# EXAMINERS' PERSONALITY AND EFFECTIVENESS OF CONVEYOR BELT SYSTEM OF MARKING: A CASE STUDY OF UGANDA NATIONAL EXAMINATIONS BOARD

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#### **DECLARATION A**

This research report is my original work and has not been presented for a degree or any other academic award in any university or institution of learning".

Signature: Date: 25 11 2015

**Mundua Victor** 

# **DECLARATION B**

I confirm that the work reported in this report has been carried out by the candidate under my supervision.

Signature: .....

Date

Name

#### **DEDICATION**

I dedicate this research to my beloved wife Jane, mother Rose, uncle Yoram, my guider Bukenya and my supervisor for all the love, understanding, encouragement, material and moral support, without them my studies would not have been a success. To my dear brothers and sister together with my colleagues and friends, I love you all.

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I thank the Almighty God for enabling me maneuver through all the tough, hard times and trying moments I have had in life. My dream of this award would not have become true without His guidance, protection and assurance that all things are possible if you believe in him.

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#### **ABSTRACT**

The study established the effect of UNEB examiners' personality on effectiveness of conveyor belt system of marking in Uganda. The study was guided by three specific objectives, that included i) to examine the effect of UNEB examiners' attitudes on effectiveness of conveyor helt system of marking in Uganda; ii) to establish the effect of UNEB examiners' values on effectiveness of conveyor belt system of marking in Uganda and (iii) to assess the effect of UNEB examiners' beliefs on effectiveness of conveyor belt system of marking in Uganda. This research used a descriptive correlational research design to describe the effect of UNEB examiners' personality on effectiveness of conveyor belt system of marking in Uganda. The study used a research population of 261 and a sample size of 177. The findings indicated that there exists a positive and significant relationship between UNEB examiners' attitudes and effectiveness of conveyor belt system of marking in Uganda, which implied that positive UNEB examiners' attitudes increases the of effectiveness of conveyor belt system of marking in, Uganda, and negative UNEB examiners' attitudes reduce it, the findings revealed that there is a significant relationship between UNEB examiners' values and effectiveness of conveyor belt system of marking in Uganda, and this implied that good UNEB examiners' values significantly increases the effectiveness of conveyor belt system of marking in Uganda, the findings proved a positive significant relationship between UNEB examiners' beliefs and effectiveness of conveyor belt system of marking in Uganda, this therefore implies that favorable UNEB examiners' beliefs can improve on the effectiveness of conveyor belt system of marking and unfavorable examiners' beliefs reduce it. The researcher concluded that; positive UNEB examiners' attitudes increases the of effectiveness of conveyor belt system of marking in. Uganda, and negative UNEB examiners' attitudes reduce it, the researcher also concluded that good UNEB examiners' values significantly increases the effectiveness of conveyor belt system of marking in Uganda, and lastly; that favorable UNEB examiners' beliefs can improve on the effectiveness of conveyor belt system of marking and unfavorable examiners' beliefs reduce it. Also the researcher concluded that UNEB examiners' personality significantly affects the effectiveness of conveyor belt system of marking in Uganda, and their attitude accounted for the biggest influence on effectiveness of conveyor belt system of marking in Uganda. The researcher recommended that; UNEB should put in place strategies such as bonus payments who ever completes marking the exams before the set time, this will help to make sure that all members in a conveyor belt system of marking have the same marking speed, hence improving on the effectiveness of the CBS of marking, UNEB should train the examiners about other marking systems or techniques, this will help them believe that using a CBS of marking is not the only best way of marking exams, UNEB should always organize orientations specifically for new markers by team leaders. and this will help to provide Guidance to the new markers, UNEB should always to put regulations governing the examiners' arrival in the marking room, this will help to solve the problem of coming late, and will make the examiners in a centre all report on time for marking. UNEB should put in place penalties in case of any work found in a script unmarked by the examiners, this will help to reduce on the work in a script which is left unmarked by examiner while using CBS, hence improving the effectiveness of the conveyor belt system of marking, UNEB should reduce on the costs of marking by employing only productive and not expensive examiners during marking of exams.

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# LIST OF ABBREVIATIONS

CBS Conveyor Belt System

UNEB Uganda National Examinations Board

UCE Uganda Certificate of Education

TMS Traditional marking system

PLE Primary leaving examination

UACE Uganda advanced certificate of education

# CHAPTER ONE INTRODUCTION

# 1.1 Background of the Study

#### 1.1.1 Historical Perspective

Globally, the conveyor belt system of marking can be traced in USA in 1967 where each belt marking team consisted of ten (10) members. This eliminated remarking of scripts and the National Examination Council indicated that in the past traditional marking in which each script was marked by one marker led to hasty and sloppy marking as the markers were paid according to the number of scripts they would have marked (USA Examination Council, 1990). The USA Examination Council introduced the conveyor belt and to ensure marking reliability the markers were trained and sat for the examination they were going to mark in order to judge their content level (Pido, 1998). In this marking system, an envelope containing answer scripts of candidates in a paper from a particular school was given to one examiner to mark. The examiner used to mark the answers to all the questions attempted by the candidates. Once all the scripts in that envelope were marked, another envelope of scripts was given to the examiner to mark. The process continued until all the scripts were marked. After this checkers who were not examiners were employed to check through the marked answer scripts to detect any errors in marking. Such errors were corrected by USA Examination Council officers in charge of checking (Pido, 1998).

Pal (1996) compared the Meenakishi personality inventory scores of two groups of four examiners labeled as efficient and inefficient on the basis of the reliability with which they had marked twenty scripts of high school students in the subject of Hindi. Compared with inefficient examiners, efficient examiners had high need for achievement and dominance but low needs to affiliation. The two groups of examiners did not vary significantly in their need for exhibition, nurturance, abasement, autonomy, endurance or aggression.

In Africa, specifically Zimbabwe, the marking system adopted by the Zimbabwe Schools Examination council (ZIMSEC) completed marking sets of papers and then checked by the subject supervisor to ensure quality of marking. This system has been in place up to November 2010 for O' level and June 2011 for A' level until when a new system called the conveyor belt marking (belt marking) was introduced to ensure fair speedy marking (ZIMSEC report, 2011). Marking systems adopted by Zimbabwe were both valid and reliable. However, the examiners all expressed the views that the conveyor belt marking was more reliable and valid than the previous system. The belt marking involved more than one marker for a script thus ensured high validity of results. On the other note examiners felt that belt marking was time consuming especially when coordinating the marking scheme, leaves no room for relaxation for examiners, reduces competition among the examiners and confined examiners unnecessarily (ZIMSEC report, 2011).

Effectiveness of the conveyor belt system of marking in Uganda can be traced from the time Uganda National Examinations Board (UNEB) papers were marked using the traditional marking system since 1980, and by the year 2004, conveyor belt system of marking was introduced for primary leaving examinations up to A' level (Bukenya, 2006). The then new CBS reduced marking period length. This benefited examiners in that they saved time and spent December festive seasons with relatives. Examiners could mark UCE and PLE up to January with TMS. The less time examiners spent at a Centre saves money that the board would use on feeding, accommodation, sickness, excetra (okelowange P.J 2004a). Uganda National Examinations Board (UNEB) conducts Primary Leaving Examinations (PLE), which consists of four papers: English, Social studies (SST) Science and Mathematics. The Ministry of Education and Sports uses the results of (PLE) to select pupils for post primary education. As such, it is imperative that UNEB maintains high standards of reliability and validity of PLE. Since its inception in 1980, marking of the UNEB examination papers have been done using the traditional marking system (TMS) (Bukenya, 2006).

#### 1.1.2 Theoretical perspective

The dispositional theory developed by Eastman (1936) states that people display consistency in their actions, thoughts, and feelings between situations and over time. The composition of dispositions varies from person to person and each person's personality consists of a pattern of dispositional qualities which form a unique combination in each person. The dispositional perspective is the traditional, classic approach to the psychological study of personality. Since at least the early Greek civilization, and probably far longer, it has been recognized that people are different not just physically, but also in profound psychological ways. The dispositional theory creates systems for classification and describing psychological characteristics for which people differ consistently between situations and over time. Each person has a different set of dispositions, or at least a set of dispositions of varying strengths, which implies a unique pattern. The personality a person has is determined by the balance of his or her body fluids; the predominant fluid determined his or her personality (Feist & Feist, 2009).

#### 1.1.3 Conceptual perspective

Personality is the sum total of behaviors, attitudes, beliefs and values that are characteristics of an individual. Personality refers to individual differences in characteristic patterns of thinking, feeling and behaving. The study of personality focuses on two broad areas: One is understanding individual differences in particular personality characteristics, such as sociability or irritability. The other is understanding how the various parts of a person come together as a whole (W Laverne 1990).

Personality is the relatively stable set of behaviors, attitudes and emotions displayed over time that make people different from others (Chuck Williams, 2003)

Personality is the total sum of characteristics ways of thinking, feeling and behaving that constitutes the individuals distinctive method of relating to the environment (Jerome, 1995). Personality is a unique patterning of behavioral and mental processes that characterize individuals (Gibson, 1973).

