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***Research paper***



# Developing User Requirement's Handbook for Malaysian Military Observers Using Phenomenology Approach

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**Abstract**

This paper attempts to show that application of phenomenology approach in developing the user requirement's handbook. This is the first study to document these phenomena in military used to gain their experiences for situational awareness. Therefore, the methodological approach taken in this study is a phenomenology approach. This paper will focus on Moustakas's approach because it has systematic steps started from identifying the phenomenon study until come out with the final output. Furthermore, this paper also aimed to show how the output obtained from this phenomenology approach, so the findings should make an important contribution to the field of peacekeeping. The final output is the result of data analysis procedure and guidelines for bringing together the textual and structural descriptions into appropriate table and will be apply for generating as a user requirement handbook.

***Keywords***: *Military Observer, Peacekeeping, Phenomenology, qualitative study, user requirements*

## 1. Introduction

Methodology can be concluded as a plan of activity where the process used convey to the require outcome [1]. Procedural framework for the research are undertaken refers as research methodology [2]. These steps are important for better understanding to every each component in the research methodology. These components have inter-relationships within each component in order to manage the research process.

Up to this moment, there are not many studies have been carried out to collect tacit knowledge in the area of peacekeeping that are related to the situational awareness. The problems arise when the military observers finish their service, the knowledge also remains their only knowledge. Therefore, the experience must be transferred to another person in the same field.

This qualitative study uses phenomenology approach to collect the experiences of military observers (MILOB) in the face of a situation and the actions they have taken to deal with such situations [3]. This study is very important to raise situational awareness among MILOB.

The objective of this paper is to describe the application of phenomenology approach in developing a user requirement's handbooks for Malaysian military observers. The purpose of this paper is to discover a Moustakas's approach [4] and then developing a user requirement that describes the phenomena of situation which was faced during the UN mission using phenomenology approach.

## 2. Qualitative Research Approach

Research approach depends on the research inquiry. It could be quantitative or qualitative research. Researcher needs to choose one research approach based on what criteria should govern [5]. Therefore, we must choose which one the appropriate approach for developing situational awareness's user requirement handbook. There are five qualitative design listed by Cresswell such as narrative research, case study, grounded theory, phenomenology and participatory action research.

Table 1 shows the contrasting characteristics of five qualitative research approach adopted from Creswell et al. [5].

**Table 1:** Characteristics of five qualitative approaches adopted from Cresswell et al.

| **Characteristics** | **Narrative Research** |
|---|---|
| Type of problem, Best suited for design | When detailed stories help understand the problem |
| Discipline Background | Humanities |
| Unit of analysis | One or more individuals |
| Data collection forms | Interviews, documents |
| Data analysis strategies | Chronology, elements of a story, restorying |
| Degree of structure in methods | Little set structure |
| **Characteristics** | **Case Study** |
| Type of problem, Best suited for design | When researcher has a case bounded by time or place that can inform a problem |
| Discipline background | Psychology, law, political science, medicine |
| Unit of analysis | An event, program, activity, or more than one individual |
| Data collection forms | Multiple forms: interviews, observations, documents, artefacts |
| Data analysis strategies | Description of the case and themes of the case as well as cross-case themes |
| Degree of structure in methods | Some structure |

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| Characteristics | Grounded Theory |
|---|---|
| Type of problem, Best suited for design | When no theory exists or existing theories are inadequate |
| Discipline background | Sociology |
| Unit of analysis | A process, action, or interaction involving many individuals |
| Data collection forms | Primarily interviews |
| Data analysis strategies | Open coding, axial coding, selective coding |
| Degree of structure in methods | High level of structure depending on "camp" |
| **Characteristics** | **Phenomenology** |
| Type of problem, Best suited for design | When the researcher seeks to understand the lived experiences of persons about a phenomenon |
| Discipline background | Psychology, education |
| Unit of analysis | Several individuals who have shared the experience |
| Data collection forms | Primarily interviews, although documents, observations, and art may also be considered |
| Data analysis strategies | Bracketing, statements, meaning units or themes, textual description, structural description, essence of the phenomenon |
| Degree of structure in methods | Structured approach in data analysis |
| **Characteristics** | **Participatory Action Research** |
| Type of problem, Best suited for design | When a community issue needs to be addressed search operations that change can occur |
| Discipline background | Philosophy, broadly in the social sciences |
| Unit of analysis | An entire community |
| Data collection forms | Depends on the community needs; can be both quantitative and qualitative |
| Data analysis Strategies | Involve the community in decisions as to how to analyse the data |
| Degree of structure in methods | Little set structure |

