



GSJ: Volume 10, Issue 8, August 2022, Online: ISSN 2320-9186  
www.globalscientificjournal.com



**JIMMA UNIVERSITY**  
**COLLEGE OF EDUCATION AND BEHAVIORAL SCIENCES,**  
**DEPARTMENT OF PSYCHOLOGY**

**Contribution of Teachers Level of Job Satisfaction, Occupational Stress, Subject Matter  
Knowledge and Pedagogical Competence to Academic Achievement of Secondary School**

**Students**

**BY:**

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A THESIS SUBMITTED TO THE DEPARTMENT OF PSYCHOLOGY SCHOOL FOR  
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF  
ARTS IN SOCIAL PSYCHOLOGY

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July, 2021

JIMMA, ETHIOPIA

## ABBREVIATIONS

GPK	General Pedagogy knowledge
MEO	Ministry of educational organizations
SMK	Subject matter knowledge
SPSS	Statistical Package for the Social Sciences
PC	pedagogical competence
OC	occupational stress
JS	Job satisfaction
COVID	Coronavirus disease



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First of all, I would like to express my deepest gratitude and appreciation to my main advisors Berhanu Nigussie (Ph.D.) and my co-advisor Bonsa Shume (Assistant professor) for their supportive comments, ideas, and their unreserved willingness to help me during the course of this study. Samples who participated in this study deserve appreciation for their volunteer participation, for their patience to complete the questionnaires, and for their contribution in this study generally. I would also like to express my gratitude to friends for their ideas, comments and interest to help me as well as for their practical support through the study. Lastly, my family and best friends those who were with me in this time really deserve my recognition.

## Declaration

I, Dereje Sori , hereby declare that this MA thesis entitled “Contribution of Teachers Level of Job Satisfaction, Occupational Stress, Subject Matter Knowledge and Pedagogical Competence to Academic Achievement of Secondary School Students”is my original work and was carried out by me for the degree of Master of art in Social Psychology under the guidance and advisory of Dr.Berhanu Nigussie and Assistant Professor Bonsa Shume College of Education and Behavioral Sciences Jimma University, Ethiopia. The interpretations put forth are based on my reading and understanding of the original work and they are not published anywhere in the form of books, or articles. Other books, articles and websites, which I have used, are accordingly acknowledged at the respective place in the text. For this thesis, no degree, diploma, or distinction has been conferred on me before, either in Jimma University or in any other University.

Name \_\_\_\_\_

Signature \_\_\_\_\_

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## Abstract

*The purpose of this study was to examine the contribution of teachers' job satisfaction, occupational stress, subject matter knowledge, and pedagogical competencies to academic achievement among Limmu Genet secondary school students. Quantitative and qualitative research methods with a correlational design were employed to achieve the research objectives. About 403 total participants from Limmu Genet secondary schools were selected using a simple random sampling technique via a lottery method. Open and closed-ended Questionnaires were used. Quantitative data were analyzed using Pearson correlation coefficient, and multiple linear regressions. Qualitative data were analyzed via thematic analysis. The result showed that teachers job satisfaction, occupational stress, subject matter knowledge, pedagogical competences were accounted students' academic achievement in that ( $b = -.47$ ,  $t (-.741)$ ,  $p = .459$ ;  $b = .009$ ,  $t (0.133)$ ,  $p = .895$ ;  $b = .105$ ,  $t (1.571)$ ,  $p = .17$ ;  $b = .000$ ,  $t (-.005)$ ,  $p = .9$  at  $R^2 = .013$ ,  $F (.838) = 2.39534$ ,  $p = .502$  respectively. Moreover, the study result showed that there was no statistically significant relationship between teachers' job satisfaction, occupational stress, pedagogical competence, and students' academic achievement ( $r = -.04$  to  $r = .03$ ). Besides, according to the study result, there was a weak positive relationship between teachers' subject matter knowledge and students' academic achievement ( $r = .3$ ). Conclusively, teachers' subject matter knowledge accounted for students' academic achievement. Thus, the Jimma Zone Education Office should provide professional development training as well as life skill training to improve the academic performance of Limmu Genet secondary school students.*

## CHAPTER ONE

### 1. INTRODUCTION

This part of the paper presents the background and rationale of the study that initiated the researcher. It also discusses the statement of the problem along with the research questions that are to be answered by the study. In addition, the general and specific objectives are stated in brief. The general significance of the study and delimitation of the study are also highlighted in this unit. It also included the operational definition and conceptual framework to be used in all the rest units.

#### 1.1 Background of the Study

In the education system, there are a lot of stakeholders. These start from students' parents up to the ministry of educational organizations. But, the main actors, key facilitators of students' knowledge for their future life and play a vital role in building a nation in all direction is only teachers (Atwell, 2021). It is not possible to separate the academic achievement of students in the classroom learning process from the work satisfaction, workplace stress, subject matter knowledge, and pedagogical competence of teachers.

Teachers are also seen as the cornerstone of schools; no school would survive without them. Thus, learning the responsibilities of teachers is crucial to understanding the educational system Gomendio, (2017). Teachers are the most valuable assets of any country as they impart knowledge and skills to students who after completing school join different sectors of the country, starting to contribute towards the economy and development of their country and the most important resource in an education system in any society.



The definition of job satisfaction in the school context: According to Maniram, (2007:14) cited in (Barat, 2017) job satisfaction can be a collection of attitudes, feelings, beliefs and behaviour one has towards his or her job.

Schmidt (2007:483) observed that job satisfaction refers to an individual's understanding of the degree of attractiveness of a job if both positive and negative outcomes are weighed up against each other. According to Iqbal, Fakhra, Farooqi, & Shabbir, (2016), students' academic achievement showed no significant association with teachers' job satisfaction. However, except for salary and management, all facets of job satisfaction showed strong positive associations with the others. The authors suggested that Academic achievement would grow if educational institutions pay attention to and improve the standard of secondary school education service and the demand for secondary school education.

The United State National Institute for Occupational Health and Safety describes in its publication entitled "Stress at work" that occupational stress as the hazardous emotional and physical reactions occurring when the demands and necessities of employment may not contest the competences, necessities and resources of employees, Reddy & Poornima, (2012) cited in (Suleman, Hussain, & Shehzad, 2018).