The operational definition of personality stands; the sum total of behaviors, attitudes, beliefs and values that are characteristic of an examiner: personality traits to be considered are the marking speed of the examiners, feminine and masculine personality, dodging work and lateness, time management, talking during marking sessions.

#### Attitudes

Bohner (2014) defined an attitude as an expression of favor or disfavor toward a person, place, a thing, or an event (the attitude object). An attitude is an evaluation of an attitude object, ranging from extremely negative to extremely positive. Most contemporary perspectives on attitudes also permit that people can also be conflicted or ambivalent towards an object by simultaneously holding both positive and negative attitudes toward the same object. This has led to some discussion of whether UNEB examiners can hold multiple attitudes towards marking.

#### **Beliefs**

According to Vogel (2014) beliefs are the core of who a person is, what he/she does, and the success that he/she acquires. He also explains that there is one common strand woven throughout the many cultures and religions he investigated. All people, whether primitive or civilized, have shared a particular philosophy that is central to their culture. People of all ages have ascribed to the idea that if they believe that something will happen, it will take place. It is the power of belief that causes things to happen in our lives. Beliefs are inward convictions, a feeling of certainty about what something means. They are what we hold and are rooted deeply within, and a belief is both mental and emotional which is imbedded in the mind and in the heart.

#### **Values**

According to Alice (2005), values are a set of personal principles, standards, concepts, beliefs, and ideas that can be used to make everyday decisions. Personal values develop from circumstances surrounding people and can change over time. People who apply their values appropriately regardless of arguments or negative comments from others are said to have integrity. Values are applied appropriately when they are applied in the right area. For example, it would be appropriate to apply religious values in times of happiness as well as in times of despair. Shelly (2005) noted that understanding and recognizing personal values and interests is important to assist in making healthy and responsible decisions for future. Personal values are implicitly related to choice; they guide decisions by allowing for an individual's choices to be compared to the associated values of each choice. Personal values are not universal; one's family, nation, generation and historical environment help determine one's personal values. This is not to say that the value concepts themselves are not universal, but that each individual possess a unique view of them (i.e. a personal knowledge of the appropriate values for their own genes, feelings and experience) (Brandt, 2012).

Gareth (2009) defined conveyor belt system of marking (CBS) as a method of marking exams where examiners are organized in groups. Each group is composed of team leader, starter, examiners and checkers. Each marker marks only a set of questions and passes the candidates answer script to the next marker who will also just mark the set of questions allocated to him/her. The marked scripts are passed over to the checkers who are also examiners to check through the script for any errors. Any errors detected are referred immediately to the markers to correct. Finally the team leader samples ten percent of the scripts in an envelope and remarks to assess the consistency in marking and interpretation of the marking scheme.

#### **Effectiveness**

Effectiveness is the capability of producing a desired result, when something is deemed effective, it means it has an intended or expected outcome in that time, or produces a deep, vivid impression (Gareth, 2009). Effectiveness is the quality or degree of being effective. Being effective means being productive of desired effects (New Penguin English Dictionary).

The operational definition of effectiveness is how well or how productive examiners are used by UNEB to get reliable marks using CBS. Therefore, the independent variable (effectiveness of CBS of marking) was measured in terms of time, quality and cost.

#### Time

Okelowange (2004) referred to time of marking as the duration in which all examination papers are marked and submitted.

#### **Ouality**

Bukenya (2006) referred to "quality of marking" as both the accuracy and reliability of marking, this is to say that candidates should receive marks as close to their correct, true scores as is possible, and that this should be the case no matter who marks their work. Evaluating quality of marking is not straightforward: there is no single accepted way of measuring marking quality and few common metrics are available. Nonetheless, there are characteristics that are expected to see in a healthy marking system. For instance, the exam board is expected to have robust systems and controls to promote good marking, to prevent poor marking, and to identify remedy to poor marking when it happens. Exams are expected to be marked by examiners with the right skills and experience. And any review of a mark through the appeals process to be dealt with consistently, fairly, transparently and promptly.

#### Cost

Moira (2011) noted that this is the money released to cover expenses such as marking fees, food and accommodation for examiners and support staff, examiners out of pocket, materials for use at marking and computerized stationery.

#### 1.1.4 Contextual perspective

At the moment, there is a general disgruntlement by examiners concerning the newly established system of marking. Delays in marking due to little time given for the marking process and money is given only after the marking process. Examiners have various values, beliefs, behaviours and attitude and they manifest in personality traits like absenteeism of examiners, lateness for marking, sickness, drunkenness plus lacking skills of marking which disturb CBS marking greatly, this leads to unexpected deviations in results and remarking of some scripts which is not easy due to costs (UNEB report, 2011).

#### 1.2 Statement of the Problem

Effectiveness during marking of UNEB using CBS is still a big challenge. This is shown by, oftenly poor totaling of candidates marks, examiners leaving some work of candidates unmarked due to excessive speed, some belts (groups) or members having a pile of papers (scripts) in front of them while others would have finished, excetra (Bukenya, 2006). These results into some learners getting more or less marks than what they are supposed to get, demotivation of examiners with low speed and so on. Some factors that lower effectiveness in CBS marking include; poor accommodation facilities with bed bugs in some centers, personality differences of individual examiners, feedings on repetitive diet schedules, absolute restrictions of what to drink, eat and talk creating boredom. Out of the above factors, examiners personality plays a paramount role in lowering effectiveness of CBS marking. Examiners have various values, beliefs, behaviours and attitudes and they manifest in personality traits like absenteeism of examiners, lateness for marking, sickness, drunkenness, frequenting out to smoke among others disturb CBS marking greatly (UNEB, 2010). Therefore this is what tempted the researcher to carry out a study on the examiners' personality and effectiveness of the conveyor belt system of marking.

# 1.3 Purpose of the Study

The study established the effect of examiners' personality on effectiveness of conveyor belt system of marking in Uganda.

# 1.4 Objectives of the Study

# 1.4.1 General Objective

This study correlated between examiners personality and effectiveness of CBS marking in Uganda.

# 1.4.2 Specific Objectives

- i. To examine the effect of examiners' attitudes on effectiveness of conveyor belt system of marking in Uganda.
- ii. To establish the effect of examiners' values on effectiveness of conveyor belt system of marking in Uganda
- iii. To assess the effect of examiners' beliefs on effectiveness of conveyor belt system of marking in Uganda

#### 1.5 Research Questions

- i. What is the effect of examiners' attitudes on effectiveness of conveyor belt system of marking in Uganda?
- ii. What is the effect of examiners' values on effectiveness of conveyor belt system of marking in Uganda?
- iii. What is the effect of examiners' beliefs on effectiveness of conveyor belt system of marking in Uganda?

#### 1.6 Hypothesis

There is no significant relationship between examiners' personality and effectiveness of CBS marking in Uganda.

### 1.7 Scope of the study

# 1.7.1 Geographical scope

This study was conducted all over Uganda by selecting examiners from different regions of the country and in a variety of subjects. The researcher concentrated in West Nile to minimize transport cost and West Nile had all the examiners in the various levels of UNEB and in majority of the subjects. Some information was also got from UNEB office in Kampala.

#### 1.7.2 Theoretical scope

The study based on the dispositional theory of Eastman (1936) which states that people display consistency in their actions, thoughts, and feelings between situations and over time, unpredictability is the exception rather than the rule (i.e. unpredictability doesn't define the essence of personality). The composition of dispositions varies from person to person. Each person's personality consists of a pattern of dispositional qualities which form a unique combination in each person.

#### 1.7.3 Content scope

The study examined the level of personality of selected UNEB examiners in different parts of Uganda but more emphasis on West Nile. Personality was confined to attitudes, beliefs, values, manifested in speed of marking, time management in marking room; masculine and famine personality. Yet on the other side the effectiveness of conveyor belt system of marking (DV) was measured in terms of time used for marking, costs encored during marking and quality of papers marked plus released results.

#### 1.7.4 Time scope

This study was conducted in a period of one year starting with proposal development between December 2014 and July 2015, data collection still took place between July/2015. The report was written in September 2015 and the final report submitted in late October 2015.

### 1.8 Significance of the study

The following groups of people will benefit from the findings of the research.

- 1. Government: This will be through obtaining quality citizens who are correctly assessed by UNEB examiners and correct placements into jobs which fits their capability.
- Uganda National Examinations board. When students are efficiently assessed the
  whole UNEB body is looked at as a credible board. Other countries can also opt
  to take UNEB exams and products of UNEB can easily be absorbed by
  international labour force.
- 3. Examiners. When the examiners are enlightened of the impact of their personality on effectiveness they tend to adjust. This means UNEB will continue to call them for marking and they get money. Examiners will earn respect within the nation.
- 4. Students (especially the sitting candidates). They get the correct awards according to their capability hence no cheating of the candidate.
- 5. Other researchers; it will act as source of knowledge for them.

#### 1.9 Definition of key terms

**Personality** is the sum total of behaviours, attitudes, beliefs and values that are characteristics of UNEB examiners

**Conveyor belt system of marking (CBS)** is a method of marking exams where examiners are organized in groups, questions on a script divided among group members and each member marks only the assigned question(s) as candidates' papers are marked.

