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By **Malki Ikram**

Investigating the Role of the Big Five Personality Traits (Neuroticism / Conscientiousness) on the Process of Conducting Research

A case-study of Master Students of English at Biskra University

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Declaration

I, **Ikram MALKI**, do hereby declare that the work presented in this dissertation is solely my own effort, and has not been submitted for any academic institution or University for any degree before

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Dedication

After **Allah** who granted me the power to endure and make it up to here

I dedicate this dissertation:

To my parents for their patience, confidence, and financial support along my educational
career

To my dear brother **Faysal**

To my dearest sisters

To all my family

To my best friends, **Khadidja**, **Nour El Houda**, and **Ryme** for being with from the beginning
till the end, I will never forget their support

And lastly, to myself, I fought against all the odds, made it and I still will

May this be the start, not the end.

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Abstract

Novice researchers face several problems when conducting research. Such problems could be due to the insufficient methodological knowledge, poor writing skill or the effect of the researchers' personality dimensions. The present study aimed to investigate the effect of the Big Five Personality traits, namely, neuroticism, agreeableness, extraversion, conscientiousness, and openness to experience on the process of research conduction. Therefore, we hypothesized that the researchers' Five Factor Model of personality, precisely neuroticism and conscientiousness, would affect the way s/he conducts research. To test the validity of the research hypotheses, the mixed methods approach was used through two semi-structured questionnaires; one was administered to 11 EFL teachers at Mohammed Kheider University of Biskra, and the other one to 37 science of the language master two students. The obtained data proved that both teachers and students agreed upon the effect of the Big Five personality traits on the process of conducting research. In addition, the study results revealed that neuroticism negatively influences the research process; however, conscientiousness affects research conduction positively. Thus, it is recommended that teachers need to be aware of their candidates' personality features when giving feedback in order to raise their self-esteem and self-confidence; consequently, developing their research skills. Thus, based on the findings, the research alternative hypothesis was confirmed.

Key words: Research process; the big five personality traits; neuroticism; conscientiousness

List of Abbreviations and Acronyms

A: Agreeableness

AF: Alternative Five

BF: Big Five

C: Conscientiousness

E: Extraversion

E-data: Experimental Data

EFL: English as a Foreign Language

EPQ: English Personality Questionnaire

FFM: Five Factor Model

FFT: Five Factor Theory

L-data: Life Data

N: Neuroticism

NEO.PI: The NEO Personality Inventory

NEO.PI.R: The NEO Personality Inventory Revised

O: Openness to Experience

Q-data: Questionnaire Data

RP: Research Process

RQ: Research Question

SAS: Statical Analysis System

SPSS: Statical Package for Social Science

16 PFQ: the 16 Personality Factor Questionnaire

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General Introduction

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1. Background of the Study

Research has a significant role in the development and sustainability of any academic institution. The basic principal behind undertaking research is the look for knowledge. The knowledge generated by research is seen as the basis of any positive change and development since it provides understandings of how things happen, and the reason behind such occurrence. While conducting research under academic institutions, student researchers face a considerable number of challenges such as ill-equipped laboratories and libraries, lack of funds, and the lack of encouraging academic environment. However, the internal psychological side of the researcher, that reflects his/her personality and thinking, can be a source of some problems that may influence the way the research is undertaken.

Recent years have witnessed a birth of interest in the utility of personality testing in different life aspects. Thus, after fifty years of personality research, there is a common agreement in the field that five core personality dimensions form the basis of personality (Heinstrôn, 2004; Larsen & Buss, 2005; McAdams, 1994). The five personality traits are: extraversion, agreeableness, conscientiousness, openness to experience, and neuroticism. These have been given various names/ labels such as the five factor model (FFM) and The high five (Costa & McCrea, 1995; Goldberg, 1981; and McCrea & John, 1992; as Cited in Larsen & Buss, 2005).

2. Statement of the Problem

Student-researchers may face a considerable number of internal psychological problems that affect the way they undertake research. Problems are like whether to finish on time or not,

their ability to interview knowledgeable people, and even their ability to undertake research. Such problems may influence their decisions so that the whole research process will be affected. The idea behind conducting this study is that most supervisors and student-researchers at Mohamed Kheider at Biskra University pay much attention to the researcher's writing skills, methodological issues, and technical abilities neglecting the affective psychological side of student-researchers as human beings. Personality is regarded as an individual resource that influences each one's decisions and thoughts, it is argued that the five-factor model is practically the most appropriate model that covers almost all the psychological dimensions of human beings (Costa & McCrea, 2008a; Deniz & Satici, 2017).

Previous studies such as « The Influence of Emotional Intelligence and Personality Traits on Effective Leadership » by Cooper (2018), and «The Big Five Personality Traits and Academic Achievements on Russian Students» by Novikova and Vorobyeva (2017) tackled different areas in which the big five personality traits affect life aspects. The proposed study investigated the relationship between the big five personality traits and the research process. It portrayed conceptual understanding of the big five factor model, its aspects that are extraversion, agreeableness, openness to experience, conscientiousness, and neuroticism, and different elements related to the research process. It uncovers the effect of the FFM on the research process mainly “neuroticism” and “conscientiousness” as a primary focus to direct the scope of the study for what serves the research objectives.

3. Research Aims

The general aim of this study was to make both supervisors and student researchers aware of the role of the psychological side of the researcher in the process of conducting research.

4. Research Objectives

More specifically, the present study sought to:

- 1- Portray a conceptual understanding of the big five personality traits which are extraversion, agreeableness, openness to experience, neuroticism, and conscientiousness.
- 2- Highlight a better understanding of the role of the psychological affective side of researchers when conducting research.
- 3- Investigate how the big five personality traits, precisely, neuroticism and conscientiousness would affect the process of conducting research.

5. Research Questions

This research seeks to answer the following research questions:

RQ1. Is there any relationship between the psychological side of the researcher and the way he/she conducts research?

RQ2. Do the researcher's personality traits that are: extraversion, agreeableness, openness to experience, neuroticism, and conscientiousness affect the research process?

RQ3. How do neuroticism and conscientiousness influence the way the researcher undertakes a research?

6. Research Hypothesis

From the afore mentioned research questions, one hypothesis can be drawn:

We hypothesized that the big five personality traits that are: extraversion, agreeableness, openness to experience, neuroticism, and conscientiousness would affect the process of conducting research.

7. Significance of the Study

This study draws attention to a very crucial factor that influences the research process which is the personality traits. It may help both student-researchers and supervisors be aware of the affective psychological problems that face researchers when conducting research. Additionally, it sought to explore a new notion that has not been tackled before which is the effect of the big five personality traits on the process of conducting research.

8. Research Methodology

8.1. Research Approach

The aim of present study was to investigate the role of the big five personality traits on the process of conducting research; therefore, the mixed-methods approach, that deals with both quantitative and qualitative methods, was adopted in order to find answers to the research questions. This method is more suitable and applicable for the nature of this study that belongs to social sciences. This study opted for a small scale study because the findings will not be generalized.

8.2 Population and Sample

With the aim of gathering data about the effect of the five factor model of personality on research conduction, a sample of 37 science of the language master two students was selected randomly from a population of 154 students. In addition, from a population of more than 50 teachers in the English division at Biskra University, 11 teachers with different teaching experiences were selected randomly

8.3. Data Collection Tools

In order to answer the research questions and test the research hypothesis, two data gathering tools were used, namely, a student's 'semi-structured questionnaire was administrated to 37 master two science of the language EFL students at Biskra University to obtain their opinions towards the effect of the FFM of personality as the research process. In addition, a teachers' questionnaire that was administered to 11 randomly chosen EFL teachers from the division of English at Biskra University in order to obtain their attitudes towards the influence of the researcher's big five dimensions of personality on research conduction.

8.4. Data Analysis Procedures

The data collected through the students' and teachers' questionnaires are hereby displayed using counts and descriptive analysis through the Excel.

9. Structure of the Dissertation

The current study is divided into main parts. The first part is devoted to the theoretical background and literature review, while the second is devoted to the field work including data analysis and interpretation of the results.

The first part is divided into two chapters. Chapter one deals with the so-called “the big five personality traits”, their definition(s), discovery and development. It sheds light to the limitations of the FFM of personality as well as its universality among other domains. The second chapter provides an overview about research, its definition(s), type(s), and characteristics. Also, it highlights the research process definition(s) and its stages. In addition to the main qualities and characteristics, that researchers should possess to be good researchers.

The second part starts with literature review about research methodology adopted for this study. Also, it is devoted to the analysis of the data gathered from the teachers’ and students’ questionnaire in order to confirm or disconfirm the aforementioned hypothesis.

Chapter One

The Big Five Personality Traits

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Introduction

Personality traits are features that affect individuals' behavioral responses in different dimensions. These traits can be modeled in various ways such as the 'Big Five Personality Model' which is considered as the most widely accepted model in personality psychology. Therefore, this chapter is devoted to the understanding of the concept of personality contextualized within the domain of trait perspectives. It covers different personality models focusing on the discovery and development of the Five Factor Model (FFM) as a primary focus in this study. The limitations of the Five Factor Model (FFM) as well as its universality and generalizability among different domains will be discussed.

1.1 Conceptualization of Personality

Psychologists have long been interested in understanding human nature. As individuals have many personal characteristics that influence their way of thinking, behaving and feeling; "Personality" is one of the main concerns of personality psychologists. According to Pervin and John (1997), personality represents the features a person possesses that account for consistent patterns of behavior (p.4). In the same vein, Pervin (1996) conceptualizes personality as "the complex organized cognitions, affects, and behaviors that gives direction and patterns of the person's life" (p. 414).

Larsen and Buss (2005) defines personality as a "set of psychological mechanisms within the individual that are organized and relatively enduring and that influence individual interactions with, and adaptation to, the intrapsychic, physical, and social environments" (p. 4). According to them, personality influences individual's social interactions by exposing the self

to different people, environments, and situations and having various emotional and behavioral reactions. Funder (2001) states that the personal characteristics and traits an individual has reflect his/her motivational central, that is his desires and preferences, and influence his behaviors. For Phares (1988), these behaviors, thoughts, preferences and feelings are consistent over time and situations, and distinguish individuals from one another (p. 4).

1.2 Theoretical Perspective of Understanding Personality Psychology

The understanding of personality differs across many psychological orientations which led to the emergence of “personality psychology”. According to Mischel et al., (2004), personality psychology has been traced back to ancient Greeks and Romans. Personality psychology is defined as a branch of psychology that studied personality characteristics and individual differences (Shekhan, n.d). In the same fashion, Cervone and Pervine (2009) maintain that personality psychology describes the whole person and examines the way in which people are unique. To define personality psychology, Almlund et al., (2011) distinguish between personality traits and personality response function, and measured personality. For them, personality is “a response function that maps personality traits to measure personality” (p. 12). The way individuals react and react in different situations shapes their personality traits and helps them that measure their personality features.

A considerable number of theories has been proposed by scholars in order to understand the difficulty of human personality construct. Laher (2007) proposed six personality frames which are: **a.** behavioral-conditioning, **b.** psychodynamic-motivational, **c.** social cognitive, **d.** biological, **e.** phenomenological and **f.** trait dispositional frames (2007, pp. 82-95). Each of these

theories has its own principles in describing the patterns of personality and how they are formed paying attention to people differences in an individual level.

1.3 Traits Dispositional Approach

Trait disposition approach is one of the theories concerned with describing personality features and individual differences. According to Moshoeu (2017), the traits dispositional approach is “the construct used to describe human individuality that accounts for consistent patterns of thoughts, feelings and actions” (p. 62). This approach attempts to understand human personality in terms of disposition; which is defined as “an inherent tendency to behave in a particular way” (Larsen and Buss, 2005). In the same vein, Rothman and Coetzer (2003) refer to disposition as variables which include personality features as needs, motives, attitudes and preferences.

1.3.1 Definition of Traits

Traits can be defined as dimension of individual differences and similarities in characteristics to show consistent patterns of behaviors, feelings, and thoughts (Kreitler & Kreitler, 1990, p. 40). These traits are described as enduring features of how people will act, feel, and think as individuals. According to Shekhan (n.d), traits are “habitual patterns of emotions, actions, and thoughts... which are relatively stable over time and differ across individuals... and influence behavior” (p. 330). Pervine and Carvone (2010) state that traits are used to describe behaviors based on information about how someone typically behaves referring to the dispositional patterns of thoughts, emotions, and behaviors.

As traits are just adjectives, words that describe individual characteristics, some researchers such as (McCrea, 2010; Pervine & Carvone, 2010) mention that traits are organized in a hierarchy from higher to lower prevalence measuring the degree to which an individual exhibit a particular trait.

1.3.2 Major Trait Perspectives of Personality

A review of literature about the trait dispositional approach reveals several theories which have contributed to the field of personality psychology over years. Among these theories: the work of Allport and Odbert's (1936) Model of Personality, Cattell's (1946) Trait Theory of personality, Eysenck's (1947) Five Factor Model of Personality.

1.3.2.1 Allport and Odbert's (1936) Model of Personality:

Allport and Odbert's (1936) model of personality is one of the oldest personality theories. This model is interested in the study of healthy people and their uniqueness and distinctiveness (Pervine & Carvone, 2010). For this reason, Allport (as cited in Ewen, 2010) formulated two approaches which capture his understanding of personality namely, "idiographic" (uniqueness) and "nomothetic" (distinctiveness). Idiographic approach focuses on studying single individual's personality characteristics; whereas, nomothetic approach is based more on group statistics of people's personality characteristics. According to Allport (1937), there are three trait levels:

- a) **Cardinal traits:** traits that shape one's behavior, such as: the need for money and fame, etc.
- b) **Central traits:** traits that shape most four behaviors, but are not as dominant as cardinal traits, such as honesty.
- c) **Secondary traits:** refer to characteristics seen only in certain circumstances.

One of the most noticeable contributions of Allport and Odbert's (1936) model of personality is a list of approximately 17953 terms (adjectives) that they compiled to describe traits (Allport & Odbert, 1936; as Cited in Moshoeu, 2017, p.43).

1.3.2.2 Cattell's (1946) Trait Theory of Personality:

Another theory that has contributed in the development of personality psychology is Cattell's trait theory of personality. A review of literature reveals that Cattell's (1946) model of personality was based on Allport and Odbert's (1936) personality descriptive terms. Revell (2014) states that the basic principal of this theory is finding the dimensions of personality sphere which permit the prediction of what a person will do in a given situation.

Applying factor analysis to personality, Cattell (1946) specified three types of data in order to capture all the personality dimensions. The three types of data are: **a)** Life data (L-data) which involves collecting data from everyday life behaviors, **b)** Experimental data (E-data) that includes reactions to experimental situations in laboratories, and **c)** Questionnaire data (Q-data) which involves individual responses about their own behaviors and emotions.

For the purpose of measuring personality traits, Cattell, 1946 (as cited in Van Eeden, Taylor & Prinlsoo, 2013) provides the 16 Personality Factor Questionnaire (16 PFQ) that is reflected in the table below:

Primary factor	Low-score personality	High-score personality
A Warmth	reserved, cool	outgoing, participating
B Reasoning	lower g, abstract	higher g, concrete

C	Emotional Stability	emotionally instable, easily upset	emotionally stable, adaptable,
E	Dominance	deferential, docile, cooperative	assertive, dominant, independent
F	Liveliness	taciturn, serious, introspective	carefree, cheerful, enthusiastic
G	Rule-Consciousness	expedient, inconvenient	conscientious, conforming,
H	Social Boldness	shy, timid	socially bold, venturesome
I	Sensitivity	utilitarian, objective	sensitive, tender minded
L	Vigilance	trusting, unsuspecting	skeptical, vigilant, suspicious
M	Abstractedness	practical, grounded	abstract, imaginative
N	Privateness	Forthright, genuine	polished, private
O	Apprehension	complacent, self-assured	apprehensive, indecisive
Q1	Openness to Change	conservative, traditional	experimental, open to change
Q2	Self-Reliance	group-oriented, affiliative	self-reliant, solitary
Q3	Perfectionism	undisciplined, tolerates disorder	controlling, perfectionist
Q4	Tension	calm, relaxed	tense, impulsive, impatient

Figure 1.1: 16 Personality Factors Given by Van Eeden, Taylor, and Prinson, 2013, p.

As shown in table 1.1, the 16 personality factors (PF) are identified by the letters of the alphabet which indicates their order from the factor analysis. It is noted that the letter “Q” represents the four factors obtained from the questionnaire data done by Cattell in 1946 (Ewen, 2010).

1.3.2.3 Eysenck (1947) Three Factor Model of Personality:

Apart from Allport and Odbert's, and Cattell's understanding of personality, Eysenck in 1947 (as cited in Larsen & Buss, 2005) was interested in the biological foundation of personality traits. With the goal of understanding how human personality is formed, Eysenck (1947) relies on secondary factor analysis in order to analyze and classify a large number of personality factors that are correlated with one another. As a result, he identifies two universal personality traits which can be used to describe individual differences. These personality traits are neuroticism (N) and extroversion (E). After that, Eysenck and Eysenck (1947) develop the Eysenck Personality Questionnaire (EPQ) in 1947 in which they add "psychoticism" as a third personality factor.

Superfactors	Narrower traits
Psychotism (P)	Aggressive, cold, egocentric, impersonal, antisocial, unempathic, creative, tough-minded Sociable, lively, active, assertive, sensation-seeking, carefree,
Extroversion vs. Introversion (E)	dominant, surgency, venturesome
Neuroticism (N)	Anxious, depressed, guilt feeling, low self-esteem, tense, irrational, shy, moody, emotional

Figure 1.2: Hierarchical Structure of Eysenck's System Adopted from Larsen and Buss (2005, p. 74).

As noted in table 1.2, each trait of the three-factor model of Eysenck (1947) has its own specific adjective words that describe each scale.

1.3.2.4 Costa and McCrea's (1992) Five Factor Model of Personality:

As an extension to the Eysneck's (1947) model of personality McCrea and Costa (1992) developed what is known as Five Factor of Personality "FFM". According to Deniz and Satici (2017), the Big Five Taxonomy is the most widely accepted personality structure (p. 218). This model consists of relatively independent dimension which are: extraversion (E), neuroticism (N), agreeableness (A), openness to experience (O), and conscientiousness (C).

When reading about the five dimensions of personality, one may find different labels subscribed trait namely, Zuckermn's Alternative Five (AF), Goldberg's Big Five (BF), and Costa and McCrae's Five Factor Model (FFM). These labels differ in their methodological considerations, theoretical foundation and the composition of the personality dimensions. For the ease of presentation, these labels are used interchangeably.

1.4 Discovery and Development of the Five Factor Model of Personality (FFM)

The trait theorists consider the human personality to be composed of a set of personality features that were derived from the analysis of the natural language terms people used to describe themselves (Goldberg, 1993; Saucier & Goldberg, 1996). According to John and Srivastava (1999), the term "natural language" echoes "the lexical approach" derived by early traits theorists; which implies that the human behavior dimensions can be traced back to the language used by individuals to describe themselves and others (pp. 103-120).

Assuming that most aspects of human personality structure are represented in the trait lexicon, Allport and Odbert's (1936) Model of personality provides a list of more than 4000 English trait descriptors (Boyle, 2008, p. 4). Grouping these trait descriptors into synonymous

clusters with rating scales was done Cattell 1946 (as Cited in Revell, 2014). John and Srivastava (1999) state that the availability of a short list of personality trait descriptors within Cattell's model simulated other researchers to examine the dimensional structure of trait ratings. This led to the emergence of the Big Five dimensions namely, extraversion, neuroticism, openness to experience, agreeableness, and conscientiousness (p. 6). Thus, it was Cattell's model of personality that served as a starting point to the foundation of the FFM. De Raad and Mlačić (2015) claim that the success of the big five model of personality was caused by studies that failed to find evidence to support Cattell's (1946) traits theory as Fisk (1949), Norman (1967), and Goldberg (1999).

Costa and McCrae (1992) started working on the NEO Personality Inventory (NEO. PI) which measures three broad personality dimensions namely, neuroticism, extraversion, and openness to experience. In expanding their work, McCrae and Costa (2008) incorporated the two additional dimensions agreeableness and conscientiousness, constituting a new revised version, which is termed as the NEO Personality Inventory Revised (NEO-PI-R). Indeed, the evolution of the Big Five Personality Traits is "the transition from the lexical version...to trait version" (Abood, 2019, p. 162). Digman (1990) states that although there is an agreement on the number of personality dimensions (five), but there is "less accord with respect to their meaning" (p. 422).

Author	I	II	III	IV	V
Fiske (1949)	Social adaptability	Conformity	Will to achieve	Emotional control	Inquiring intellect
Eysenck (1970)	Extraversion	Psychoticism	Psychoticism	Neuroticism	

Tupes & Christal (1961)	Surgency	Agreeableness	Dependability	Emotionality	Culture
Norman (1963)	Surgency	Agreeableness	Conscientiousness	Emotional	Culture
Borgatta (1964)	Assertiveness	Likeability	Task interest	Emotionality	Intelligence
Cattell (1957)	Exvia	Cortertia	Super egostrength	Anxiety	Intelligence
Guilford (1975)	Social activity	Paranoid disposition	Thinking introversion	Emotional stability	
Digman (1988)	Extraversion	Friendly compliance	Will to achieve	Neuroticism	Intellect
Hogan (1986)	Sociability & ambition	Like ability	Prudence	Adjustment	intelligence
Costa & McCrae (1985)	Extraversion	Agreeableness	Conscientiousness	Neuroticism	Openness
Peabody & Goldberg (1989)	Power	Love	Work	Affect	Intellect
Buss & Plomin (1984)	Activity	Sociability	Impulsivity	Emotionality	
Tellegen (1985)	Positive emotionality		Constraint	Negative emotionality	
Lorr (1986)	Interpersonal involvement	Level of socialization	Self control	Emotional stability	Independent

Figure 1.3: The Five Robust Dimensions of Personality from Fiske (1949) to the Present

Provided by Digman (1990, p. 423)

Keeping the same number of personality traits, which is five, their meaning differs from one researcher to another. As an example from table 1.3, dimension I has been interpreted as “Extraversion” by Eysneck (1970), Digman (1988), and Costa and McCrae (1985); however, it has other labels as Cattell’s (1957) “Exvia”, Fiske’s (1949) “Social adoptability, and Borgatta’s (1964) “assertiveness”.