Also, according to Mulaudzi, I. C. (2018), teachers in secondary schools in rural areas face high levels of stress, which has a negative impact on student academic achievement. Stress not only has negative consequences for teachers, but it also results in lower achievement for students and higher costs for schools. Depending on the authors suggest that if improving school organization, job demands, support and autonomy, and personal emotional resources for teachers' student's academic achievement increased Mulaudzi, (2018).

Knowledge of the subject matter is a variable that influences teachers “quality and also affects students “Achievement. Students understand lesson more and with keen interest when lesson was taught by a teacher who master his subject matter very well. A teacher that masters his subject matter teaches very well, to perform his duty efficiently and effectively, capable of developing and implementing curriculum(Ahmed, 2019).

According to Kiamba, (2018), the subject matter knowledge of teachers is an important element in students’ academic achievement, since it provides the teacher with an awareness of the content that he or she will be teaching.

Pedagogical competence refers to performance, knowledge and skill in teaching and learning. According to Akpan, B.B(2002), cited in Nbina, (2012) Pedagogical competence is the art of teaching the subject, observing such principles as teaching from known to unknown, concrete to abstract and from simple to complex. According to Nbina, J. (2012), the research studied in Nigeria senior secondary school results showed that there is significant relationship between teachers’ competence and students’ academic achievement.

Therefore, this research will find out the contribution of levels of job satisfaction, occupational stress, subject matter knowledge, and pedagogical competence to students’ academic achievement in the case of Limmu Genet Secondary School. Moreover, the researcher will try to identify the relationship between that level of job satisfaction, occupational stress, subject matter knowledge, and pedagogical competence to students’ academic achievement in secondary school.

## 1.2. Statement of the problem

Schools are diverse institutions with a variety of stakeholders interested in the achievement of their goals, including teachers, parents/guardians, administrators, instructional officials (school principals and school cluster supervisors), and regulatory bodies (Ross & Gray, 2006). Teachers play a critical role in achieving school objectives. Teachers who are dedicated to their profession place a high value on the teaching learning process, and they devote additional instructional time to participatory classroom teaching learning strategies. The study's introduction and background make it clear that there is a link between teachers' job satisfaction, occupational stress, subject matter knowledge, and pedagogical competence and students' academic achievement, as well as the impact of teachers on student achievement in conjunction with quality education.

According to Ogal, Ochola, Chepkilot, and Kitetu, (2015) study results hypothesis showed that there is no significant relationship between teachers' job satisfaction and academic achievement of students in Kenya county secondary school examinations among secondary schools in Homa-Bay County. The results of the Spearman's Rank correlation Coefficient test indicate that there is no significant relationship between job satisfaction and academic performance at ( $r=0.01$ ,  $p=0.0001$ ). The correlation is strong and statistically insignificant. On the other hand, previous research, found a link between a teacher's job satisfaction and students' academic performance; a teacher who is happy with his or her job is more likely to deliver than a dissatisfied teacher. Therefore, a teacher needs to be satisfied for him to remain in his/her teaching duty and cover the syllabus to re-enforce learning culture among the young learners for improved performance.

Another study, Stress factors were found to have a substantial effect on the health-associated school teachers, causing physiological disruptions and disrupting results (Prasad, Vaidya, & Kumar, 2016). Furthermore, in their multinomial logistic regressions study, demographic variables such as gender, age, marital status, children, and general health factors such as diabetes and hypertension were found to have a significant effect on performance.

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According to Baraza and Simatwa, (2017) asserted that there was a negative relationship between occupational stress and students' academic achievement. From the findings, the poor achievement of the students is not a result of stress among teachers, stress among teachers is moderate.

All the teaching and learning processes in the classrooms cannot be what they should be without the teacher Stavreva, (2013), cited by Loice, (2018). At the same time, teachers cannot be effective without possessing certain qualities (Wamala & Seruwagi, 2013) cited by Loice, (2018). Teachers' pedagogical competencies are critical in the teaching and learning process for improving academic achievement. Proper identification of teaching methods, for example, promotes positive learning and academic achievement in schools. On the other hand, a lack of proper pedagogy may result in students' poor academic achievement in school. According to the findings of Muzenda, (2013), cited by Loice, (2018). Research, teachers' pedagogical knowledge, teaching skills, and teacher attitude all have a substantial positive impact on students' academic

achievement. Even though a variety of factors affect students' academic achievement, teacher excellence remains one of the most important determinants of students' academic achievement (Muzenda, 2013).

In other words, many variables have been studied to determine which variables influence overall teacher job satisfaction, occupational stress, and pedagogical competence. However, despite all of the available research on the contribution of teachers' job satisfaction, occupational stress, subject matter knowledge, and pedagogical competence to secondary school students' academic achievement, there is a notable lack of research. According to the researcher's knowledge, no similar study has been conducted in Ethiopia, specifically in Limmu Kossa Woreda; in this regard, this study attempted to fill the gap in the stated area. As a result, the current study sought to investigate the overall contribution of teachers' job satisfaction, occupational stress, subject matter knowledge, and pedagogical competence to students' academic achievement.

### 1.3. Research questions

This study was addressed the following research questions:

1. What is the current prevalence of the teachers' level of job satisfaction, occupational stress, subject matter knowledge, and pedagogical competence to students' academic achievement?
2. What is the relationship between teachers' level of job satisfaction, occupational stress, subject matter knowledge, and pedagogical competence to students' academic achievement?
3. What is the influence of teachers' level of job satisfaction, occupational stress, subject matter knowledge, and pedagogical competence on students' academic achievement?

4. What is the school principal opinion on teacher level of job satisfaction, occupational stress, subject matter knowledge, pedagogical competence, and academic achievement of students?

#### 1.4. Objectives of the study

##### 1.4.1. General objective

The main objective of the study was to investigate the overall contribution of teacher's level of job satisfaction, occupational stress, subject matter knowledge, and pedagogical competence to academic achievement of students.

