AGLF). The questionnaires are tested for content validity and reliability before they are used in the real study. Discussion on the construction of the questionnaires is done in the following section.

3.5.7 Step 7: Check Module for Content Validity

The final step of the module development is to measure it for content validity and reliability. After the module is completed, the researcher contacts a few experts in the

field of counselling to evaluate the module for content validity. The content validity ensures the content of the module measures or discusses the topic it supposed to measure (Ary, et al., 2010; Rusell, 1974; Sidek Mohd Noah, 2005).

According to Sidek Mohd Noah and Jamaludin Ahmad (2005), a module should successfully fulfill five conditions to achieve content validity. Content validity for a module means that it meets the needs of the specific population or a group of people, is being conducted properly within the allocated time, and it can bring changes or improvement in term of knowledge, skills, or attitudes in the participants. Specifically, Rusell (1974) describes the five conditions as following:

1. The module is accurate for the target population.
2. The teaching situation or implementation method is done very well.
3. The time taken to complete the module is adequate.
4. The module can potentially increase or improve the counsellor trainees' competency.
5. The module can potentially change the counsellor trainees' attitudes to be more positive.

To evaluate the module, three individuals, one Professor from UKM, one Associate Professor from UPM, and a senior lecturer from Science University of Malaysia (Universiti Sains Malaysia, USM) are appointed as the panel of experts. They teach counselling courses at their respective universities. They evaluate the five conditions of a module using the 10-point Likert like scale where 1 refers to "Do not agree at all" to 10 "Highly agree" with the stated condition. If the response shows 70% or above agreement,

it means the training module has a high score for content validity as recommended by Tuckman and Waheed (1981). From the experts' assessment of the module, they show 80 percent agreement in the validity of the module. See Table 2 for the experts' comments and suggestions to improve the module.

Table 2: Content Validity of Conflict Management Training Module by Panel of Experts

Expert	Content validity score	Comment and suggestion
Professor Dr. Amla Saleh	60%	The module needs to be more specific: time for each activity, size of group, and instructions must be clear to show the flow of the learning process.
Associate Professor Dr. Sidek Mohd. Noah	90%	The module can potentially increase and improve the counsellor trainees' knowledge and skills in conflict management training.
Dr. Syed Mohamad Syed Abdullah	92%	A good and practical module in helping group counsellor. Please indicate the expected time as this will help the leader manage the time effectively.

The development of the Conflict Management Training Module has followed the systematic procedure for module development. A panel of experts has evaluated it for content validity and it shows the module achieves very high agreement score among the experts.

3.6 Development of Questionnaire

Based on the objectives of the module, the researcher identifies four constructs to be developed to determine the effects of the conflict management training module on

counsellor trainees' knowledge, conflict management strategies, attitude towards conflict in group counselling and towards the group leadership functions.

In order to develop a valid and reliable questionnaire, according to Radhakrishna (2007), researcher should follow several steps. She describes five sequential steps involved in questionnaire development and testing. She stresses that each step depends on fine-tuning and testing of previous steps that must be completed before the next step. The five steps are: (1) background which includes information on target audience, purpose, goals objectives, research questions, and hypothesis; (2) conceptualization which involves generating statements or questions based on the concepts to be tested, and identifying the dependent and independent variables; (3) format and data analysis which include identifying the appropriate scales of measurement to use and the questionnaire format; (4) validity which refers to seeking expert knowledge from panel of experts; and (5) reliability where pilot testing is conducted to test the questionnaire with a group of subjects.

Following the guidelines delineated by Radhakrishnan (2007) the researcher begins her work to develop the questionnaires.

3.6.1 Step 1: Background

The researcher identifies the purposes and the objectives of the study, which are to identify the counsellor trainees' knowledge on conflict, conflict management strategies, attitude towards conflicts in group counselling and towards group leadership functions, and how these variables could be changed through the implementation of a training

module. The target users of the questionnaire would be counsellor trainees who are undergoing training to become counsellors. At the time of the study, the target audience is the graduate students from the Guidance and Counselling program who have completed all their counselling coursework except for the internship training, and project paper or thesis writing.

3.6.2 Step 2: Questionnaire Conceptualization

According to Graham (1984), there are three different strategies to inventory construction. The strategies include empirical or criterion keying, factor-analytic, and content validation.

The present study has utilized the content validation approach to construct the research assessment tools. In the content validation approach, the constructs to be measured have been predetermined. The items for inclusion are selected based on some logical grounds or intuition to the relevant constructs. The process involves selecting from existing sources, such as textbooks, journal writings, and interview transcripts, items that seem to be related to constructs under development. In this situation, the constructs are set as attitudes towards conflict and towards group leadership functions, components of knowledge related to leadership, and conflict management strategies. The items are then validated by some experts to determine the construct validity index.

