Principles of research

The process of carrying a dedicated research study or activity entails upholding the professional principles required for the specific field of study. This led to individual researchers belonging to different fields implementing their own methods. Hence, in a bid to standardize the domain of field research it was necessary to formulate principles that will be used to oversee the individual activities. The principles of research entail the following: identifying a broad area of inquiry; conducting a review of researchable problem from reviewed literature; and choosing a method and design for an identified problem. Identifying a broad area of inquiry This first major step in conducting a competent research study entails identifying the main subject of concern or area of interest. An initial area of inquiry that is based in scientific readiness usually includes a review of previous successful and unsuccessful research data from transdisciplinary or research questions from research studies that are currently underway (Hays, 2008).

This provides the research with a good insight of the impending problem, which will form the basis of formulating the background information. This will provide the researcher with an estimate of the metrics or statistics in uncovering the research problem, which is enabled by the access to information. The need to access publications, research descriptions, methodology repositories and data sets are essential when it comes to capturing the required metrics (Hays, 2008). This is important to ensure the relevance of the problem to the specific industry. Conducting a review of Research Literature The quality of the research study will depend primarily n the quality of research material used during review. The aim of literature review is to delimit the research problem, establish new lines of inquiry,

discourage the application of fruitless approaches, adopt proper insight of methodology, establish future recommendations to be used in carrying out further research, and seek firm support for grounded theories (Randolph, 2009).

These elements need to be achieved when looking for diverse information sources, which may entail primary, secondary and tertiary sources. Moreover, the review needs to integrate findings, generalize important findings from different units, outcomes, treatments, and settings in order to resolve an impending debate within the field of study or bridge the professional language or tone applied across the fields (Randolph, 2009). Identifying a Researchable Problem from Reviewed Literature During literature review, the researcher needs to be extremely keen in order to identify occurrences or situations warranting classification as a researchable problem. Some of the situations indicating the presence of a researchable problem include: the presence of a discrepancy in establishing what is and what should actually be; presence of a question seeking to establish factors responsible for the discrepancy; presence of two or more possible answers to the posed question (Kumar, 2008). It also important to distinguish between a non-researchable problem and a researchable one in a bid to establish a clear cut line based on the available credentials.

For instance, in the case of a non researchable problem a clear discrepancy exists between the observed and desired situation but we know why it does exist and its precise solution (Kumar, 2008). On the other hand, a researchable problem showcases the exact oppositee of the mentioned qualities. Once the researchable problem has been established it is

paramount to establish the problem definition and justification. Problem definition involves establishing the prevalence, incidence, geographical descriptions, population characteristic, other research findings, past experiences, earlier successes and unanswered questions (Kumar, 2008). These are important in establishing the depth of a researchable problem. Problem justification involves establishing timing of the problem (is it current or existing), extent of spread, group affected, and people concerned (Kumar, 2008).

Choosing a Method and Design for an Identified ProblemOnce the problem has been defined and justified as a researchable problem, the next key step entails choosing a suitable method and design for implementing the research study. It is important to identify some of the desire qualities of the research design capable of achieving the desired objectives of the research problem. A competent research design ought to answer the formulated research questions and establish the relevance of the proposed research hypothesis. The chosen research methodology and design needs to: establish the validity of the final conclusions to the findings; establish the conditions that will make proper causal inferences and plausible assertions; adequately facilitate the research interpretations and generalizations; and anticipate potential problems that are capable of arising in the course of conducting the study (Richey & Klein, 2007). Hence, a suitable research methodology and design needs to seamlessly establish the findings without the occurrence of any form of biasness and eliminate errors of estimation, consequently affirm the validity of the research amid different contexts.