##### 1.4.2. Specific objectives

1. To identify the current prevalence of the teachers' level of job satisfaction, occupational stress, subject matter knowledge, and pedagogical competence to students' academic achievement.
2. To assess the influence of teachers' level of job satisfaction, occupational stress, subject matter knowledge, and pedagogical competence on students' academic achievement.
3. To examine the relationship between the teachers' level of job satisfaction, occupational stress, subject matter knowledge, and pedagogical competence to students' academic achievement.
4. To identify the school principal opinion on teacher level of job satisfaction, occupational stress, subject matter knowledge, pedagogical competence, and academic achievement of students.

### 1.5. Significance of the study

The result of this research would be used as a source of information for parents, psychologists, teachers, and stakeholders to gain an insight into teachers' job satisfaction, occupational stress, subject matter knowledge, and pedagogical competence. It is also hoped that the result of the study help in creating better understanding and may serve as input to enhance the teaching and learning process to improve teachers' job satisfaction, occupational stress, and pedagogical competence their commitments by using a finding of this study. Moreover, the study put some material for the academicians who are interested to conduct their study in the area.

### 1.6. Delimitation of the Study

Geographically, the study was limited to the secondary school of Limmu Kossa Woreda to make the study more manageable. This study will also be delimited to the contribution of the level of job satisfaction, occupational stress, subject matter knowledge, and pedagogical competence to students' academic achievement. There are four (4) secondary schools in Limmu Kossa Woreda. To make the study more manageable and practical, the study was delimited to the Limmu Genet No. 1 and Limmu Genet No.2 or Preparatory Secondary School.

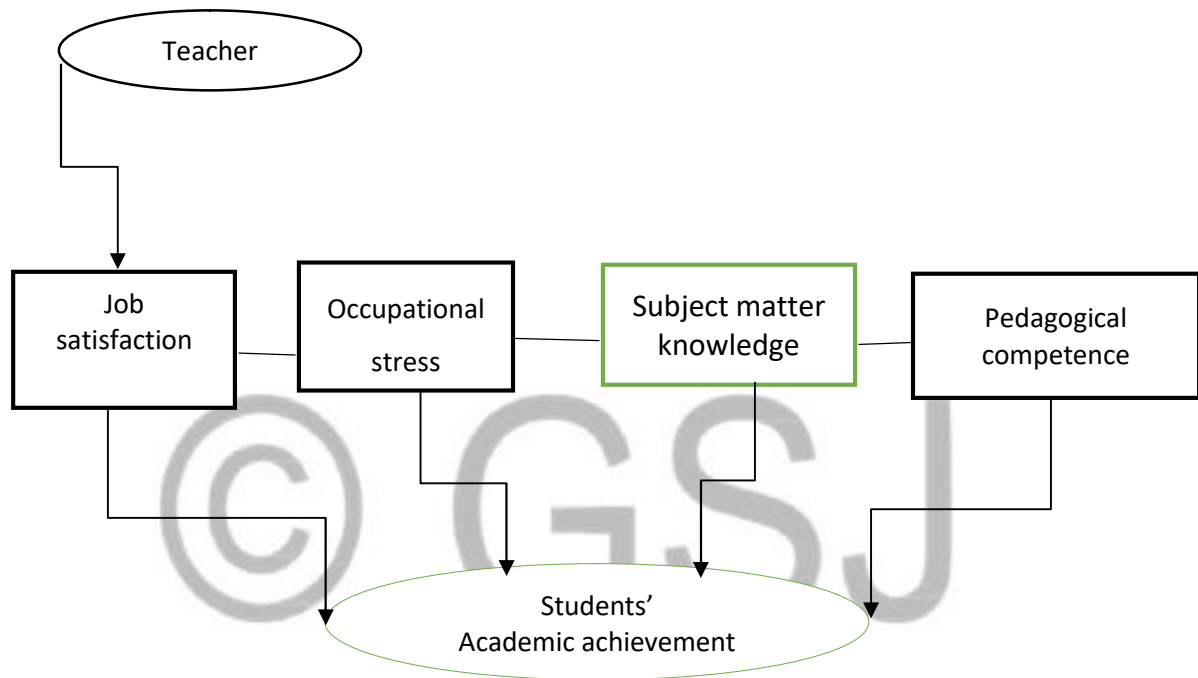
### 1.7. Operational Definition of Terms

- ✓ **Secondary school:** a secondary school that included grades (9 - 12)
- ✓ **Teachers' job satisfaction:** The term job satisfactions refer to the attitude and feelings teachers" have about their work
- ✓ **Occupational stress:** Occupational stress is known as stress at work. It occurs when there is a discrepancy between the demands of the workplace and that of individual
- ✓ **Pedagogical competence:** pedagogical competence is the ability of an individual to use a coordinated, combination of tangible resources (e.g., instruction materials such as books, articles, and cases and technology such as software and hardware) and intangible resources (e.g., knowledge, skills, experience) to achieve effectiveness in pedagogy.
- ✓ **Subject matter knowledge:** the teachers' knowledge or skill of the subject that to teach learns in the classroom.
- ✓ **Academic achievement:** Achievement may be measure through students' grade point average, whereas for institutions, achievement may be measure through graduation rates.



## 1.8 Conceptual framework

The conceptual framework postulates that teacher factors such as job satisfaction, occupational stress, subject matter knowledge, and pedagogical competence influence students' academic achievement.



**Fig: 1.** Source: Prepared depending on literature review and researcher's assumption

## 1.9. Limitation of the study

The study has been carried out with the stated objective. However, it has gone through the following limitations. Lack of sufficient and mostly related literature, which has been undertaken in local conditions, were among the challenges in doing this research. Consequently, the researcher was obliged to use literatures mostly written by western orientation and few unpublished local researches to review the previous works.