1.5 Theoretical Conceptualization of the Five Factor Model of Personality (FFM)

The pattern of the Big Five Factors of Personality seems to be as a fundamental discovery for researchers interested in identifying individual differences concerning personality features. The FFM is classified as the hierarchical organization in personality trait that is composed of five basic dimensions namely: Openness to experience, Conscientiousness Extraversion, Agreeableness, and Neuroticism (Loehlin & Goldberg, 2014; McCrae & Costa, 2008a). These dimensions are memorable by the fact that their first letters spell the word “OCEAN” (John, 1990). The five factors have been determined through reporting and rating studies conducted an adults and children (Ahadi & Normani, 2010; Althoff, 2010; Colborn, 2016 ; Lam, 2013; Patel, 2011) using different personality questionnaires in addition to analysing adjectives from various languages.

Each of the hierarchical factors of the FFM consists of six distinctive subordinate traits and behavioral tendencies McCrae et al., 1989 (as Cited in O’Neil, 2007, p. 38)

Big Five Dimensions	Facets
Extraversion Vs Introversion	Gregariousness Assertiveness Activity Excitement – seeking Positive Emotion Warmth
Agreeableness Vs Antagonism	Trust Straightforwardness Altruism Compliance Modesty Tender – mindedness
3. Conscientiousness Vs Lack of direction	Competence Order Dutifulness Achievement striving Self-discipline Deliberation

Neuroticism Vs emotional Stability	Anxiety Anger and hostility Depression Self-consciousness Vulnerability Impulsiveness
Openness to experience Vs Closedness to experience	Ideas Fantasy Aesthetics Actions Feelings Values

Figure 1.4: The Big Five Dimensions and their Facets Based on John and Srivastava (1999)

As shown in the table above, each of the five dimensions has its reversed equivalent that expresses the opposite features.

The big five factors can be divided into two higher metatraits. Neuroticism (N), agreeableness (A), and conscientiousness (C) belong to the metatrait of “stability”; whereas, openness to experience and extroversion (E) belong to “the plasticity” metatrait (De young, 2010). The metatrait of plasticity refers to the ability to discover new things through interaction with cognitive and behavioral novelty while the metatrait of stability represents the ability to preserve stability by abstaining, motivational, and social interruptions.

Costa and McCrae (1992) suggest that the five factors are: **1)** stable dispositions that are visible in patterns of behavior, **2)** heritable (biologically grounded), **3)** universal; **4)** and found in both personality questionnaires and lexical studies.

1.5.1 Openness to Experience

Openness to experience is one of the Big Five Traits that is alternatively defined as “Intellect” or “imagination” in the lexical model given by scientists such as Digman and

Goldberg (Goldberg, 1990). Openness to experience refers to the tendency of being imaginative, creative, curious, and flexible. People characterized by openness to experience tend to encounter a wide variety of new ideas, feelings, and activities (McCrae & Greenberg, 2014, p. 222). According to Rothmann and Coetzer, this dimension includes: imagination, aesthetic, sensitivity, attentiveness to inner feelings, a preference to variety, intellectual curiosity, and independence to judgment (2003, p. 63).

People scoring on high openness to experience display traits such as tolerance of diversity, depth of emotion, willingness to experiment, and artistic interests. They have a high level of tolerance for ambiguity in addition to the ability to absorb to any situation (Cheung et al., 2008; Rohani, 2017). In contrast, people with low level of openness to experience tend to be “conventional behavior” and “conservative in outlook” (Rothmann & Coetzer, 2002, p. 30). Bjorkelo et al., 2010 (as Cited in Moshoeu, 2017) state that low level of openness to experience is associated with a preference for familiarity, simplicity, and closure; individuals are socially confirming and conventional in their reasoning.

Openness to experience is conceptualized along six facets which are: fantasy, aesthetics, feelings, actions, ideas, and values (Costa & McCrae, 2008a). Openness to fantasy is associated with the individuals’ emotional predisposition. Openness to Aesthetics entails the ability of evaluating various forms of art. It is connected to cognitive flexibility and intelligence. Openness to feelings refers to the tendency of being opened to inner feelings and emotions. Openness to actions is viewed as the person’s motivation to participate in new and complex events. Openness to ideas denotes the cognitive and intellectual curiosity of knowing new things. Openness to values refers to “the degree of a person’s susceptibility to change” as well as the readiness to re-examine own values (Nekljudova, 2019, pp78-81).

Six Facets of Openness	Preserver (O-)	Explorer (O+)
Fantasy	Focuses on here and now	Imaginative; daydreams
Aesthetics	Uninterested in art	Appreciates art and beauty
Feelings	Ignores and discounts feelings	Values all emotions
Actions	Prefers the familiar	Prefers variety; tries new things
Ideas	Narrower intellectual focus	Broad intellectual curiosity
Values	Dogmatic; conservative	Open to reexamining values

Table 1.1: The Six Facets of Openness to Experience with Anchors of the Two Extremes of the Continuum Given by Costa and McCrae, 1992 (as Cited in Howards & Howards, 1955, p. 6)

As noted in table, explorers are the ones who score high in openness to experience with the six facets. They are creative and curious unlike preservers who have narrower interests and are comfortable with familiar.

1.5.2 Conscientiousness

Historically speaking, the term “Conscientiousness” was first introduced with Freud’s idea of “the superego and the subsidiary concepts of the ego ideal and conscience” (Roberts & Lejuez, 2012, p. 4). The dimension of conscientiousness has been defined by various researchers and psychologists within the field of personality psychology. For Barrick, Meant and Strauss (1993) conscientiousness refers to the active process of planning, organizing, and carrying out tasks. For them a conscientious person is careful, organized, hardworking, ordered and preserving. In the same vein, Taylor and De Bruin (2006) define conscientiousness as the degree of efficiency with which an individual plan, organizes, and carries out any task. According to

Doleck, Greco, and Niveloids (1995), conscientiousness reflects the tendency to maintain “motivational stability” within an individual to make plans and carry them out in organized manner.

John and Srivastava define conscientiousness as the “socially prescribed impulse control that facilitates task and goal-directed behavior, such as thinking before acting, delaying gratification, following norms and rules, planning, organizing, and prioritizing tasks” (1999, p. 121). Conscientious persons are characterized by self-control, determination, organization, efficiency, and achievement striving.

McCrae and John (1992) suggest that conscientiousness has two components. The first one is “proactive aspect” which is related to motivation for success and it is expressed in achievement striving as one of conscientiousness facets. The second one is “inhibitive” which focuses on motivation for impulse control, and it is expressed in conformity.

Individuals with high scores in conscientiousness are the ones who display self-discipline, plan their tasks, and strive for achievement (John, 1989; Digman, 1990). On the other hand, individuals with low scores in this factor are easily distracted; less focused on goals, and have weak control over their impulses (Howard & Howard, 1995).

Based on the NEO.PI.R inventory, the six facets of conscientiousness dimension include competence, order, dutifulness, achievement striving, self-discipline, and deliberation (Judge, Rcadell, Klinger, Simon & Crawford, 2013). Competence relates to the belief of self-capability of executing tasks. Order is described by being well organized, thorough, and meticulous. Dutifulness refers to adhering to the standard of conduct and being able to fulfill moral obligations. Achievement striving is described by being hard words to achieve goals. Self-

disciplined refers to the ability to plan, organize and carry out tasks. Deliberation relates to the ability of thinking carefully before acting or taking any decision (Costa & McCrae, 1992; Judge et al., 2013; Moshoeu, 2017)

1.5.3 Extraversion

Extraversion, the third personality factor within the FFM refers to the extent to which individuals engage with the external world and experience enthusiasm (Imran, 2018). John, Nauman, and Soto (2008) define extraversion as “an energetic approach toward the social and material world, it includes traits such as sociability, activity, assertiveness, and positive emotionality” (p. 5). People who seek connection with the external world are sociable, assertive, gregarious, and warmth. In similar vein, De Neve et al., 1998 (as Cited in O’Neil, 2007) state that extraversion focuses on both the quantity and the intensity of the individuals’ relationships. According to Barrick et al., (1993), extraversion is sometimes used interchangeably with “positive emotionality” and “surgency”.

Therefore, individuals who possess a high level of extraversion tend to be “sociable, outgoing, energetic, talkative and active” (Deniz & Satici, 2017, p. 3). For Zhao and Seibert (2006), extraverts are excitement seekers, cheerful, and they like being among large groups. People who score low an extraversion prefer to be alone, and are classified as independent, introvert, reserved, and quite (Baptiste, 2018, p. 41).

Extraversion dimension of personality makes the distinction between extraverts and introverts. According to Malouff, Thorsteinsson, and Schutte (2005), extraversion can be manifested in two extremes; as risky sensation-seeking and reward-seeking behavior on one end, and on the other end as detachment, shyness, and withdrawal.

Within the FFM framework, extraversion is conceptualized along six facets namely, warmth, gregariousness, assertiveness, activity, excitement seeking, and positive emotion (Costa & McCrae, 2008a). Warmth refers to the tendency of being friendly with others. Gregariousness is described by being sociable and preferring social interactions with large groups of people. Assertiveness is related to the individual's interpersonal power and dominance like taking control of activities in groups. Activity, which is also known as "activity level", embodies features of being energetic and lively. Excitement seeking refers to the desire for environmental stimulation and pleasure-seeking activities. Positive emotions are described by having positive feelings as happiness and enthusiasm (Grand, 2018).

1.5.4 Agreeableness

Historically, agreeableness as a personality has received different labels from theorist. Fiske (1949) labeled the dimension "conformity", Digman and Takemoto-Chock (1981) gave it the label of "friendly compliance Vs Hostile noncompliance". The FFM of personality posits agreeableness as a major dimension of inter-individual dispositional variation (Costa & McCrae, 1992; Goldberg, 1990). According to Patrick, 2011 (as cited in Baptiste, 2018, p. 53), agreeableness refers to the manner in which individuals interact with others in the areas of trust, straight forwardness, altruism, compliance, modesty, and tender mindedness.

Templer (2012) defines agreeableness in terms of a collectivistic orientation. According to him, an individual with collectivist behavior maintains positive interpersonal relations with others, shows sensitivity towards others, and is more cooperative. Costa, McCrae, and Dye (1991) define agreeableness by comparing it with extraversion. For them, extraversion is related

to “the quantity of social stimulation”; whereas, agreeableness represents “the characteristic quality of interaction along a continuum from compassion to antagonism” (p. 888).

Individuals who score high in agreeableness seem to be friendly, cooperative, compassionate, warm, eager to please, and good-natured. They strive for cohesion and unity among groups and thought positively about persons. However, those who score low in this dimension may be described as hard-headed, proud, skeptical, distant, self-centered and antagonist (Baptiste, 2018; Rohani, 2017).

Costa et al., (1991) identify six facets to measure agreeableness namely, trust, straightforwardness, altruism, compliance, modesty, and tender mindedness. Trust is described as the tendency to believe in the sincerity of others while the opposite signals “suspicion” that others are dishonest and dangerous”. Straightforwardness implies frankness and directness when dealing with others. Altruism is defined as the individuals’ concern of others as a part of humanitarian. Compliance embodies being supportive, accommodating and not aggressive when conflicts arise. Modesty is also called humility, refers to the tendency to humble oneself as compared to being arrogant. Tender mindedness is defined as “the tendency to be guided by feelings..., in making judgments and forming attitudes” (pp. 888. 889).

1.5.5 Neuroticism

Neuroticism is one of the broadest traits in personality psychology. It was first introduced in Freudian theory (Ormel et al., 2013). After that, relying on secondary factor analysis, Eysenck (1947) identifies the concept of “neuroticism” that is used to describe individual’s personality. Costa and McCrae (1992) define neuroticism as a dimension of maladjustment or negative emotionality versus adjustment and emotional stability”; neuroticism refers to a lack of

adjustment and is inversely related to emotional stability. In similar vein, Rohani (2007) states that this dimension is related to the individual emotional stability and the degree of negative emotions such as fear, anger, and sadness. According to Deniz and Stici (2017), this dimension makes the difference between being emotionally stable and unstable.

Individuals scoring high in neuroticism can be described as prone to worry, easily upset and embarrassed, being less able to control impulses. They cope poorly with stress, and avert threats to the self. The inverse reflects the extent to which individuals are relaxed, resilient, calm, able to face stressful situations without being upset, and have healthy coping strategies (Howard & Howard, 1995; Mohammadi, 2011; Rohani, 2017; Rothmann & Coatzer, 2003).

Neuroticism is measured with six facets in the NEO.PI.R namely, anxiety, anger and hostility, depression, self-consciousness, impulsiveness, and vulnerability (Costa & McCrae, 2008b). Anxiety refers to the feelings of nervousness and fear (worry about things). Anger and hostility can be described as the tendency to experience aggression, frustration, and bitterness (get angry easily). Depression refers to the tendency of experiencing feelings of sadness and helplessness (often feels blue). Self-consciousness embodies the features of shyness and social anxiety (easily intimidated). Impulsiveness can be best clarified by spontaneous behavior such as eating too much in stressful situations. Vulnerability is related to individual's susceptibility to stress (Educational Testing Service, 2012).

Taken all together, it is clear that the Big Five Personality Traits are of a high level within personality hierarchy. Each of them is composed of six sub factors or facets which are psychologically narrower elements of the broader traits .

1.6 Limitations of the Five Factor Model of Personality (FFM)

Although the success and popularity of the Five Factor Model in describing individual's personality, it has received numerous critiques from various researchers. The formation of the big five personality model through "Factor Analysis" was the strongest criticism leveled to it (Moshoeu, 2017). As mentioned before, earlier studies such as Cattell's (1946) and Goldberg's (1990) derived the FFM from the lexical hypothesis which was based on factor analysis. Moshoeu (2017) states that "there was no theory that specified the grouping of terms into the different factors" (p.72). Previous traits researchers relied only on the individual's personality descriptors about what they observe about themselves, but it is not a valid source for forming the FFM of personality. According to Block (2001), the FFM was developed through empirical research instead of theory. Personality descriptors developed by early psychology such as Cattell (1946), Fiske (1949), and Norman (1963) were derived from the English dictionaries and were applied among English-Speaking communities only which excluded the non-English-Speaking communities (Block, 1995). Even the number of personality factors was criticized by Block (2001). For him, the five dimensions were not enough to capture and describe human personality. He proposes that more traits should be added.

As an answer to the criticism leveled against the FFM of personality, the five factor theory "FFT" was developed to clarify the confusion concerning the role of the big five personality traits. This theory serves as a theoretical framework for understanding the FFM of personality (Costa & McCrae, 2008b; McCrae, 2010).

1.7 The Five Factor Model (FFM) in Relation to Other Domains

The FFM of personality is considered as the most widely accepted model in personality psychology. It has been shown to be an important determinant of differences in various domains since it reflects the characteristics that affect the individuals' cognitive and behavioral responses to different situations (Luo, 2017). The big five measures have long been used to assess and analyze the relationship between individuals' personality and their behaviors in various domains such as education, economy, leadership, life satisfaction, academic achievement, etc.

Based on a quantitative study, Baptiste (2018) finds that authentic leader increases when the levels of conscientiousness, extraversion, agreeableness and openness to experience increase, and decrease when the level of neuroticism increases. For Althoff (2010), the big five dimensions are essential predictors of academic maturity and performance, especially conscientiousness factors. He states that the self-regulating element within conscientiousness trait is integral to academic achievement (p.14). Another study that was conducted by Imran (2019) on the effect of the FFM on individuals' innovativeness and life satisfaction, found that the dimensions extraversion, agreeableness, conscientiousness, and openness to experience have a positive influence on individuals' innovativeness, unlike neuroticism that is negatively related to innovativeness and life satisfaction.

Conducting numerous cross-cultural studies on the relationship between the Five Factor Model and other fields is considered as an evidence of its "universality". Allik, Realo, and McCrea (2013) state that the term "universality" emerged as a result of translating the NEO.PI.R into six different languages namely, German, Portuguese, Hebrew, Chinese, Korean, and Japanese.

Conclusion

Within the field of personality psychology, the main concern of psychologists is to understand the human nature and how personality traits influence individuals' thinking, feeling, and behavior. A clear picture of personality and personality psychology was provided in this chapter, in addition to the various trait perspectives of personality such as Allport and Odbert's (1937), Cattell's (1946) and Eysneck's (1947) which led to the emergence of the Five Factor Model of Personality. More focus was given to the discovery and development of the five factor model of personality, the criticisms leveled against it, as well as, its generizability among other domains.

Chapter Two

The Research Process

Chapter Two: The Research Process

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Introduction

Research is the process of acquiring knowledge following specific steps and procedures. This chapter is a theoretical presentation of the research process. We will provide an overview about research and some of its aspects including its definition, objectives, significance, and types. This chapter also uncovers the process of conducting research, and its stages. It also sheds light on the researcher's character as an affecting factor in the research quality, and what qualities and characteristics researchers should possess to produce a good and adequate piece of research.

2.1 Definition of Research

Research is a study that is conducted to gather information in order to answer a question that solves a problem. Each scholar defines research from his own point of view. Oliver defines research as a systematic process not only of collecting information about a less well documented or understood area, but also providing accurate description, explanation, and understanding of it in order to predict future events or generalize findings (2010, pp.2-3). Thus, he means that the researcher should interpret and analyze the information gathered to reach certain conclusions.

According to Singh (2006), research is “the process of arriving as dependable solution to a problem through the planned and systematic collection, analysis, and interpretation of data” (p.1). Research is the act of following specific steps and procedures to gain knowledge about a certain area of investigation:

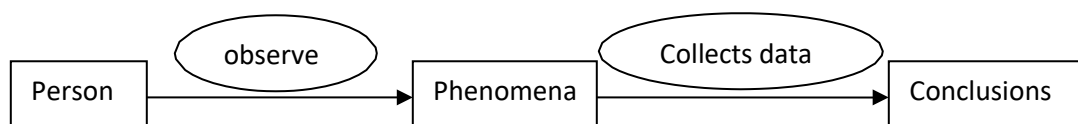




Figure 2.1: Summary of Research Process Proposed by Singh (2006, p.2)

Research means observing a phenomenon again and again, collecting and analyzing data in order to reach conclusions. Roberts in his book “*Getting the most out of the research experience*” sheds light on the notion of research as a “Journey” which does not need only following systematic steps, but also it involves observation, self-reflection, and the effect of the researcher’s way of life (2007, pp.4-5). In the same vein, Hatch and Lazarson (1991) agree with the proceeded definitions, they state that research an organized process that follows certain steps which help producing new knowledge as an answer for a given question (as cited in Dornyei, 2007). To sum up, research is a formal, careful, and systematic process that is undertaken to reach conclusions following specific scientific steps and procedures.

2.2 Objectives of Research

Each study has its own aims. Setting the research objectives at the beginning of the study guides the researcher to achieve the expected results in a specific time frame, using certain sources, and following specific procedures. Kothari (2004, p.2) presented four types of research objectives:

1. Gaining familiarity with a new phenomenon (exploratory, formulative research).
2. Portraying characteristics of a particular situation or phenomena (descriptive research).
3. Testing the relationship between variables (hypothesis- testing research).
4. Determining the frequency with which something occurs (diagnostic research).

In addition, Singh (2006) presents three research objectives as follows:

- 1. Theoretical Objective:** the nature of research with this objective is explanatory, since it seeks to formulate new theories and to explain the relationship between variables.
- 2. Factual Objective:** it seeks to find out facts of previously happened events (descriptive research).
- 3. Application objective:** research with the application objective does not only contribute in finding new knowledge, but also suggesting new applications with the aim of making improvements and modification in practice.

The research objectives differ from one study to another and from one researcher to another according to the results to be achieved by the end of the study under investigation.

2.3 Significance of Research

Since research aims at producing new knowledge and providing answers for given questions, it is not limited to one field of study. Therefore, Kothari (2004, pp.5-6) presents a range of research significance in different domains as follows:

1. Research has gained an importance in the field of applied economics in both business and economy as a whole, because it helps in solving the government economic problems.
2. Through research, all government policies of the economic system can be provided.
3. Research helps in solving various operational and planning problems of business and industry; it replaces intuitive business decision by more logical and scientific decisions.

4. Research has a special significance in studying social relationships and seeking answers to various social problems.

As a conclusion, research is conducted in all fields such as; economy, business, and social sciences, as it used in educational context in order to improve its achievements, since the aim of research is seeking knowledge and solving practical problems.

