The Effect of Teacher Job Satisfaction on Learners' Academic Success in Biology

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Abstractç: This study sought to ascertain how job satisfaction affected learners' biology achievement in the New Juaben North District. The study's methodology was a survey design. The participants in the study are head teachers of senior high schools and teachers of biology in the district. To choose the participants for this particular research, purposive and random samplings were used. 84 individuals composed of the sample size, including 4 school heads and 80 biology teachers were used for this particular study. The main tool for data collection was a structured questionnaire, and the data was analyzed using the Statistical Package for Social Sciences (SPSS). According to the data analysis, 72.62% (61) of respondents were of the believed that changing teachers' working circumstances will have a favorable impact on students' academic achievement. Again, half of the biology teachers 32% (40) were of the view that their pay is insufficient and some must be done about it.

Keywords: Job satisfaction, Job dissatisfaction, Instructional approaches and Performance

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Introduction

In spite of the fact that teachers are an essential component of educational opportunity systems, there are worries about their retention in the wake of the recent emergence of the labor market in general and within the educational system in particular, particularly in schools serving underprivileged regions. Studies show that when job satisfaction rises in the teaching profession, attrition falls (Robert, Jones, & Lynn 2004). A recent survey from various developing countries reveals that more than 25% of academics who left teaching did so since they were dissatisfied with their work. The above incidence has been related to a number of causes (Henke, Choy, Chen, Geis & Broughman 1997). There has been a lot of studies done on the topic of teachers' job satisfaction in recent years (De Nobile, 2003). This interest is hardly surprising given the links between job happiness and employee retention, attrition, truancy, productivity, and job stress that have been discovered (De Nobile & McCormick, 2005; Luthans, 2002; Spector, 2000). Zembylas and Papanastasiou (2006) established teacher job satisfaction as the teacher's emotional attachment to his or her teaching profession due to the strong positive association between what education offers and what educators desire from it. We frequently define teacher job satisfaction as a teacher's perceptions, emotions, and sense of fulfilment in light of these concepts.

Dissatisfied teachers who want to switch schools may be underperforming for a variety of reasons, including general motivational factors (Rockoff 2004; Hanushek, Kain, & Rivkin 2005) and the straightforward fact that they are secretly anticipating a move, giving little thought to their current research, and disregarding any longer-term plans for their students. The teachers' motivation is definitely a key element in shaping the pupils' capacity for learning. Those who are motivated are frequently those who made the decision to work at a certain school, as opposed to those who are just waiting to be transferred. Jackson (2010) uses student data from North Carolina to show that teachers' efficiency rises after they switch schools and that teacher-school matching can contribute significantly to teacher quality. If their children demonstrate more achievement development, teachers are less likely to change schools.

These results show that professors can want to change for a variety of reasons, one of which is that they feel uncomfortable at their present schools. Therefore, a better school employment fit could increase teacher productivity and significantly affect their academic success. Efficiency, output, truancy, attrition rates, intention to leave, and ultimately employee well-being may all be impacted by workplace satisfaction. A wide range of workers, including skilled educational professionals, can agree with this assumption. Certainly, teachers' health has a big impact on the quality of the instruction they deliver (Fenech, 2006).

Despite the fact that specialists in organizational behavior have researched work pleasure in great detail, it is noteworthy to point out that elements that affect job satisfaction also have an impact on job performance, which in turn determines the context of the job. Employee actions that increase organizational effectiveness are therefore said to have an effect on "the psychological, social, and organizational environment" of a worker's employment (Reio & Kidd, 2007).

Employees that demonstrate this kind of psychological empowerment might volunteer for additional duties, endure through difficult tasks, assist coworkers in completing their assignments, and support organizational policies and goals even when they don't agree with them (Reio & Kidd, 2007). This study will look at how biology student achievement in the New Juaben North district of the Eastern Region is influenced by teachers' work satisfaction.