**Effectiveness** refers to quality, time and cost of the Conveyor Belt System of marking. This is in particular limited to this study.

# CHAPTER TWO LITERATURE REVIEW

#### 2.0 Introduction

This chapter reveals what other scholars have contributed to the study. It is a deliberate effort to analyze how the literature is in line with the objectives and all issues under study and vice versa. This chapter gives an overview of literature and models that are related to the research problem presented in the previous chapter.

#### 2.1 Theoretical frame work

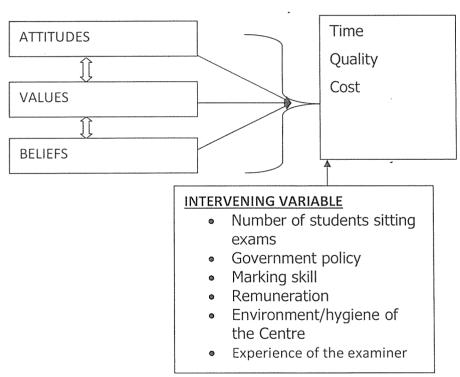
The study was guided by the dispositional theory developed by Eastman (1936) which states that people display consistency in their actions, thoughts, and feelings between situations and over time. The dispositional theory creates systems for classification and describing psychological characteristics for which people differ consistently between situations and over time. The dispositional theory most clearly considers people as "types" or alternatively it views people's dispositions in terms of their enduring motivational characteristics that vary in strength from person to person (i.e. their needs and motives). Each person has stable, long-lasting dispositions to display certain behaviors, attitudes, and emotions. These dispositions appear in diverse situations which explain why people act in predictable ways in many different settings. Each person has a different set of dispositions, or at least a set of dispositions of varying strengths, which implies a unique pattern. The personality of a person is determined by the balance of his or her body fluids; the predominant fluid determined his or her personality (Feist & Feist, 2009).

The dispositional theory still explains that a person with introversion keeps to his or herself and is not very social whereas a person with extraversion is outgoing and involves his or herself in the lives of other people. Neuroticism refers to an individual's tendency to become easily upset or emotional versus emotional stability that refers to a person who is emotionally constant. A person who has neuroticism may find it difficult to keep relationships with other people because of his or her unstable emotions.

Individuals who are emotionally stable may have an easier time keeping and making friends because of their emotional consistency. Eysenck's psychoticism personality type refers them as an individual who displays mentally unstable characteristics or an individual who suffers from mental illness. Individuals with psychoticism have the most difficulty with relationships because of his or her illnesses. An illness can put a strain on a person's social skills therefore; relationships with others can have restrictions (Feist & Feist, 2009).

# 2.2 Conceptual Framework

# UNEB examiners' personality (IV) Effectiveness of CBS of marking (DV)



**Source:** Developed by the researcher basing on Eastman's dispositional theory of (1936)

In the conceptual frame work above, UNEB examiners' personality (IV) is influencing conveyor belt system of marking (DV) in terms of attitudes, values and beliefs, these factors enhance conveyor belt system of marking in relation to time, quality and cost. However, this process is either negatively or positively affected by intervening variables such as government policies and number of students sitting exams.

Laverne (1990) noted that personality is the sum total of behaviors, attitudes, values that are characteristic of an individual plus the traits of examiners like variable making speed, time management abilities, feminine and masculine traits, tendencies of absenteeism still need a further consideration on their impact in the reliability of the exam results produced. No critical attention is given to the personalities of examiners and their traits on CBS marking effectiveness.

According to Luthans (1981), Personality means how people affect others and how they understand and view themselves as well as their pattern of inner and outer measurable traits and the person situation interactions.

Williams (2003) defined personality as the relatively stable set of behaviors, attitudes and emotions displayed over time that make people different from others.

Personality is the total sum of characteristics ways of thinking, feeling and behaving that constitutes the individuals distinctive method of relating to the environment (Jerome, 1995).

#### 2.3 Literature review

#### Examiners' personality and effectiveness of Conveyor Belt System

Jerome (1995) noted that attitude includes the sum total of behaviours, beliefs and values that are characteristic of an individual. Attitude also means how people affect others and how they understand and view themselves as well as their pattern of inner and outer measurable traits and the person situation interaction. It is the relatively stable, set of behaviours, attitudes and emotions displayed overtime that makes people different from others. It is the total pattern of characteristic ways of thinking, feeling and behaving that constitutes the individual's distinctive method of relating to the environment (Jerome, 1995).

According to Williams (2003), attitude is all about a way of thinking, acting or feeling of a person. UNEB examiners make judgments about the candidates answer. Depending on experience and knowledge ability of the marker. The thinking of a marker greatly affects the outcome of the result which will be produced. Feelings about where the student is coming from may bias thinking of the examiner during marking.

Behaviour is a way of actions or acts or acting of an individual. Behaviour is chiefly learned as a result of group and cultural experiences. Examiners actions like coming late in making, hurriedly or slowly marking papers have impacts on the reliability of the marks obtained (Gareth, 2009).

Jung (2002) connoted that belief is that which is held true by a person or is a firm opinion and acceptance of a fact or statement. Individual beliefs on quality of answers to be produced, hand writing of learners may affect marks reliability from the various markers.

Morrison (1999) showed that Values are ones principles or standards making him/her to judge what is valuable or important in life. People affect others primarily depending upon their external appearance (height, weight, facial features, color and other physical aspects) and behaviour (Vulgar, friendly, courteous and so on).

Another functional strategy to increase effectiveness is the use of self-managed work teams. The typical team consists of 5 to 15 employees who produce an entire product instead of just parts of it. Team members learn all team tasks and move from job to job. The result is flexible work force, because team members can fill in for absent coworkers. The members of each team also resume responsibility for scheduling work and vacations, ordering materials and hiring new members. Previously all responsibilities of first time managers because people often respond well to being given greater autonomy and responsibility, the use of empowered self-managed teams can

increase productivity and effectiveness. Moreover cost savings arise from eliminating supervisors and creating after organizational hierarchy, which further increases effectiveness.

According to Gareth (2009) the effect of introducing self-managed team is often an increase in effectiveness of 30% or more, sometimes much more. After the introduction of flexible manufacturing technology and self-managed teams, a GE (general electric) plant in Salisbury, North Carolina, increased effectiveness by 250% compared with GE plants producing the same products (Gareth, 2009).

According to Bukenya (2006), in the CBS examiners are organized in groups. Each group is composed of a team leader, a starter, markers, and checkers. Each marker marks only a set of questions and passes the candidate's answer script to the next marker who will also just mark the set of questions allocated to him/her. The marked scripts are passed over to the checkers, who are also examiners, to check through the script for any errors. Any errors detected are referred immediately to the markers to correct. Finally the team leader samples ten percent of the scripts in an envelope and remarks to assess the consistency in marking and interpretation of the marking scheme. Based on Okelowange's (2004) experimental results, CBS was piloted in PLE marking of the year 2003 and the examiners were happy with CBS and recommended that it should be adopted in marking all PLE scripts with effect from year 2004 (Okelowange, 2004).

A mark is a score awarded to a student by an examiner based on his /her judgement (Ofqual, 2013). In traditional centralized marking, the system involves one Marker marking the whole script and that sitting Centre. Each Marker is assigned scripts to mark by the Chairperson of the department According to Bukenya, (2006), the process starts with the Chief Examiner and Senior examiners developing question

papers and marking guides. The senior examiners train their markers how to apply the marking scheme (Ofqual, 2011).

Some attempts to link personality traits with marking performance have been made. Branthwaite, et al (1981) examined relationship between 15 markers and discovered that marking may be influenced by desire for social acceptance. That depending on the personality of the marker, consideration of social interaction may bias markers objectivity. Therefore in a CBS a naturally fast marker will have to slow his speed or slow one has to raise the speed so that he or she is socially acceptable by the group.

Greatorex and Bell (2000) had examiners of GCSE English (104) food technology (53) and History (35) complete the Bem sex role inventory. This provides a measure of self-reported possession of socially desirable, stereotypically masculine and feminine personality traits. Examiners who rated themselves highly on the masculinity scales were more likely to be team leaders. The masculinity scales are made up of dominant/assertive traits and self-sufficiency/decisive traits.

Greotorex and Bell saw this as unsurprising since team leaders need to be decisive. The appointment of team leaders is under the control of awarding board staff who presumably perceive these traits to be important in fulfilling the team leader's roles. Team leaders did not however rate themselves highly on traits that could be useful for developing people's skills; which is another important aspect of the role. Given the association between examiner rank and self-perceived sex role, investigation on the relationship between examiner responses to the role inventory and reliability may be valuable. In CBS the decisive traits, dominant traits and assertiveness are also useful in choice of the team leader.

# **Examiners' attitudes on effectiveness of Conveyor Belt System**

Suto et al (2011) noted that that CBS markers with positive attitudes towards work regarded as fast and accurate Markers can mark their allocated question(s) and go on to assist in marking questions assigned to them by the Belt Marking Supervisor. This group of Markers is important in that they can as well assist slow Markers, they are versatile and knowledgeable in a number of topics.