2.4 Types of Research

As a result of the wide use and significance of research, it has a variety of types. Kothari (2004) suggests different research types, the basic ones are as follows:

- 2.4.1 Descriptive Research:** it deals with “survey and fact- ending enquires” of various kinds, it aims at describing a phenomenon at present time.
- 2.4.2 Analytical Research:** using the analytical research, the researcher should base his investigation on the already available information, then try to analyze them in order to make critical evaluation of the subject (Kothari, 2004, p.3).
- 2.4.3 Applied/ Action Research:** the aim of this type of research is to discover and find solutions for practical problems facing a society or an industrial organization. The previous idea was confirmed by Cohen et al (2007) who suggest that action research “can be used in almost all setting where a problem involving people, tasks, or procedures carries out for solution” (p.297).
- 2.4.4 Fundamental (pure/basic) Research:** unlike applied research, fundamental research is concerned with generalizing information and formulating theories in order to be added to the existing set of scientific knowledge. Gratton and Jones (2004, p.7) state that pure

research seeks to explore on issue or concept with the aim of gaining general understanding only. Vanderstoep and Johnston (2009) argue with the previous definitions and they define basic research as “an investigation that adds to the knowledge of a particular area of study, but may not have obvious and immediate application to real world setting” (p.9). This means that basic/pure research is undertaken

2.4.5 Quantitative Research: this type of research is related to aspects that can be quantified or measured. According to Vanderstoep and Johnston, quantitative research “specifies numerical assignment to the phenomena under study” (2009, p.7). Thus, it is used to quantify data in order to generalize the findings from the sample under the study over the whole population.

2.4.6 Qualitative Research: unlike quantitative research, qualitative research is concerned with the quality and kind-related aspects; it seeks to describe a phenomenon that already exists. The findings of qualitative research will not be generalized since it only produces a textual description of the issue under investigation.

The distinction between these two types (quantitative and qualitative research) depends on the aim and the use of the research findings. The following table represents the difference between the two research types in terms of five characteristics:

Characteristic	Quantitative Research	Qualitative Research
Type of data	Phenomena are described numerically	Phenomena are described in a narrative fashion
Analysis	Descriptive and inferential statistics	Identification of major themes
Scope of inquiry	Specific questions or hypothesis	Broad, thematic concerns
Primary advantages	Large sample, statistical validity, accurately reflects the population	Rich, in-depth, narrative description of sample

Primary disadvantages	Superficial understanding of participants thoughts and feelings	Small sample, not generalizable to the population at large
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Table 2.1: Quantitative versus Qualitative Research Proposed by Venderstoep and Johnston (2009, p. 7)

The type of data, how to be analyzed, and the scope of the study whether specific or broad are the main aspects that differentiate between quantitative and qualitative research.

2.4.7 Conceptual Research: conceptual research is more concerned with abstract ideas and theories; it is used to develop new concepts or reinterpret existing ones. It can be defined as “a methodology where research is conducted by observing and analyzing already present information in a given topic” (Adi, n.d).

2.4.8 Empirical Research: it is also called “experimental research” since it comes up with findings which are capable of being verified through observation and experiments. Cohen et al., (2007) mention that “an experiment involves making a change in the value of one variable called the independent variable and observing the effect of that change on another variable called the dependent variable” (p.211). This means that empirical research is concerned with investigating the effect of the independent variable on the dependent one.

Based on the purpose of the research, the time needed to finish it, and the environment where it is done, Kothari (2004) adds another group of research types that are: one-time research, longitudinal research, field-setting research, Laboratory research, formalized research, Historical research, and conclusion-oriented/ decision-oriented research.

1.5 Characteristics of Good Research

To reach the research objectives, validity and reliability, the research process must have certain characteristics. Researchers and scholars provided various features for any scientific research, Clamorn, Melchor and Lausentina consider (2012) that an ideal research is the one that satisfies the following criteria:

1. **Empirical:** research is based on direct experience or observation by the researcher
2. **Logical:** research is based on valid procedures and principles
3. **Cyclical:** research starts with a problem and ends with a problem
4. **Analytical:** research utilizes proven analytical procedures in gathering data whether historical, descriptive, experimental, and case study.
5. **Critical:** research exhibits careful and precise judgment.
6. **Methodical:** research is conducted in a methodical manner without bias using systematic method and procedures.
7. **Replicable:** research design and procedures are repeated to enable the researcher to arrive at valid and conclusive results.

In the same vein, Gupta and Gupta (2011) gave a traditional description of five characteristics spell out as “MOVIE” where:

M: Stands for mathematical precision and accuracy

O: Stands for objectivity

V: Stands for verifiability

I: Stands for impartiality

E: Stands for expertness= skillfulness

O'Leary (2004); however, proposes that the characteristics of a good research are as what displayed in the following table:

Feature	Meaning
Credibility	Research is authentic and valid, this is vital feature that ensures a trusting gathered knowledge
Objectivity	It is concerned with a distance between a researcher and his study which indicates that the findings are completely free from personal subjectivity and bias as a matter of neutrality
Reliability	It is an assurance that the tools used in the study will generate consistent findings
Dependability	It is of crucial importance since it guarantees the researcher's consistency; indeed, findings must constitute with raw collected data
Validity	This means that any conclusion drawn at the end of research has to be trustworthy
Authenticity	It is directly related to originality, truth and undisputed probe
Generalizability	It is the applicability of research findings in other different research settings and population. It specifies researches with large sample to determine whether the sample speaks about the whole population beyond the immediate circumstances.
Audibility	The researcher needs to provide a fully detailed explanation of methods so that readers trace the research context.
Reproducibility	It is an indicator that a research can be replicated in order for the findings to be verified.

Table 2.2: Characteristics of Good Research Given by O'Leary (2004, p. 56)

1.6 The Research Pyramid

After formulating the research questions at the start of the study, the researcher will be confronted with a number of options to choose from concerning the research process. In order to help researchers making decisions regarding their research process, Jonner and Pennik (2010) introduce the so-called “Research Pyramid” that is a “logical chain of interconnected events ranging from rather abstract to concrete” (p.23).

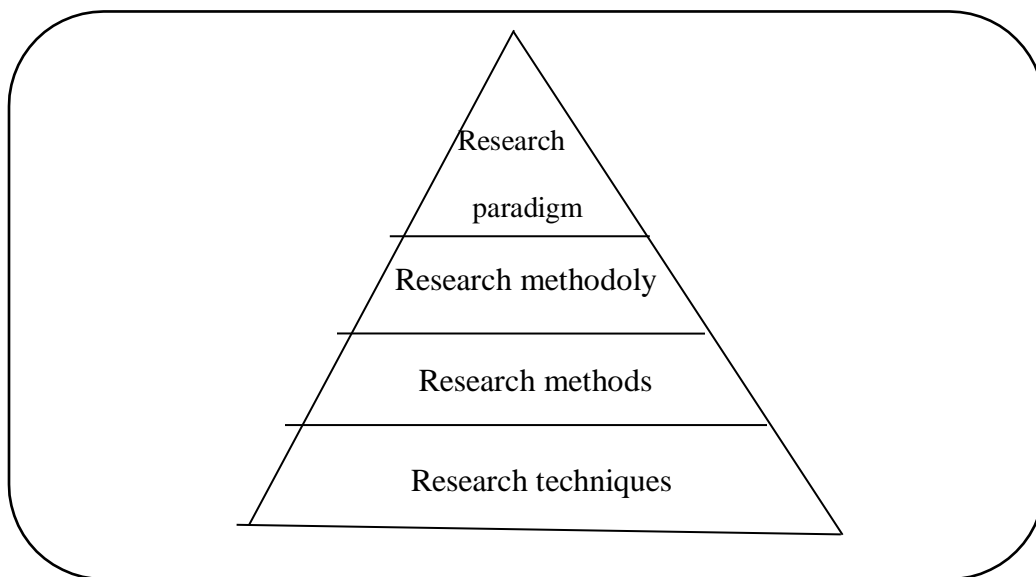


Figure 2.2: The Research Pyramid Drawn by Jonner and Pennik (2010)

This pyramid is composed of four levels:

1. The research paradigm: the researcher’s basic approach to be followed.
2. The research methodology: the way in which a researcher conducts research and establishes the overall study.
3. The research methods: the systematic steps that need to be followed in a certain order.
4. The research techniques: the practical tools used in collecting and analyzing data (p.44).

The function of this pyramid is to help designing the research process in a way that the researcher can justify his choices.

2.7 The Research Process

In order to avoid the use of guessing and intuition in arriving to conclusions, researchers should follow a series of steps that are known as research process (RP).

2.7.1 Definition

One of the research characteristics provided by Kothari (2004) is systematicness. Conducting a research in a systematic way means following specific steps and procedures which composes the research process. In order to find answers to the research questions, researchers pass through different practical steps that Kumar (2011) described as “the research Journey”. According to Kothari (2004), research process refers to a series of actions or steps necessary to effectively carry out research and the desired sequencing of these steps. In the same vein, Gang (2012) defines the research process as “the process of gathering information for the purpose of initiating, modifying, or terming a particular investment or a group of investments. So, research process can be seen as a series of linked activities moving from the beginning to the end of the research conduction. Arthur and Hancock (2009) argue that research is a systematic process that is carried out in steps. They question whether there is a “Generic research process” that can be applied for both qualitative and quantitative research, instead of they assume that there is an idealized the research process which is applicable for both research types.

The idealized research process can be depicted with the figure given below:

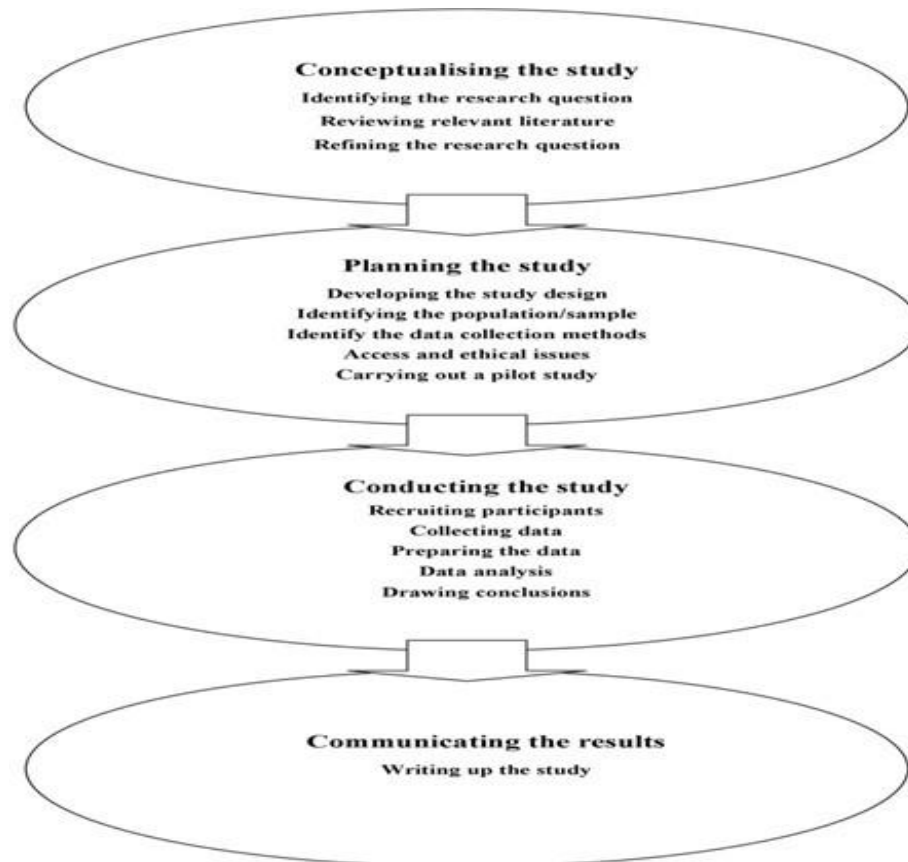


Figure 2.3: An Idealized Research Process Proposed by Arthur and Hancock (2009)

Rummel and Ballaine (1963) state that the deeper understanding of the research process is an important step towards executing a thorough research or study.

2.7.2 Stages of the Research Process (RP)

When reading about the steps of the research process, one may find that they vary in number and order depending on the discipline and the researcher's choice. So, we can distinguish different models of the research process such as:

- a. The five steps research process provided by Tomasetti (2019)
- b. The six-step research process given by Rummel and Baliane (1963)
- c. The seven-step research process provided by Olin and Uris Library (2012).

d. The eight-step research process presented by Kumar (2011)

This study focuses on the eleven steps research process proposed by Kothari (2004); simply because, by increasing the number of steps into (11) eleven, the research process become more systematic and understandable than other research process models.

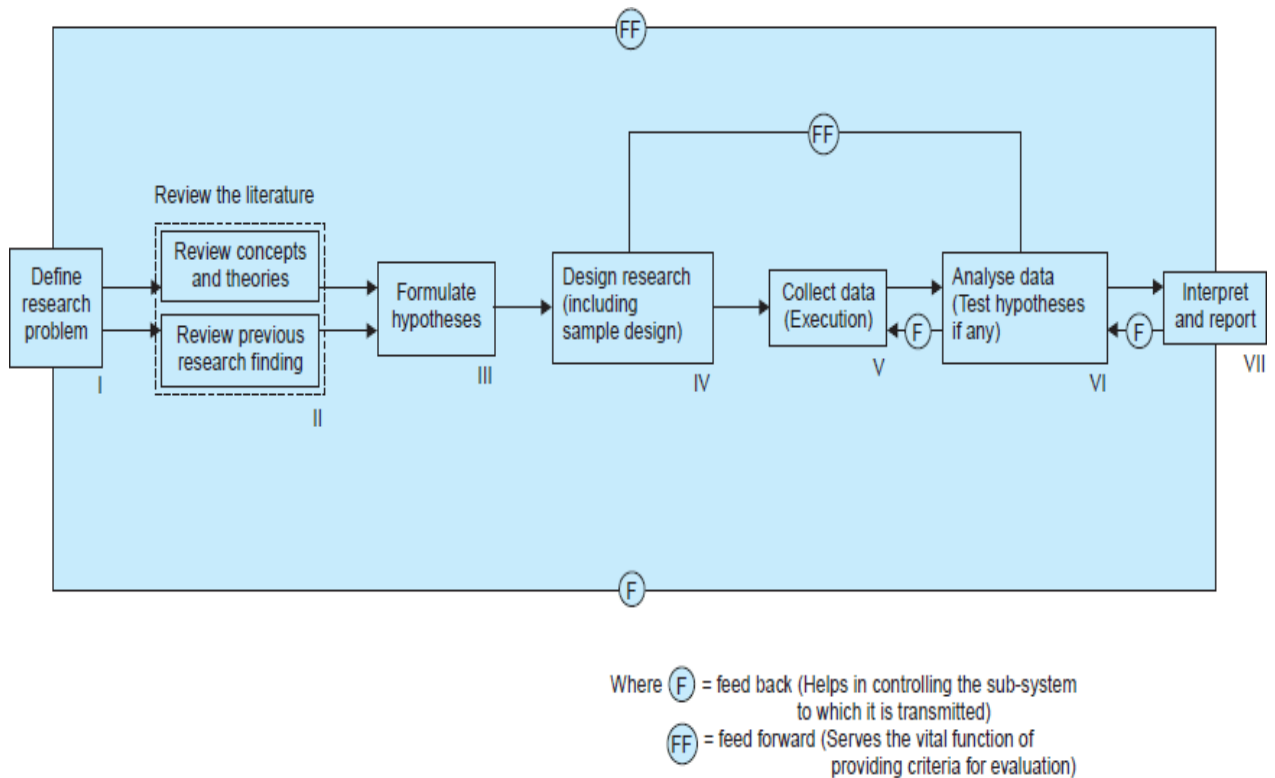


Figure 2.4: Research Process in Flow Chart by Kothari (2004, p. 11)

As showed above, the research process consists of a number of related activities that overlap continuously rather than following a specific sequence.

The steps involved in this research process are as follows:

2.7.2.1 Formulating the Research Problem:

The first and most important step in the research process is to formulate the research topic into a research problem. Kumar (2011, p.57) states that this step is like “the identification of a destination before undertaking a journey”.

Dawson (2002, p.4-8) presents a useful way in defining a research problem that is to ask “the five Ws”:

- 1- What is your research?
- 2- Why do you want to do the research?
- 3- Who will be your participants?
- 4- Where are you going to conduct your research?
- 5- When you are going to do your research?

According to Kothari (2004), there are two types of research problems; the ones related to states of nature, and those related to the relationship between variables.

Kumar (2011) states that the process of formulating the research problem consists of a number of steps that are as follows:

First, identify a broad field or subject area of interest to you, then dissect the broad area into subareas and select what is of most interest to you. After that, raise research questions, formulate research objectives, and assess your objectives. Finally, double check all the steps.

2.7.2.2 Extensive Literature Survey:

After formulating the research problem, researchers should go through the existing literature. Denny and Tewksbury (2012) define literature review as “a comprehensive overview of prior

research regarding a specific topic” (p.1). This overview shows the reader what is known as well as what is not yet known about the area under investigation. Kumar (2011) believes that conducting a literature review is “an integral part in every operational step” in the research process. Before formulating the research questions, it helps thinking about the research questions and narrowing down the scope of the research problem (RQ). In the initial stages of the research, the literature review helps establishing the theoretical roots of the study and deciding the research methodology to be followed. Later in the process, it enables the researcher to integrate and compare the research findings with the existing body of knowledge.

According to Berg (2009), the appropriate types of sources to be used when supporting an argument in literature review are: empirical and non-empirical, articles, essays, books, dissertations, dictionaries, journal articles and newsmagazines.

2.7.2.2.1 The Literature Review Process:

In order to conduct scientific literature survey, researchers should follow a number of steps. Machi and Mc Evoy (2009) suggested six steps in the literature review process; the six steps can be summarized in the following figure:



Figure 2 5: The Literature Review Process Proposed by Machi and McEvoy (2009)

For Coughlan and Cronin (2016), undertaking literature review involves series of sequential steps. The first step is the identification of the purpose of the review which will help the reader knows the specific area of investigation. The second step is the search for the literature in an organized and planned way. After finding the literature, the next step is the identification of the applicable studies to the topic under investigation depending on the aim of the review. The fourth step is becoming familiar with the literature through note taking, summarizing, and paraphrasing. The next step is, the analysis and the synthesis of literature to identify its strengths and limitations. The final step is to complete the summary, conclusions and recommendations.

2.7.2.3 Developing the Working Hypothesis:

After reviewing the literature, the researcher should construct a hypothesis which can be defined as “a formal tentative statement of the expected relationship between variables under’ study (the Dhaker, 2014). According to Bailey (1978), it is a testable proposition which predicts

the relationship between two variables or more. In the same fashion, Grinnell (as cited in Kumar, 2011) stated that a hypothesis is a statement to be proven or disproven by valid and reliable data. Singh and Bajpai (2008) claim that hypotheses are “indispensable research instrument” that are used to bridge between the problem and the evidence that may solve the problem (p.99). For them, hypotheses can be of four kinds: questions form of hypothesis, declaration statement (alternative), directional and non-directional (null form) (p.100). Hence, a hypothesis is what the researcher expects the results of the investigation will be.

2.7.2.3.1 Functions of the Hypothesis:

For McAshan (1979) (as cited in Pandey & Pandey, 2015), research hypothesis serves different functions. It is considered as a temporary solution for the problem since it enables the investigator to start the research work. Research hypothesis delimits the field of investigation (pp. 33-34). It offers simple means for collecting evidences for the verification.

Although the above-mentioned functions of research hypothesis Mackey and Gass (2005) asserts that there are times when hypotheses cannot be generated because the research is dealing with something new (exploratory research) (p.19). In the same vein, Kumar (2011) states that the hypothesis bring clarity, specify and focus to the research problem but are not essential for study. So, a researcher can conduct a valid investigation without formulating a single research hypothesis.

2.7.2.4 Preparing the Research Design:

After the selection of the topic, the literature review and the formulation of the research problem and hypotheses, it would be helpful to prepare a research design. A research design is

“a framework or a plan for a study that is used as a guide in collecting and analyzing data...it is a map that is usually developed to guide the research” (Pandey & Pandey, 2015, p.18).

A research design determines how the researcher is going to conduct his study since it includes the outline to be followed by the researcher from formulating the researcher hypothesis to the analysis of data.

Kothari (2004) gave his definition of research design as “the conceptual structure within which research would be conducted” (p.14). He adds that a “flexible research design” aims at combining relevance between the research purposes and the economy in procedure. Additionally, Cohen et al (2005) state that research is governed by the notion of “fitness of purpose” because the choice of the research methodology, design, and procedures is determined by the research purpose.

2.7.2.5 Determining the Sample Design:

The quality of the research and the accuracy of findings depends not only on the methodology used but also on the way the researcher selects his sample. It is crucial to state the difference between “sample” and “population”, Khan (2013) finds that “population” is the entire aggregation of items from which samples can be drawn; whereas, “sample” refers to the selected units from the large population.

According to Dhivyadeepa, (2015 p.41), samples can be categorized into two categories: probability samples and non-probability samples. With probability samples each element has a “known probability” of being included in the same. However, with non-probability samples the probability of any particular member being chosen for the chosen is “Unknown”.