Based on the explanation, the phenomenology approach is more appropriate because the researcher seeks to understand the lived experiences of MILOB about a phenomenon of situational awareness was faced during the UN mission. The following section explains more about the phenomenology design

## 3. Phenomenology Design

Phenomenology study design to understand and describe human experience about everyday real world what they encounter and how they experienced it [5]. The phenomenology approach was initiated by a German mathematician, Edmund Husserl (1859 – 1938). He is describing how an experiences is understood either by using existing experience as well as other information [6]. Therefore, this phenomenological approach has further expanded its view by Heidegger, Sartre and Merleau-Ponty [5]. However, Husserl does not talk a theory of knowledge; rather, he looks for to detail a science that could result in knowledge. Therefore, Heidegger was Husserl's scholar, is much more concerned with ontology, the investigation of what is, or being. While, Merleau-Ponty, addressed phenomenology through the specific question of how individuals observe the world and, further, how they understand those perceptions [6].

Phenomenology is popular in many domain areas such as the social science [7], health science [8], education [9] and nursing [10] . However, this study conducted in the military domain to gain their experiences for situational awareness. Based on the needs of this study, the phenomenological research methods by Moustakas are more appropriate. According to Moustakas, transcendental meaning "in which everything is perceived freshly, as if for the first time" [4]. As this is the first study to gather the experience of a military observer who has been following the UN mission, indirectly this experience considered "fresh" or transcendental.

The methodological approach taken in this study is a phenomenology based on Moustakas's approach as shown on figure 1 because it has orderly steps in the data analysis process and guidelines for congregate the textual and structural descriptions like a user requirement. The illustration below is derived from this procedure for phenomenology research (see figure 1).

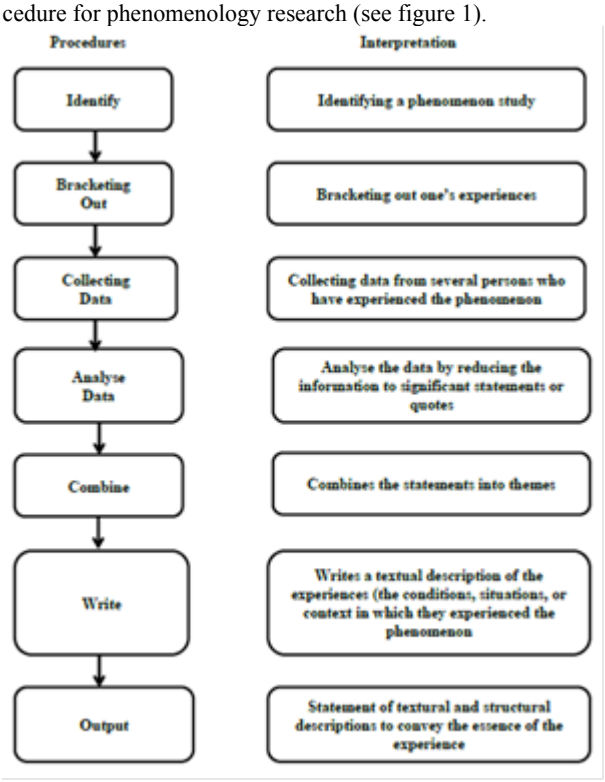



**Fig. 1:** The procedures for phenomenology research adopted from Moustakas

The procedures consists of identifying a phenomenon to study, bracketing out one's experiences, and collecting data from several persons who have experienced the phenomenon. The researcher then analyses the data by reducing the information to significant statements or quotes, combines the statements into themes, and writes a textual description of the experiences of the persons. A structural description of their experiences (the conditions, situations, or context in which they experienced the phenomenon), and statement of textural and structural descriptions to convey the essence of the experience as an output of study. The detail on the process of conducting phenomenology using this approach in this study will be discusses in the next section.

## 4. Process of Conducting Phenomenology Research

Refer to the figure 1; researchers have divided this approach into two phases based on the suitability interpretation of this study. Figure 2 shows the first phase (1) for this approach.