Some of the journal articles and textbooks used as references include: group counsellor training by Lieberman, et al. (1973), Kottler (2001), Morran, Stockton, and Teed (1998), Romano and Sullivan (2000), Smaby, et al. (1999), Toth (1996), and Ward (2005); motivation by Brown (2009), Corey (2009), Nystul (2011), Trotzer (2006); conflicts in

groups by Brown (2009), Kellermann (1998), Kraus, et al. (2001), Rybak and Brown (1997), Yalom (1995); and, managing conflict in group Ivey, et al. (2001), Kellermann (1998), Kormanski (1982), Mitchell and Mitchell (1984), Morran, et al. (2004), and Rashid (2005).

The researcher analyzes the writings for keywords and tries to comprehend how the constructs relevant to the present study are being described. Using the list of identified keywords, descriptions of the constructs, and the interview transcripts with their emerging themes, the researcher consolidate all the information together under their respective constructs. Four dominant constructs emerge from the data that are knowledge on conflict, conflict management strategies, attitude towards conflict and towards group leadership functions.

3.6.3 Step 3: Format and Data Analysis

Based on the interview transcripts and other relevant readings, the researcher works on developing the items for the questionnaires. The first questionnaire named Knowledge of Conflict or KC consists of 13 items. The items reflect the contents of the Conflict Management Training Module, which explore the knowledge of conflict, group leadership functions, and the ability of counsellor trainees in handling conflict in group counselling. Some of the items in the questionnaire include: "I understand the responsibilities of leader in group counselling" (Item 2), "I understand the functions of conflict in group counselling" (Item 6), "I understand the different types of conflict in group counselling" (Item 9), "I understand the different approaches to conflict management" (Item 10), and "I can handle intrapersonal conflict in group counselling"

(Item 11). The questionnaire uses the 5-point Likert scale where subjects could choose from scale 1 – Strongly Disagree, 2-Disagree, 3- Slightly Agree, 4 – Agree, and 5 – Strongly Agree.

The second questionnaire is identified as Conflict Management Strategies or CMS. The scale has 25 items. Some of the conflict management strategies included in the assessment tool are “Respond to nonverbal communication” (item 1), “Deal with one issue at a time” (item 4), and “Reframe the conflict” (item 14). The questionnaire uses the 5-point Likert like scale where subjects could choose from scale 1 – Not at all Competent (Not able to perform at this time), 2- Somewhat Competent (More training needed), 3 – Slightly competent (Able to perform with little accuracy), 4 – Competent (Able to perform competently), and 5 – Highly Competent (Able to perform at a high level).

The third questionnaire developed is the Attitude towards Conflicts in Group Counselling (ATC). The questionnaire reflects the three components of attitude: cognitive, behaviour, and affect. Some of the statements in the cognitive component are “To me, conflict helps group develop to the next stage” (item 1) and “To me, conflict can cause psychological pressure to group members” (item 3). Some of the statements in the behaviour component are “Conflict makes me more tolerance of individual differences” (item 8) and “I will stop the group when conflict happens” (item 10). Some of the statements in the affect component are “I feel angry when members try to impose their ideas on others” (item 13) and “I feel pressured when members argue with each other” (item 17). The instrument consists of 19 items and uses the 5-point Likert scale where subjects could choose from

scale 1 –Strongly Disagree, 2-Disagree, 3- Slightly Agree, 4 – Agree, with 5 – Strongly Agree.

The fourth and last questionnaire developed is the Attitude towards Group Leadership Functions (AGLF) which consists of 26 items. The questionnaire integrates the four dimensions of leadership functions mentioned by Lieberman, et al. (1973) that are the emotional stimulation, caring, meaning attribution, and executive function. The AGLF questionnaire measures the counsellor trainees' attitude towards their responsibilities in stimulating group members cognitive and emotions, caring for members well being, providing meaning to group process, and transforming the group into a social system where members can work together to achieve their goals. Some of the items in the AGLF include "Accept expression of feelings among group members" (item 1), "Am willing to try new ways of doing things in the group" (item 6), "Keep my distance from getting personally involved with group members" (item 11), "Protect members from psychological pressure caused by other group members" (item 14), "Provide reasons for members to understand their behaviour within the group context" (item 17), and "Educate members on their roles as group members" (item 21). The AGLF uses the 5-point Likert scale where subjects could choose from scale 1 –Strongly Disagree, 2-Disagree, 3- Slightly Agree, 4 – Agree, and 5 – Strongly Agree.

All together, there are four sets of questionnaires developed to measure the effects of the Conflict Management Training Module on participants. The items on the questionnaires are constructed from themes extracted from the interview transcripts, textbooks, and journal articles on group counselling and conflicts.