Personality in terms of attitude can be viewed as the dynamic organization of those traits and characteristic patterns of behavior that are unique to the individual (Callahan, 1966). Some social psychologists express that personality is entirely a matter of social awareness -which is pointless to talk about anyone's personality separated from the particular people who intermingle with him, get impersonation about him, and use trait terms in unfolding him (Holt, 2003).

Morrison (1999) denoted that attitude aids teaching, for communication to take place between the teacher and the learner even in the absence of the spoken word (nonverbal communication). The teacher whose attitude helps create and preserve a classroom or learning environment in which students feel content personality. Each individual has characteristic attributes of personality which manipulate both the manner in which he behaves toward others and the ways in which they act in response to him/her. The teacher with invasive dictatorial characteristics, for example, is likely to reproduce them in his relationships with students and in the techniques he uses in his instruction (Morrison, 1999).

Nelson (1964) reported that teachers and pupils in junior diverge considerably in expressions of their attitudes toward each other. He found that teachers are cognitively leaning toward pupils while pupils are affectively sloping towards teachers. Teacher personality is, therefore, straightforwardly and indirectly related to learning and

teaching in the affective domain as well as to that in cognitive and psychomotor domains.

# Examiners' values on effectiveness of conveyor belt system

Barbian (2001) argued that becoming aware of one's type of values and the personality type of values of others can be helpful in mounting intra-personal and inter-personal development. Personality recognition has been used for many purposes in various organizations; to forecast a worker's attitude to fill definite roles, to set up pleasant sounding relationships, to conclude team effectiveness, and to predict future behavior (Barbian, 2001).

Jung (2002) assumes that people are dissimilar from each other in realistic types consisting of pairs of opposites. The first pair describes the way people gain their energy. Some people are thrilled by interacting with others and are tuned to the outer world of measures. Others are more thoughtful with the inner self and are thrilled by their own judgment and thoughts. These two boundaries are termed Extraversion (E) and Introversion (I). The second pair in approach relates to the way recognize and acquire information. These avenues of gaining are termed Sensing (S) Intuition (N). Individual's principal in the Sensing direction carefully examines information and employ all of their senses in their investigations. They are reality based and are thorough in investigation if the data they have carefully collected. who are spontaneous (N's) rely on their instincts and trust their Individuals "sixth sense" to collect information. Two modes of decision and methods of reaching decisions are labeled; Thinking (T) and Feeling (F). Thinkers are objective, logical and reasonable, and consider data in reaching conclusions. They are able to suspend their personal feelings when they logically resolve a dilemma. In contrast, Feelers are subjective and thoughtful of sentimental outcomes to precise situation. Feelers consider how their decisions will crash others (Jung, 2002).

Billington (2007) noted that on payment for the scripts marked and the recommendation that examiners should be paid according to the scripts marked by the team is an appropriate one. The members of the team should include the team leader, checkers, starter and markers. The team leader could be given a top up of 20% of the group marking fee, 20% may be changed to fit with the available funds. This ensures that the team leader gets more than the assistant examiners. The value may not be the same for all teams and this will mean that even the TLs may not get uniform rate. The pay should reflect the amount of work the TL has put in, for CE (certificate education) and ACE (advanced certificate education) flat fixed rate should be maintained (Billington, 2007).

Moira (2011) noted that use of 'Gunners' to mark challenging questions is regarded as a soldier who can shoot with accuracy and precision. Markers who are fast and accurate should be used to mark more challenging questions in a group. The Team leader therefore has to identify markers strengths and weaknesses and see where the marker can perform efficiently. These Markers can also be allocated questions which were answered by many Candidates. Therefore mark reliability in item level marking can be achieved by allocating complex questions to more experienced markers and simple questions to junior markers.

#### Examiners' beliefs on effectiveness of conveyor belt system

Ofqual, (2011) argued that the belt Supervisor can allow Markers to select questions to mark which they are comfortable with and then decide what to do with the remaining questions if any according to their personal values. This is important in that Markers would mark those questions they have knowledge, mastery of content and the marking guide. Allocating demanding questions to each marker by the Belt Marking Supervisor can identify demanding and most challenging questions first and allocates each of the demanding question to each of the markers. The remainder should

then be distributed accordingly as determined by number of questions each Marker is going to mark.

Taylor (2010) noted that consistency in the application of marking scheme depends on a marker's belief to ensure reliability in the marking process. Its better markers to be placed into teams by the Chief examiner under the supervision of the Team Leader and the Team leader selects some scripts for moderation to check adherence to the marking scheme. A Marker exceeding agreed deviation depending on the subject could be asked to do a remarking. After marking scripts, checkers look for errors on the marked scripts as well as transcription of marks onto the mark sheets. After the Marker has completed marking, the marks should be entered on the mark sheets and this goes through various boards for approval, grading, and publication of results. New developments in marking include automated marking which uses optical mark recognition software to mark multiple choice exams. There is also on-screen marking whereby candidates' scripts are scanned onto a computer for marking by Examiners (Chamberlain, 2010).

According to Bukenya (2006) the conveyor belt marking involves organizing markers into groups in which each Marker is assigned a question(s) to mark by the Team Leader. This type of marking is also referred to as item level marking [Ofqual, 2013]. Item level marking reduces bias (halo effect) and remove the influence of one marker on the script [Pinot de Moira, 2011; Spear, 1996]. The process of Belt marking starts with allocation of marking scripts to the Belt Marking Supervisors (BMS). The Supervisor and his/her team open the scripts and start the process of tallying with his/her team. This involves counting and recording the number of students who answered each of the questions for each and every Centre that wrote the examination. Each Marker is assigned a question(s) to mark. A script control movement form is filled in to account for the movement of scripts. The Supervisor can adjust the allocation of the

question if there is a need. Difficult questions can be allocated to seasoned markers while the less experienced markers are assigned easy questions (Suto, 2011).

#### Research gap

The dispositional theory of Eastman (1936) only talks about how people display consistency in their actions, thoughts, and feelings between situations and over time, but it doesn't show how the effectiveness of such individuals exist. The dispositional theory most especially considers people as "types" or alternatively it views people's dispositions in terms of their enduring motivational characteristics that vary in strength from person to person (i.e. their needs and motives) but it does not indicate how peoples' personality influence their works in any aspect. Feist & Feist (2009) noted that the personality of a person is determined by the balance of his or her body fluids; the predominant fluid determines his or her personality, but they did not consider the environmental factors and remuneration which seem to be the major factor influencing peoples' personalities at any work. In a similar way this kind of research has never been carried out all over Uganda, so the researcher found it necessary to carry out research all over Uganda as it was identified as a geographical gap.

# CHAPTER THREE METHODOLOGY

#### 3.0 Introduction

This chapter presents the research design, population, sampling strategies, data collection methods, data quality control, procedure and data analysis used in this study.

#### 3.1 Research Design

This study utilized the descriptive correlation research design to establish the relationship between UNEB examiners' personality and effectiveness of conveyor belt system of marking in Uganda. Descriptive correlation involved ascertaining the relationship between variables (Oso & Onen, 2008). It dealt with testing of hypothesis and development of generalizations and use of theories that have universal validity. It also involved events that had already taken place and be related to present conditions (Amin, 2005). The choice of the design based on the researcher's intention to investigate the relationship between two variables.

#### 3.2 Population

The study had UNEB examiners of UCE and UNEB officials at Ntinda. Five different UNEB officials were visited at the UNEB headquarters in Ntinda, 261 examiners were selected all over the country in different regions and subjects. The researcher had to move to UNEB office to get information. The examiners had to be conducted at their various schools after getting data from schools visited, examiners were also got during SESEMAT training.

UNEB examiners were the respondents for this study because they are the ones who knew/remembered the errors they made during marking due to their different personalities and remember how it affects reliability of the marks produced. Team leaders normally get differences in totaling, crossing correct answer and the examiners

know well why they or their friends do such thinks. UNEB officials were respondents because in every marking session, the team leaders, chief examiners and assistant chiefs compile conduct of each examiner and record errors each examiner makes during marking and give overall information on the reliability of the marks scored in relation to errors made by the examiners.

# 3.3 Sample Size

The Sloven's formula was used to determine the sample size.

$$n = 261$$

$$1 + 261 (0.05)^{2}$$

$$n = 261$$

$$1 + 261(0.0025)$$

$$n = 177$$

#### 3.4 Sampling Procedure

Officials from UNEB were selected using purposive random sampling method.

Respondents were selected according to the researcher's judgment with out lined inclusion and exclusion criteria. This made it easier for the researcher to get information from the UNEB officials who had busy schedules

For examiners Snow ball random sampling method was used. Here the researcher net worked with the examiners. The researcher got access one respondent that respondent helped to direct the researcher to another respondent and another until the sample size

was reached (Babbie, 1990). This method was more fitting because UNEB office was unwilling to release data about the examiners for matters of secrecy and integrity

#### 3.5 Research Instruments

Data was collected using both interview guides and questionnaire; Questionnaires were both closed and open ended. Open ended questions were advantageous in that they presented no response options to respondents. Respondents were instructed to respond in their own style (Boyd et al, 2000). Both structured and unstructured questionnaires were used to collect data. A structured questionnaire was used as it contained a list of possible alternatives from which respondents could select answer that best suit their situation.