## CHAPTER TWO

### REVIEW OF RELATED LITERATURE

#### **Theoretical Framework**

#### **2.1. The Contribution of Teachers Job Satisfaction to Students' Academic Achievement**

##### 2.1.2. Job Satisfaction

Schmidt (2007:483) observed that job satisfaction refers to an individual's understanding of the degree of attractiveness of a job if both positive and negative outcomes are weighed up against each other. Job satisfaction is characterized as one's affective attachment to a job as a whole (global satisfaction) or with particular aspects such as leadership. It's a conceptualized affective and emotional response. The degree to which an organization's employees have a positive affective attitude toward their job is described as satisfaction (Howard & Bull, 2005). When staff are unhappy, negative affective orientation towards the organization will arise. Instead, the enforcement, predictability and compatibility elements of work satisfaction apply to the psychological school (Flavian, 2014). Employees' interaction with the overall working climate. However, globally or as Ethiopian context many researches showed that job satisfaction variables contribute to academic achievement of students like; salary/pay, workload, student-teacher relationship, teacher-teacher relationship, recognition, promotion, teacher – parent relationship, etc.

According to Herzberg et al. (1959), salary was viewed as a maintenance or external factor that influences job satisfaction. Chang, Kim, & Tickle, (2010:6) also demonstrated that the teachers' satisfaction with their salaries was a significant predictor of their job satisfaction. An increase in the teachers' satisfaction with their salaries was followed by an increase in their report of their job satisfaction, and their intent to stay on in the teaching profession. The negative

impact on their job satisfaction is explained by the Expectancy Theory that states that individuals are dissatisfied if the outcomes are low in comparison to their perceived efforts. This may also be applicable to the present study of Ethiopian teachers.

Workload is one of Herzberg's hygiene or repair considerations, which can either help or hurt work satisfaction. Being a teacher is tough work, because it necessitates grappling with a slew of negative repercussions. Teachers' care and other associated duties have the ability to not only increase their workload, but also to decrease their job satisfaction (Butt & Lance, 2005:407). Furthermore, unlike other occupations where one's personal and professional lives may be segregated, the professional position of teachers extends beyond the school setting. Teachers' stress levels and job frustration grow as they feel their workload is unjust, and their loyalty to the school organization and productivity suffer as a result. This is explained by Adam's Equity and Expectancy Theories.

Schools, according to Cerit (2009:616), are an institution where good human ties are expected, which involves teacher-student relationships. Both connections are critical for students' academic success, teachers' effectiveness, and the smooth operation of the school as a whole. Of all the relationships, the relationship between teachers and students is considered to be vital for positive achievement outcomes in the school setting. A high level of social integration between the student population and everyone in the school organization in general, and between students and teachers in particular, provides an environment where students can benefit from the teachers' instruction and where good teaching and learning can occur.

Teacher-teacher partnerships, according to Herzberg et al. (1959), are hygiene or extrinsic variables that may affect employee work satisfaction. Collegiality in the workplace, such as support meetings, mentoring, and joint leadership, is a significant factor in teachers' job

satisfaction (Weasmer & Woods, 2004:120). Ting (1997:315) agrees, and indicates that cooperative and supportive relationships with colleagues are very important, and contribute to higher levels of employee job satisfaction.

Recognition is a motivator, according to Maslow's hierarchy of desires, which requires esteem-needs. Recognition is accompanied by inspiration and work satisfaction. Educational institutions' most valuable assets are their students and professors. Teachers' effects on student performance, public instruction, and program changes should be recognized by education officials and others. Teachers need the appreciation, acceptance, and respect of school administrators and others, according to Karsli and Iskender (2009:2253). Teachers who feel valued, capable, efficient, and relevant are helped by administrators who understand and fulfill these needs. Teachers can progress in the teaching profession by obtaining additional professional credentials that enable them to be hired as school principals, department heads, managers, District officials, or to the next level.

Promotion is a method of moving up the corporate ladder. Promotion, according to the Expectancy Principle, is a tangible incentive that derives from an employee's commitment and success. Teachers are compensated for their achievements as they are elevated to a rank greater than their current position as a result of their improved efforts. This will also lead to increased pay, status, and respect.

Opportunities for development are scarce in Ethiopia. Teachers would only be allowed to advance to the roles of principal, superintendent, or District officer in a few situations. Teachers with a degree or credential have more chances for promotion. Summer and in-service preparation enable these teachers to graduate to diploma and degree levels, respectively. systems. However,

at the secondary school level, most of the teachers are not presented with the above-mentioned opportunities. Only a few teachers receive the opportunities for learning to post-graduate level.

## 2.2. Sources of Teacher Occupational Stress Which influence Students' Academic Achievement

The academic performance of students is influenced by teacher's workplace stress. As teachers' workplace stress levels rise, students' academic performance suffers as well. Poverty, school resources, leadership style, atmosphere, and other factors that relate to teachers' occupational stress and impact students' academic achievement. Teachers in rural areas still have to deal with the fact of being overwhelmed by needy students. According to the South African Millennium Development Goals Report (2013), the country is developing a social wage package to lower the cost of life for the vulnerable, allowing them to spend more money on food (Tshitangano, Tugli, Ramathuba, Khoza, Akinsola, Tshililo, and Mashau, 2014). When some learners continue to live in dire poverty despite this initiative, it could be stressful to teachers who may find it difficult to teach these learners; such may have an impact on learner academic performance. South Africa may be ranked ninth in the world for highest hunger levels. This clearly show that the attempt by the government to curb hunger is not enough to address the hurdle of hunger in rural schools. In any area of operation, the value of providing essential services cannot be overstated. Teachers receive adequate preparation and are prepared to provide successful guidance to their students, but they must contend with the disadvantage of a lack of funding, which is considered one of the contributing factors to teacher stress (Kokkinos, 2007). There are challenges barring schools from reaching their full academic potential that affect mental health promotion and wellbeing of teachers (Mbulaheni, Kutame, Francis, & Maluleke, 2014), these are realities faced by teachers. Teachers working in poorly resourced schools may

thus not be expected to function at their full potential, leading to negative consequences on learner academic performance. Learner academic achievement may be significantly correlated with the availability of facilities such as a library, laboratories of computers and others in the institution.

### 2.3. The Factor of Teacher Subject Matter Knowledge to Students' Academic Achievement

Teaching is a diverse and dynamic profession, as are the factors that contribute to or distract from a student's success. Researchers have turned at teachers for answers to which conditions relate the most to students' academic achievement over the years, exploring the association between a variety of teacher variables and student achievement. Subject matter knowledge includes knowledge of the content of a subject area, such as major concepts and relationships among concepts (Grossman, & Richert, 1988). The studies trying to establish these relationships fall into two main categories of research, presage-product and process product.