3.6.4 Step 4: Establishing Validity

At the end of Step 3, four sets of questionnaires, KC, CMS, ATC, and AGLF, are developed together with their identified measurement scales. To perform the content validity of the questionnaire, the researcher identifies three experts in the field of counselling from three different local universities. They are two Associate Professors and one senior lecturer from University Kebangsaan Malaysia (UKM), Islamic University Science Malaysia (USIM), and University Putra Malaysia (UPM) respectively. They have experience teaching group counselling courses at the undergraduate and graduate levels for more than fifteen years. The researcher schedules appointments with the panel of experts individually at their offices. They are asked to evaluate the items using the 10-point Likert like scale where 1 refers to “Do not agree at all” to 10 “Highly agree” with each of the statement on the questionnaires. The evaluation method and its calculation are taken from Sidek Mohd Noah and Jamaludin Ahmad (2005).

After two weeks, the researcher collects the evaluated questionnaires and calculates the level of agreement among the experts. For each item, the scores given by the experts are totaled and averaged. The average scores of all the items are then summed up and divided by the number of items on the questionnaire. The Knowledge of Conflict questionnaire receives 93 percent, Conflict Management Strategies receives 90 percent, the Attitude towards Conflict receives 84 percent, and the Attitude towards Group Leadership Functions has 89 percent levels of agreement. All of them receive high content validity from the panel of experts. Content validity score of 0.80 and above mean that the items measure what they are supposed to assess (Dunn, 2009). See Table 3.

During the meeting with the panel of experts, they comment on some of the items. They suggest to include more item negative on the questionnaires and to change some of the words in order for the statements to convey clearer message to the participants. The researcher makes the recommended changes before the questionnaires are sent for reliability test. Refer to Appendix B.

Table 3 : Content Validity Index for Constructs and Questionnaire Items

Item		Expert 1	Expert 2	Expert 3	Mean
Knowledge on Conflict					
1.	I understand the objectives of group counseling.	10	10	10	10.0
2.	I understand the responsibilities of leader in group counseling.	10	10	10	10.0
3.	I understand my attitudes toward leadership in group counseling.	10	9	9	9.33
4.	I understand my functions as a leader in group counseling.	10	10	7	9.0
5.	I acquire some group leadership skills.	10	9	9	9.33
6.	I understand the functions of conflict in group counseling.	10	10	9	9.67
7.	I understand my attitudes toward conflict in group counseling.	10	10	8	9.33
8.	I can identify critical incidents in group counseling.	10	9	10	9.67
9.	I understand the different levels of conflict in group counseling.	10	10	9	9.67
10.	I understand the different approaches to conflict management.	10	9	9	9.33
11.	I can handle intrapersonal conflict in group counseling.	9	9	8	8.67
12.	I can handle interpersonal conflict in group counseling.	9	9	8	8.67
13.	I can handle group level conflict in group counseling.	9	9	8	8.67
Total Agreement					93.33
Conflict Management Strategies					
1.	Respond to nonverbal communication	10	10	10	10
2.	Respond to feelings	10	10	9	9.67

3.	Focus on the conflict	10	10	10	10
4.	Deal with one issue at a time	9	9	9	9
5.	Able to manage emotions	10	10	10	10
6.	Able to remain calm	10	10	10	10
7.	Use respectful words towards group members	10	10	10	10
8.	Show respectful actions towards group members	10	10	10	10
9.	Listen to all opinions	10	9	9	9.33
10.	Demonstrate understanding of differing perspectives	10	10	10	10
11.	Listen in a supportive way, using whole body	9	10	8	9
12.	Handle conflict in a sensitive way	10	10	10	10
13.	Handle differences in a sensitive way	10	10	10	10
14.	Reframe the conflict	10	10	9	9.67
15.	Clarify the nature of the problem	9	9	8	8.67
16.	Give feedback in a constructive way	10	9	10	9.67
17.	Use humor effectively	7	7	6	6.67
18.	Do not prejudge	10	10	10	10
19.	Do not interrupt expression of ideas	9	8	7	8
20.	Do not interrupt expression of feelings	9	9	8	8.67
21.	Does not blame anyone	10	10	10	10
22.	Avoid from presenting personal opinion	9	8	9	8.67
23.	Do not make personal attack	10	10	10	10
24.	Generate new perspective	10	10	9	9.67
25.	Summarize main points	10	10	10	10
Total Agreement					90.00

Attitude towards Conflict

1.	To me, conflict helps group develop to the next stage.	10	10	8	9.33
2.	To me, group should be without conflict.	10	9	3	7.33
3.	To me, conflict can cause psychological pressure to group members.	10	10	9	9.67
4.	To me, conflict strengthens relationship amongst group members.	10	10	6	8.67
5.	I fail as a leader if I cannot resolve conflicts in the group.	10	10	9	9.67
6.	I feel mentally stuck when conflict happens in the group.	10	10	6	8.67
7.	Conflict makes me more creative in group.	10	10	6	8.67
8.	Conflict makes me more tolerant of individual differences.	10	10	9	9.67