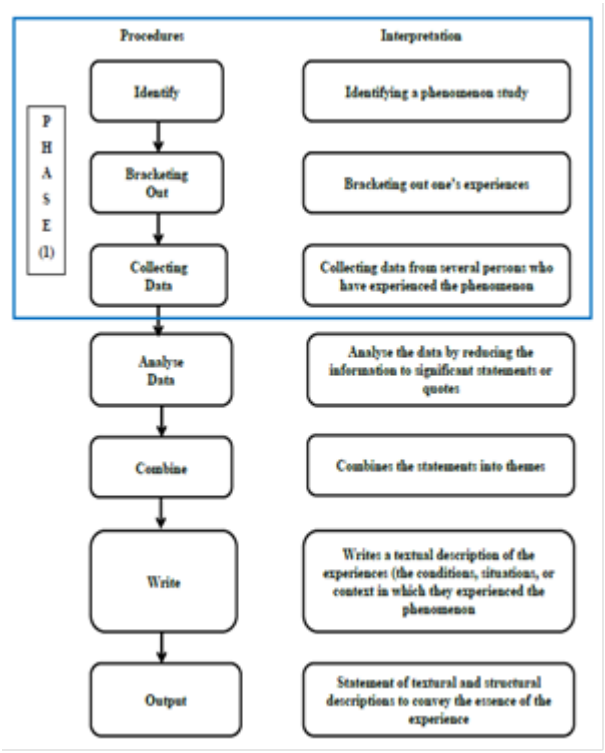



**Fig. 2:** Phase one (1) in Moustakas's phenomenology approach

For the identification procedure, we have identified the phenomenon that is being studied is to collect tacit knowledge in the area of peacekeeping that related to the situational awareness. We are interested in describing the experiences of military observer how they faced their situation during peacekeeping duties Therefore, we have proposed a framework of knowledge based for situational awareness [11]. This framework which contains a combination of two (2) models, namely the model of Nonaka [12] and Endsley [13] model which is intended for bracketing out user's experiences and we have connecting knowledge and wisdom in the DIKW hierarchy into the knowledge based framework with situational awareness analysis [3]. The event of interest would be situational awareness analysis using the Endsley's model. We need to identify three (3) levels in situational awareness such as perception, comprehension and projection in their sharing about situation faced [11].

For collecting data from several persons who have been experienced the phenomenon, we have selected as many as twenty (20) military observers as study respondents. This study follows an in-depth interviews with semi-structured questionnaires [14]. Topics that have discussed about eight (8) peacekeeping activities such as cordon, escorting, show of force, search operations, patrolling, observing and monitoring, negotiations, and control of movement.

## 5. Developing User Requirement's Handbook

In this study, an in-depth interviews method adopted for data collection among military observers. During interviews, all the conversation was recorded using voice recorder and takes a field notes for the purpose of transcript process and future reference. The entire respondents feel free to share their experience based on situational awareness that they are faced.

After the interview session, respondent's interview recording will be transcribe first before conducting the analysis. In the analysis, reference was continuing from phenomenology's approach phase two (2) for the data analysis. Analysis on the in-depth interviews from the phenomenology research with military observers is for reducing the information into significant statements such as perception, comprehension and projection stated on Endsley's model.

According to Cresswell [5], the data analysis strategy for phenomenology is bracketing, statements, meaning units or themes, textual description, structural description, essence of the phenomenon. Therefore, we need to breakdown the respondent's statement into proper table. Next, Figure 3 illustrates the second phase in Moustakas's approach.