Presage-Product Studies: Studies of the relationship between subject matter expertise and student achievement have typically used the amount of college math classes a teacher has taken or grades on subject related standardized exams as indicators of teachers' knowledge, then searched for relationships with some indicator of student achievement (Gage & Needles, 1989) cited in Garner, (2017). These studies were meant to identify and support the need for teachers to have a robust knowledge of their subject. Begle (1972, 1979), cited in Mewborn, (2001). One of the most well-known researchers in this area, was unable to find any educationally significant correlation between teacher subject matter knowledge and student performance.

**Process-Product Studies:** The aim of the process-product study was to define the patterns that differentiate good from ineffective teachers so that successful teachers' instructional strategies could be emphasized in teacher professional development systems and colleges of education (Brophy & Everston, 2010). Relationships between certain teaching practices (behaviors) and student achievement outcomes such as, the quality of feedback, lesson pacing and questioning (Good & Grouws, 1977; Gage & Needels, 1989) have been identified by these studies. Despite the nature of these associations, Doyle (1977) points out that few studies explain whether the variable (teacher behavior) is linked to student achievement; rather, studies are often based on isolated classroom events without taking into consideration the broader picture of other factors that may impact student achievement. Regardless, the results of these studies have informed many policy decisions regarding teacher certification and evaluation.

## 2.4. The Contribution of Teachers Pedagogical Competence to Students' Academic Achievement

### 2.4.1. Teacher Pedagogical Competencies

Teachers who are qualified are needed for the effectiveness of every program to be adopted (Wamala, & Seruwagi, 2013). Nzivu, Piliyesi, and Ndanu, (2020). It should be remembered that teacher service delivery impacts learner success and, as a result, instructional content. However, teachers need to have the following 6 (six) competencies: curriculum content mastery, providing curriculum content to pupils in a proper order, organizing the content, mastery in employing training tools in practice, keeping accurate records and giving feedback to the learners. The study focused on competencies skills of teachers based on: teaching methods, utilisation of instructional media, evaluation techniques and preparation of instructional tools Prasertcharoensuk, Somprach and Keow (2015) cited in Loice, (2018). According to

McRae,(2012), as quoted in Njagi, (2020), teaching is a collective mechanism that allows for the sharing and learning of ideas, talents, and competencies for the primary intention of improving lives. Teaching, according to McRae, (2012), quoted in Njagi,(2020), is a participatory mechanism that enables the sharing and learning of ideas, skills, and competencies with the sole goal of changing lives. The teacher is bestowed with the responsibility of influencing mindsets as enshrined in the syllabus. Teaching methods in classroom can be teacher-centred, learner-centred or mixed approach. Chang, (2010) cited in Teygong, Moses, & Daniel, (2018) pointed out that while appropriate instructional methods are likely to enhance learning performance: inappropriate teaching methods are known to stifle knowledge retention and realization of learning objectives. As a result, it is essential to balance students' learning patterns and teaching methods in order to improve their success Zeeb, (2004) cited in Ganyaupfu, (2013).

According to Zeeb, (2004) in unmatched settings, students' participation in the learning process is low, resulting in poor academic results. Moreover, Likoko, Mutsotso & Nasongo, (2013) cited in Asuru, (2019). Indicated that instructional media resources can include resources such as textbooks, charts, maps, audiovisual and electronic instructional media. Paper supplies, exercise books, pencils, rulers and other stationery consists of other requisite resources required in the teaching and learning process Atkinson, (2000) cited in LOICE, (2018). The process of learning involves the activities in which pupils engage in order to make sense of or internalize the content they are learning. In addition, they offer manipulative or other hands-on activities for students' who need them to facilitate learning Rotumoi& Too,(2012) cited in LOICE, (2018).

Examination's assessments have become a significant method for summative assessment of learners. The method of deciding how much students actually know is known as testing or assessment of learners Akiri, (2013). Tests and examinations are administered on pupils at



various stages of their learning experience. Because learners possess different characteristics that require different assessment approaches. The standard of education at a school is the responsibility of the principal. As a result, it is their responsibility as internal curriculum supervisors to ensure that documents are maintained that assist the staff in performing their duties effectively Sultan & Shafi, (2014) cited in LOICE, (2018). Otunga, Odeo and Barasa, (2011) cited in LOICE, (2018). argue that instructional resources are charged as essential educational tools because they support the teacher in preparing and providing instruction in an accurate and acceptable manner. The syllabus, scheme of work, lesson schedule, record of work covered, and student achievement records are all examples of instructional materials. Lesson planning by teachers is vital process in implementation of teaching. Planning enables the teacher to subdivide the content into manageable units that is normally guided by the years' work considered per term, month, week and lesson level Otunga, Odeo & Barasa, (2011) cited in LOICE, (2018). The headteachers are responsible for delivering the syllabus to each teacher and ensuring that they are used. The syllabus is a text that includes the teaching and learning goals, a content description, the sequence to be followed in a given knowledge field, information on preferred teaching materials, technique, and appraisal or assessment Otunga, Otero, & Barasa, (2011).

## CHAPTER THREE

### 3. RESEARCH METHODS

#### 3.1. Research Design

This study was used the mixed approach with a correlational research design. Correlational research design is a type of non-experimental research method in which a researcher measures two variables, understands and assesses the statistical relationship between them with no influence from any extraneous variables. Survey research designs a simple way to research the relationship between variables is through surveys and questionnaires. In limmu Genet No 1 and limmu Genet No. 2 secondary schools they are more experienced, middle and beginner teacher. In case of this issue from four (4) secondary schools by simple random sampling specifically by lottery method, only two secondary schools were the sample unit.