9.	I will try to prevent discussion of issues that can cause conflict in group like personal, ethnic or religious issues.	10	10	9	9.67
10.	I will stop the group when conflict happens.	10	10	10	10.0
11.	I will try to resolve conflict when it happens.	10	10	9	9.67
12.	I will encourage discussion among members to resolve the conflict.	10	10	9	9.67
13.	I feel angry when members try to impose their ideas on others.	10	10	8	9.33
14.	I feel scared when members raised their voice when speaking.	10	10	8	9.33
15.	I feel happy when member shows respect to ideas different from his/ her.	10	9	10	9.67
16.	I feel sad when conflict causes members to be unfriendly to each other.	10	10	7	9.00
17.	I feel pressured when members argue with each other.	10	10	8	9.33
18.	I get worried when I cannot help to solve conflict that happens in the group.	10	10	8	9.33
19.	I feel disappointed when conflict causes group to be silent.	10	10	8	9.33
Total Agreement					84.21

Attitude towards Group Leadership Functions

1.	Accept expression of feelings among group members.	10	9	9	9.33
2.	Help members express their positive feelings in the group.	10	10	10	10
3.	Feel uncomfortable when members express their negative feelings in the group.	8	7	7	7.33
4.	Feel pressured to be in the group.	10	10	9	9.67
5.	Discourage counterproductive behavior in the group (late to group; cut off member's sharing).	10	10	9	9.67
6.	Am willing to try new ways of doing things in the group.	10	10	9	9.67
7.	Motivate group members to look into their less effective behaviors.	10	10	6	8.33
8.	Enjoy being part of the group dynamics.	10	10	8	9.33
9.	Challenge group members to make changes in their life.	10	10	9	9.67
10.	Am willing to contribute to the positive change in member's life.	10	10	7	9.0
11.	Keep my distance from getting personally involved with	10	10	9	9.67

	group members.				
12.	Am happy when members show positive change in the group.	10	9	8	9.0
13.	Find it difficult to empathize with group members' issues.	10	10	9	9.67
14.	Protect members from psychological pressure caused by other group members.	9	9	7	8.33
15.	Do not share my experiences of the group dynamics with the members.	10	9	7	8.67
16.	Guide members toward the change they desired.	10	9	7	8.67
17.	Provide reasons for members to understand their behavior within the group context.	8	9	7	8.0
18.	Clarify misunderstanding between members.	10	10	8	9.33
19.	Help members to solve their problems.	10	9	9	9.33
20.	Help to interpret events in the group using counseling theory.	10	10	8	9.33
21.	Educate members on their roles as group members.	10	9	8	9.0
22.	Am accountable for the success of the group.	10	9	8	9.0
23.	Am not responsible to meet the psychological needs of the group members.	10	10	7	9.0
24.	Let group members behave as they wish in the group.	10	9	9	9.33
25.	Offer advice when asked by group members.	8	8	6	7.33
26.	Am willing to share my leadership role when members show their confident to lead the group.	8	7	5	6.67
Total Agreement					89.36

3.6.5 Step 5: Establishing Reliability

Before any set of questionnaires is used in the real study, they should be tested for reliability. Reliability indicates the accuracy or precision of the measuring instrument (Dunn, 2009) or it means the scores received from the participants are consistent and stable over time (Creswell & Plano Clark, 2007). In order to test for the reliability of the

questionnaires. Radhakrishna (2007) suggests that instruments measured on an interval or ratio scale should go for internal consistency, using either test-retest or split-half method.

The researcher identifies 33 final year undergraduate students from the Guidance and Counselling program from the Faculty of Educational Studies, UPM. Since the questionnaires are using the interval scale, the researcher decides to implement the test-retest method. The set of questionnaires is distributed to the students twice during the semester. The first administration of the questionnaires is done during the fourth week of the semester and the second time during the tenth week. The scales are then scored and tested for alpha Cronbach value.

The Conflict Management Strategies (CMS) receives a reliability coefficient of 0.88, the Knowledge on Conflict (KC) is 0.85, the Attitude towards Group Leadership Functions (AGLF) is 0.67, and the Attitude towards Conflict (ATC) is 0.62. See Table 4 . A reliability coefficient or alpha of 0.70 or higher is considered acceptable reliability (Creswell & Plano Clark, 2007). The CMS and KC questionnaire show high internal consistency compared to AGLF and ATC. The AGLF alpha of 0.67 and ATC alpha of 0.62 are still considered acceptable by some social science researchers (Ary, et al., 2010; Creswell & Plano Clark, 2007; Kline, 1999). In his argument, Kline (1999) claims that reliability Cronbach α acceptable value is influenced by the types of instruments being tested. For cognitive test like the intelligence tests, alpha value of 0.80 is appropriate, but for ability tests, a cutoff point of 0.70 is more suitable. Kline (1999) continues that when one is dealing with psychological construct, values below 0.70 could realistically be expected because of the diversity of the constructs being measured. As for the present

study, the set of questionnaires receives reliability coefficient below 0.70 are the AGLF and the ATC. Both questionnaires measure attitudes, which responses could be quite diverse and unpredictable as proportionate to time (Fishbein & Ajzen, 2010). As the length of time increases between the occurrence of the event and the time the attitude test is administered, the attitudes measure become less reliable and predictable, thus would affect the alpha value. Given the scenario, having reliability alpha of 0.62 to 0.67 for the AGLF and the ATC, the tests could be considered as an acceptable and reliable measure of attitudes.