# 3.6 Validity and Reliability of Research Instruments Validity

# i. Testing the validity of the research instrument

The questionnaire was given to three lecturers to judge the validity of questions according to the objectives. After the assessment of the questionnaire, the necessary adjustments were made bearing in mind the objectives of the study. Then a content validity index (CVI) was obtained using the following formula,

$$CVI = \frac{No.of questions declared valid}{total No.of questions in the question naire}$$

A CVI of 0.89 was used to declare that the research instrument was valid since it was above 0.7 which is the minimum CVI index required to declare a research instrument valid (Amin, 2005).

# ii. Reliability of the instrument

To ensure reliability of the instrument, the test-retest method was used in order to test the reliability of the questionnaire; here the researcher pre-tested the questionnaire on a few people before administering it to the sample size. The researcher gave the questionnaire to a few respondents (10 people) to be answered, after a period of two

weeks, the researcher again gave the same questionnaire to the same group (10 people) to answer it again, responses from the first time (test) were compared to responses of the second test (re-test) by running a t-test analysis using SPSS and the results were 0.004 which was  $\leq$ 0.05 (Amin, 2005).

#### 3.7 Data Gathering Procedure

After authorization from the university the researcher took and sent questionnaires and interview guide to the respondents for answering the set questions. This had to take two to three weeks and then the researcher sat down for tabulation of data to get out the useful information to answer the set questions.

During the research, the researcher employed different methods for data collection during the study. Other methods such as questionnaires, observation and documentary analysis were also used.

Key respondents were sampled purposively to provide detailed and authentic information for the study. The UNEB examiners were the main target group, but they were sampled randomly for interviews and Focus Group Discussions.

The research based on both the reviewing of secondary data and collection of primary information from the examiners. Some of the sources/methods used in collection of data were;

On top interviews, observation coupled with listening were used to collect data on process involved: how conduct of examiners during a marking session were requested from UNEB office in Ntinda and how this has been used to cause improvements was got After receiving the Questionnaires, the researcher edited the Questionnaires for completeness and correctness.

#### 3.8 Data Analysis

he frequency and percentage distributions were used to determine the demographic haracteristics of the respondents. The means and standard deviations were applied in

order to assess the extent of UNEB examiners' personality and efficiency of conveyor belt system of marking.

The following mean ranges and descriptions were used to interpret responses:

### For the extent of UNEB examiners' personality

Mean Range	Response Mode	Interpretation	
3.26-4.00	Strongly agree	Very satisfactory	
2.51-3.25	Agree	Satisfactory	
1.76-2.50	Disagree	Unsatisfactory	
1.00-1.75	Strongly disagree	Very unsatisfactory	

### For the effectiveness of conveyor belt system of marking

Mean Range	Response Mode	Interpretation	
3.26-4.00	Strongly agree	Very high	
2.51-3.25	Agree	High	,
1.76-2.50	Disagree	Low	
1.00-1.75	Strongly disagree	Very low	

he researcher used Pearson's linear correlation coefficient (PLCC) to analyze the elationship between UNEB examiners' personality and efficiency of conveyor belt system of marking.

#### 3.9 Ethical considerations

To ensure utmost confidentiality for the respondents and the data that was provided by them as well as reflecting on the ethics practiced in this study, the research was guided by the principles of respect for people, beneficence, and justice. The researcher ensured that rights, including the right to be informed about the study, the right to freely decide whether to participate in the study, and the right to withdraw at any time without penalty was considered. The participants were requested to sign an informed consent assuring them that all data collected was coded to protect their identity and privacy.

### 3.10 Limitations of the study

*Testing*: There was use of research assistants in the administration of the questionnaires in terms of time of administration, understanding of the items in the questionnaires and explanations given to the respondents.

*Extraneous variables* were beyond the researcher's control such as respondents' honesty, personal biases and uncontrolled setting of the study.

Attrition/Mortality: Not all questionnaires were returned as neither completely answered nor even retrieved back due to circumstances on the part of the respondents such as travel, sickness, hospitalization and refusal/withdrawal to participate. In anticipation to this, the researcher reserved more respondents by exceeding the minimum sample size. The respondents were reminded not to leave any item in the questionnaires unanswered and were closely followed up as to the date of retrieval.

### **CHAPTER FOUR**

### DATA PRESENTATION, ANALYSIS AND INTERPRETATION OF RESULTS

#### 4.0 Introduction

This chapter presents the profile information of respondents, the UNEB examiners' personality, extent of effectiveness of the CBS of marking, the effect of UNEB examiners' attitudes on effectiveness of conveyor belt system of marking in Uganda, the effect of UNEB examiners' values on effectiveness of conveyor belt system of marking in Uganda and the effect of UNEB examiners' beliefs on effectiveness of conveyor belt system of marking in Uganda.

### 4.1 Profile of respondents

Respondents were asked to provide information regarding their age, gender, marital status, education level and number of years spent while working with the examination body, their responses were summarized using frequencies and percentage distributions as indicated in table1 below;

Table 4.1

Profile of respondents

Category	Frequency	Percent
Age		
20-29 years	27	15.3
40-49 years	57	32.2
30-39 years	87	49.2
50 years and above	6	3.4
Total	177	100
Gender		
Male .	101	57.1
Female	76	42.9
Total	177	100
Marital Status		
Single	54	30.9
Married	113	64.6
Divorced	10	5.6
Total	177	100
Educational qualification		
Diploma	70	40
Bachelors degree	91	51
Masters degree	16	9
Total	177	100
Number of years spent while working with the examination body		
Below 2 years	13	7.3
3-5 years	36	20.4
6-9 years	78	44.1
10 years and above	50	28.2
Total	177	100

# Source: Primary Data, 2015

Results in table 4.1 indicated that majority of respondents in this sample ranged between 30-39 years of age (49.2%), this also implied that that majority of respondents in this sample were in their middle adulthood, these were followed by

those between 40-49 years of age constituting (32.2%), 15.3% were between 20-29 years and only 3.4% were 50 years and above.

Table 4.1 results indicated that majority of the respondents in this sample were male (57.1%) as compared female respondents 76 (42.9%), hence implying a gender gap since majority of UNEB examiners in the conveyor belt system of marking in Uganda are male. With respect to marital status, results in table 4.1 indicated that majority of respondents in this sample were married (64.6%), 30.9% were single and only 5.6% were divorced.

With respect to education qualification; the study further showed that bachelor's degree holders (51%) dominated the study, diploma holders (40%) and these were followed by masters degree holders (9%), hence observing that majority of UNEB examiners in the conveyor belt system of marking in Uganda are relatively qualified in academics.

With respect to the number of years spent while working with the examination body, results in table 4.1 indicated that majority of UNEB examiners had worked with UNEB for 6-9 years (44.1%), 28.2% had worked for 10 years and above, 20.4% had worked for 3-5 years and only 7.3% had worked for below 2 years, hence implying that the UNEB examiners in this sample had enough marking experience.

### 4.2 UNEB examiners' personality

The independent variable in this study was the UNEB examiners' personality and it was broken into three constructs and these are; attitude (with five items/questions), beliefs (with four questions) and values (with 5 questions). Each of these questions were based on a four point Likert scale where respondents were asked to indicate the extent to which they agree or disagree with each question, and their responses were analyzed using SPSS and summarized using means and ranks as indicated in table 4.2 below;

Table 4.2
UNEB examiners' personality

Orted Chairmiers personality					
Items on UNEB examiners' personality	Mean	Interpretation	Rank		
Attitude					
JNEB examiners have positive attitudes towards the CBS of marking	3.18	Satisfactory	1		
Members in a group a conveyor belt system of marking are always comfortable with the speed the group adopts	3.05	Satisfactory	2		
Examiners with extremely high speed make no errors when making	2.85	Satisfactory	3		
JNEB examiners always express favour when marking	2.56	Satisfactory	4		
Members in a conveyor belt system of marking have the same marking speed	2.34	Unsatisfactory	5		
Average mean	2.80	Satisfactory			
Belief					
You have a feeling that a candidate's handwriting may affect his or ner marks	2.98	Satisfactory	1		
All UNEB examiners have stable emotions displayed overtime which make them different	2.85	Satisfactory	2		
JNEB examiners in the CBS have the same beliefs on the quality of answers produced by different candidates	2.69	Satisfactory	3		
fou believe that using a CBS of marking is the only best way exams can be marked	1.74	Unsatisfactory	4		
Average mean	2.57	Satisfactory			
/alues					
The examiners always apply their values appropriately regardless of negative comments from colleagues	3.26	Very satisfactory	1		
Decisive and assertive examiners have always ended up being seam leaders	3.01	Satisfactory	2		
JNEB examiners have same principles applied during marking	2.84	Satisfactory	3		
Personal values develop from circumstances surrounding different examiners in the CBS of marking	2.60	Satisfactory	4		
Guidance is given to new markers adequately by team leaders	2.42	Unsatisfactory	5		
Average mean	2.83	Satisfactory			
Overall mean	2.73	Satisfactory			

## Key for interpretation of means

Mean range	Response range	Interpretation
3.26 - 4.00	strongly agree	Very satisfactory
2.51 - 3.25	Agree	Satisfactory
1.76 - 2.50	Disagree	Unsatisfactory
1.00 - 1.75	strongly disagree	Very unsatisfactory

Results in table 4.2 indicated that UNEB examiners' personality was generally rated satisfactory and this was indicated by the overall mean of 2.73, implying that the UNEB examiners' personalities are good and therefore fit to mark the exams.