The different sampling techniques included in both probability and non-probability samples are shown in the following figure:

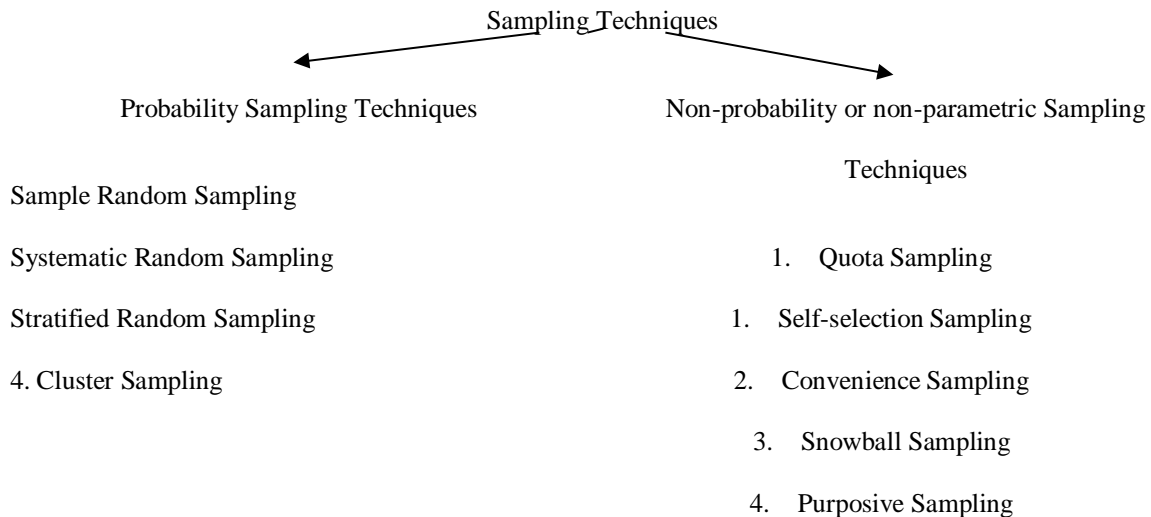


Figure 2.6: Probability and Non-Probability Sampling Techniques Given by Dhivyadeepa (2015)

According to Chelli (2017), probability sampling techniques include: a) simple random sampling which involves selecting at random from a list of the population the needed number, b) stratified random sampling in which the population is divided into “strata” and the same size is selected for each group randomly, c) systematic sampling, is a modified form of sample random sampling, it involves the systematic rather than the random selection of subject, d) cluster sampling which involves administrative sampling when the population is large and dispersed, and e) stage sampling is considered as an extension for cluster sampling, it involves selecting the sample in stages (pp. 28-29). For Cohen, Manion, and Marrison (2007), non-probability sampling includes: a) convenience sampling (accidental/opportunity sampling) involves choosing the nearest individuals to serve as participant, b) quota sampling is described as the non-probability equivalent of stratified sampling, c) dimensional sampling: it is used to

reduce the problem of sample size in quota sampling. It involves identifying various factors of interest in a population and obtaining at least one respondent of every combination of those factors, d) purposive sampling, also called judgment sampling, because it is based on the researchers judgment in the selection of participant needed, e) snowball involves the researchers identification of a small number of individuals who have the same characteristics in which s/he is interested, f) volunteer sampling involves relying on personal friends when access is difficult, and g) theoretical sampling is used in the grounded theory in which the sample size is relatively immaterial and infinitely large in order to have sufficient data to be able to generate and ground a theory (pp. 113-116).

2.7.2.6 Collecting Data:

Collecting data is considered as the first practical step in conducting any research study. Data collection method can be defined as raw materials that researchers use to gather information related to the research problem (Walliman, 2006, p.83). The choice of methods is essential to have effective results.

According to Stark (2003), there are two major methods of gathering information:

- a. Primary sources:** Hox and Boeije (2005) define primary data as the original data collected by the researcher himself. It includes observation, telephone interview, personal interviews, questionnaire or schedules.
- b. Secondary sources:** Ajayi (2017) defines secondary data as “the data already collected and produced by others”. Secondary sources include: earlier research, personal records, mass media, government or semi-government publications, etc.

2.7.2.6 Execution of the project:

The next important step in research process after collecting data is the execution or the implementation phase of the project. According to Kothari (2004), this step ensures that the research is implemented in a systematic manner and in time. So, the execution of the research project involves conducting and monitoring the research activities. He adds that “if the execution of the project proceeds on correct lines, the data to be collected would be adequate and dependable” (p.18). This means that the project execution phase controls if “the collected data is in accordance with the predefined standards of accuracy” or not.

2.7.2.8 Analysis of Data:

Once the data have been collected from various sources related to the research topic, it is then evaluated and analyzed to reach conclusions and form a sort of findings. Data analysis can be defined as “the process of computing various summaries and derived values from the given collection of data” (Mirkin, 2011, p.1), to clarify there are two ways of arguing when analyzing data; by developing new concepts (summarizing) or deriving new relations between concepts (correlation).

Kumar (2011) states that the procedures of analyzing data in both quantitative and qualitative studies are similar, but what to do in each procedure differs (p. 227). The following illustrates the steps of data processing in quantitative and qualitative studies:

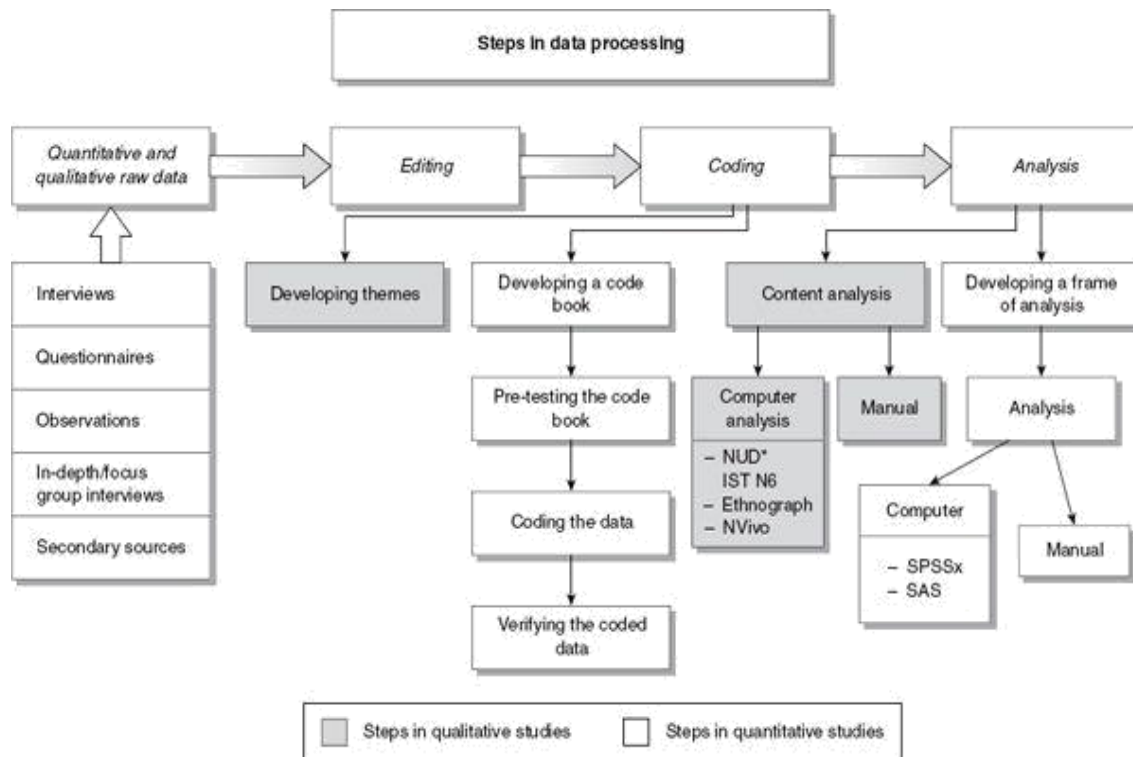


Figure 2.7: Steps in Data Processing Given by Kumar (2011, p. 277)

As showed above, the analysis of quantitative data follows three steps:

- a. **Editing:** refers to the researcher's identification of errors, incompleteness, misclassification and gaps in the data obtained from the participants.
- b. **Coding:** this step involves converting the respondents' answers to numbers by means of coding procedures going through the following steps:
 1. **Developing a code book:** setting the rules for assigning numerical values to the respondents' answers.
 2. **Pre-testing the code book:** checking the code for any problems before coding the data.
 3. **Coding the data:** there are three ways of coding; on the questionnaire or interview schedule itself, on a separate code sheets, or using the computer packages such as SPSS, SAS.

4. Verifying the coded data.

c. Analysis: developing of frame of analysis, it can be done manually or through computer programs such as SPSS, SAS.

Vasudevan (2016) suggested seven steps for analyzing qualitative data: familiarization with the data through review and reading. Transcription of tape-recorded materials, organization and indexing of data for easy retrieval and identification, anonymising of sensitive data, coding (indexing), identification of themes and re-coding.

2.7.2.9 Hypothesis Testing:

After analyzing the data and reaching the findings, the researcher should test the hypothesis to see if the findings support the hypothesis or not. Hypothesis testing refers to the formal procedures used by statisticians to accept or reject statistical hypotheses (Kolawol & Sekumade, 2017). Hypothesis testing procedures include tests such as chi-square test, T-test, F-test and statistical softwares like SPSS.

2.7.2.10 Generalization and Interpretation:

After testing hypothesis several times, the researcher may arrive to generalization from the sample findings to the whole population so that s/he builds a new theory. But if the researcher had no hypothesis to start with, he explains his findings based on some theories which is known as interpretation (Gupta & Gupta, 2011, p. 21).

2.7.2.11 Preparation of the Thesis/ Dissertation:

After finishing all the research process steps, the writing phase takes place. Gupta and Gupta (2011) states that writing the research report is the final step in the research process which must be done in a careful manner paying attention to the following points:

1. It should be written in a concise and objective style using simple language.
2. Charts and figures in the main report should be used only if they clearly state the information.
3. The various constraints experienced in conducting research as well as the calculated confidence limits must be mentioned.
4. The layout of the research should be as follows: (i) the preliminary pages, (ii) the main text, (iii) the end matter.

2.8 The Researcher Character

As has been mentioned before, research is a process of searching for information carefully following certain methods and procedures. It is considered as a tool for improving knowledge, a way to answer question, and a requirement for completing a degree. Therefore, to reach the aforementioned objectives, researchers should possess some skills, qualities and characteristics that are needed in any research process (Apita, 2010; Dorney, 2007).

2.8.1 Qualities of Good researchers

The success of the research project is the result of being good. Apita (2010) sees good researchers to be those who possess the following qualities: intelligence, honesty, curiosity, enough knowledge, and being good in oral and written communication.

When reading about good researchers' qualities, we found a lot of features and skills that can be categorized into three categories that are: personal, academic, and social qualities.

Researchers should possess some personal features that help achieving excellence when conducting research Dornyei (2007, p.17) lists four qualities that an individual need to be a good researcher:

1. **Curiosity:** choosing a topic that a research is genuinely interested in rather than one that seems sensible from a career point of view. Saihi (2013) adds that “study without questions in mind will not be a research study”, she means that asking questions about the topic under investigation is a key aspect to the success of the study.
2. **Common sense:** good researchers tend to be normal people with high level of common sense that helps achieving the research objectives.
3. **Creativity:** a good research is the one that is based on the researcher's creative thinking and original insights, rather than a sophisticated research methodology. In the same fashion, Spencer (2011) believes that a researcher is creative, innovative, and original.
4. **Discipline and responsibility:** this feature is related to the systematic nature of research. Researchers should respect the study rules and principles because the lack of discipline and consistency, from the part of the research along the research process, is one of the reasons of inadequate research.

In addition to these qualities, Spencer (2011) presents other qualities for good researchers such as: autonomy, flexibility and open-mindedness.

Apart from the personal qualities, academic qualities are the most needed features when conducting research. According to Gueundouz and Ameziane (2012), good researchers should

develop good study skills such as: reading, writing, note taking and time management in order to be able to work on their own way of and become autonomous. For Puttapalli (2012), researchers should possess six intellectual skills that are:

1. **Knowledge:** refers to the researcher's awareness about both his area of study as well as the research methodology.
2. **Comprehension:** it is the researcher's ability to interpret the collected data and to transform them from one form to another in order to answer a question or solve a problem.
3. **Application:** refers to the researcher's ability to apply prior knowledge when dealing with new situations.
4. **Analysis:** it is the ability to breakdown and manipulate the collected data.
5. **Synthesis:** refers to the researcher's ability to combine separate ideas and information to reach new comprehensible ones.
6. **Evaluation:** refers to the ability to make quantitative and qualitative judgment.

Researchers should build strong social relationships with their mates, teachers, supervisors, and even their participants in order to facilitate the research conduction. Puttapalli (2012) stated that: Good researchers should be good communicators when discussing their work with supervisors, when conducting interview, or when leading focus group, and good listeners in order to think deeply and comment critically. In addition to that, Good researchers should be gentle, polite and easy going when interacting with others.

2.8.2 Characteristics of Good Researchers

In addition to the previous characteristics that Puttapalli (2012) identified, he suggests others such as:

1. A good researcher is a motivator and encourager to others through his own actions.
2. A good researcher uses available resources to the best of his abilities.
3. A good researcher progresses forward by accepting his errors.
4. He accepts the responsibility and regular to the meetings.
5. He likes to be a life-long student with a good commitment.
6. A good researcher understands that success is a journey but not a destination.
7. He likes to gain knowledge continuously.

Researchers should be aware of these qualities and characteristics, and their impact on the success of their research project.

Conclusion

The basic principle behind conducting research is the look for knowledge that is considered as the basis for any positive change and development. Following the research process helps achieving systematicness and avoiding the use of guessing in arriving to conclusions. In this chapter we focused on the notion of research mainly its types and objectives. We tried to provide a clear picture about the research process and its stages. Additionally, the needed qualities and characteristics to be a good researcher where also presented since it contributes in the success of any research project.

Chapter Three

Data Analysis and Interpretation

Chapter Three: Data Analysis and Interpretation

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Introduction

Since the ultimate objective of this dissertation was to check the effect of the big Five Personality Traits on the process of conducting research, this chapter serves as an empirical evidence to confirm or disconfirm the hypothesis that the researcher's big five dimensions of personality may affect the way s/he undertakes research. For this purpose, two semi-structured questionnaires were used: one for teachers and the one for students to obtain their attitudes and opinions about the influence of the five factor model of personality on research conduction. In this chapter, the data gathered are analyzed and discussed leading to answer the research questions and verify the research hypothesis.

3.1 Research Method

Since the aim of this study was to check the effect of the big five personality traits on the process of conducting research, it opted for the mixed method approach. According to Dornyei (2007), a study that is associated with this approach is considered as "a sort of a combination of qualitative and quantitative methods within a single research project" (p. 44). In other words, it combines qualitative and quantitative approaches to present people's attitudes and ideas; in addition to the use of number and statistics. This method is more suitable and applicable for the

nature of this study that belongs to social sciences, as it gives the opportunity to know both teachers and students' perceptions towards the effect of the Five Factor Model of Personality on the way researcher's conduct research.

3.2 Population/Sample

For the sake of collecting data, two samples were used. A sample of 37 participants of second year master students of sciences of the language were selected randomly of total population of 154 students at Mohammed khieder University of Biskra due to the fact that the target population is supposed to submit a dissertation by the end of the year. In addition to 11 teachers with different teaching experience period were selected randomly from a population of more than 50 teachers in the division of English of the same University.

3.3. Data Collection Tools

Two semi-structured questionnaires were used to collect data for this study. The first one was administered to EFL teachers at Biskra University, and the other one for second year master students of science of the language at Mohammed Kheider Univeristy of Biskra to obtain their attitudes towards the effect of the five dimensions of personality, precisely, neuroticism and conscientiousness, on the process of conducting research.

3.3.1 Teachers' Questionnaire

3.3.1.1 Aim of the Teachers' Questionnaire:

The target aim behind the use of this data collection tool was to obtain the various opinions and attitudes that teachers have towards the influence of the big five personality traits on the way their candidates undertake research.

3.3.1.2 Description of the Teachers' Questionnaire:

The questionnaire was designed for EFL teachers at Mohammed Kheider Biskra University; it was divided into two sections containing 14 questions (open-ended, close-ended, questions). The first section contains (7) questions (from 1 to 7) that aimed to collect general information about the participants such as: the teachers' degree, their period of teaching English at University and supervising postgraduate students, and their attitudes towards the research process. The second section contains seven (7) questions also, (from 8 to 14), which focused on the relationship between the research process and the big five personality traits. The aim of this section is to gather teachers' opinions towards the possibility of having a relationship between the research process and the five factor model of personality with specifying what kind of relationship exists between them. Furthermore, questions from 10 to 14 focused on the effect of neuroticism and conscientiousness on conducting research. Althoff (2010) proves that neuroticism and conscientiousness are good predictors of students' educational maturity and performance. Considering the submission of a dissertation by the end of the year and having a final score as an educational achievement was the reason behind choosing neuroticism and conscientiousness rather than agreeableness, extroversion and openness to experience.

3.3.1.3 Validating and Piloting the Teachers' Questionnaire:

After designing the first draft of the teachers' questionnaire, it was sent to the supervisor and two teachers in the division of English at Biskra University via email in order to check its content and face validity. Apart from the teachers' feedback, the supervision suggested some modifications to be made in order to add more precision to the questionnaire. Both the supervisor and the teachers' modifications have been taken into consideration while designing the final draft. After validating it, it was piloted with five students with the same population who they did not find any difficulty in answering the questions; therefore, no modifications were made before the administration of the questionnaire.

3.3.1.4 Administration of the Teachers' Questionnaire:

After the validation and piloting stages, the final draft was administered to the participants via the internet. The Facebook was used to contact some teachers; however, the email was the main digital platform to reach most of them. The online teachers' questionnaire was designed using the services of the survey software Google forms which helps making different modifications in the questions structure including multiple choice, likert scale, open-ended, and close-ended questions. After (2) two weeks, the intended number of answers, which was (11) was received with complete answers.

3.3.1.5 Analysis of the Teachers' Questionnaire:

The collected data from the teachers' questionnaire were analyzed, interpreted, and then used to support the study based on the teachers' views and perceptions.

Section One: General Information

Item 01: Would you specify your degree, please?

Through this question we sought to identify the participants' degree marking their status as English teachers at Mohammed Kheider Biskra University.

Degree	Participants	Percentage
Magister	7	58%
Doctorate	5	42%
Total	12	100%

Table 3.1: Teachers' Degree

As table 3.1 classifies, seven (7) teachers representing (58%) hold a magister degree while five (5) teachers out of the 12 participants have a doctorate degree. Having teachers with different academic degrees helps collecting various views concerning the area of investigation.

Item 02: How many years have you been teaching EFL at University?

The aim of this item was to know the expertise area of the teachers in which they were asked to identify the number of years they have been teaching English at University.

Period	Participants	Percentage
1-5 years	1	8%
5-10 years	7	58%
More than 10 years	4	34%
Total	12	100%

Table 3.2: Teachers' Experience in Teaching EFL

Table 3.2 indicates that there is a variety in the teacher's period in EFL teaching at University. It demonstrates that the dominant number of teachers, which is seven (7), are those who teach EFL from 5 to 10 years (58%), while four teachers representing (34%) teach EFL for more than 10 years, and only one teacher who teaches EFL from 1 to 5 years (8%). This variety in the teaching period guarantees that the next responses will be varied and different.

Item 03: How long have you been supervising postgraduate students?

The present item aims to question the teachers' experience in supervising postgraduate students as being the most needed requirement for the completion of any research project.

Period	Participants	Percentage
1-5 years	6	50%
5-10 years	5	42%
More than 10 years	1	8%
Total	12	100%

Table 3 3: Teachers' Experience in Supervising Postgraduate Students

As shown in table 3.3, half of the entire number of participants (50%), which is represented by 6 teachers, have been supervising graduate and post-graduate students from 1 to 5 years. Five teachers (42%) hold the supervision process from 5 to 10 years, and only one teacher who experienced more than 10 years in supervising graduate and post graduate students when conducting research.

Item 04: As a supervisor, how do you find the research process?

This item indicates how teachers perceive the process of conducting research, being an easy or a hard task.

Option	Participants	Percentage
a. An easy task	0	0%
b. A hard task	12	100%
Total	12	100%

Table 3.4: Teachers' Attitude towards the Research Process

As the data reveals in the above table, all teachers agreed on the difficulty of conducting research. For them, following the research process steps starting from the formulation of the research problem, moving through the data collection and analysis until the generalization and interpretation of the findings is not an easy task especially for novice researchers.

Item 05: In your opinion, why is the graduation dissertation mandatory only for master's students rather than license (BA) students?

The reason behind asking this question is to know why is the graduation dissertation obligatory for the master's degree rather than the License one. The participants provided various justifications for submitting a dissertation by the end of the master degree and not after the three years of the License diploma. Based on the interpreted data, three main reasons were identified. Two teachers agreed that it is a ministry decision within the LMD system which must be followed. Four teachers claimed that the lack of teaching staff (supervisors) in comparison with the students' number was the main cause behind constraining the graduation dissertation to master students only. The rest of the teachers (6 teachers) noted that conducting research requires cognitive, methodological, and academic abilities that the students cannot develop

during the license degree. The students' low readiness to engage in research after the first three years at University as well as their inability to produce sufficient representations of its content are the main reasons of limiting the graduation dissertation to the master students only. For them, conducting research is associated with the researchers' writing skill and methodological competence which need more practice and preparation to be achieved.

Item 06: As a supervisor, are you satisfied with your candidates' research practices along the research process?

This item holds a direct question followed by a justification to infer answers about the extent to which supervisors are satisfied with candidates' research practices when conducting research.