Table 4: Content Validity and Alpha Cronbach Reliability Value of Assessment Tools

Assessment tool	No of items	Validity	Reliability
Knowledge on conflict (KC)	13	0.93	0.85
Conflict management strategies (CMS)	25	0.90	0.88
Attitude towards conflict (ATC)	19	0.84	0.62
Attitude towards group leadership functions (AGLF)	26	0.89	0.67

The data collection for the qualitative and the quantitative designs are done through relevant methods. For the phenomenological approach, semi-structured interviews are conducted with a group of participants. Then, themes extracted from the interview transcripts together with other writings on group counseling and conflict are used to develop an intervention training module and four sets of questionnaires. Validity and

reliability issues regarding the data collection methods are dealt with caution by the researcher before they are used in the present research.

3.7 Data Analysis

The data analysis of the study is conducted separately for the qualitative data and the quantitative data. The first part of the data analysis focuses on extracting themes from the interview transcripts using the phenomenological process. As for the quantitative data, descriptive analysis and t-test are used.

3.7.1 Phenomenological Process

According to Ary, et al. (2010) and Patton (1990), the focus of a phenomenological study lies in the "descriptions of what people experience and how it is that they experience." The goal is to identify essence of the shared experience that underlies the variations of people experience. Merriam (2009) in her writing postulates that phenomenology demands that "intense reflection" becomes an integral part of the analysis process. Analysis should scrutinize the text for meaning "units" which describe the central aspects of the experience.

The phenomenological analysis process aims to examine the lived experience from the ones who produce the experience rather than imposition of other people's interpretations on the experience. This involves reading texts or the interview transcripts in full, in order to first gain a sense of the whole picture. After several readings of the text, the next stage is hermeneutic endeavor or inter-textuality (Merriam, 2009) where patterns and differences are sought across transcripts. This strategy of interpretation would broaden

the analysis to include a wider range of considerations that help the researcher arrives at a holistic interpretation (Creswell, 2009).

To capture the essence of the counsellor trainees' experience, the researcher applies the step-by-step procedure described by Hycner (1985). The steps are listed as follow:

1. Transcription: The first step is to have the interview tapes transcribed. This includes the literal statements as well as the significant non-verbal and para-linguistics communications.
2. Bracketing and the phenomenological reduction: The researcher brackets out the world and presuppositions to identify the data in pure form, uncontaminated by extraneous intrusions. Bracketing means suspending as much as possible the researcher's meanings, interpretations, and entering into the unique world of the individual who is interviewed. To search for all possible meanings, Creswell (2009) suggests that phenomenological data analysis proceeds through the methodology of reduction and the analysis of specific statements and themes.
3. Listening to the interview for a sense of the whole: The researcher listens to the whole tape as well as reading the transcription a number of times to get a feel for what is being said.
4. Delineating units of general meaning: The researcher begins the rigorous process of going over every word, phrase, sentence, and paragraph in the transcript in order to elicit the participant's meanings.
5. Delineating units of meaning relevant to the research: Once the units of general meaning are noted, the researcher addresses the research questions to them, to

determine whether the participant's sharings respond to and illuminate the research questions.

6. Clustering units of relevant meaning: Once the researcher has the list of units of relevant meaning she then determines if any of the units could be clustered together. The researcher looks for common themes that could unite several units of relevant meaning. The researcher examines each individual unit for relevant meaning and tries to elicit what is the essence of that unit of meaning given the context of the study.
7. Determining themes from clusters of meaning: The researcher tries to determine whether there is a central theme, which expresses the essence of the clusters. The researcher looks through all the clusters of meaning to identify a relevant central theme that could capture the essence of the phenomenon.
8. Return to the participant with the themes: Conducting a second interview. The researcher contacts the research participant and gives him/her a copy of the constructed themes. The researcher engages in a dialogue with him/her, sharing what the researcher has found so far. If the participant agrees with the themes but likes to add further information then a second interview is conducted, focusing on the issues not clearly captured during the first interview.
9. Modifying themes: With the new data from the second interview, steps one through 7 are revisited. The researcher looks at all the data as a whole and modifies or adds themes as necessary.
10. Identifying general and unique themes for all the interviews: Once all the above steps are repeated with each individual interview, the researcher begins to look

for the themes common to most or all of the interviews as well as the individual variations. The individual variations are important counterpoints to the general themes (Hycner, 1985).