Regarding methods of attitude; results indicate that this construct was rated as satisfactory and this was indicated by the average mean (mean=2.80), hence implying that UNEB examiners have positive attitudes towards the conveyor belt system of marking. Still results indicated that some members in a group of a conveyor belt system of marking are always comfortable with the speed the group adopts (mean=3.05), the examiners with extremely high speed make no errors when making (mean=2.85) and examiners always express favour when marking (mean=2.56), still the results indicated the fact that UNEB examiners in a conveyor belt system of marking always don't have the same marking speed (mean=2.34), hence implying that UNEB examiners in a conveyor belt system of marking always don't produce the same output since some of the examiners' speed in marking is low.

With respect to belief; results in table 4.2 indicated that four items were used to measure this construct and it was also rated satisfactory on average and this was indicated by the average mean of 2.57, hence implying that UNEB examiners in this sample have a feeling that a candidate's handwriting may affect his or her marks. Still the results indicated that all UNEB examiners have stable emotions displayed overtime which make them different (mean=2.85), the UNEB examiners in the CBS have the same beliefs on the quality of answers produced by different candidates (mean=2.69), and some of UNEB examiners don't believe that using a CBS of marking is the only best way exams can be marked (mean=1.74), and this implies that there are other better

marking systems of exams which can be used by UNEB but not only the conveyor belt system.

With respect to values; results in table 4.2 indicated that values as the last construct on the independent variable was measured using five items (questions) and it was rated satisfactory on average (mean=2.83), and this implied that UNEB examiners have always tried to apply their values appropriately regardless of negative comments from colleagues. The results further indicated that the following items were rated satisfactory; decisive and assertive examiners have always ended up being team leaders (mean=3.01), UNEB examiners have same principles applied during marking (mean=2.84), Personal values develop from circumstances surrounding different examiners in the CBS of marking (mean=2.60). The results in table 4.2 further indicted the fact that guidance is given to new markers adequately by team leaders (mean=2.42), this item was rated unsatisfactory which implied that the new markers are not adequately given guidance by team leaders.

### 4.3. Effectiveness of the CBS of marking

Effectiveness of the CBS marking is the dependent variable in this study and was measured using three constructs and these are; time (with five questions), quality (with five items) and cost (with five items). Each of these questions was based on a four point Likert scale and respondents were asked to rate the effectiveness of the CBS marking by indicating the extent to which they agree or disagree with each question, also their responses were analyzed using SPSS and summarized using means as indicated in tables 4.3 below;

Table 4.3
Effectiveness of the CBS of marking

ems on effectiveness of the CBS of marking	Mean	Interpretation	Rank
me			
Its/groups complete their work earlier and do not delay the arking exercise	3.30	Very satisfactory	1
examiners in a group report on time during early morning time	3.15	Satisfactory	2
members in a belt complete totaling of marks on time for smooth arking in the belt	2.85	Satisfactory	3
embers in a belt complete part allocated to them in the right time make marking process to flow smoothly	2.69	Satisfactory	4
aminers in a centre all report on time for marking	2.49	Unsatisfactory	5
'erage mean	2.90	Satisfactory	
ıality			
rrect interpretation and usage of marking scheme	3.29	Very satisfactory	1
nat examiners have totaled is always what the team leader of nfirms	3.18	Satisfactory	2
taling of marks on a marked script is always correctly done	2.81	Satisfactory	3
examiners count ticks both forewords and backwards to confirm alon a script	2.55	Satisfactory	4
work on a script is left unmarked by examiner while using CBS	2.31	Unsatisfactory	5
erage mean	2.85	Satisfactory	
st			
commodation is always provided to examiners	3.37	Very satisfactory	1
muneration of examiners is always done on basis of papers irked	3.22	Satisfactory	2
aminers' transport is always catered for the management of UNEB	2.90	Satisfactory	3
ere is always additional money to cater for examination expenses	2.66	Satisfactory	4
ly productive and not expensive examiners are used by UNEB to reliable marks using CBS	2.47	Unsatisfactory	5
erage mean	2.92	Satisfactory	
erall mean	2.89	Satisfactory	

Source: Primary Data, 2015

Regarding cost; this construct was also measured using five questions and it was rated satisfactory on average (mean=2.92), hence implying that the CBS of marking always involves the accommodation, remuneration, transport and additional money costs when provided to examiners and these costs are not much compared to the amount of work they produce.

# 4.4 Objective one; examining the effect of UNEB examiners' attitudes on effectiveness of conveyor belt system of marking in Uganda

The first objective in this study was to examine the effect of UNEB examiners' attitudes on effectiveness of conveyor belt system of marking in Uganda. The researcher stated a null hypothesis that there is no significant relationship between UNEB examiners' attitudes and effectiveness of conveyor belt system of marking in Uganda. Therefore to achieve this objective and to test this null hypothesis, the researcher correlated the means on UNEB examiners' attitudes and that on effectiveness of conveyor belt system of marking in Uganda by using the Pearson's Linear Correlation-Coefficient as indicated in table 4.4 below;

Table 4.4

Relationship between UNEB examiners' attitudes and effectiveness of conveyor belt system of marking in Uganda

Variables correlated	r-value	Sig	Interpretation	Decision on Ho
UNEB examiners' attitudes  Vs  Effectiveness of conveyor belt system of marking	.432	.003	Significant correlation	Rejected

Source: Primary Data, 2015

Results in table 4.4 indicated a positive significant relationship between UNEB examiners' attitudes and effectiveness of conveyor belt system of marking in Uganda, since the sig. value (0.003) was less than 0.05 and which is the maximum level of

significance required to declare a significant relationship in social science. This implies that positive UNEB examiners' attitudes increases the of effectiveness of conveyor belt system of marking in Uganda, and negative UNEB examiners' attitudes reduce it, hence the stated null hypothesis was rejected basing on these results and hence concluding that positive UNEB examiners' attitudes highly influence the effectiveness of conveyor belt system of marking in, Uganda.

# 4.5 Objective two; establishing the effect of UNEB examiners' values on effectiveness of conveyor belt system of marking in Uganda

The second objective in this study was to establish the effect of UNEB examiners' values on effectiveness of conveyor belt system of marking in Uganda, to achieve this objective and to test this null hypothesis, the researcher used the Pearson's Linear Correlation Coefficient as indicated in table 4.5;

Table 4.5

Relationship between UNEB examiners' values and effectiveness of conveyor belt system of marking

Variables correlated	r- value	Sig	Interpretation	Decision on Ho
UNEB examiners' values Vs	.896	.001	Significant correlation	Rejected
Effectiveness of conveyor belt system of marking				

Source: Primary Data, 2015

Results in table 4.5 indicated a positive significant relationship between UNEB examiners' values and effectiveness of conveyor belt system of marking in Uganda, since the sig. value (0.001) was less than 0.05 and which is the maximum level of significance required to declare a significant relationship in social science. This implies that good UNEB examiners' values highly contribute to the effectiveness of conveyor belt system of marking in Uganda, here the stated null hypothesis was rejected basing

Key to interpretation of means								
Mean range	Response range	Interpretation						
3.26 - 4.00	strongly agree	Very satisfactory						
2.51 - 3.25	Agree	Satisfactory						
1.76 - 2.50	Disagree	Unsatisfactory						
1.00 - 1.75	strongly disagree	Very unsatisfactory						

Results in table 4.3 indicated that the effectiveness of the CBS marking (dependent variable) is generally satisfactory and this was indicated by the overall mean of 2.89, which implies that the marking of exams using the conveyor belt system is done effectively without biases.

Time; this was the first construct on the dependent variable and was measured using five questions in the questionnaire and it was rated satisfactory on average (mean=2.90), hence implying that the belts/groups complete their work of marking earlier as expected and not delay the marking exercise. All examiners in a group report on time during early morning time (mean=3.15), all members in a belt complete totaling of marks on time for smooth marking in the belt (mean=2.85), members in a belt complete part allocated to them in the right time to make marking process to flow smoothly (mean=2.69), this implied that the examiner report on time during early morning which help them complete totaling of marks on time and hence completing the part allocated work in the expected period.

Concerning quality, results in table 4.3 indicated that this construct was rated satisfactory on average and this was indicated by the average mean of 2.85, which implied that the correct interpretation and usage of marking scheme is highly followed by UNEB examiners during the marking of exams. The results still indicated that what examiners have totaled is always what the team leader confirms (mean=3.18) and totaling of marks on a marked script is always correctly done by the examiners (mean=2.81), all examiners count ticks both forewords and backwards to confirm total on a script (mean=2.55). The results still indicated that; no work on a script is left unmarked by examiner while using CBS (mean=2.31), this item was rated unsatisfactory which implied that some of the questions on a script are left unmarked by examiner when using CBS marking.

on these results and hence concluding that good UNEB examiners' values significantly increases the efficiency of conveyor belt system of marking in Uganda.