Methodology

A statistical survey is used in this investigation. Eighty (80) biology teachers and four (4) school heads served as the accessible population's representatives. The school heads were chosen from the sampled schools while the teachers were chosen at random. Giving out cards to everyone, irrespective of what was printed on them, was the method used to pick the teachers. For anyone whose cards said "chosen" were chosen. Teachers and school heads completed surveys as part of the study. Data was gathered through giving questionnaires to respondents. Additionally, the acquired data were edited, encoded, and analysed using SPSS version 20.0, which stands for Statistical Package for Social Sciences.

My colleagues reviewed the instruments to boost the content validity. The ideas they made for enhancement were implemented after they reviewed the tools. Also performed on the instruments was a face-validation analysis. An evaluation of dependability was performed using Cronbach's alpha. Cronbach's alpha was used to calculate the dependability coefficient, which was discovered to be 0.982.

Results and Discussion

Table 1. The Respondents' Gender

Sex	Frequency	Percent	Valid Percent
MALE	50	59.5	59.5
FEMALE	34	40.5	40.5
Total	84	100.0	100.0

Source: Field work 2019

According to Table 1, there have been 40.5% (34) female participants and 59.5% (50) male participants. Due to long-held stereotypes and preconceptions about the social roles, occupations, and involvement of women, gender issues must be taken into account in both men's and women's education (UNESCO, 2006). This may provide evidence in favour of the widely held perception that particular academic fields, like as science, are typically viewed as "male" disciplines (FAWE, 2004). This made the sex ratio of the study's sample of participants interesting.

Table 2. The Respondents' Age Groups

Age Range	Frequency	Percent
23-30years	10	11.9
31-40years	50	59.5
41-50years	15	17.9
above 50years	9	10.7
Total	**84**	**100.0**

Source: Field work, 2019

11.9% (10) of the 84 responses came from people under the age of 23 and 30, 59.5% (50) from individuals between the ages of 31 and 40, 17.9% (15) from individuals with ages of 41 and 50, and 10.7% (9) from those above 50. This shows that a substantial majority of the teachers were young (between the ages of 31 and 40), particularly in the study's schools, which may have led to effective productivity. It was thought that a paucity of participants, particularly among biology, was unlikely because so many local teachers had retired. Those who responded also had a better understanding of how teaching methods and teacher inspiration impact students' performance when they are between the ages of (41 years and above 50 years) The participants were prompted to answer questions regarding their marital status. Table 3 provides a data on that.

Table 3. The Individuals' Marital Status Plainly

Marital Status	Frequency	Percent
Married	69	82.1
Single	11	13.1
Widowed	4	4.8
Total	**84**	**100.0**

Source: Field work, 2019

Out of the 84 participants, 82.1% (69) were married, 13.1% (11) were single, and 4.8% (4) were widowed. This illustrates that married people, especially those who were not involved in a romantic relationship, were seen as being more responsible, mature, and well-adjusted than those who were not married. Considering the aforementioned, it is possible that single persons will face discrimination in hiring procedures because they may be perceived as less committed to their careers and less likely to thrive as employees than married people. The respondents were questioned in-depth about their educational backgrounds.

Table 4. Levels of Education Of Survey Participants

Qualifications	Frequency	Percent
Diploma	8	9.5
Bachelor's degree	70	83.3
Master's degree	6	7.2
Total	**84**	**100.0**

Source: Field work, 2019

9.5% (8), 83.3% (70), and 7.2% (6) of the 84 participants, respectively, possessed diploma, a bachelor's degree, and a master's degree. All of the respondents had completed some type of formal higher education. Because of their credentials, the respondents were able to comprehend and adequately complete the questionnaire. According to Tremblay, Ross, and Berthelot, students at senior high schools do higher academic achievement when taught by teachers with more than ten years of experience (2001). According to Table 5's findings, teaching experience ranged from one to more than fifteen years. Table 5 shows that the researcher provided the respondents with the opportunity to divulge their employment history.