#### 3.2. Description of Study Area

Limmu Kossa is one of Ethiopia's Woredas, located in the Oromia National Regional State. It bears some resemblance to the former kingdom of Limmu-Ennarea. It is currently located in the Oromia region's Jimma administrative zone. It is located at latitudes of 70 57'N and longitudes of 36053'E. Limmu Genet, the district's administrative headquarters, located 75 kilometers west of Jimma town and 426 kilometers south of Addis Ababa, with temperatures ranging from 100 to 250 degrees Celsius on a daily basis.

#### 3.3. Population of the Study Area

The 2007 national census reported a total population for this Woreda of 161,338, of whom 81,462 were men and 79,876 were women; 14,842 or 9.2% of its population were urban dwellers. The majority of the inhabitants were Moslem, with 72.6% of the population reporting

they observed this belief, while 24.41% of the population said they practiced Ethiopian Orthodox Christianity, and 2.72% were Protestant. The five largest ethnic groups in Limmu Kosa were the Oromo (80.94%), the Amhara (11.33%), the Dawuro (1.61%), the Kafficho (1.02%), and the Tigray (1.01%); all other ethnic groups made up 4.09% of the population. Oromiffa was spoken as a first language by 81.07%, 14.81% spoke Amharic, 0.92% spoke Dawuro, and 0.85% spoke Tigrigna; the remaining 2.35% spoke all other primary languages reported.

### 3.3.1. Socio-Economic Characteristics

The altitude of Limmu Kossa Woreda ranges from 1200 to 3020 meters above sea level. Rivers include the Awetu and the Dembi; notable landmarks include Lake Cheleleki and the Bolo Caves. A survey of the land in this woreda shows that 34.9% is cultivable (24.6% was under annual crops), 20% pasture, 39.7% forest, and the remaining 15.4% are considered degraded or built-up areas. Coffee is another important cash crop of this woreda. Limmu Genet became an important economic center in the district and for the neighboring districts as well.

### 3.4. Sample Size and Sampling Techniques

The study will be conducted in government secondary schools of limmu Kossa Woreda. In Limmu Kossa woreda secondary school there are 232 teachers. According to Limmu Kossa Education Office, there are four (4) secondary schools namely Limmu Genet NO.1 (9-10<sup>th</sup>), Babu (9-10<sup>th</sup>), Ambuye (9-10), and limmu Genet No.2 or preparatory (11-12<sup>th</sup>) there are four secondary schools in the woreda level. To manage the data from limmu Kossa Woreda the sample size of the school was selected by using stratified random sampling will use for school selection and also, proportionate sampling use for sample of grade 9<sup>th</sup>-12<sup>th</sup> grade students. To determine the sample size a simplified formula of *Yamane (1967:886)* was used.

$d^2$  = is the acceptable margin of error for proportion being estimated

p= is the estimated proportion of an attribute that is present in the population

$$n = \frac{(Z \alpha/2)^2 p(1-p)}{d^2}$$

$$n = \frac{(3.8416)^2 0.5(1-0.5)}{0.0025}$$

$$n = \underline{384}$$

Let this formula be used for our population, in which N=90 with  $\pm 5\%$  precision. Assuming 95% confidence level and p=0.5, we get the sample size as

n= the sample size N=the population size

e= the acceptable sampling error or level of precision (0.05) 95% confidence level and p= 0.5 assumed  $(Z\alpha/2)^2$

### **Sample size determination for teachers.**

the researcher wastaken a sample from secondary schools of Limmu Genet No. 1 and No. 2, 101 teachers, 2 principals, and 320 students 423respondents were taken as a sample in this study.

### 3.5. Sources of the data

The data was collected from both primary and secondary sources. The primary data sources for the study will be teachers, principals and students in limmu Genet No.1 and Limmu Genet No. 2 secondary school. The students' academic achievement Official statistical data reports was taken from the vice principal or from school record office Department, various documents, references and journals were be used as secondary sources for the study.

### 3.6. Data Gathering Instruments

As the concepts of teachers' level of job satisfaction, occupational stress, subject matter knowledge, and pedagogical competence to students' academic achievement are complex to measure, attempts have been made to ensure the inclusion of the various dimensions of teachers' level of job satisfaction, occupational stress, subject matter knowledge and pedagogical competence to students' academic achievement based on theory and previous studies. In this study, following instruments were employed to collect the necessary information for the study. In the study, a questionnaire with close and open-ended questions was developed for practicing teachers and students. The questionnaire was used as a data collection instrument for its appropriateness and for its nature of characteristics that allow informants/ respondents to express their ideas and opinions freely and for students' academic achievement the data was collected from the school record office. For teachers' job satisfaction the questionnaires taken from Gedefaw Kassie, (2012) used to collect the data from the selected teachers; for teachers' occupational stress the Questionnaire taken from Israel Creleanor, (2018), the reliability of this questionnaire was 0.88 using the Cronbach's Alpha coefficient. To measure teachers' subject matter knowledge a questionnaire was adopted from National Professional Standards for Teachers in Pakistan, Santoro & Kennedy, (2016) and also, for teachers' pedagogical competence the questionnaires taken from Loice J, (2018). Cohen, et al. (2007:158) argue that questionnaires encourage the respondents to be honest because they are answered secretly, and they are more economical than interviews. There were two sections in the questionnaires. The first section of the questionnaire offered context information to the respondents; the categories included gender, age, qualification, and service year, and school name. The second and most of them included closed-ended questions, which was dealt with the first and second essential questions of this

study. The first section of the second part was to answer the contribution of job satisfaction, occupational stress, subject matter knowledge, and pedagogical competence to the academic achievement of students.

### 3.7. Data Collection Procedures

The data resources were built based on current literature. The questionnaire is then used to gather the results. Questionnaires for teachers, principals, and students were prepared in English. The researcher received the official cooperation letter from Jimma University, College of Education and Behavioral Sciences, Department of Psychology which help him to get permission to collect data from teachers and schools' principals. Then, data was collected by researcher and colleagues. Moreover, during the data collection the depth orientation was given for the study participants and data collectors on how to fulfill collect and how to collect the questionnaire respectively. A data collector introduced respondents to the goal and intent of the analysis and collected trustworthy data from respondents through questionnaires. Finally, the questionnaire was collected back from the study participants and the data interpretation was done.