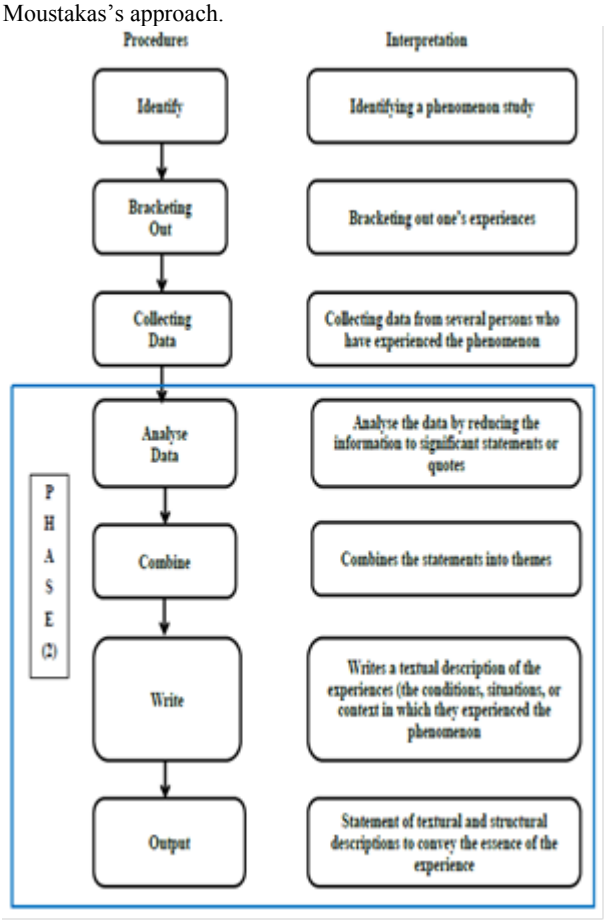



**Fig. 2:** Phase two (2) in Moustakas's phenomenology approach

This study wanted to know about the experience of MILOB with the awareness of the situation, so we divided the respondents' statements into four (4) main sections as stated by Wan Yusof et.al. [14]. The sections are as follows: situation, perception, comprehension and projection (see table 2).

**Table 2:** Four (4) main sections for divided the respondent's statements.

| SITUATION | PERCEPTION | COMPREHENSION | PROJECTION |
|---|---|---|---|
| What are the situations that they are facing? | How respondent observe the environment? | How respondent understand each situation? | What are the lists of possible action that they have taken? |

After the breakdown of statements into the prescribed section, then we come out with output the statement textural and structural descriptions to convey the essence of the experience. This final output called user requirement's handbook.

## 6. Output of the User Requirement's Handbook

The findings from the in-depth interview session have succeeded in collecting one hundred and forty-five (145) situations from twenty (20) respondents [15]. From the total respondents, two (2) respondents have undergone detention experience. Nevertheless,

because of physical, mental and emotional strength, they succeeded in securing themselves based on the actions taken. Indirectly, this shows that the Malaysian army has a high fighting spirit that will not give up before it ends. The following table 3 presents an excerpt of the sixteenth respondent's experiences who served on UNMIL's mission in Liberia. The reason why a sixteenth respondent was choose to be show as a part of the data finding, it is because the respondent has gone through an experience as a custody beyond his expectations (see table 3).

**Table 3:** An excerpt of the sixteenth respondent's experiences who served on UNMIL's mission in Liberia.

| Situation | Perception (observe the environment) | Comprehension (understand each situation) | Projection (list possible action) |
|---|---|---|---|
| In custody for 14 days | 2 days before being caught as seen villagers started to pack their belongings.<br><br>UN representative at the HQ has given the warning to get out from the team site.<br><br>30 people from the guerrilla tribe came to catch the UN representatives.<br><br>First 10 people in the front row were the child soldier because of their willingness to do anything.<br><br>The tribe pressured the hostages' stomach by using barrel of the weapon.<br><br>Being hostages in a house<br><br>We are not allowed to go out or to talk.<br><br>All personal items taken. | • Charles Taylor gave the order to catch the UN representatives as hostages<br><br>• Because he was threatened during the election.<br><br>• If were caught by the guerrillas, definitely will be murdered. | Make an appeal letter to be release.<br><br>Send it through a boy to give it to his commander.<br><br>The commander is given ½ an hour to escape.<br><br>Before making the escape plan:<br><br>Observe how many guards outside.<br><br>See the pattern of the tribe sleeping time.<br><br>When it is confirmed, run through the back door into the jungle.<br><br>Do not follow the trail but follow the tributary.<br><br>Keep the money in the shoes for emergency usage.<br>Follow every route tactically. |

## 7. Conclusion

Prof Zainuddin Awang quotes "Methodology is the engine to keep your research going on, and finally arrived at final destination". This paper explains on how this study has been conducted using phenomenology approach for developing user requirement's handbook. For the process of conducting phenomenology design, the researcher used Moustakas's approach as a guideline for started the identifying phenomenon study until collecting data from several persons who have experienced the phenomenon via in-depth interviews. After that, this finding will be made as a user requirement handbook for next candidate military observer as additional reference. Based on formal feedback from MPC, this finding is the first and is good for MPC academically.

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