4.8%(4) of participants have taught for one to five years, 17.9%(15) for six to ten years, 59.5%(50) for eleven to fifteen years, and 17.8%(15) for more than fifteen years, then according Table 5. The majority of those surveyed are probably familiar with respective schools and have relevant employment experience, so they can give reliable information about them. Bandura (1997) asserts that more experienced teachers are more capable of managing the learning issues of their students. Since the majority of the respondents have between eleven and fifteen years of work experience, they are better qualified to share with the researcher their opinions and experiences about instructional tactics and teacher motivation.

Table 5. The Previous Work Experience of the Participants

Years of experience	Frequency	Percent
1-5years	4	4.8
6-10years	15	17.9
11-15years	50	59.5
above 15years	15	17.8
Total	**84**	**100.0**

Source: Field work, 2019

What effect does a teacher's job satisfaction have on the effectiveness of the biology students?

The biology instructors who conducted the study responded to the questions above. Regarding the relationship between biology students' achievement and teacher job satisfaction, the respondents were questioned. Table 6 displays their comments.

Table 6. The Association between Biology Learners' Performance and Teachers' Job Satisfaction

Teacher Viewpoint	Frequency	Percent
i. Students' excellent exam achievement	10	12.5
ii. Wages do not arrive on a routine basis	18	22.5
iii. Insufficient drive	20	25.0
iv. The pay is insufficient	32	40.0
Total	**80**	**100.0**

Source: Field work, 2019

Biology teachers had the opportunity to speak on how their degree of job satisfaction affects the achievement of their learners. 12.5%(10) of survey respondents claimed that successful tests are influenced by job happiness. However, 22.5%(18) of respondents claimed that their paychecks do not arrive on time, 25%(20) that they lack motivation, and 32%(40) that their paychecks are insufficient. Job satisfaction is the term we use to describe a teacher's sentiments and views of happiness and fulfilment at work. Additionally, research has shown that attrition decreases as work satisfaction in the teaching profession increases (Robert et al, 2004). The aforementioned scenario has been linked to a variety of factors, but a recent study from a number of developing countries highlighted the fact that more than 25% of teachers who left the profession did so because they were unhappy with their jobs (Henke et al, 1997).

In recent years, there has been a lot of research on the topic of teachers' job satisfaction (De Nobile, 2003). Given the links between job satisfaction and employee retention, attrition, absenteeism, productivity, and work stress, it is scarcely surprise that this topic has attracted so much interest (De Nobile & McCormick, 2005; Luthans, 2002; Spector, 2000). Dissatisfied teachers who want to transfer to that other school might perform poorly because of general motivational factors, the fact that they are secretly anticipating the transfer, paying

little attention to their current work, and the idea that they are disregarding any longer-term plans for their students (Hanushek, Kain & Rivkin 2005; Rockoff 2004). Fenech (2006) emphasised a number of factors that significantly contribute to teacher dissatisfaction, including poor working conditions, low compensation, a high workload, excessive expectations from supervisors, low professional status, organisational conflict, and a lack of autonomy.

The biology instructors and the school heads had the chance to share their ideas on how to maintain and enhance teachers' job satisfaction, as indicated in Table 7.

Table 7. The Factors That Maintain and Boost Teacher Job Satisfaction

Respondents' justifications		Frequency	Percent
i.	Teachers' inspiration.	10	11.90
ii.	Better teacher employment conditions.	61	72.62
iii.	Construction of school facilities	3	3.57
iv.	Teachers should be offered the opportunity to pursue additional education while on study leave.	6	7.15
v.	Both learners and teachers must have access to instructional resources.	4	4.76
Total		**84**	**100.0**

Source: Field work, 2019

Out of the 84 survey participants, 11.90% (10) mentioned teacher motivation, 72.62% (61) mentioned that they should improve conditions for workers for teachers, 3.57% (3) mentioned school infrastructure, 7.15% (6) mentioned teachers' need for the chance to pursue additional education with study leave, and 4.76% (4) mentioned the need for materials for teaching and learning for both teachers and students.