11. Contextualizing of themes: After the general and unique themes are noted, they are placed back with the overall context from which these themes emerge. This step provides context for the meaning of the phenomenon.
12. Training independent experts to verify the themes and subthemes: Independent experts are identified to verify the general and unique themes of the interview. A significant agreement between the researcher and the experts indicates that the researcher has bracketed her presuppositions and has been rigorous in her approach in explicating the data (Ary, et al., 2010; Creswell, 2009; Hycner, 1985). The independent experts' assessment also serves as internal validity check for the units of meaning of the transcription.

To perform the assessment between the themes and subthemes, three independent experts are identified. They are one senior lecturer from UPM, and two school counsellors who are also licensed counsellors and have more than 15 years working experience. The overall level of agreement between the experts and the researcher was 0.73. According to Fleiss (1981), the inter-rater reliability coefficient of 0.73 represents an "intermediate to good" extent of agreement. In other words, the researcher's selection of themes and subthemes show "good" consensus with the experts.

Once the step-by-step procedure is followed through with all the interview transcripts, the researcher successfully finalizes the general themes and the subthemes that represent the

essence of the counsellor trainees’ experience. This information is then used to develop a training module and a set of questionnaire to measure the effects of the module.

3.7.2 Descriptive Analysis and t-test

In order to analyze the data from the quantitative section, descriptive statistics and paired sample t-test are utilized. The descriptive statistics like mean, frequency, and percentage are used to summarize the demographic data. In this study, paired sample t-test is used to measure the difference in pretest and posttest scores within the same samples. See Table 5. The study applies the paired sample t-test because it uses one group only during the pretest and posttest to measure the effects of an intervention. The *p* value in the study is set at 95 percent confidence interval or *p* = .05. If the value of significant *p* is greater than .05, then researcher could conclude that there is no significant difference between the pretest and the posttest scores. In other words, the null hypothesis is failed to reject. On the other hand, if the value of significant *p* is less than .05, the null hypothesis is rejected and there is a significant difference in the mean of the posttest scores.

Table 5 : Research Objectives, Hypotheses, and Data Analysis

No.	Research Objectives/ Hypotheses	Data Analysis
1.	Research Objective No. 1 to explore the counsellor trainees’ experience with conflict in group counselling.	Phenomenological Analysis
2.	Research Objective No. 2 to explore the counsellor trainees’ conflict management	Phenomenological Analysis

strategies in managing conflict in group counselling.

3. Research Objective No. 3

to explore the counsellor trainees' attitude towards conflicts in group counselling.

Phenomenological

Analysis

4. Research Objective No. 4

to explore the counsellor trainees' perceptions of group leadership functions during conflict in group counselling.

Phenomenological

Analysis

5. Research Hypothesis No. 1

There is no significant difference between the pretest and the posttest scores on counsellor trainees' knowledge on conflict after they have completed the training module.

Paired samples t-test

6. Research Hypothesis No. 2

There is no significant difference between the pretest and the posttest scores on counsellor trainees' conflict management strategies after they have completed the training module.

Paired samples t-test

7. Research Hypothesis No. 3

There is no significant difference between the pretest and the posttest scores on counsellor trainees' attitude towards conflict in group counselling after they have completed the training module.

Paired samples t-test

8. Research Hypothesis No. 4

There is no significant difference between the pretest and the posttest scores on counsellor trainees' attitude towards group leadership functions after they have completed the training module.

Paired samples t-test

3.8 Issues of Reliability and Validity

All good research should have sound reliability and validity measures. Validity differs in qualitative and quantitative, but in both approaches, it serves the purpose of checking on the quality of the research data and the results. In quantitative research, validity means that the researcher can draw meaningful inferences from the result of a population, while reliability means that scores received from the participants are consistent and stable over time (Creswell & Plano Clark, 2007). On the other hand, in qualitative research, the focus is more on the validity to determine whether the account provided by the researcher and the participants is accurate, can be trusted, and is credible (Ary, et al., 2010; Lincoln & Guba, 1985). Meanwhile, reliability in qualitative research refers to the degree of consistency with which instances are assigned to the same category by different observers or by the same observer on different occasions (Ary, et al., 2010). In the sequential exploratory design, validity is defined as the ability of the researcher to draw meaningful and accurate conclusions from all of the data in the study (Creswell & Plano Clark, 2007). In the sequential exploratory design, the aspect of validity testing of a newly

developed instrument leads to more accurate and meaningful results for the entire mixed methods study.

In this research, the validity and reliability issues revolve around several aspects. They involve the threats to internal validity and to external validity, and other general issues of validity and reliability of the study. According to Creswell (2009) and Mark and Reichardt (2009), one-group pretest-posttest experimental design often faces several threats to its internal validity. This is because the design is considered rather "queasy in term of providing a good estimate of the treatment's effects" (Mark & Reichardt, 2009, p. 184). The first threat to internal validity is history. History refers to the possibility that a specific event, other than the treatment of interest occurring between the pretest and posttest observations and cause change in the outcome of the study (Ary, et al., 2010). To counter this threat, the researcher administers the posttest data collection immediately after the training session. By doing that, the researcher prevents other events like internship training and supervision from interfering with the pretest and posttest data collection, thus the outcome effects of the training module.