#### 3.7.1. Inclusion and exclusion criteria

3.7.2. Inclusion Criteria: all teachers and students who are attending who are present during data collection and volunteer to participate were included in the study.

3.7.3. Exclusion Criteria: those teachers and students who are absent during data collection, not volunteer to participate in the study were excluded from the study.

#### 3.7.4. Variables of the study

##### **Independent or exploratory variable**

- ✓ Job satisfaction
- ✓ Occupational stress
- ✓ Subject matter knowledge
- ✓ Pedagogical competence

#### 3.7.5. Dependent or out comes

- ✓ Student Academic achievement

#### 3.7.6. Pilot Testing

Before the final questionnaire was administered to the respondents, questionnaires were distributed to teachers, principals and students. Pilot test was conducted to analysis of the reliability of the questionnaires and appropriate adjustments made prior to the distribution of the questionnaires. The reliability of the items was computed by Cronbach's alpha. Reliability relates to a measure's accuracy. If it produces consistent outcomes, a measuring instrument is accurate. Reliable measuring instruments to contribute validity, so there is not requirement to be a legitimate instrument for a reliable instrument. Validity assesses whether a test is representative of all aspects of the construct. To produce valid results, the content of a test, survey or measurement method must cover all relevant parts of the subject it aims to measure. If some aspects are missing from the measurement (or if irrelevant aspects are included), the validity is threatened. For this study, the formal test for reliability of measurement is "Cronbach's alpha", which always used in many literatures note that a reliability coefficient of 0.7 or higher is considered "acceptable" in most social science research situations Cronbach and Meehl, 1955). The analysis of Pilot test was done using SPSS version 23.

### 3.8. Method of Data Analysis

After the distribution of questionnaires is collected, the tabulation work was carried out. Items were classified into different tables in line with the basic questions. This study was employed both descriptive and inferential statistics analysis. The descriptive was used to analyze the current prevalence of the teachers' level of job satisfaction, occupational stress, subject matter knowledge and pedagogical competence to students' academic achievement. On the other hand, inferential statistics analysis was used to assess the influence of teachers' level of job satisfaction, occupational stress, subject matter knowledge, and pedagogical competence on students' academic achievement. However, multiple regressions were used to examine the relationship between the teachers' level of job satisfaction, occupational stress, subject matter knowledge, and pedagogical competence to students' academic achievement. Moreover, the descriptive was used to identify the school principal opinion on teacher level of job satisfaction, occupational stress, subject matter knowledge, pedagogical competence, and academic achievement of students. Qualitative data were collected from secondary school principals through a written-based questionnaire guide and Quantitative data obtained through the questionnaire were tabulated, analyzed, and interpreted using appropriate statistical tools or (SPSS).

### 3.9. Ethical Consideration

Regardless of the specific nature of their work, social researchers must take into account the effects of the study on the participants to preserve their dignity as the responsibility of human beings to the participants (Cohen and Manion, 2007). In this respect, the researcher claims in this analysis that respondents should not be pressured into answering a questionnaire. They would be greatly welcomed, but it is entirely their choice whether to become involved or withdraw from



the study. Jones, Torres, and Arminio (2006) added that in science, the concepts of secrecy, anonymity, and privacy are operational in research. Therefore, the declaration of informed consent and all data collection tools were administered until participants have been made clear of the study objective; their identity, confidentiality and privacy have been secured and their consents have been issued. After the data is gathered in this manner, the information derived from the subjects was not used for any purpose other than the intended purpose.



## CHAPTER FOUR

### 4. DATA ANALYSIS AND PRESENTATION

#### 4.1. Socio-demographic information of the study participants

##### **4.1.1. Table 1: Socio-demographic description of study participants**

Table 4.1.1, below shows that demographic characteristics of the respondents in terms of gender, grade, educational qualification, and subjects taught in Secondary Schools respectively.

Variables		Frequency	Percent
<b>Gender</b>	Male	208	58
	Female	195	42
	Total	403	100
<b>Qualification</b>	BA degree	76	75.24
	MA degree	25	24.76
	Total	101	100
<b>Grade</b>	9 <sup>th</sup>	60	19.89
	10 <sup>th</sup>	70	23.17
	11 <sup>th</sup>	88	29.13
	12 <sup>th</sup>	84	27.81
	Total	403	100

As presented in Table 4.1.1 above, from 403 (four hundred three) participants who participated in the study, 208 (two hundred eight) participants were male and the remaining 195 (one hundred ninety-five) were female participants. Male participants accounted for 58% and females accounted for 43 % of the total participants. Concerning the educational qualification of the teachers, 75.24% are BA degree holders and the remaining 24.76% of the teachers are MA degree holders. Concerning the participants from students in terms of their grade distribution 29.13 % from grade 11<sup>th</sup>, 27.81 % from grade 12<sup>th</sup>, 23.17% from grade 10<sup>th</sup>, and 19.89 % from grade 9<sup>th</sup> have participated in the study respectively.

### **1.1.The current prevalence of the teachers' level of job satisfaction, occupational stress, subject matter knowledge, and pedagogical competence**

According to the data collected from the study participants, teachers at Limmu Genet No.1 and Limmu Genet No.2/ Preparatory secondary schools are currently dissatisfied with their jobs because of no hygiene factors. In line with this study, according to Gedefaw (2012) study included 300 secondary school teachers and 10 interview participants in Addis Ababa. The

results indicated that the teachers were significantly dissatisfied with their work. Salary and benefits arose as the primary dissatisfying aspects of all the work factors. However, as of (Singh & Jain, 2013) when teachers are highly satisfied with their job, they tend to present at work more often, has high work commitment, satisfied with their lives. Thus, satisfaction with the intrinsic aspects of the job is long-lived and, therefore, enables teachers to sustain their motivation over a long period of time. Concerning occupational stress, teachers in Limmu Genet No.1 and Limmu Genet No.2/preparatory Secondary Schools are extremely busy due to the influence of COVID - 19, which began in the 2012 academic year. Similarly, according to Mulaudzi, I. C. (2018), teachers in secondary schools in rural areas face high levels of stress, which has a negative impact on student academic achievement. As a school principal, it is preferable to recognize and reward teachers for their achievements by raising their occupational level.