Recommendations

Based on its findings, the study recommends the following:

1. Biology instructors should be supported by senior high school head teachers and the Ghana Education Service by giving them the resources, rewards, and pay they need to do their best work.
2. Head teachers of senior high schools must offer TLMs in order to promote activity-based teaching and learning techniques in biology classes.
3. To improve the academic accomplishment of their pupils and the effectiveness of their pedagogical and subject-matter knowledge, senior high school leaders must provide biology instructors with on-the-job training.

References

Bandura, A. (1997). *Self-efficacy*: The exercise of control. New York: Teachers College Press

De Nobile, J. (2003). Organisational communication, job satisfaction and occupational stress in catholicprimary schools. Unpublished doctoral thesis, University of New South Wales, Sydney

De Nobile, J. J., &. McCormick, J. (2005), Job satisfaction and occupational stress in catholic primaryschools. Paper presented at the Annual Conference of the Australian Association for Research in Education, Sydney, Australia.

FAWE, (2004). Students' attitudes to the teaching of SMT subjects by girls in primary schools. Theexperience of the pilot phase. FEMSA. No. 11, pp.12.

Fenech, M. (2006). The impact of regulatory environments on early childhood professional practice and job satisfaction: A review of conflicting discourses. Australian Journal Early Childhood, 31(2), 49 57.

Hanushek, E. A., J. F. Kain S. &. Rivkin G., (2005), Teachers, schools, and academic achievement. Econometrica,l 73(2), 417–458.

Hanushek, E. A., Steven G. & Rivkin, G., (2006). Teacher quality. In E. A. Hanushek, F. Welch (eds.), Handbook of the Economics of Education, Volume 2, pp. 1051–1078. Amsterdam: North-Holland.

Henke, R. R., Choy, S. P., Chen, X., Geis, S., Alt, M. N., & Broughman, S. P. (1997), America's teachers: Profile of a profession, 1993-94 (NCES 97-460). Washington, DC: National Center for EducationalStatistics.

Jackson, C. K. (2010). Match quality, worker productivity, and worker mobility: Direct evidence fromteachers, NBER Working Paper 15990, National Bureau of Economic Research.

Luthans, F. (2002). Organizational behavior (9th ed.). New York: McGraw-Hill

Reio, Jr., Thomas, G. & Kidd, A. (2007). An exploration of the impact of employee job satisfaction, affect, job performance, and organizational financial performance: A review of the literature. Kentucky: University of Louisville.

Rivkin, S. G., Hanushek, E. A, & Kain, J. F. (2005). Teachers, schools, and academic achievement. Retrieved: http://www.utdallas.edu/research/tsp/pulications.htm.

Roberts, B. J; Jones, C., & Lynn, M. (2004). Job satisfaction of new baccalaureate nursing teachers. Journalof Nursing Administration, 34(9):428-435.

Rockoff, J. E. (2004). The impact of individual teachers on student achievement: Evidence from panel data, American Economic Review 94(2), 247–252.

Spector, P. E. (2000). Industrial and organizational psychology: Research and Practice (2nd ed.). New York: John Wiley & Sons.

Tremblay, S., Ross, N., & Berthelot, J. (2001). Factors affecting grade 3 student performance in Ontario: A multilevel analysis. Education Quarterly Review, 7 (4), 1–12. Retrieved fromhttp://www.geog.mcgill.ca/faculty/grade3ontario.

UNESCO. (2006). EFA Global monitoring report 2006: Literacy for Life: Paris, UNESCO.

Zembylas, M. & Papanastasiou, E. (2006). Sources of job satisfaction and dissatisfaction in Cyprus.

BritishAssociation for International and Comparative Education. Vol. 36, No. 2, 229-247.

Zuzovsky, R. (2009). Teachers' qualifications and their impact on student achievement: Findings fromTIMSS 2003 data for Israel. Retrieved from http://www.ierinstitute.org/IERI