Another reason to justify the short time frame between the administration of the pretest and the posttest data collection in determining the effect of the module is to employ a slightly different perspective. Instead of looking at the time duration as a two-day workshop, one can look at it from the number of hours the participants spend acquiring the knowledge, and polishing and perfecting their conflict management strategies. The module consists of six 2-hour sessions divided into mini lectures, role-play, group discussion, and self-reflecting activities. Less than two hours are spent on mini lectures

while 8 hours are spent on role-play to master the skills. During regular module administration, participants usually spend two hours per week to focus on a topic. Thus, if the conflict management training module is conducted using similar approach, it means the participants would have completed six weeks of training. The 12 hours spent on the module is enough for the subjects to understand, explore, and practice the knowledge, skills, and new attitude.

According to Wiersma (2000), the shorter the duration of an experiment, the least likely history to be a threat to validity. It is preferable for the posttest measurement to be taken immediately after the conclusion of the experiment, especially if the dependent variable is likely to change with the passing of time (Wiersma, 2000). It is true in this case because attitudes, skills and knowledge are easily influenced by the factors operating in the environment or through one's experience (Ajzen & Fishbein, 2005).

The second threat is the maturation effects. Maturation effects refer to the natural changes that participants experience with the passage of time (Ary, et al., 2010). To control for this threat, the researcher has identified the population who is almost similar in their age range and who are considered as high achievers in their academic performance. All the subjects in the population share almost similar characteristics with each other. The subjects selected for the experimental design has an average age of 28.4, with the range age of 25 to 39. In term of their academic performance, they have academic scores of 3.68 to 4.00 CGPA. The group consists of female and male subjects from different ethnic groups of Malay, Chinese, and other races. In term of working experience, none of the subjects have worked as a counselor.

The third threat is regression. Creswell (2009) refers to regression threat as the possibility of participants with extreme scores is selected to participate in the study. To determine whether the participants are similar in term of their knowledge and skills, the researcher conducts the test for normality on the pretest scores obtained before they take part in the training workshop. The test of normality test shows that all the scores ranged within the normality range of -1 and +1. The result indicates that the participants scores are normally distributed, meaning that there is no extreme scores in term of knowledge or skills observed among them. Given the normality test result, it is safe to assume that the participants are similar in their knowledge, attitudes, and skills before they engage in the training workshop.

The fourth threat is the selection procedure employed in the study. This is a threat because selection procedure might allow for some participants with certain characteristics that predispose them to display certain influence on the outcomes of the study (Creswell, 2009). These characteristics could be some positive attribute like high intelligent or negative attribute like hearing impair. To tackle the possibility of this threat from influencing the study results, the researcher carefully designs the selection procedure. Since the study is using the sequential exploratory design, same participants should not be involved in both approaches of data collection process (Creswell & Plano Clark, 2007; Myers & Oetzel, 2003). To avoid any unwanted incident to impair data collection process, the researcher applies two sampling procedure where she randomly selects participants for the training workshop, and then purposively identifies the participants from the remaining population for the interview process. This is made possible because the population is made up of counsellor trainees who have completed and passed all the

core counselling courses, and have experienced conflict in the group counselling they conduct.

The fifth threat is the mortality effect. Mortality effect refers to the participants drop out during the experiment due to many possible reasons (Creswell, 2009). To prepare for the possibility of dropouts, the researcher selects more participants than is suggested by Cohen's size effect table. The minimum number of sample recommended is 32 but the researcher adds three more participants through the random sampling procedure. These additional participants may buffer the effects of possible dropouts.

The sixth threat is the testing effect. Testing effect refers to the participants become familiar with the outcome measure and remembers their responses for later testing (Dunn, 2010). According to Ary, et al. (2010), a research that employs the attitude and personality inventories, taking a pretest may sensitize the subjects, making them think about the questions and subsequently give different responses on the posttest. The argument is the attitude scale itself may stimulate the participants to think about their attitudes; this self-examination, rather than the program itself, may lead to improvements in attitudes. For the present study, it is the intention of the researcher to encourage the participants to engage in self-exploration of their attitudes and perceptions towards conflict and the group leadership functions. The module is devised in such a way it guides the trainees to be in touch with their perceptions, attitudes, and values towards group counselling in general and towards conflict in specific. Thus, it is difficult for the researcher to separate the testing effects from the training effects on the changes experienced by the trainees because both take place concurrently. However, to minimize

the testing effect, the researcher has rearranged the sequence of items on the questionnaires. By doing that, the researcher hopes the participants would have to carefully read the items before answering them.