Option	Participants	Percentage
a. Yes	4	33%
b. No	8	67%
Total	12	100%

Table 3.5: Teachers' Satisfaction with Their Candidates' Research Practices

According to the results illustrated on the table above, the higher percentage (67%) goes to the teachers who are not satisfied with the way their students undertake research. They state that most of the students' research practices do not meet the research process standards. Justifying their answers, teachers point out two main reasons behind the researchers' failure in conducting a research work following the research methodology standards which are: the students' poor knowledge about the research process and methodology and their low competence in academic writing. Some teachers add another aspect which they think it has an effect on the students' research practices that is the personal psychology.

On the other hand, 33% of teachers consider their candidates as good researchers with excellent research practices such as following the instructions, assuming responsibility, and respecting the deadlines. That is to infer, research practices are directly related to the researcher's methodological competence, writing skill, and the personal psychological side (personal traits).

Item 07: Please rank the following statements from 1 to 5, where 1 has most influence on conducting research and 5 has least influence.

Since almost all supervisors are not satisfied with candidates' way of undertaking research, this item aims to evaluate the degree of influence of some factors related to research conduction. Therefore, teachers were asked to rank the following factors: (the researcher's overall level in the English language, the researcher's writing skill, the researcher's methodological competence, and the researcher's personal side) according to the degree of their effect on the way researchers undertake research from (1) most influence to (4) least influence.

Option	1	2	3	4
a. The researcher's overall level in the English language	58%	17%	17%	8%
b. The researcher's writing skill	75%	17%	8%	0%
c. The researcher's methodology competence	66%	17%	17%	0%
d. The researcher's psychological personal side (personality traits)	8%	42%	42%	8%

Table 3.6: The Degree of Influence of Some Researchers' Related Factors on the Process of Conducting Research

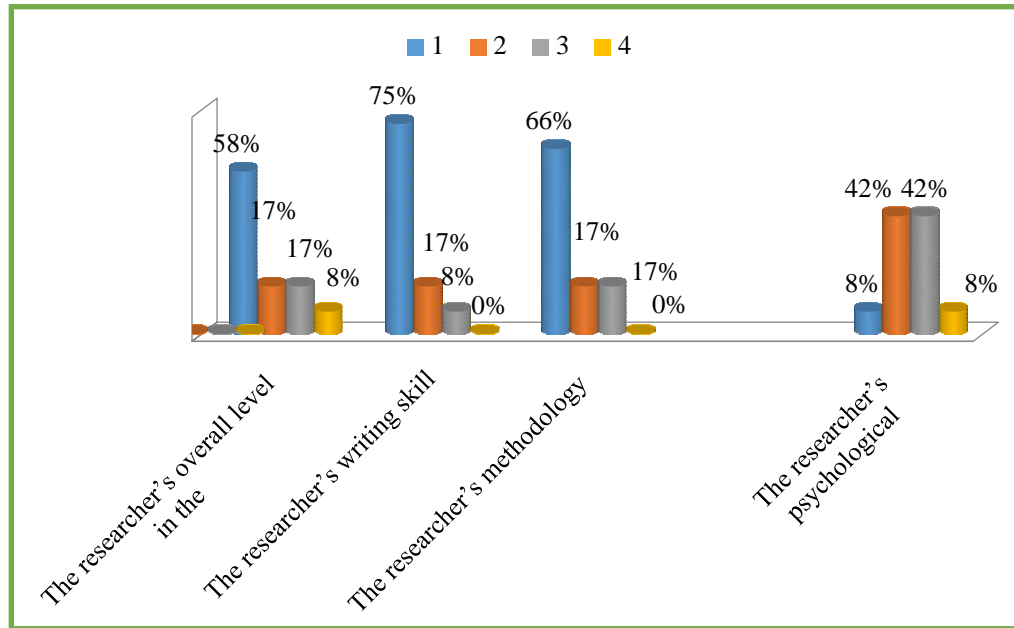


Figure 3.1: The Degree of Influence of Some Researchers' Related Factors on the Process of Conducting Research

To simplify what is illustrated on table (3.5), and figure (3.1), the highest percentage (75%) goes to the research's writing skill as the most influential factor on research conduction. The decrease in the research's writing skill factor ranking, from (17%) to (8%), then (0%), indicate that the extent to which researchers are competent in writing helps presenting the content of the research project in an easy understandable manner. A considerable percentage (66%) represents the researcher's methodological competence as the second influential factor affecting the research final draft as well as the way of conducting research. Hence, meeting the research process criteria needs an acceptable knowledge in research methodology. It is noted that both the researcher's writing skill and methodological competence (0%) representing the least influential rank which emphasize the role of the writing skill and methodological knowledge in producing an academic final draft following the research process standards.

In the same path, (57%) represents the researcher overall level in the English language, as the third factor in rank, that has an effect on the process of conducting research. The lowest percentage which is (8%) goes to the researcher's psychological personal side being the least influential factor on research conduction. Then, we notice an increase in its percentage to (42%) which proves that although the research's personality traits are not as influential as the writing skill and the methodological competence, but it has an effect in how researchers conduct research.

Section Two: The Relationship between the Big Five Personality traits and the Process of Conducting Research

Item 08: Do you think that there is a relationship between the researcher's personality traits and the way s/he conducts research?

We aimed through including this question to know teachers' opinions towards the existence of a relationship between the five-factor model of personality and research conduction.

Option	Participants	Percentage
Yes	11	92%
No	1	8%
Total	12	100%

Table 3.7: The Relationship between the Researches' Big Five Personality Traits and the Process of Conducting Research

The large majority of teachers (11) representing (92%) of the respondents agreed that there is a relation between the research's personality traits and the way s/he undertakes research,

while only one teacher out of the 12 respondents claim that the researcher's five dimensions of personality have nothing to do with research conduction.

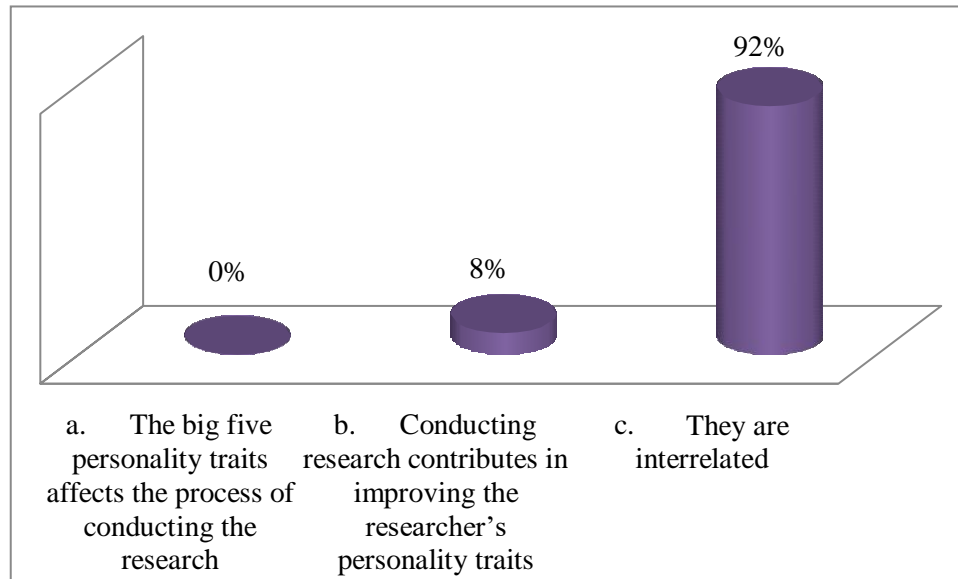


Figure 3 2: The Kind of Relationship Between the Big Five Personality Traits and the Process of Conducting Research

The above figure reveals that the large majority of respondents (92%) agree on the interrelationship between the big five personality traits and the research process.

This confirms that the research's five dimensions of personality affect the process of conducting research or vice versa. However, a percentage of (8%) refers for those who think that conducting research contributes in improving the research's personality traits. In other words, moving through the different steps of the research process helps researchers develop their personality traits. Yet, no one (0%) out of the 12 participants believes on the effect of the big five personality traits on research conduction.

To conclude, the large majority of respondents stress that the big five personality traits and the research process have an exchangeable kind of relationship between.

Item 09: According to you, what are the most needed personality traits for a researcher to undertake a successful research?

By asking this question, we sought to know which dimensions from the five factor model of personality (FFM) (neuroticism, agreeableness, extroversion, conscientiousness, and openness to experience) are the most needed for researchers to conduct a successful research work. Besides, the respondents were asked to justify their answers.

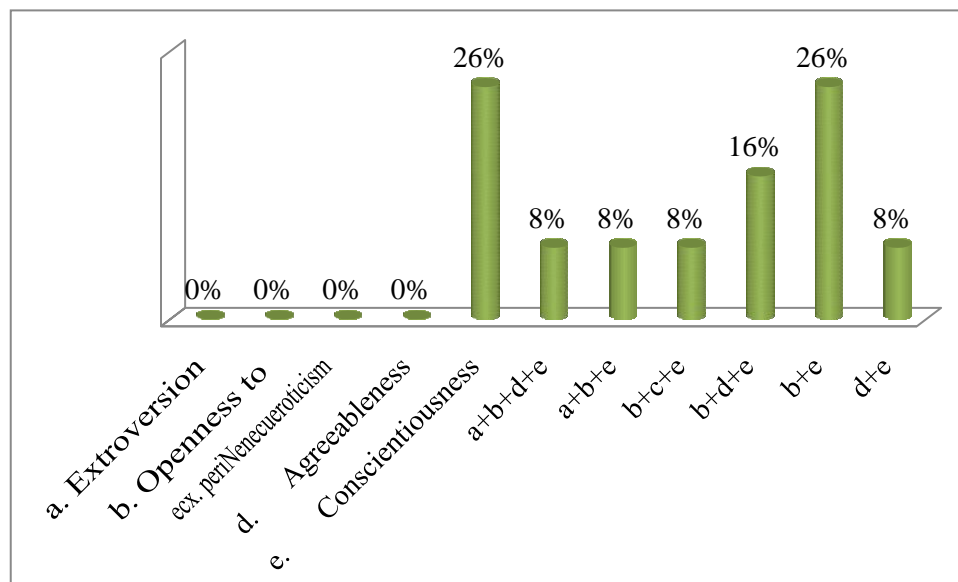


Figure 3.3: The Most Needed Personality Traits for Conducting a Successful Research Work

As it is illustrated above, about (26%) of respondents confirm that conscientiousness is the only personality trait that researcher need to conduct research. For them, a good researcher should be punctual, ordered, organized, and disciplined in order to succeed in accomplishing

his/her research project. Equally, (26%) of teachers claim that openness to experience as well as conscientiousness have a direct effect on the research's way of undertaking research. Those teachers justify their opinion by emphasizing the importance of creativity, curiosity, organization and responsibility as fundamentals for being a potential researcher. In the same path, (16%) of the participants state that in addition to being conscious and opened to experience, a researcher should be agreeable. It is worth noting that the percentage of (81%) is given equally to four choices that combine different personality traits. This gives the idea that researcher should be extroverted, neurotic, agreeable, conscious, and opened to experience in order to conduct a research that follows the research methodology standards.

Item 10: Do you think that organized hard working researchers give more importance to particular research stages at the expense of others?

Since the aim of this study was to check the effect of the five factor model of personality on research conduction, specifically conscientiousness and neuroticism, this questions and the four coming ones focus more on the role of conscientiousness and neuroticism on the way researchers conduct research. Through this question, we sought to check whether conscious researchers (organized, ordered and disciplined) give more importance to particular research stages at the expense to others. In addition, teachers were asked to rate the research process stages on 5 point scales according to the level of conscious researchers' attractiveness to them.

Option	Participants	Percentage
a. Yes	9	75%
b. No	3	25%
Total	12	100%

Table 3.8: Teachers' Opinions towards the Preference of Certain Research Stages by Conscious Researchers

As the results show, (75%) of respondents think that being a conscious researcher can lead to the preference or underestimation of certain research stages, while only 3 teachers representing (25%) of the whole sample state the opposite.

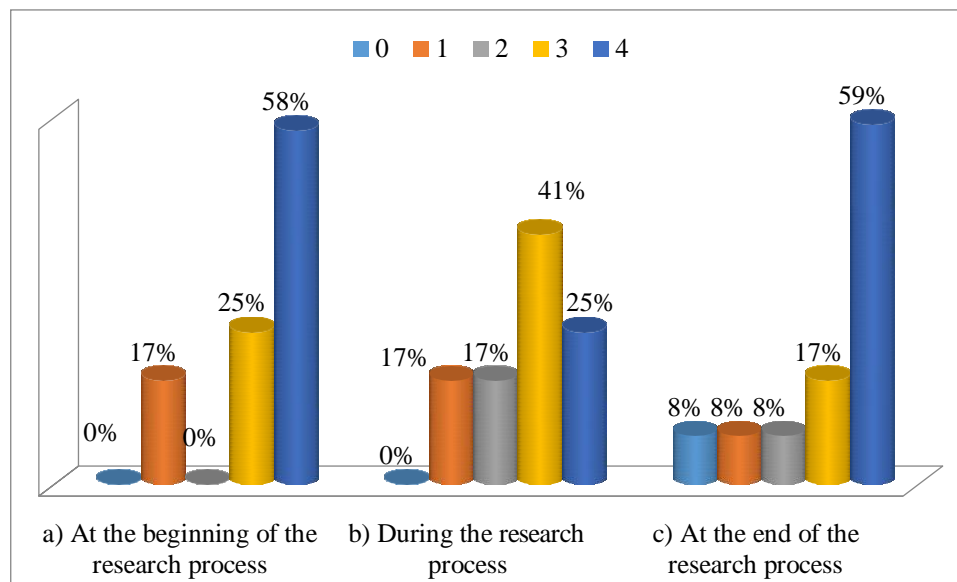


Figure 3 4: Conscientious Researcher's Attractiveness to the Different Stages of the Research Process

To study the effect of conscientiousness on the process of conducting research, we asked the teachers to assess the conscious research's attractiveness to the different stages of the research process on 5 points-scales (0= not attractive at all, 4= very attractive). As noted in figure 3.4, the stage of analyzing data, testing the hypothesis, interpreting and drawing the conclusion was estimated as the most attractive research stage with (59%). The stage of selecting the problem, searching for sources and formulating the research questions and hypothesis has also got a high level of attractiveness represented by (58%). Therefore, the lowest percentage (25%) goes to

the stage of reviewing the literature, collecting data, and executing the project as the less attractive research stage for conscious researchers.

Researchers with the conscientiousness personality trait like to conduct the productive stages of the research process that are manifested at the beginning and at the end of the research process, and they give less importance to the receptive stages as literature review and data collection.

Item 11: In your opinion, to what extent being an organized researcher can be helpful in conducting research?

This question is related to the previous question. After having explored whether or not conscious researchers prefer certain research stages at the expense of others, through this question, we aim to explore the extent to which being an organized researcher is helpful in conducting research.

Option	Participants	Percentage
a. Very helpful	11	92%
b. Somehow helpful	1	8%
c. Not helpful at all	0	0%
Total	12	100%

Table 3.9: The Usefulness of Being an Organized Researcher on Conducting Research

As table 3.9 shows, a considerable number of teachers (92%) agree that being an organized researcher is “very helpful” when undertaking research since it helps the researchers to follow all the steps of the research process within the allocated time of each step. Only one teacher representing (8%) thinks that it is “somehow helpful” and none of the participants

neglects the role of organization as a part of conscientiousness on the way researchers undertake research.

Item 12: Do you think the researcher's mood affects the way s/he conducts research?

Being a neurotic researcher may have an effect on research conduction. That is why we asked this question to check if the research's mood can affect the process of conducting research. If yes, teachers were asked to specify the kind of effect be it positive, negative, or both of them.

Option	Participants	Percentage
Yes	12	100%
No	0	0%
Total	12	100%

Table 3.10: The Effect of the Researcher's Mood on the Process of Conducting Research

As it is illustrated on the table above, all teachers (100%) agree on the idea that conducting research could be influenced by the researcher's mood. Researchers, along the research process, face a lot of difficulties that change their mood; consequently, it will influence the way they undertake research.

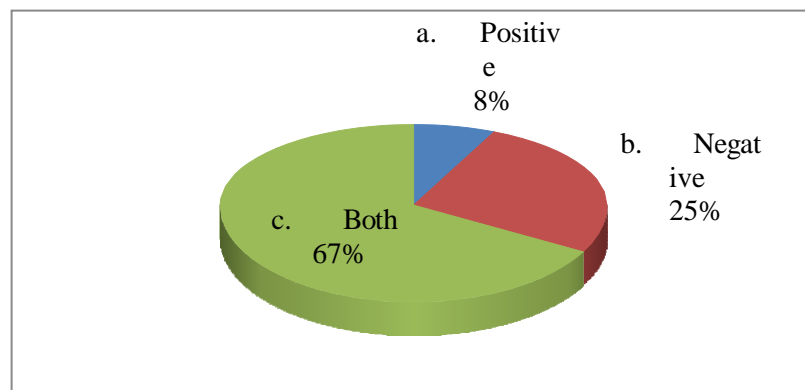


Figure 3.5: The Kind of the Effect of the Researcher's Mood on the Process of Conducting Research

The results show that, about (25%) of the participants advocates the negative effect of the researcher's mood on undertaking research, for them, being moody hinders the research progress. Only one teacher out of the 12 respondents states that the researcher's state of mind affects the way s/he undertakes research positively. While the large majority (67%) emphasize on the double side effect of the researcher's mood on how s/he conducts research through the research process stages. They assert that the effect of the researcher's mood on research conduction can be positive or negative depending on the situation the research is in.

Item 13: In what way does the researcher's anxiety affect the process of undertaking research?

From this question, we opened the door for teachers to explain in what way could affect the researcher's anxiety the process of conducting research. Some teachers as (1, 4, and 9) think that anxiety influences the researchers' state of mind in a negative way, it prevents researchers from being creative, assertive, responsible and ordered which leads breaking the research methodology standards. For teachers (2 and 5), being anxious block the researcher from

completing his research project, waists his time, and pushes him to give up. Only one teacher (teacher 03) who sheds the light to the supervision process; for him, anxiety affects the relationship between the supervisor and the candidates negatively, so that the quality of the final dissertation will be influenced too. Besides, teachers (6 and 12) agree that anxiety is a source of demotivation and lack of confidence. Anxious researchers are doubtful about the choice of the topic, the appropriateness of the data collections tools, the amount of sources, and every single step or decision they make.

On the other hand, teachers (7 and 8) think that anxiety pushes the researcher to check, verify, and examine all the steps s/he makes; therefore, making more effects to ameliorate the quality of the final dissertation. The rest of teachers (10-11) advocate the double-sided effect of anxiety on the process of conducting research; one is positive and the other is negative depending on the situation of the researcher.

Item 14: Do you think that “neuroticism” and “conscientiousness” are associated with research misbehavior and misconduct?

Neuroticism and conscientiousness influence decision making and ethical considerations. Through asking this question, we seek to determine the association between being neurotic and/or conscious and the occurrence of research misbehaviors and misconduct. Then, respondents were asked to justify their answers.

Option	Participants	Percentage
Yes	7	58%
No	5	42%

Total	12	100%
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Table 3.11: The Association between “Neuroticism” and “Conscientiousness” as Dimensions of the Five Factor Model and Research Misbehaviors

As indicated in the table (3.11), 7 teachers representing (58%) find that practicing research misbehaviors is directly related to being neurotic and conscious, while 5 teachers out of the 12 participants (42%) state the opposite. Justifying their answers six (6) teachers emphasize on the negative association between neuroticism and research misbehavior. For them, neuroticism is a source of practicing research misbehaviors stating that the researcher’s state of mind is crucial for the success of any research work. They assert that being anxious, frustrated and depressed because of the time, lack of sources, the supervisor’s impositions, and even the topic itself lead to some research misbehaviors as modifying results, fabricating data, and using others’ words with giving credits. Four teachers claim that conscientiousness is positively associated with research misbehavior. They assert that being organized and disciplined helps avoiding such misbehaviors when conducting research. Only (2) two teachers who make the combination of both personality traits, neuroticism and conscientiousness, in relation to research misconduct. They state that a researcher could be neurotic and disciplined helps eradicating and minimizing the level of neuroticism, consequently, decreasing the likelihood of engaging in research misbehaviors.

Teachers’ Suggestions

This item was included as a further space that affords an opportunity for teachers to add any comments concerning the topic under-investigation and to suggest some solutions for the research problem. They agreed on its originality stating that the effect of the five factor model

of personality have never been studied yet. Other teachers considered the big five personality traits as external factors that influence the research process, but they are not as pivotal as mastering the basis of research methodology and academic writing. Another teacher focused on the role of the supervisor in minimizing the negative feelings experienced by novice researchers along the process of conducting research.

3.3.1.6 Interpretation of the Teachers' Questionnaire :

Analyzing the different questions of the teachers' questionnaire provides us with valuable results that helps answering some of the research questions that were intended to be investigated. Regarding the teachers' answers, the majority of teachers agreed on the difficulty of research conduction journey; they admit that they are not satisfied with candidates' research practices.

Additionally, they proved that EFL students' weak level the research conduction process was due to their insufficient knowledge of the methodology issues as well as their inability of writing academically; however, they neglected the effect of the researcher's personal affective side on how s/he undertakes research. Thus, they pointed that students need to develop their methodological and writing skills.

In the same vein, the conducted teachers' questionnaire showed that conducting research and the big five personality traits are interrelated. It can be deduced that the researcher's five dimensions of personality affect his research conduction journey, besides conducting research contributes in improving the researchers' personality traits.