# 4.6 Objective three; assessing the effect of UNEB examiners' beliefs on effectiveness of conveyor belt system of marking in Uganda

The third objective in this study was to assess the effect of UNEB examiners' beliefs on effectiveness of conveyor belt system of marking in Uganda, for which it was hypothesized that UNEB examiners' beliefs and effectiveness of conveyor belt system of marking were significantly correlated. To test this null hypothesis, the researcher correlated the mean indices on UNEB examiners' beliefs and those on effectiveness of conveyor belt system of marking using the Pearson's Linear correlation Coefficient (PLCC) and results are indicated in table 4.6 below;

Table 4.6

Relationship between UNEB examiners' beliefs and effectiveness of conveyor belt system of marking

Variables correlated	r- value	Sig	Interpretation	Decision on Ho
UNEB examiners' beliefs Vs Effectiveness of conveyor belt system of marking	.922	.000	Significant correlation	Rejected

Source: Primary Data, 2015

The Pearson's Linear correlation Coefficient (PLCC) results in table 4.6 indicated a positive significant relationship between UNEB examiners' beliefs and effectiveness of conveyor belt system of marking in Uganda, since the sig. value (0.000) was far less than 0.05, which is the maximum level of significance required to declare a significant relationship in social sciences. Therefore this implies that favorable UNEB examiners' beliefs can improve on the effectiveness of conveyor belt system of marking and unfavorable examiners' beliefs reduce it.

## 4.7 Regression Analysis

Table 4.7

Regression Analysis between the Dependent (effectiveness of conveyor belt system of marking) and Independent Variable (UNEB examiners' personality)

Variables regressed	Adjusted r <sup>2</sup>	F- value	Sig.	Interpretation	Decision on H <sub>o</sub>
Effectiveness of conveyor belt system of marking <b>VS</b>	.793	29.116	.000	Significant effect	Rejected
UNEB examiners' personality					. •
Coefficients	Beta	t-	Sig		
		value	_		
(Constant)	1.411	9.335	.000	Significant effect	Rejected
Attitude	.527	7.683	.000	Significant effect	Rejected
Values	.361	4.959	.000	Significant effect	Rejected
Beliefs	.424	5.755	.000	Significant effect	Rejected

Source: Primary Data, 2015

Regression analysis results in table 4.7 above revealed that UNEB examiners' personality accounted for 79.3% on effectiveness of conveyor belt system of marking in Uganda and this was indicated by adjusted r squared of 0. 793 leading to a conclusion that UNEB examiners' personality significantly affect the effectiveness of conveyor belt system of marking in Uganda. The coefficients table further indicated that among all the aspects of UNEB examiners' personality, the methods of attitude accounted for the biggest influence on of effectiveness of conveyor belt system of marking in Uganda ( $\beta$ =0.527, Sig=0.000).

#### **CHAPTER FIVE**

### DISCUSSIONS, CONLUSIONS AND RECOMMENDATIONS

#### 5.0 Introduction

This chapter presents the findings, conclusions, recommendations and suggested areas that need further research following the study objectives and study hypothesis.

#### 5.1 Discussions

This study was set to establish the effect of UNEB examiners' personality on effectiveness of conveyor belt system of marking in Uganda, three specific objectives guided this study and these were i) to examine the effect of UNEB examiners' attitudes on effectiveness of conveyor belt system of marking in Uganda; ii) to establish the effect of UNEB examiners' values on effectiveness of conveyor belt system of marking in Uganda and (iii) to assess the effect of UNEB examiners' beliefs on effectiveness of conveyor belt system of marking in Uganda.

# Objective one; examining the effect of UNEB examiners' attitudes on effectiveness of conveyor belt system of marking in Uganda

The first objective in this study was to examine the effect of UNEB examiners' attitudes on effectiveness of conveyor belt system of marking in Uganda, the findings indicated that there exists a positive and significant relationship between UNEB examiners' attitudes and effectiveness of conveyor belt system of marking in Uganda (r=.432; Sig=0.003), this relationship therefore implies that that positive UNEB examiners' attitudes increases the of effectiveness of conveyor belt system of marking in Uganda, and negative UNEB examiners' attitudes reduce it. This finding is also in line with Moira (2011) who noted that use of CBS to mark challenging questions is regarded as a soldier who can shoot with accuracy and precision. Markers who are fast and accurate should be used to mark more challenging questions in a group. He added that the team leader therefore has to identify markers' attitudes, strengths weaknesses and see where the marker can perform efficiently. These Markers can also be allocated questions which were answered by many Candidates. Therefore mark reliability in item level marking can be achieved by allocating complex questions to more experienced markers and simple questions to junior markers.

This finding is also in line with Williams (2003) who noted that attitude is a way of thinking, acting or feeling of a person. UNEB examiners make judgements about the candidates answer. Depending on experience and knowledge ability of the marker, the thinking of a marker greatly affects the outcome of the result which will be produced. Feelings about where the student is coming from may bias thinking of the examiner during marking. During interview sessions examiners revealed that examiners are not allowed to mark scripts of schools they teach in, this is order to eliminate bias towards such schools. Whereas Suto et al (2011) found out that CBS markers with positive attitudes towards work are regarded as fast and accurate markers who can mark their allocated question(s) and go on to assist in marking questions assigned to other markers by the belt marking supervisor the interview guide argued that such speedy markers put pressure on the slow markers which often result into unnecessary errors. However fast markers are important in that they are versatile, knowledgeable in a number of topics and they can as well assist slow markers (usually called as the speed governors). This results in saving of time for the overall CBS and it also helps slow markers not to make errors due to pressure which would have been created. The findings of the study are also in line with that of Greatorex and Bell (2000) who had examiners of GCSE English (104) food technology (53) and History (35) complete the Bem sex role inventory. This provides a measure of self reported possession of socially desirable, stereotypically masculine and feminine personality traits. Examiners who rated themselves highly on the masculinity scales were more likely to be team leaders. The masculinity scales are made up of dominant/assertive traits and selfsufficiency/decisive traits. The focus groups revealed that team leaders were either males/females who showed commanding roles during coordination of the marking scheme, distribution of question envelopes among others. It was found that dominance,

assertiveness, self-decisiveness played more important roles in making an examiner become a leader other than experience

# Objective two; establishing the effect of UNEB examiners' values on effectiveness of conveyor belt system of marking in Uganda

The second objective in this study was to establish the effect of UNEB examiners' values on effectiveness of conveyor belt system of marking in Uganda, the results indicated a significant relationship between UNEB examiners' values and effectiveness of conveyor belt system of marking in Uganda (r=0.896, sig=0.001), the null hypothesis was rejected meaning that good UNEB examiners' values significantly increases the effectiveness of conveyor belt system of marking in Uganda. This is in line with Ofqual (2011) who argued that the belt supervisor can allow markers to select questions to mark which they are comfortable with and then decide what to do with the remaining questions if any according to their personal values. This is important in that markers would mark those questions they have knowledge, mastery of content and the marking quide. Allocating demanding questions to each marker by the Belt Supervisor can identify demanding and most challenging questions first and allocate each of the demanding question to each of the Markers. remainder should then be distributed accordingly as determined by number of questions each Marker is going to mark.

Bukenya (2006) noted that the conveyor belt marking involves organizing markers into groups in which each marker is assigned a question(s) to mark by the team leader. He also added that item level marking reduces bias (halo effect) and remove the influence of one marker on the script (Pinot de Moira, 2011). The process of Belt marking starts with allocation of marking scripts to the belt marking supervisors (BMS). The Supervisor and his/her team open the scripts and start the process of tallying with his/her team. This involves counting and recording the number of students who answered each of the questions for each and every Centre that wrote the

examination. Each Marker is assigned a question(s) to mark. The Supervisor can adjust the allocation of the question if there is a need (Suto, 2011).

Morrison (1999) showed that Values are ones principles or standards making him/her to judge what is valuable or important in life. People affect others primarily depending upon their external appearance (height, weight, facial features, color and other physical aspects) and behaviour (Vulgar, friendly, courteous and so on). In line with this it was found out that examiner were not happy with the way UNEB eliminates any communication once marking is in progress in CBS. It was sighted that in 2008 a senior examiner's joy was frustrated on his return home to find an old grave of the beloved wife he left a live one month ago. The focus group members were further taken in to an old sorrow when one member remembered the situation in 2010 where brother and a sister of an examiner had to move all the way from Mbarara to st Mary's Namagunga after three days of failed communications to inform the father (examiner) of a deceased child through office of the marking Centre.