According to the principal of Limmu Genet secondary school, teacher's subject matter knowledge and pedagogical competence plays a significant effect in the academic accomplishment of students. Teachers in our school, have subject matter knowledge, and pedagogical competence, even if there is some variation among them.

The third objective of the study was to examine the relationship between teacher's job satisfaction, occupational stress, subject matter knowledge, and academic achievement of Limmu Genet secondary school students. As indicated in the above table (table 4.3.1) the relationship between job satisfaction, occupational stress, subject matter knowledge, and academic achievement was examined through the Pearson correlation coefficient.

Table 4.3.1. Indicated that there was no linear relationship between teacher's job satisfaction and academic achievement ( $r = -.04$ ), there was no linear relationship between teacher occupational stress and academic achievement ( $r = 0.02$ ), a weak positive relationship between

subject matter knowledge and academic achievement( $r=0.1$ ), there was no linear relationship between pedagogical competence and academic achievement ( $r= 0.03$ ). Thus, the study found no relationship between teacher's job satisfaction, occupational stress, pedagogical competence, and student achievement.

### 1.2.The influence of teachers’ level of job satisfaction, occupational stress, subject matter knowledge, and pedagogical competence on students’ academic achievement

In the following table, multiple regression analysis is presented, showing the significance of job satisfaction, occupational stress, pedagogical competence, and subject matter knowledge on academic achievement among secondary school students were considered while data was analyzed

**Table. 4.4.1. Model summary of multiple regressions**

		ANOVA				
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	19.226	4	4.806	.838	.502 <sup>b</sup>
	Residual	1405.730	245	5.738		
	Total	1424.956	249			

a. Dependent Variable: Academic achievement  
b. Predictors: (Constant), Pedagogical competence, job satisfaction, Occupational stress, Subject matter knowledge

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig
	B	Std. Error	Beta		
<b>1. Constant</b>	2.913	1.633		1.784	.076
<b>Job satisfaction</b>	-.273	.368	-.047	-.741	.459
<b>Occupational stress</b>	.039	.295	.009	.133	.895
<b>Subject matter knowledge</b>	.449	.286	.105	1.571	.117
<b>Pedagogical competence</b>	-.001	.238	.000	-.005	.996

a. Academic achievement

**Model Summary**

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
<b>1</b>	.116 <sup>a</sup>	.013	-.003	2.39534

a. Predictors: (Constant), Pedagogical competence, job satisfaction, Occupational stress, Subject matter knowledge

b. Dependent Variable: Academic achievement

The third objective of this study was to identify the contribution of job satisfaction, occupational stress, subject matter knowledge, pedagogical competence on academic achievement of secondary school students.

The result of multiple linear regression analysis indicated that teachers job satisfaction, occupational stress, subject matter knowledge, pedagogical competence was found to be insignificant predictor of students' academic achievement in that job satisfaction, occupational stress, subject matter knowledge, and pedagogical competence ( $b = -.47$ ,  $t (-.741)$ ,  $p = .459$ ;  $b = .009$ ,  $t (0.133)$ ,  $p = .895$ ;  $b = .105$ ,  $t (1.571)$ ,  $p = .17$ ;  $b = .000$ ,  $t (-.005)$ ,  $p = .9$  at  $R^2 = .013$ ,  $F (.838) = 2.39534$ ,  $p = .502$  respectively. Whereas the remain 87% of variances in academic achievement might be explained by extraneous variables such as availability of library with reference books, and technology like, IT, internet and others. Consequently, the researcher suggested other researchers to conduct study on variables that accounted for 87 % of students' academic achievement that were not considered in this study.

### **1.3.School principal opinion to teacher level of job satisfaction, occupational stress, subject matter knowledge, pedagogical competence, and students'academic achievement**

School principal narrated their as follow concerning with teachers' level of job satisfaction, occupational stress, subject matter knowledge, pedagogical competence, and students' academic achievement suggested their idea as follow:

*“Job satisfaction among teachers has a substantial impact on their efficacy and ability to give high-quality education. Teachers, on the other hand, are currently dissatisfied with their work due to a lack of compliance with many hygiene issues.”*

*“Teachers are currently under a lot of stress as a result of the increased workload from the 2012 academic year, which was caused by the Corona Virus (COVID-19).Furthermore, it is preferable to provide rapid feedback to teachers on their performance in order to improve students' academic performance. As alternative, mentoring and supporting teachers in their work is essential for reducing occupational stress.Besides, one of the characteristics of teachers that contribute to excellent student achievement is their pedagogical competency.As a result, it has a beneficial and bad impact on pupils' academic performance. Concerning student academic achievement, our students performed slightly poorer this year (2013 academic year) than the previous year (2012 academic year), which could be attributed to the Corona Virus's effects (COVID-19).”*

## CHAPTER FIVE

### 5. DISCUSSION

#### 5.1. The current prevalence of the teachers' level of job satisfaction, occupational stress, subject matter knowledge, and pedagogical competence

The relevance of job satisfaction and motivation are very crucial to the long-term growth of any educational system around the world. The study finding indicated the current level of teacher's job satisfaction in Limmu Genet Secondary School is low because of not fulfill of basic hygiene factors. In line with this idea, Chang, Kim, & Tickle, (2010:6) also demonstrated that the teachers' satisfaction with their salaries was a significant predictor of their job satisfaction. On the other hand, the study found that there is high occupational stress among teachers due to the refereed load from the previous year (2012 academic year). In line with this finding, the previous study showed that teaching is a stressful job in different contexts (e.g., Aftab & Khatoon, 2012; Fisher, 2011; McCarthy, Lambert, Crow & McCarthy 2010; Khan, Shah, Khan & Gul, 2012; Van Dick & Wagner, 2001). On the other hand, previously, findings indicated that the participants experienced moderate levels of stress, and that there was no statistically significant relationship between teacher self-efficacy and occupational stress. Individual variables also revealed no significant effect on teacher stress. It was concluded that the administrative policies and teaching environment have an effect on teachers' stress and that teachers stress and self-efficacy are context specific (Ipek, Akcay, & Berber, 2018).

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