Moreover, the large majority of teachers emphasized the positive effect of conscientiousness personality traits on the process of conducting research. They proved that researchers with high

conscientiousness level tend to be organized, dutiful, ordered and self-disciplined which helps following the research steps correctly, submitting the research work on time and respecting schedule, and reporting the research findings as they are without falsification. From the teachers' answers, it is proved that organized hard working researchers prefer the final research steps as analyzing data, testing hypothesis and drawing conclusions simply because they need persistence and organization to achieve valid results.

In addition, the obtained results from this questionnaire presented that the researcher's mood affects the process of research conduction whether positively or negatively depending on the situation the researcher in. Equally, teachers highlighted that the researcher's anxiety has a negative impact on how s/he undertakes research. They stated that anxiety is a negative state of mind that must be managed and controlled in order to minimize its consequences on the research final draft. Thus, researchers with high neuroticism level are characterized by being moody and anxious; having these features prevents the researcher from progressing in his research and achieving valid results.

More importantly, when teachers were asked about the association between research misbehaviors and the big five personality traits (neuroticism and conscientiousness), most of them stated that being a neurotic researcher leads to the occurrence of different research misbehaviors as falsifying the results, using others' words without citation, etc. while other teachers claimed that possessing high level of conscientiousness helps eradicating neuroticism characteristics; thus minimizing the occurrence of research misbehaviors.

To sum up, this questionnaire was a useful tool of gathering data from teachers' perspectives, the obtained results were valuable in answering the research questions. Additionally, the

questionnaire helped collecting teachers' attitudes towards the relationship between research conduction and the big five dimensions of personality. Consequently, it can be concluded that the researcher's personality plays a significant role in the way research is conducted.

3.3.2 Students' Questionnaire

3.3.2.1 Aim of the Students Questionnaire:

The second tool used for the study was a students' semi-structured questionnaire, which aimed to collect EFL students' attitudes towards the influence of the big five personality traits on the way they conduct research.

3.3.2.2 Description of the students' Questionnaire:

This questionnaire was designed for second year master students of science of the language at Mohammed Kheider University of Biskra. It was divided into three sections containing 16 questions that differ between close-ended questions to collect short and direct answers, and open-minded questions to collect longer answers with more details about the topic under investigation.

The first section contains four (4) questions (from item 01 to 04) which aimed to collect general information about the participants. In addition, the second section contains only one item (5) in which the researcher has chosen 17 items from the Big Five Inventory test (BFI) that are related to neuroticism and conscientiousness. However, the third section was devoted to probe the students' attitudes towards the role of the five factor model of personality, precisely neuroticism and conscientiousness, on the process of conducting research. It includes 10

questions (from 6 to 16) that were designed to explore the relationship between the big five personality traits and the way researchers conduct research.

3.3.2.3 Validating and Piloting the Students' Questionnaire:

Before administering the questionnaire to the students, it was validated and piloted to ensure its content and face validity. The piloting stage ought to examine the comprehensibility of the questions, the wording of items, and the overall layout of the questionnaire. This questionnaire was first validated by the supervisor of this study who suggested some modifications in terms of the wordiness of some items. Then, it was sent via Facebook to (5) five students who were chosen randomly from the population, and they took part in answering the final version of the questionnaire. Based on the students' answers, we concluded that questions 8 and 11 are hard to be understood and answered; thus, they need to be reformulated. All the aforementioned remarks have been taken into consideration while designing the final version of the questionnaire.

3.3.2.4 Administration of the students' Questionnaire:

After the completion of the questionnaire, the administration phase took place online through Facebook. As the students have suggested, the questionnaire was posted on "Master two Applied Linguistics Facebook Group" which gave us the chance to receive a complete answered questionnaire. After that the students' answers were automatically stored and recorded through Google Forms Survey Platform.

3.3.2.5 The Analysis of Students' Questionnaire:

The data collected from the students' questionnaire were described, analyzed and interpreted with the goal of answering the research questions and confirming or disconfirming the

hypothesis that the researcher's big five dimensions of personality would affect the way s/he conducts research.

Section One: General Information

Item 01: How long have you been studying English at University?

By asking this question, we sought to know the number of years students have been studying English at University

Years	Respondents	Percentage
Five year	98	97%
More than five years	3	3%
Total	37	100%

Table 3 12: Period of Studying English at University

Table 3.12 shows that the large majority of students (92%) have studied English for 5 years at University; while only 3 students out of the 37 participants (8%) who have studied English for more than 5 years at University.

Item 02: Applying for master degree was:

The target aim of this item is to explore the students' reasons behind registering for the master degree; whether it is their own choice, their parents' choice, or someone's advice. For those students who applied for the master degree as a personal choice, they were asked to justify the reasons behind that.

Options	Respondents	Percentage
Your own choice	34	92%
Your parents' choice	3	8%
Someone's advice	0	0%
Total	37	100%

Table 3.13: Reasons behind Registering for Master Degree

As indicated in the above table, 34 students (92%) out of the 37 participants reported that they applied for the master degree as a personal choice, 3 of them (8%) stated that applying for the master degree was their parents' choice, yet no one (0%) has applied for it because of someone's advice.

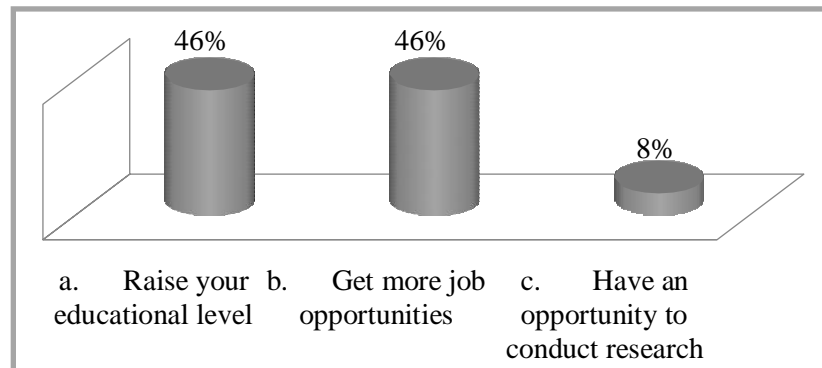


Figure 3.6: Reasons behind Applying for Master Degree as a Personal Choice

Specifying the reasons behind registering for the master degree as a personal choice, 17 students representing (46%) stated that they applied for it in order to raise their educational level. Equally, 17 students (45%) reported that they applied for the master degree aiming at getting more job opportunities, while only 03 students who wanted to have an opportunity to conduct research (the Master Graduation Dissertation).

Item 03: Have you conducted research before the master's graduation dissertation?

Through asking this question, we aimed to figure out whether the students have conducted any kind of research work during the license diploma. If yes, they were asked to compare it with the master graduation dissertation in terms of difficulty.

Options	Respondents	Percentage
a. Yes	29	78%
b. No	8	22%
Total	37	100%

Table 3.14: Students' Research Conduction before the Master Graduation Dissertation

As table 3.14 illustrates, the majority of respondents (78%) stated that they have conducted some research papers during the three years of the license diploma, which means that they are familiar with the research process steps. However, only 08 students representing (22%) claimed the opposite.

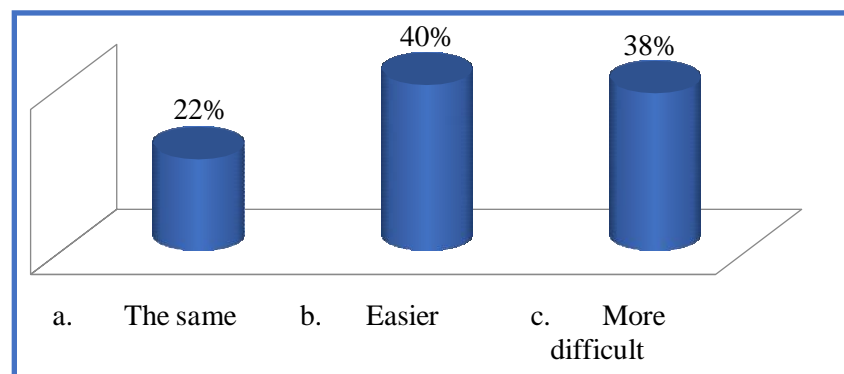


Figure 3.7: Students' Comparison between the Master Graduation Dissertation and the Research Papers in Terms of Difficulty.

The graph reveals that the assigned research papers during the license period were easier than the master dissertation as stated by the majority of participants (40%); however, (38%) representing 14 students out of the 37 respondents claimed that it is more difficult, yet only 8 students (22%) were considered the master dissertation and the research papers of the same level of difficulty.

Item 04: Did you face any difficulties when conducting research?

This item intends to indicate if the students face problems during their research journey or not. In addition, we asked them to give example of the difficulties they face when undertaking research.

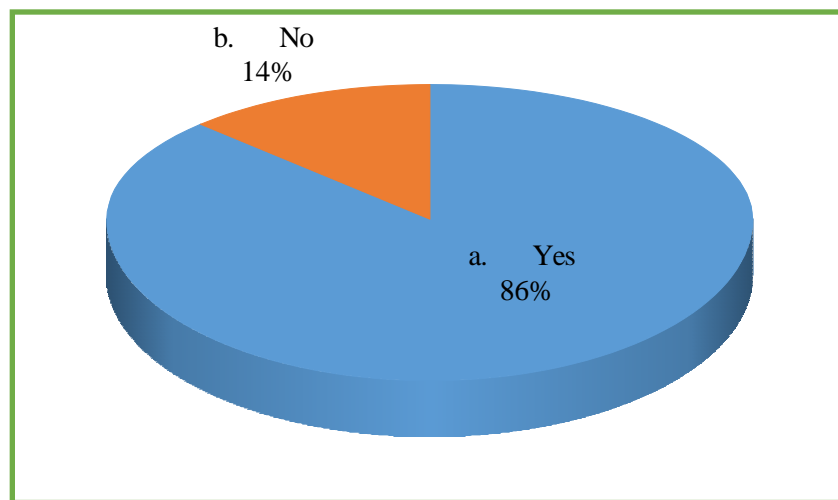


Figure 3.8: Students' Views towards Facing difficulties when Conducting Research

As indicated in figure 3.8, the large majority of novice researchers (86%) face problems along the process of undertaking research; on the other hand, 14% of the respondents stated that they did not encounter any kind of difficulties when conducting research.

Most of respondents agreed on the following research conduction difficulties:

1. The lack of the appropriate sources that have a direct relationship with the topic under investigation.
2. Time management; how to finish each task in its allocated time.
3. The unfamiliarity with the research process steps when it comes to practice.
4. Emotional instability: Being angry, anxious, depressed, moody and easily distracted because of small problems.
5. The supervisor's inappropriate way of giving feedback or the total absence of his/her guidance along the research journey.

Section Two: The Big Five Personality Traits

Item 05: Here are a number of characteristics that you may or may not apply for you. For each statement (1-17), mark how much you agree in the following 4 likert scales where:

Since the aim of this study was to investigate the effect of neuroticism and conscientiousness personality traits on how researchers conduct research, through this item we aimed to test the students' level of being neurotic and conscientious. Students were given 17 statement that were adopted from the Big Five Inventory Test (BFI). Then, we requested them to mark how much they agree or disagree with each statement.

For the sake of displaying data in a clear understandable manner, we separated the neuroticism related statement from the conscientiousness related ones.

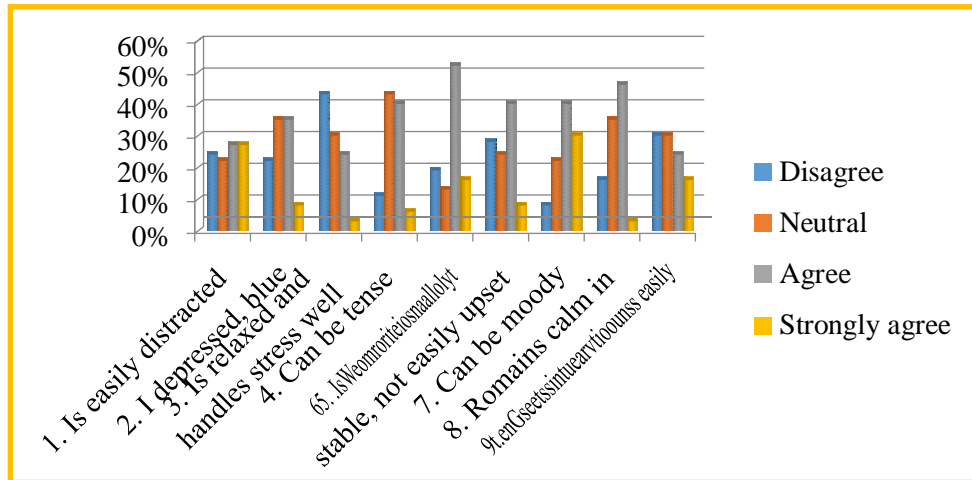


Figure 3.9: Students' Conscientiousness Test Results

To simplify what is illustrated in the figure above each statement is discussed individually.

Statement 01: “Does a thorough job”

As figure 3.9 shows, 63% of students agreed that they do a thorough job. A considerable percentage of (16%) have selected “neutral” to describe how much they apply for this statement. However, 13% of participants used “strongly agree” to show the extent to which they do a thorough job, yet (8%) claimed the opposite (disagree).

Statement 02: “Can be somewhat careless”

It is clear from the figure that the percentage of (35%) goes equally to both “agree” and “disagree” options describing the extent to which the participants are careless. In addition, (27%) of respondents took a neutral position while only (3%) who strongly agreed with the statement

Statement 03: “Tends to be disorganized”

In the same path, when respondents were asked about whether they are disorganized when doing activities, the majority of students (54%) noted that they “disagree” with the aforementioned statement, and (22%) of them used “neutral” to describe their opinion about being organized. In addition, (18%) students answered with “agree” and only 2 participants answered with “strongly agree”.

Statement 04: “Tends to be lazy”

Similarly, being a lazy person got a percentage of (35%) for those who “disagree” and (27%) for those who “agree”. Expressing their opinion about being lazy, (25%) of respondents took the neutral position, and (13%) of them have selected “strongly agree”.

Statement 05: “Preserves until the task is finished”

Additionally, when the participants were asked about their ability to preserve until the task is finished (6%) of them have selected the “disagree” option, yet (8%) of students have chosen “strongly agree”. An equal percentage of (16%) presents the respondents who have selected both the “neutral” and “agree” options.

Statement 06: “Does things effectively”

Concerning the participants’ efficiency of doing things, the large majority (81%) of students answered with “agree”. In addition, the percentages of (11%) and (8%) represent the “neutral” and “strongly agree” options respectively, yet no one have chosen the “disagree” one.

Statement 07: “Makes plans and Follows through with them”

When the respondents were asked about their ability of making plans and following them, (49%) of participants agreed with the aforementioned statement. While (29%) of them took a

neutral position. An equal percentage of (11%) represents the participants who have chosen both the “disagree” and “strongly agree” options.

Statement 08: “Is a reliable worker”

Asking the students about being a reliable worker, (61%) of them answered with “agree”, and (22%) have selected “strongly agree”. However, (11%) of participants have chosen the neutral position to express their ability of being a reliable worker, yet only (6%) of respondents who answered with “disagree”.

To sum up with all the above results, we can observe that the statement that express the positive side of conscientiousness trait (statements 1, 5, 6, 7, and 8) score the highest percentage with the “agree” option; however, those that express the negative side of conscientiousness trait score high with the “disagree” option. Thus, we can deduce that the participants value planning, possess the quality of persistence, and ten to be organized. Consequently, conscientiousness personality trait positively affects the way researcher conduct research.

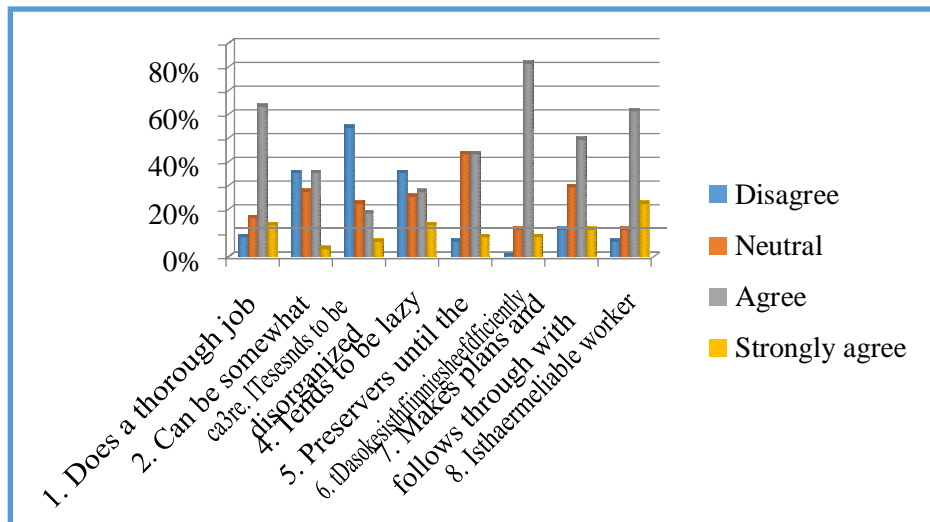


Figure 3.10: Students’ Neuroticism Test Results

Statement 01: “Is easily distracted”

The present statement sought to elicit the extent to which the participants get easily distracted. Given the statement “Is easily distracted”, (22%) of the respondents took a neutral position, while (27%) of them stated that they “disagree” with the statement. Therefore, an equal percentage of (27%) represents the students who have selected the “agree” and “strongly agree” options.

Statement 02: “Is depressed, blue”

The aforementioned statement aims to test the students’ tendency towards depression. Thus, (35%) of the participants tend to “agree” with the statement, and an equal percentage (35%) remain “neutral”. Whereas, (22%) of the respondents reported that they “disagree” with the statement, yet (3%) strongly agreed with it.

Statement 03: “Is relaxed and handles stress well”

The central aim of this statement is to examine the participants’ ability of handling stress in tense situations as the data shows, the majority of respondents (43%) tend to “disagree” with the statement, and (30%) of them took a neutral position. While (24%) of the participants agreed on their ability to handling stress in tense situations, yet (3%) of them strongly agreed.

Statement 04: “Can be tense”

In this statement, the participants were demanded to indicate the extent to which they can be tense and angry when facing problems. As the data illustrates, the large majority of respondents (43%) took a neutral position concerning being tense when facing difficulties. 15 students out

of the 37 respondents chose “agree” to express their opinion towards the statement. However, (11%) of them disagreed, yet 6% participants strongly agreed.

Statement 05: “Worries a lot”

The purpose of this statement is to elicit the extent to which the participants worry about their final project quality. Therefore, 19 of participants (52%) agreed with the statement, and (19%) of them disagreed. Whereas, (16%) out of the total number of respondents have chosen “strongly agree” to express the extent to which they worry about the results of the things they do, yet 13% of them remained neutral.

Statement 06: “Is emotionally stable, not easily upset”

This statement intends to assess the participants’ level of emotional stability. As the data supplies, (40%) of the respondents considered themselves as emotionally stable, confident, and resilient. Whereas, (28%) of them stated the opposite (disagree). Whilst, 9 students (24%) out of the 37 participants have chosen neutral position and (8%) stated that they strongly agree with the statement.

Statement 07: “Can be moody”

The current statement “can be moody” aims at examining the participant’s level of moodiness. That is to report, (40%) of the respondents stated that they are moody (agree) and (30%) of them strongly agreed with the statement. However, a percentage of (22%) represents the students who have selected the neutral position, yet (8%) of them disagreed with the aforementioned statement.

Statement 08: “Remains calm in tense situations”

Through this statement, we sought to assess the participants' ability of remaining calm in tense situations. As the data shows, the majority of the respondents (46%) agreed that they can remain relaxed and calm when facing challenges. A considerable percentage of (35%) represents the students who have chosen the neutral position; however, (16%) of respondents claimed that they disagreed with the statement and (3%) of them strongly agreed.

Statement 09: "Gets nervous easily"

The last statement aims to elicit the extent to which the participants get nervous. As shown above, an equal percentage of (30%) represents the participants who have selected both the "neutral" and "disagree" options. While (24%) of the students agreed with the statement, and (16%) of them strongly agreed.

Based on the data provided, we can conclude that the majority of respondents tend to score high levels of neuroticism. Thus, they are characterized by being anxious, moody, angry, nervous, depressed, and fearful which will affect their way of undertaking research as well as the quality of the final draft negatively.

Section Three: The Relationship between the Big Five Personality traits and the Research Process

Item 06: As a novice researcher, you have encountered many difficulties and problems when undertaking research. In your opinion, are they related to:

After knowing some examples of the difficulties faced by novice researches (item 4), through this item, we aimed at specifying the major reason behind such problems. Out of the following four aspects; (a. the writing skill, b. the methodological issues, c. the research's personality or

d. the supervisor's neglect of the students' personality, or d. the supervisor's neglect of the student's personality), students were asked to choose the one they think is related to the difficulties they face when undertaking research.