# Objective three; assessing the effect of UNEB examiners' beliefs on effectiveness of conveyor belt system of marking in Uganda

The findings of this study proved a positive significant relationship between UNEB examiners' beliefs and effectiveness of conveyor belt system of marking in Uganda (r=0.922, sig=.000), this therefore implies that favorable UNEB examiners' beliefs can improve on the effectiveness of conveyor belt system of marking and unfavorable examiners' beliefs reduce it. The study further revealed that UNEB examiners' personality significantly affect the effectiveness of conveyor belt system of marking in Uganda, this was also evidenced by the adjusted r squared (0.793) which denoted that UNEB examiners' personality contributed 79.3% on effectiveness of conveyor belt system of marking in Uganda, the coefficients section also revealed that of all the aspects on UNEB examiners' personality, attitude accounted for the biggest influence on of effectiveness of conveyor belt system of marking in Uganda ( $\beta$ =0.527, Sig=0.000).

This finding is also in line with Taylor (2010) who noted that consistency in the application of marking scheme depends on a marker's belief to ensure reliability in the marking process. Its better markers to be placed into teams by the Chief examiner under the supervision of the Team Leader and the Team leader selects some scripts for moderation to check adherence to the marking scheme. A marker exceeding agreed deviation depending on the subject could be asked to do a remarking. After marking transcript, checkers look for errors on the marked scripts as well as transcription of marks onto the mark sheets. After the Marker has completed marking, the marks should be entered the mark on sheets and this goes through various boards for approval, grading, and publication of results. New developments in marking include automated marking which uses optical mark recognition software to mark multiple choice exams. There is also on-screen marking whereby candidates' scripts are scanned onto a computer for marking by Examiners (Chamberlain, 2010).

#### 5.2 Conclusions

# Objective one; relationship between UNEB examiners' attitudes and effectiveness of conveyor belt system of marking in Uganda

There is a positive and significant relationship between UNEB examiners' attitudes and effectiveness of conveyor belt system of marking in Uganda (r=.432; Sig=0.003), hence concluding that positive UNEB examiners' attitudes increases the efficiency of conveyor belt system of marking in Uganda, and negative UNEB examiners' attitudes reduce it.

# Objective two; relationship between UNEB examiners' values and effectiveness of conveyor belt system of marking in Uganda

There is a positive and significant relationship between UNEB examiners' values on effectiveness of conveyor belt system of marking in Uganda (r=0.896, sig=0.001), hence concluding that good UNEB examiners' values significantly increases the effectiveness of conveyor belt system of marking in Uganda.

# Objective three; relationship between UNEB examiners' beliefs and effectiveness of conveyor belt system of marking in Uganda

There is a positive and significant relationship between UNEB examiners' beliefs and effectiveness of conveyor belt system of marking in Uganda (r=0.922, sig=.000), hence concluding that favorable UNEB examiners' beliefs can improve on the effectiveness of conveyor belt system of marking and unfavorable examiners' beliefs reduce it.

Also the researcher concluded that UNEB examiners' personality contributed 79.3% on effectiveness of conveyor belt system of marking in Uganda, and their attitude accounted for the biggest influence on effectiveness of conveyor belt system of marking in Uganda ( $\beta$ =0.527, Sig=0.000).

#### 5.3 Recommendation

- 1. UNEB should give bonus payments for examiners who finish marking their parts faster, this will help to make sure that all members in a conveyor belt system of marking have the same/improved marking speed, hence improving on the effectiveness of the CBS of marking.
- 2. UNEB should to train the examiners about other marking systems or techniques, this will help them believe that using a CBS for marking is not the only best way of marking exams.
- 3. UNEB should always organize orientations specifically for new markers through team leaders, and this will help to provide Guidance to these new markers.
- 4. UNEB needs to put/maintain strict regulations governing the examiners' arrival in the marking room, this will help to solve the problem of coming late, and will make the examiners in a centre all report on time for marking.
- 5. UNEB should put in place penalties in case of any work found in a script unmarked by the examiners, this will help to reduce on the work in a script which is left unmarked by examiner while using CBS, hence improving the effectiveness of the conveyor belt system of marking.

6. UNEB must reduce on the costs of marking by employing only productive and not expensive examiners during marking of exams

#### 5.4 Areas for further research

Prospective researchers and even students are encouraged to research on the following areas;

- 1. Hygiene at the marking centers and effectiveness of conveyor belt system of marking in Uganda.
- 2. Diet schedules in marking centers and effectiveness of conveyor belt system of marking in Uganda.
- 3. UNEB examiners' academic levels and efficiency of conveyor belt system of marking in Uganda.
- 4. Experience UNEB examiners and effectiveness of CBS

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## **APPENDICES**

### **APPENDIX I**

# RESEARCH INSTRUMENT: QUESTIONNAIRE

# Section A: Questionnaires about the Profile of the Respondents

**Direction:** please tick the appropriate position

<ul><li>1- Gender</li><li>Female</li><li>2- Age</li></ul>			Male		
a) 25-35 years			b) 36-45 years		
c) 46-55 years			d) 56 years and abo	ove	
3-Level of education					
a) Certificate			b) Diploma		
c) Degree			d) Master		
e) PHD					
) Number of years spent w	hile worl	king	with the examinat	ion body	
a) Below 2 years		b)	3-5 years		
b) 6-9 years		c)	10 years and above		
ection B: UNEB examiners'	persona	lity			
iraction. Please write your rating in the corresponding column before each entice					

## S

**Direction:** Please write your rating in the corresponding column before each option that matches with your best choice.

Response Mode	Rating	Description	Legend
Strongly Agree	(4)	you agree with no doubt at all	SA
Agree	(3)	You agree with some doubt	Α
Disagree	(2)	You disagree with some doubt	D
Strongly Disagree	(1)	you disagree with no doubt at all	SD

Examiners' personality	4	3	2	1
Attitudes/behaviors				
UNEB examiners always express favour when marking	4	3	2	1
UNEB examiners have positive attitudes towards the CBS of marking	4	3	2	1
Members in a group a conveyor belt system of marking are always comfortable with the speed the group adopts	4	3	2	1
Members in a conveyor belt system of marking have the same marking speed	4	3	2	1
Examiners with extremely high speed make no errors when making	4	3	2	1
Belief				
You believe that using a CBS of marking is the only best way exams can be marked	4	3	2	1
You have a feeling that a candidate's handwriting may affect his or her marks	4	3	2	1
UNEB examiners in the CBS have the same beliefs on the quality of answers produced by different candidates	4	3	2	1
All UNEB examiners have stable emotions displayed overtime which make them different	4	3	2	1
Values				
UNEB examiners have same principles applied during marking	4	3	2	1
Personal values develop from circumstances surrounding different examiners in the CBS of marking	4	3	2	1
The examiners always apply their values appropriately regardless of negative comments from colleagues	4	3	2	1
Decisive and assertive examiners have always ended up being team leaders	4	3	2	1
Guidance is given to new markers adequately by team leaders	4	3	2	1

# Section C: Questionnaire on effectiveness of the CBS of marking Direction: Please circle the best choice in the corresponding column that matches your

taste in terms of EFFECTIVENESS OF CONVEYOR BELT SYSTEM OF MARKING EXAMS IN UGANDA

Response Mode	Rating	Description	Legend
Strongly Agree Agree	(4) (3)	you agree with no doubt at all You agree with some doubt	SA A
Disagree	(2)	You disagree with some doubt	D
Strongly Disagree	(1)	you disagree with no doubt at all	SD

0.	EFFECTIVENESS OF CBS	4	3	2	1
	TIME				
***************************************	Members in a belt complete part allocated to them in the right time to make marking process to flow smoothly	4	3	2	1
	Belts/groups complete their work earlier and not delay the marking exercise	4	3	2	1
	All members in a belt complete totaling of marks on time for smooth marking in the belt	4	3	2	1
	All examiners in a group report on time during early morning time	4	3	2	1
	Members in a group report at the same time after meals/tea times	4	3	2	1
	Examiners in a Centre all report on time for marking	4	3	2	1
	QUALITY				
	No work on a script is left unmarked by examiner while using CBS	4	3	2	1
	Totaling of marks on a marked script .	4	3	2	1
	What examiners have totaled is always what the team leader confirms	4	3	2	1
	All examiners count tick both forewords and backwards to confirm total on a script	4	3	2	1
	Correct interpretation and usage of marking scheme	4	3	2	1
	COST				
	There is always additional money to cater for examination expenses	4	3	2	1
	Accommodation is always provided to examiners	4	3	2	1
	Examiners' transport is always catered for the management of UNEB	4	3	2	1
	Only productive and not expensive examiners are used by UNEB to get reliable marks using CBS	4	3	2	1
	Remuneration of examiners is always done on daily basis	4	3		1

# APPENDIX II: INTERVIEW GUIDE

1)	Ex	Explain how the following personality traits of an examiner affect making in CBS.						
	a)	Speed of the marker						
	b)	Time management ability						
	c)	Health of the examiner						
	d)	Feminine or masculine personality						
	e)	Being talkative						
	f)	Absenteeism and dodging work						
2)	Giv	ectiveness of CBS depends on the reliability of marks scored by candidates.  The your comment on the following factors in relation to marks reliability.  Examiners leaving some questions unmarked on scripts						

b)	Some of the candidates' marks are wrongly totaled by the examiners.
c).	Some examiners fail to internalize marking scheme well and hence end up giving marks wrongly.
	ur own opinion apart from personality issues of examiners what other factors (reliability and validity) effectiveness of CBS marking process in Uganda?