The last threat to internal validity is the instrumentation. Instrumentation can lead to inaccurate inferences about a treatment’s effects, thus affecting the outcome scores (Mark & Reichardt, 2009). To avoid any occurrence of instrumentation effect, the researcher uses the same questionnaires for both the pretest and posttest measures. The questionnaires maintain the same definitions of knowledge, attitudes, and strategies to prevent confusion on the part of the participants when responding to the questionnaires. Table 6 describes the types of threats to internal validity and the actions taken by the researcher to minimize the effects on the study.

Table 6: Types of Threats to Internal Validity

Types of threat to internal validity	Actions taken to control the threat
History	The researcher administers the pretest and posttest data collection immediately after the training workshop to avoid any unexpected event that might affect the outcomes of the study.
Maturation	The researcher selects participants who are about the same age range, 25 to 35 year olds. They also share about the same CGPA of 3.68 to 4.00.
Regression	The researcher uses the pretest scores to identify participants with extreme scores through the normality test. All participants score within the mean.
Selection	The researcher employs two sampling procedures to identify participants for data collection Random selection of sample for quantitative approach (n=31)

Purposive sampling for qualitative approach (n=12)

Mortality

The researcher selects more than the required number of participants to prepare for possible dropout.

Testing

The researcher uses similar set of questionnaires but changes the arrangement of the items.

Instrumentation

The researcher uses the same assessment tool for the pretest and posttest measures.

The rest of the section discusses some other issues related to the reliability and validity of the present study. The first issue has to do with the validity check for the qualitative data collection to determine whether the information obtained is accurate. Creswell and Plano Clark (2007) suggest member's checking strategy where the researcher takes major themes of the findings back to key participants in the study and asks them whether the findings are an accurate reflection of their experience. The "checkers" should be a representative sample of all those who participate in the study so as to ensure that the participants do, in fact, agree with the interpretations of the researcher (Kemper, et al., 2003). The researcher contacts two participants, B and G, to check on their own transcripts and to compare them to themes identified by the researcher. Both B and G are satisfied with the summaries of the transcripts and of the themes as well. Their levels of agreement with the themes are 89 and 91 per cent respectively.

The second issue is with the reliability and validity of the assessment tools used in this study. The issue is addressed in two ways. First, the set of questionnaires developed from the qualitative data are measured for their content validity with a panel of experts. The experts are two Associate Professors and one senior lecturer from three different local

universities. The content validity given for the assessment tools ranges from 0.84 to 0.93. As for the reliability of the questionnaires, the researcher conduct a pilot study with a group of 33 final year undergraduate students from the Guidance and Counselling program at the Faculty of Educational Studies, UPM. The scales are then scored and tested for alpha Cronbach values. The alpha Cronbach values for the scales range from 0.62 to 0.88. Taken together, the tools have a good to very good construct validity values.

The same procedure is also followed in the development of the Conflict Management Training Module. After the tentative module is completed, the researcher contacts three experts in the field of counselling to evaluate its content for validity. The three experts are one Professor from UKM, one Associate Professor from UPM, and a senior lecturer from USM. The overall level of agreement among the experts is 80 percent. The reliability is important to make sure that the module is consistent with its objectives and that all the topics could be conducted within the allocated time. To test the module for its reliability, the researcher conducts a pilot study with ten counsellors from the Public Service Department before it is conducted with the research participants. The counsellors rate the reliability score for the module at 0.85.

The last concern is with the competency of the researcher to conduct mixed methods research. The researcher is a licensed counsellor and has been teaching group counselling courses at the undergraduate and graduate levels at UPM for more than twelve years. Throughout the years, she attends several qualitative and quantitative workshops organized by the lecturers from the Faculty of Educational Studies, UPM. Fortunately, one of workshops is by Professor Sharon Merriam. The researcher has also registered for

a qualitative course with Professor Azimi Hamzah, a prominent qualitative researcher at the faculty. In addition to the workshops, the researcher read books on research method design to determine the suitable designs and data collection procedures to meet the needs of the research objectives.

As a conclusion, the researcher has taken the necessary steps to ensure the reliability and validity issues of the present study. Since this is a preliminary study to capture the experience of counsellor trainees in dealing with conflict in group counselling, and to develop and test the effects of a training module through a set of questionnaires, the researcher wishes she could adequately answer the many concerns surrounding the reliability and validity issues presented in the study.

3.9 Summary

The chapter has focused on the research design, sampling, data collection, data analysis, and issues of reliability and validity. The research employs the sequential exploratory design, whereby it combines the phenomenological and one-group pretest-posttest experimental design. The sequential exploratory of the mixed method design enables the research questions to be explored from personal and group perspectives, thus providing a holistic view of the phenomena under study. Data collection procedures are discussed thoroughly, taking into consideration the demands of the qualitative and the quantitative research designs.