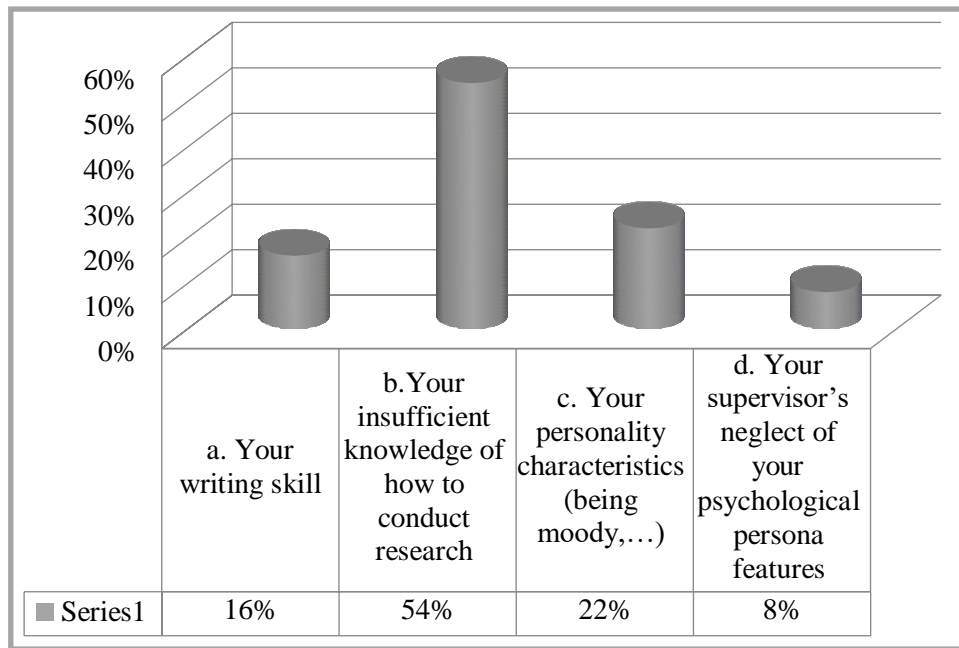


Figure 3.11: The Reasons behind the Encountered Difficulties during Research

Conduction

As figure 3.11 indicates, the large majority of respondents (54%) stated that their insufficient knowledge of the methodological issues and how to conduct research was the main reason behind most of their problems during research conduction. (22%) of respondents thought that their personality characteristics as being disorganized, moody, stubborn, and introverted hinder the progress of the research work. In addition, 6 students out of the 37 participants (16%) reported that most of their problems along the research process are related to their low level in the writing skill as well as their inability to write academically. While only (8%) of the students

who claimed that the supervisor's neglect of their personal psychological features influences research conduction negatively.

Item 07: Do you think that the researcher big five personality traits (Extroversion, neuroticism, openness to experience, agreeableness, and consciousness) affect the way s/he conducts research?

The present item aimed to elicit the participants point of views about the effect of the researcher's big five dimensions of personality (neuroticism, conscientiousness, agreeableness, openness to experience, and extraversion) on the way s/he conducts research (yes/no).

Options	Respondents	Percentage
a. Yes	34	92%
b. No	3	8%
Total	37	100%

Table 3.15: Students' Views towards the Effect of the Five Factor Model of Personality on the Research Conduction

According to table 3.15, the large majority of respondents (92%) confirmed that their big five personality dimensions influence how they undertake research which could be a positive or a negative influence; however, only 3 students out of the 37 participants stated that their personality features have nothing to do with research conduction.

To explore how the five factor model of personality can affect the research process, students were asked to give examples about the influence of the researcher's five dimensions of

personality on the process of conducting research. Most of the respondents focused on the negative effect of their state of mind (neuroticism) on every step in the research process. They stated that whenever small problems occur they get easily distracted and angry, thus the decisions they make will be negatively influenced. Other students reported that being an introvert researcher hinders the progress of the research work especially when conducting an experiment or an interview, since it needs an assertive, sociable, outgoing and extravert researcher.

Few respondents who maintained that openness to experience have a good impact on the research work final draft. For them, curious imaginative researchers work hard to explore new ideas. In addition, only one student who shed light on agreeableness dimension, stating that cooperating with the researchers and being tender-minded helps the researcher to avoid the different research misbehaviors. It is worth noting that all the participants included the importance of being organized and well disciplined (conscientiousness) as an integral personality trait added to the aforementioned one in order to assure the well progress of the research survey.

Item 08: Do you think that the Big Five Personality Traits lead to preference or underestimation of certain stages in the research process?

This item attempted to figure out whether the researcher's five personality dimensions lead to the preference or underestimation of certain research stages at the expense of others.

Options	Respondents	Percentage
a. Yes	29	78%

b. No	8	22%
Total	37	100%

Table 3.16: Students' Attitudes towards the Effect of the Big Five Personality Traits on the Preference or Underestimation of the Research Process Stages.

As it is illustrated above, (78%) of the participants emphasized the role of their personal side (Big Five dimensions of personality) on preferring some research steps and underestimating others. On the other hand, only 8 students out of the 37 participants who claimed the opposite.

Explaining their answers, the participants who chose "yes" option stated that the researcher's personality traits can be a source of preferring or underestimating particular research steps. For them, researchers tend to prefer certain research stages based on their personal side. Thus, curious researchers prefer the research stages related to the selection and statement of the problem while extrovert ones prefer the practical part of the research process such as collecting data through interviews in which they deal with different respondents. Researchers with neuroticism personality trait could demonstrate negative attitude towards many research steps, underestimate its importance, and neglect the right sequence of the research process steps.

On the other hand, researchers with the "no" option reported that the research process scientifically could be affected by the researcher's personality characteristics as a subjective factor. Accordingly, conducting a scientific systematic research requires a total neglect of the researcher's big five dimension of personality.

Item 09: Which one do you think neurotic (moody, anxious) and conscientious (organized, self-discipline) researchers can be more attracted to?

We intended from this item to know which research stages neurotic and conscientious researchers are attracted to.

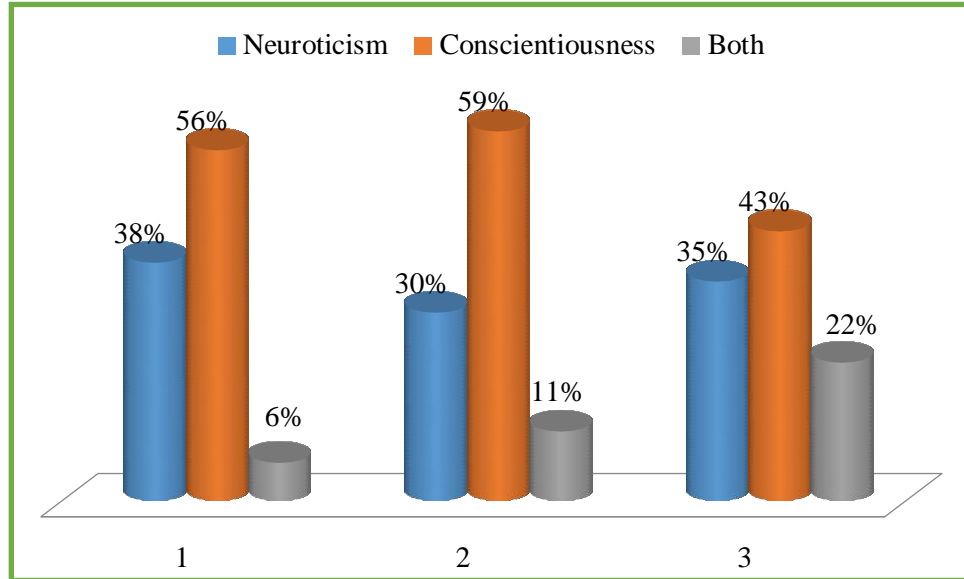


Figure 3.12: Conscientiousness/Neurotic Researcher's Attractiveness to the Research Process Stages

Question nine (9) aims at gathering data about students' conscience and neuroticism in doing research at three stages (beginning, during, and after). As both the table and the graph show, students' answers are as follow:

- A. Concerning option one: At the beginning of the research process: 14 students (38%) reported that they are neurotic. 21 of them (56%) reported that they feel conscience. While, only 2 students, who represent 6% of the proportion reported that they are both neurotic and conscientious at the beginning stage of doing research.
- B. Concerning option two: During the research process : 11 students (30%) stated they are neurotic during executing the research process. 22 of them (59%) said that they are

conscientious. And the rest of students (4 who represent 11% from the whole) reported that both neuroticism and conscientiousness are in the middle stage of conducting research.

- C. About option three: At the end of the research process: the great majority of students (N=16, 43%) reported that they are conscientious when it comes to analyzing data and drawing conclusions. While, 13 of them (35%) said that they feel neurotic. And lastly, 8 students (22%) stated they are both neurotic and conscientious during the final steps of research.

Item 10: Do you think that you have followed all the research steps in an organized way?

This item was designed to know the extent to which researchers follow the right sequence of the research process steps (yes/no question). Additionally, we requested them to justify their answers.

Options	Respondents	Percentage
Yes	20	54%
No	17	46%
Total	37	100%

Table 3.17: Students' Attitude towards the Systematic Way of Conducting Research

According to table 3.17, 20 students out of the 37 participants stated that they conduct research in a systematic organized manner following the scientific sequence of the research steps; however, 46% reported the opposite.

To gather data about the students' systematicness of conducting research, the participants were asked to justify their answers. Initially, students who answered with "yes" highlighted that

following the research process steps in an organized way helps achieving valid reliable results, finishing each step within its allocated time, and avoiding the occurrence of any research misbehaviors. However, students who answered with “no” stated that skipping some research steps or mixing their order is an unconscious act that happens due to the shortage of time, the supervisor’s impositions as the lack of the methodological knowledge

Item 11: Have you followed your plans efficiently, so that you finished each task within its allocated time?

By asking this question, we sought to figure out the extent to which novice researchers follow the plans they make along the research journey.

Options	Respondents	Percentage
Yes	16	44%
No	20	56%
Total	37	100%

Table 3.18: The Extent to which Researchers Follow their Plans Efficiently

As table 3.18 depicts, (44%) of the participants stated that they follow the designed research plans efficiently which helps them finish each step in its allocated time and respect the supervisor’s deadline. While 20 students (56%) claimed that they work hard to follow the plans they make, but they could not.

Accordingly, we estimate that following the designed research plans in an efficient manner is directly related to being conscientious researcher.

Item 12: In your opinion, being a conscientious researcher can affect the research conduction?

This item tried to explore the influence of conscientiousness personality trait on the way researchers conduct research.

Options	Respondents	Percentage
Positively	34	92%
Negatively	3	8%
Total	37	100%

Table 3.19: The Effect of Being a Conscientious Researcher on Research Conduction

As table 3.19 indicates, the majority of respondents (92%) claimed that conscientiousness personality trait has a positive influence on how researchers undertake research; however, only 3 participants out of the whole sample (37) stated that being a conscientious researcher affects research conduction negatively.

Item 13: Rank the following research process stages according to the effect of conscientiousness on them, where **1=** Drastic effect, **2=** Strong effect, **3=** Slight effect

After having exploring the influence of being a conscientious researcher on the process of conducting research, through this question, we aimed to rank the research process stages based on the effect of conscientiousness (Drastic, strong, or slight effect)

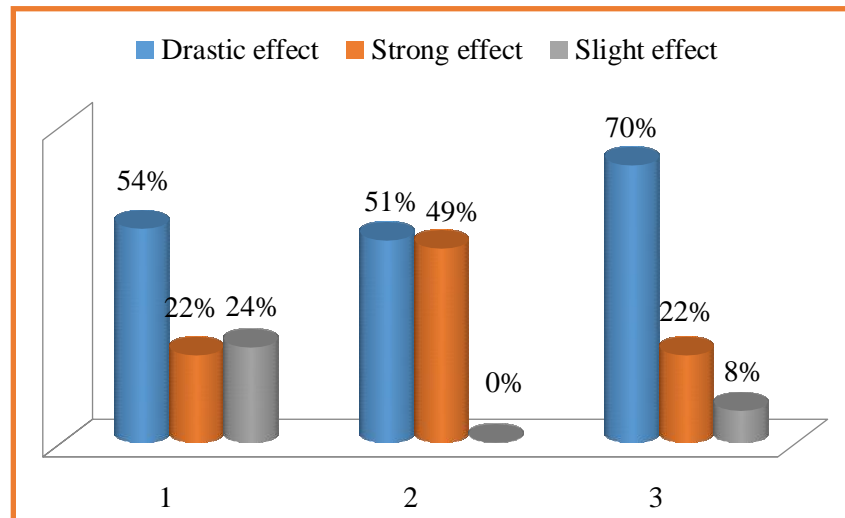


Figure 3.13: The research Process Stages Ranking Based on the Effect of Conscientiousness

As figure 3.13 shows, the highest percentage (70%) represents the “drastic” effect of conscientiousness on the final stage of the research process containing data analysis, interpretation of findings, and hypothesis testing steps. (22%) of the participants think that being a conscientious researcher have a “strong” effect at the end of the research process, while only 3 students who emphasize its “slight” effect on this stage.

The percentage of 54% represents the “drastic” effect of conscientiousness on the first stage of the research process as the second stage in rank. The percentages of 24% and 22% represent the “slight” and “strong” effect of being conscientious on the first stage of the research process as selecting the problem and searching for sources.

In addition, 51% of respondents reported that being an organized (conscientious) researcher have a “drastic” effect when reviewing the literature, collecting data, and executing the project (during the research process). A close proportion 49% represents the students who emphasized

the “strong” effect of conscientiousness on the during research process stage, while none of the participants 0% thought of having a “slight” effect of conscientiousness on this stage.

The aforementioned results confirm that being an organized, self-discipline, and conscientiousness have a significant role in the success of all the research process stages (A the beginning, during and at the end of the research process).

Item 14: The researcher’s mood and anxiety, when undertaking research, may affect the research conduction

This question aimed to collect information from the students’ attitudes about the effect of the researcher’s mood and anxiety on the way s/he conducts research students were asked to identify whether it is a positive or negative influence.

Options	Respondents	Percentage
a. Positively	3	8%
b. Negatively	34	92%
Total	37	100%

Table 3.20: Students’ Attitude towards The Effect of the Researcher’s Mood and Anxiety on Research Conduction

The above table reveals that (92%) of students think that being moody and anxious when facing problems affects the systematic sequence of the research steps as well as the quality of the final draft negatively, while 3 students 8% emphasized the positive effect of the researchers mood on research conduction

Item 15: Rank the following research process stages according to the effect of Neuroticism on them, where **1= Drastic effect**, **2= Strong effect**, **3= Slight effect**

The ultimate objective of this study is to investigate the role of the five factor dimension of personality, especially neuroticism and conscioustiousness, on research conduction. Through this item, we aimed to rank the three research process stages according the effect of neuroticism on each research stage that could be drastic, strong, or slight effect.

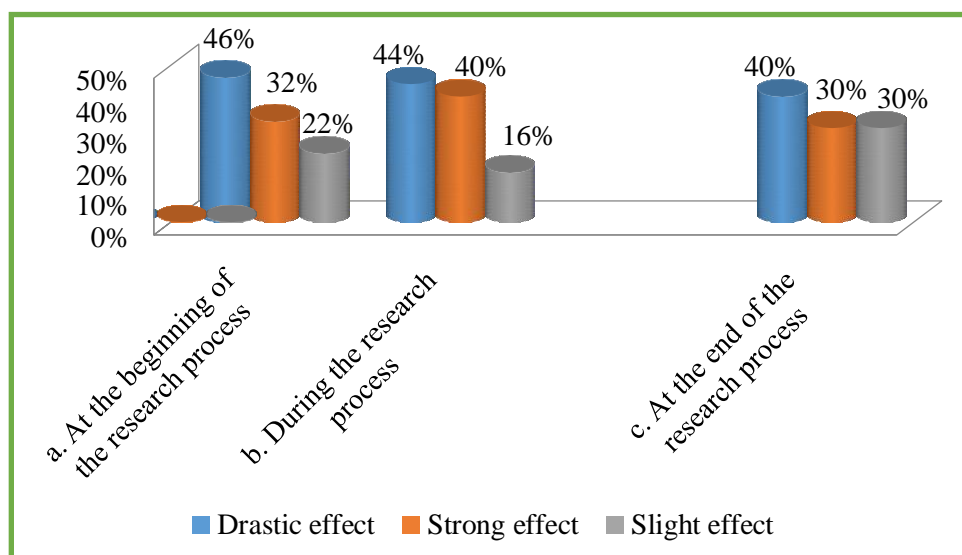


Figure 3.14: The Research Process Stages Ranking Based on the Effect of Neuroticism

Firstly, the highest percentage 46% represents the drastic effect of neuroticism personality trait at the beginning of the research process stages, 32% of them think that being a neurotic researcher have a strong effect when selecting the problem and searching for sources, yet only 22% who emphasize the slight effect of neuroticism on this stage.

Secondly, the percentage of 44% represents the drastic effect of being a neurotic researcher on the during research process stage as reviewing the literature, and collecting data. While 40% of respondents claimed that being anxious moody researcher have a strong effect

on this stage, yet 6 students out of the 37 participants reported that neuroticism have a slight effect on the during research process stage.

Concerning the final research process stage, 40% of respondents emphasized on the drastic effect of neuroticism on this stage as analyzing data, testing hypothesis, and drawing conclusions. In addition, the percentage of 30% to both the strong and slight influence of neuroticism on the final research stage.

Item 16: Do you think that being a neurotic researcher is associated with research misbehavior?

This item sought to gather the respondents' opinions about the occurrence of research misbehaviors in relations to being a neurotic (anxious, moody) researcher (yes/no). additionally, we suggested four research misbehavior which are modifying the results, deleting and changing data, using others' words without citation and modifying the participants answers to meet the research objectives, then we aimed to identify which ones neurotic researchers could do.

Options	Respondents	Percentage
Yes	33	89%
No	4	11%
Total	37	100%

Table 3.21: The Association between Neuroticism and Research Misbehavior

Statically speaking, a great deal of respondents 89% supported the fact that being a neurotic researcher is associated with the occurrence of research misbehavior. However, only 4 students (11%) out of the 37 participants believed that neuroticism and research misbehavior are separated.

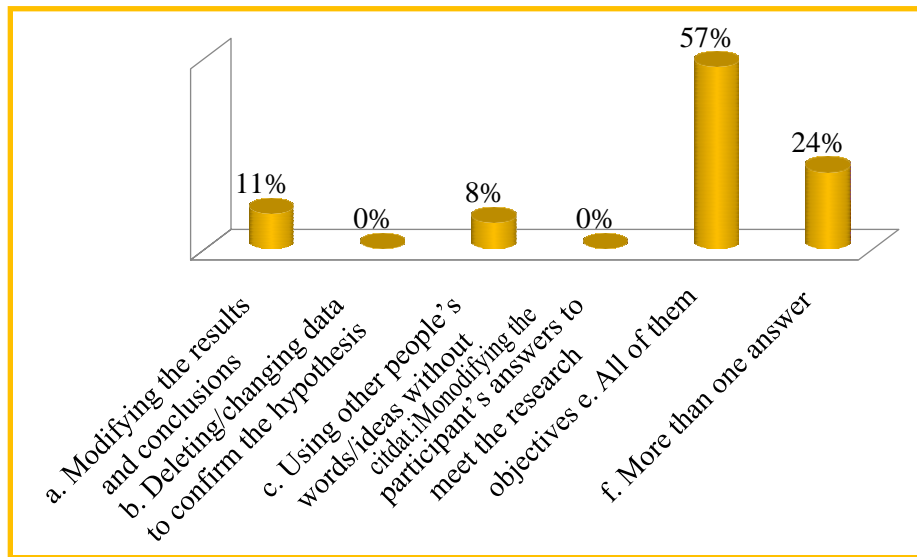


Figure 3.15: The Research Misbehavior that Neurotic Researchers Could Do

To sum up the above yielded data, a noticeable percentage 57% confirms that neuroticism is associated with research misconduct. They claimed that being a neurotic researcher can lead to the previously mentioned research misbehavior. 24% of the respondents selected more than one option; however, 11% of participant thought that neurotic researchers could modify the results and 8% believed that researchers with high neuroticism level could use others' words with giving credit (plagiarism). It is clear from the figure that none of the participants has selected option "b" and "d".

Consequently, neuroticism personality trait has a negative influence on research conduction which leads to the occurrence of different severe research misbehaviors

Students comments

We asked this question in order to give the students an opportunity to provide any suggestions concerning the topic under-investigation; they stated that the supervisor's way of giving feedback is very crucial in minimizing the negative feelings experienced by novice

researchers along the research journey. They added that the researcher's five dimensions of personality affect not only the research conduction process that also the quality of the final draft.

3.3.2.6 Interpretation of the Students' Questionnaire:

The analysis of the students' questionnaire findings provides valuable answers that supported our research hypothesis. Initially, from the students' responses we deduced that conducting the master's graduation dissertation is more difficult than the research papers conducted during the three years of the license diploma. Master two students face different problems as: the lack of sources, the supervisor's impositions, time management, methodological constrains, etc; which influence the quality of the final work.

Based on the Big Five Inventory Test (BFIT), most students scored high level of neuroticism personality trait, thus they tend to be anxious, depressed, moody and nervous. Similarly, they are organized, ordered, dutiful and self-disciplined since they scored high level of conscientiousness personality trait too.

More importantly, respondents agreed upon the effect of the five dimensions of personality on how researchers undertake research. They asserted that the big five personality traits are strong predictors of the research process success. Being an emotionally stable, agreeable, extravert, open-minded and conscientious researcher help solving various types of research tasks and scientific problems.

In addition, the data obtained highlighted that conscientiousness researchers prefer the during research process stage containing the steps of literature review, data collection, and data analysis.

They perform this stage better than others because of their goal setting ability, careful planning, reliability and the ability to organize well. Moreover, respondents claimed that conscientious researchers follow the research process steps in an organized way respecting the methodology standards. They are also characterized by being mindful of assignment deadlines; they work steadfastly to follow their plans efficiently in order to finish each task within its allocated time. Thus, conscientiousness positively correlates with research conduction.

On the other hand, neurotic researchers prefer the initial stage of the research process which includes selecting the topic, searching for sources, and formulating the research questions. Since neurotic researchers are nervous, angry and moody, they prefer this stage where problems and difficulties did not emerge yet. Additionally, respondents reported that researchers with high levels of neuroticism are known to suffer from depression, anxiety, moodiness and anger; therefore, they cannot perform and follow the research process steps efficiently. Being a neurotic researcher leads to the occurrence of various research misbehaviors. Respondents reported that researchers use others' words without citation, modify the results, delete data to confirm the hypothesis, etc. when they are depressed, nervous and angry. Consequently, we can deduce that neuroticism personality trait negatively correlates with research conduction.

3.4 Summary of the Results

The aim of the current study was to investigate the effect of the big five personality traits on the process of conducting research. Precisely, it aimed to examine how being neurotic/conscientious researcher influences research conduction. In addition, through this study, we sought to raise teachers' awareness about the role of the researchers' affective psychological side (five factor model of personality) in the success of research conduction

process. For this purpose, two semi-structured questionnaires were administered to EFL teachers as well as second year master EFL learners at Biskra University.

The findings that have been drawn from the analysis of the two data gathering tools, namely, the students' and the teachers' questionnaire were positive and of a great help in reaching the research objectives and answering the research questions.

Initially, the students' questionnaire revealed that the majority of students agree on the difficulty of research conduction. They stated that researchers face various problems along the research process which are due to their poor writing skill, insufficient knowledge of the methodology standards, in addition to the researcher's personal affective side that is manifested in the big five personality traits. Moreover, respondents emphasized the role of the big five dimensions, openness to experience, and conscientiousness on how researchers undertake research. However, the teachers' questionnaire results showed that supervisors emphasized the role of the writing skill and methodological competence in producing valid piece of research, yet they did not neglect the effect of the five-factor model of personality on the researchers' practices along the research journey.

Analyzing the influence of neuroticism (emotional instability) and conscientiousness on the research process, both the students' and the teachers' questionnaire agreed that neuroticism personality trait negatively correlates with research conduction while conscientiousness positively correlates with the process of conducting research. The results showed that a conscientious researcher is identified to be systemized, punctual, responsible, dependable and organized. Thus, being a conscientious researcher helps following the right sequence of the research process steps, respecting the supervisor's deadlines, reporting the research findings

honestly etc. on the other hand, neurotic researchers are characterized by being anxious, moody, depressed, and nervous, therefore, they are expected to be emotionally unstable when performing complex research tasks as analyzing data and drawing conclusions. Due to their neurotic features, researchers with high neuroticism scores tend to falsify the results, use others' words without giving credits, deleting data to meet the research objectives, etc. thus, being a neurotic researcher is highly associated with the occurrence of research misbehaviors.

Based on the results of the current study, it can be concluded that the researcher's big five personality traits affect the way s/he conducts research. Precisely, neuroticism negatively affects research conduction while conscientiousness personality trait positively correlates with the process of conducting research. Therefore, the obtained results have answered the research questions and confirmed the research hypotheses underlying the current study.

Conclusion

The last chapter sought to finalize the present study with providing the research methodology of the study as well as the analysis and interpretation of the data collected through the teachers' and students' questionnaires followed by the summary of findings. The final results of the presented work showed that the majority of students and teachers agreed on the effect of the research big five personality traits on the process of conducting research. However, some teachers considered the five dimensions of personality as external factors that influence research conduction, but they are not as pivotal as mastering the basics of research methodology and academic writing. Based on the obtained results, the research hypothesis was proved and research questions were answered. That is to say, the researcher's big five personality traits

influence the process of conducting research. Precisely, neuroticism negatively correlates with research conduction while conscientiousness positively correlates with the research process.

General Conclusion and Recommendations

General Conclusion and Recommendations

Conducting research as a final project is an essential requirement for the completion of any academic degree in tertiary level. Therefore, novice researchers face various problems because of their psychological personal features; in addition to their methodological competence and writing skill. Thus, through this study, we aimed to investigate the effect of the researcher's big five personality traits on the process of conducting research.

The rationale of conducting this study was to examine the effect of the big five personality traits, namely, neuroticism, extraversion, agreeableness, openness to experience, and conscientiousness on the process of conducting research, mainly, to explore how neuroticism (emotional stability) and conscientiousness influence the research process. Through this study, we sought to raise supervisor's awareness about the role of the researcher's psychological effective side (personality traits) in the success of research conduction.

Within the spectrum of this study, the theoretical part was divided into two major chapters, the Big Five Personality traits and the research process. The main concern of the first chapter was to provide a comprehensible overview about the Five Factor Model of personality and its components. Wherein, the second chapter highlighted the research process and its stages, also it presented the qualities and characteristics that researchers should possess to produce effective pieces of research. As for the third chapter, it dealt with the practical part of the study devoted to analysis and interpretation of the results.

Therefore, in order to gather data, the research opted for two (2) data collection tools. A teachers' semi-structured questionnaire which was administered to (11) EFL teachers at Biskra University, and a students' questionnaire administered to 37 sciences of the language master

two students. The two data collection methods aimed at answering the research questions and verifying the research hypothesis.

Based on the results obtained from the teachers' questionnaire and the students' questionnaire, we induce that the participants' teachers emphasized the role of the Big Five personality traits in the success of the process of research conduction and the production of valid pieces of research. In particular, they confirmed that the researcher's neuroticism is negatively associated with research conduction; however, conscientiousness personality trait positively correlates with the research journey. In the same vein, the findings of the students' questionnaire have revealed that conducting research would be affected by the researcher's big five personality traits in addition to the writing skill and methodological competence. The majority of students proved that bring a conscientious researcher positively influences research conduction; they assured that following the right sequence of the research process steps can be best achieved by researchers who possess the factors of conscientiousness personality trait as being ordered, organized, dutiful, and self-disciplined. On the other hand, they confirmed the negative association between research conduction and neuroticism personality trait. For them, scoring high levels of neuroticism (being moody, depressed, nervous and angry) leads to the occurrence of various research misbehaviors as falsifying data, using others' words without citation, and mixing the research process steps. Hence, the research questions were answered and the research hypothesis was confirmed. We conclude that the researcher's big five personality dimensions affect his/her way of conducting research.

It can be deduced that in addition to the researcher's methodological competence and writing skill, the researcher's Five Factor Model of Personality (FFM) does affect the process of

conducting research. Thus, by promoting the researcher's big five dimensions of personality, the research process will efficiently be followed and the research quality will be improved.

Limitations of the Study and Suggestions for Further Research

While conducting any research project, researchers face different obstacles and constraints that hinder the research process progress. The findings of this study have to be seen in light of some limitations. Initially, the lack of sources related to the Big Five Personality traits variable was the main obstacle that affected our research progress; precisely, the unavailability of previous research studies on the relationship between the Five Factor Model of Personality and the process of conducting research. Moreover, due to the current sanitary situations (the spread of coronavirus), some students did not answer the questionnaire. Thus, out of 50 participants needed sample only 37 students who answered the questionnaire. Also, both the students' and teachers' feedback were limited because of their unfamiliarity with the Five Factor Model of personality variable. Consequently, although the study has been affected by the aforementioned limitations, the collected feedback enabled us to confirm the validity of the research hypothesis.

By building on the current study, further research can continue to explore the effect of the big five personality traits on the research process adding other variables as the researcher's gender and the supervision process. Further researchers are urged to use other personality measurements as the NEO Personality Inventory (NEO-PI) and the Big Traits Inventory(BTI) that contain more items than the Big Five Inventory (BFI) that is used in this study. This study investigated the effect of neuroticism and conscientiousness on research conduction, future researchers should examine the influence of agreeableness, extraversion, and openness to experience on the research process and the quality of the final draft.

Recommendations and Pedagogical Implications

Based on the different theoretical and empirical findings of this study that emphasize the effect of the researcher's big five personality traits on research conduction, we will suggest some recommendations, for teachers/supervisors, students/researchers and policy makers, with the aim of improving the researcher's practices along the research process as well as the quality of the research final draft.

➤ Suggestions for Teachers/Supervisors

- Most of EFL researchers face problems when conducting research although they had a research methodology course. Thus, it is highly recommended to integrate research as an activity in each module since first year by assessing research papers in order to raise the students' awareness about the research process steps
- “Learning by doing” is the best way of teaching research since the research process is a task-based process that needs practice rather than theory.
- Exposing researchers to extensive reading about research methodology to make them familiar with the updated literature.
- Supervisors need to be aware of the effect of the researcher's personal side on research conduction; novice researchers need motivation and reinforcement to carry out research. Therefore, supervisors are suggested to provide the needed feedback concerning not only the grammatical and methodological errors since they can be fixed, but also how to overcome the psychological problems experienced while facing the research difficulties.

- Prompting students' research skills must be one of the teacher's priorities.
- Raising researchers' consciousness about the seriousness of plagiarism on their research reliability is highly recommended.
- Seminars and workshops that serve as source of inspiration and training have to be organized monthly to develop novice researchers' knowledge.
- Teaching the "21 century competencies" such as creativity, critical thinking, problem solving, collaboration, self-direction, technology literacy and flexibility is very crucial for students to apply them when conducting research.
- Supporting researchers with suitable equipment, mentorship and guidance helps them reducing stress, depression and anxiety caused by the encountered difficulties along the research journey.

➤ **Suggestions for Students/Researchers**

- Students should learn how to be autonomous researchers. Researchers should rely on themselves when undertaking research rather than on their supervisors in order to achieve better results.
- Researchers should develop their personality features so that they can conduct research correctly avoiding research misbehavior.
- Making plans and following them effectively is considered as the best way of finishing each task within its allocated time, therefore; reducing the deadline stress.
- Time constrains is considered as the major cause of stress and anxiety; thus, researchers should learn how to manage their time

- Cooperating and collaborating with experienced researchers and knowledgeable people helps exchanging ideas, learning new research skills, and correcting previous misunderstanding research related concepts.
- Researchers should be opened to new ideas and advanced topic which helps working on an original topic.
- Researchers must be aware of the seriousness of being an organized order researcher in following the research process step successfully.

➤ **Suggestions for Administrators/Policy Makers**

- The administration must provide a code of practice that included the supervisor and researcher's responsibilities to be respected, therefore, maintaining order.
- Programming national conferences in which novice researchers participate in order to be familiar with the updated research methodology standards.
- Conducting research is not based only on the methodological competence and writing skills; thus, it highly recommended to integrate a "study skill" module within the EFL students' program in order to develop certain competencies such as creativity, autonomy, critical thinking and problem solving.
- Integrating workshops within the research methodology course will be helpful to practice the research process steps.

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Appendices

Teacher's Questionnaire about
The Role of the Big Five Personality traits
In the Process of Conducting Research

Dear teacher,

We are conducting an investigation about “The Role of the Big Five Personality Traits on The Process of Conducting Research”. The purpose of this study is to check whether the researcher’s psychological personal side influences the way s/he conducts research. Therefore, we would be grateful if you provide us with answers and perceptions towards this topic. Be sure that your answers will be anonymous and will be used for research purposes only

Thank you for your time, effort and collaboration

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Dr. Chelli Saliha

Academic year: 2019/2020

The Big Five Personality Traits:

- 1). **Extroversion:** being social, forceful, outgoing, and assertive
- 2). **Agreeableness:** being tender-minded, not stubborn, easy going, and sympathetic
- 3). **Conscientiousness:** being organized, ordered, self-disciplined, responsible, and hard working
- 4). **Neuroticism:** being anxious, moody, shy, irritable, and easily depressed
- 5). **Openness to experience:** being curious, imaginative, perceptive and unconventional

Section One: General Information

Q1. Would you specify your degree, please?

- a. Magister
- b. Doctorate

Q2. How many years have you been teaching EFL at University?

.....

Q3. How long have you been supervising postgraduate students?

- a. 1-5 years
- b. 5-10 years
- c. More than 10 years

Q4. As a supervisor, how do you find the research process?

- a. An easy task
- b. a hard task

Q5. In your opinion, why is the graduation dissertation mandatory only for master's students rather than license (BA) students?

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Q6. As a supervisor, are you satisfied with your candidates' research practices along the research process?

- a.** Yes **b.** No

Justify your answer, please

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.....

Q7. Please rank the following statements from 1 to 5, where 1 has most influence on conducting research and 5 has least influence

- a.** The researcher's overall level in the English language
- b.** The researcher's writing skill
- c.** The researcher's methodology competence
- d.** The researcher's psychological personal side (personality traits)
- e.** Other reasons (time, cost, etc)

Section Two: The Relationship between the Big Five Personality Traits and the Process of Conducting Research

Q8. Do you think that there is a relationship between the researcher's personality traits and the way s/he conducts research?

- a.** Yes **b.** No

If yes, what kind of relationship exists:

- a.** The big five personality traits affects the process of conducting the research
- b.** Conducting research contributes in improving the researcher's personality traits

c. They are interrelated

Q9. According to you, what are the most needed personality traits for a researcher to undertake a successful research?

a. Extroversion

b. Openness to experience

c. Neuroticism

d. Agreeableness

e. Conscientiousness

Justify your answer please

.....
.....

Q10. Do you think that organized hard working researchers give more importance to particular research stages at the expense of others?

a. Yes

b. No

If yes, using a scale of **0** = not attractive at all to **5** = very attractive, please rate the following research stages

	Not attractive at all					Very attractive	No opinion
	0	1	2	3	4	5	0
At the beginning of the research process (selecting the topic, searching for sources, formulating the research questions.)							

During the research process (reviewing the literature, collecting data, executing the project...)							
At the end of the research process (analyzing data, testing, hypothesis, interpreting and drawing conclusions)							

Q11. In your opinion, to what extent being an organized researcher can be helpful in conducting research?

- a. Very helpful
- b. Somehow helpful
- c. Not helpful at all

Q12. Do you think the researcher's mood affects the way s/he conducts research?

- a. Yes
- b. No

If yes, is this effect

- a. Positive
- b. negative
- c. both

Q13. In what way does the researcher's anxiety affect the process of undertaking research?

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Q14. Do you think that "neuroticism" and "conscientiousness" are associated with research misbehavior and misconduct?

- a. Yes
- b. No

If yes, please give examples

.....
.....

If you would like to add any comments or suggestions, please feel free

.....
.....
.....
.....

Thanks for your time, effort and collaboration

**Students' Questionnaire about The Role of the Big Five Personality Traits in
The Process of Conducting Research**

Dear Student,

This questionnaire is an attempt to collect data for the accomplishment of a master dissertation on “The Role of the Big Five Personality traits in The Process of Conducting Research”. Therefore, you are kindly requested to fill in it by ticking (√) the appropriate answer(s) and writing full statements whenever it is necessary. Be sure that your answers will be anonymous and will be used for research purposes only.

Thank you for your time, effort and collaboration

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Academic year: 2019/2020

The Big Five Personality Traits:

- 1). **Extroversion:** being social, forceful, outgoing, and assertive
- 2). **Agreeableness:** being tender-minded, not stubborn, easy going, and sympathetic
- 3). **Conscientiousness:** being organized, ordered, self-disciplined, responsible, and hard working
- 4). **Neuroticism:** being anxious, moody, shy, irritable, and easily depressed
- 5). **Openness to experience:** being curious, imaginative, perceptive and unconventional

Section One: General Information

Q1. How long have you been studying English at University?

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Q2. Applying for master degree was:

- a.** Your own choice
- b.** Your parents' choice
- c.** Someone's advice

If it was your own choice, was it to:

- a.** Raise your educational level
 - b.** Get more job opportunities
 - c.** Have an opportunity to conduct research
 - d.** Others
- e. Q3.** Have you conducted research before the master's graduation dissertation?
- a.** Yes
 - b.** No

If yes, how did you find this task in comparison with the master's one?

- a. The same
- b. Easier
- c. More difficult

Q4. Did you face any difficulties when conducting research?

- a. Yes
- b. No

If yes, what kind of difficulties?

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Section Two: The Big Five Personality Traits

Q5. Here are a number of characteristics that you may or may not apply for you. For each statement (1-17), mark how much you agree in the following 4 likert scales where:

- 1. disagree
- 2. Neutral
- 3. agree
- 4. Strongly agree

I see myself as someone who....

1. Does through a job				
2. Can be somewhat careless				
3. Tends to be disorganized				
4. Tends to be lazy				
5. Preservers until the task is finished				
6. Does thing efficiently				
7. Makes plans and follows through with				
8. Is a reliable worker				
9. Is easily distracted				
10. I depressed, blue				
11. Is relaxed and handles stress well				
12. Can be tense				
13. Worries a lot				
14. Is emotionally stable, not easily upset				
15. Can be moody				
16. Remains calm in tense situations				
17. Gets nervous easily				

Section Three: The Relationship between the Big Five Personality Traits and the Research Process

Q6. As a novice researcher, you have encountered many difficulties and problems when undertaking research. In your opinion, are they related to:

- a. Your writing skill
- b. Your insufficient knowledge of how to conduct research (methodological issues)
- c. Your personality characteristics (being moody, unorganized, stubborn, introvert, and close minded)
- d. Your supervisor's neglect of your psychological persona features

Q7. Do you think that the researcher big five personality traits (Extroversion, neuroticism, openness to experience, agreeableness, and consciousness) affect the way s/he conducts research?

- a. Yes b. No

If yes, please give examples

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Q8. Do you think that the Big Five Personality Traits lead to preference or underestimation of certain stages in the research process?

- a. Yes b. No

If yes, explain

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Q9. Which one do you think neurotic (moody, anxious) and conscientious (organized, self-discipline) researchers can be more attracted to?

Put a tick (✓) in the appropriate column, you may choose more than one

	Neuroticism	Conscientiousness
1). At the beginning of the research process (selecting the topic, searching for sources, formulating research questions and hypothesis)		
2). During the research process (reviewing the literature, collecting data, executing the project...)		
3). At the end of the research process (analyzing data, testing hypothesis, interpreting, and drawing conclusions).		

Q10. Do you think that you have followed all the research steps in an organized way?

a. Yes b. No

Whatever your answer is, please justify

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Q11. Have you followed your plans efficiently, so that you finished each task within its allocated time?

a. Yes b. No

Q12. In your opinion, being a conscientious researcher can affect the research conduction?

a. Positively b. Negatively

Q13. Rank the following research process stages according to the effect of conscientiousness on them, where 1= Drastic effect, 2= Strong effect, 3= Slight effect

- a. At the beginning of the research process (selecting the topic, searching for sources, formulating research questions and hypothesis)
- b. During the research process (reviewing the literature, collecting data, executing the project...)
- c. At the end of the research process (analyzing data, testing hypothesis, interpreting, and drawing conclusions).

Q14. The researcher's mood and anxiety, when undertaking research, may affect the research conduction

- a. Positively b. Negatively

Q15. Rank the following research process stages according to the effect of Neuroticism on them, where 1= Drastic effect, 2= Strong effect, 3= Slight effect

- a. At the beginning of the research process (selecting the topic, searching for sources, formulating research questions and hypothesis)
- b. During the research process (reviewing the literature, collecting data, executing the project...)
- c. At the end of the research process (analyzing data, testing hypothesis, interpreting, and drawing conclusions).

Q16. Do you think that being a neurotic researcher is associated with research misbehavior?

- a. Yes b. No

If yes, which ones from the following research misbehavior do you think neurotic researchers could do?

a. Modifying the results and conclusions

b. Deleting/changing data to confirm the hypothesis

c. Using other people's words/ideas without citation

d. Modifying the participant's answers to meet the research objective

e. Others.....

If you would like to add any suggestions, please feel free

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Thanks for your time effort, and collaboration

المخلص

يواجه الباحثون المبتدئون عدة مشاكل عند إجراء البحث. قد تكون هذه المشاكل بسبب قلة المعرفة المنهجية أو ضعف مهارة الكتابة أو تأثير أبعاد شخصية الباحث. هدفت الدراسة الحالية إلى التحقيق في تأثير سمات الشخصية الخمس الكبرى، وهي العصبية، والقبول، والانبساط، والضمير، والانفتاح على التجربة في عملية إجراء البحث. لذلك افترضنا أن العوامل الخمسة للشخصية للباحثين، خاصة العصبية والضمير على وجه التحديد، ستؤثر على طريقة انجاز البحث. ومن أجل اختبار صحة الفرضيات، تم تكيف منهج الطريقة المختلطة من خلال استبيانين شبه منظمين؛ تم توزيع أحدهم على 11 أستاذ من أساتذة اللغة الإنجليزية كلغة أجنبية في جامعة محمد خضر في بسكرة، والآخر إلى 37 مدرساً لطلاب ماستر اللغة. أثبتت البيانات التي تم الحصول عليها أن كلاً من المعلمين والطلاب اتفقوا على تأثير السمات الشخصية الخمس الكبرى على عملية إجراء البحث. بالإضافة إلى ذلك، أظهرت نتائج الدراسة أن العصبية تؤثر سلباً على العملية؛ ومع ذلك، فإن الضمير يؤثر بشكل إيجابي على إجراء البحث. وبالتالي، يوصى بضرورة أن يكون الاساتذة على دراية بسمات شخصية مرشحيهم عند تقديم الملاحظات من أجل رفع تقديرهم لذاتهم وثقتهم بأنفسهم؛ وبالتالي تطوير مهاراتهم البحثية. وفي الاخير أكدت نتائج الدراسة صحة فرضيات البحث.

الكلمات الرئيسية: عملية البحث، السمات الشخصية الخمس الكبرى، العصبية، الضمير