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## Motivation as a Differential Factor in the Effect of Student Teams-Achievement Divisions on Accounting Performance among Form Three Learners in Kajiado County, Kenya

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### Abstract

**Purpose:** This study examined the effect of Student Teams-Achievement Division (STAD) instructional strategy on learning outcomes in the accounting component of Business Studies and the extent to which motivation acts as a differential factor influencing performance among Form Three learners in Kajiado County.

**Methodology:** A quasi-experimental research design based on Solomon's four-group design was adopted, involving two instructional conditions: STAD strategy and conventional teaching methods. The study targeted 220 Form Three Business Studies learners from four mixed-gender secondary schools in Kajiado County, Kenya, as well as six teachers drawn from the same schools who taught the participating learners. A total of 211 learners participated, representing a response rate of 95.91%, while all six teachers partook, yielding a 100% response rate. The learners were randomly assigned to four groups, comprising two experimental groups (114 learners) taught using the STAD strategy and two control groups (97 learners) taught using conventional methods. Data were collected using Accounting Achievement Tests. Quantitative data were analysed using one-way analysis of variance (ANOVA), independent samples t-tests and two-way ANOVA, while qualitative data were analysed thematically.

**Findings:** Learners taught using the STAD strategy attained higher accounting scores than those taught conventionally. Motivation was also found to influence achievement significantly, improving from a pre-test mean of 2.74/5 to 3.82/5 and explaining 8% of the variance, with highly motivated learners benefiting most from the STAD strategy.

**Unique contribution to theory, practice and policy:** This study extends cooperative learning theory by establishing the effectiveness of the STAD strategy in enhancing learners' achievement in accounting within secondary school contexts. It provides practical insights for teachers of Business Studies on integrating learner-centred, motivation-enhancing instructional approaches to improve academic performance. The study further informs education policy by supporting the adoption of cooperative learning strategies in Business Studies instruction and teacher education programmes.

**Keywords:** *Accounting Achievement, Cooperative Learning, Differential Factors, Motivation, STAD Strategy*

## 1. Introduction

Accounting is a core component of Business Studies that plays a vital role in equipping learners with financial literacy, decision-making skills and entrepreneurial competencies necessary for participation in modern economies. As economies increasingly rely on financial reporting, accountability and data-driven decision-making, accounting knowledge becomes indispensable for both individual and national development (Ali, Khan & Ali, 2025). According to a study conducted by Katjiteo (2024), Accounting education enhances learners' analytical thinking, problem-solving abilities and preparedness for business and professional careers. In secondary education, Salau and Salau (2023) further opine that accounting knowledge serves as a foundation for advanced studies in finance, commerce and entrepreneurship. Consequently, improving achievement in accounting is not only an educational concern but also a socio-economic priority, particularly in developing countries like Kenya.

Despite the importance of Business Studies and, in particular, Accounting, global trends indicate persistent poor performance in accounting and related business components among secondary school learners. According to Beatson, Lange, Tharapos, O'Connell, Smith, Scott and Greatbanks (2024), many students perceive accounting component of Business Studies as difficult and abstract, leading to low engagement and achievement. For instance, Ngwenya (2025) found that students' poor performance in Financial Accounting was largely attributed to low interest and ineffective teaching approaches, with many learners demonstrating minimal enthusiasm for the subject. Similarly, Sanchez, Perenguez, León and Hernández (2025) reported that low academic performance in accounting was closely linked to lack of motivation and passive instructional strategies, and that the introduction of active methods such as gamification significantly improved both motivation and achievement. These findings highlight some pedagogical challenges in accounting education, where conventional methods fail to adequately engage learners.

Globally, the teaching of accounting has evolved from conventional teacher-centred approaches to more learner-centred and interactive pedagogies aimed at enhancing conceptual understanding and practical application. However, Anwar and Mulyadi (2025) observe that lecture-based instruction still predominates in many contexts, often constraining learner engagement and achievement. Similarly, a systematic review by Katjiteo (2024) indicates that although Accounting is delivered through diverse methods such as lectures, case studies, simulations and collaborative learning, many institutions continue to rely heavily on conventional approaches. Nonetheless, evidence suggests that innovative strategies can significantly improve learning outcomes; for example, Wilson (2025) found that integrating visual-based teaching methods in New Zealand resulted in statistically significant gains in learners' accounting achievement and engagement.

In Africa, the teaching of accounting reflects a similar pattern, where a blend of conventional and emerging pedagogies is used, though with varying effectiveness. Mir (2025) notes that

although approaches such as group discussions, role play and cooperative learning are increasingly recommended, many classrooms still rely on teacher-dominated instruction. Similarly, a study in Ghana by Kassim et al. (2024) found that persistent low performance in financial accounting was associated with limited use of effective instructional strategies and that student-centered approaches such as cooperative learning and case-based instruction significantly improved achievement. In the same context, Ndovela et al. (2023) in South Africa report that collaborative and interactive strategies, including questioning techniques, group work and technology integration, enhance learner participation and conceptual understanding, although their implementation remains inconsistent across schools.

Further, empirical studies increasingly highlight the critical role of learner motivation alongside instructional strategies in accounting education. Evidence from Ghana indicates that learner-centered teaching approaches and intrinsic motivation significantly influence students' adoption of effective learning strategies and, consequently, their academic performance (Betakan et al., 2024). Similarly, Papageorgiou (2022) found in South Africa that motivation is a key determinant of success in accounting, with highly motivated learners demonstrating stronger self-regulation and achieving better academic outcomes than their less motivated peers. In Nigeria, Nworie et al. (2023) further report that teaching methodology significantly affects accounting performance, with participatory and discussion-based approaches yielding superior results compared to conventional lectures. Collectively, these studies underscore that ineffective instructional strategies and low learner motivation remain major contributors to poor performance in accounting.

In Kenya, Accounting is taught as a discipline within Business Studies at the secondary school level, where it serves as a foundation for financial literacy and professional development. However, the subject has continued to record relatively low enrolment and achievement, partly due to learners' negative perceptions and low motivation (Mungeria, 2021; Musomba, 2022). A study by Emmanuel, Paul and Lilian (2022) reveals that many students consider Accounting difficult, leading to reduced interest and poor achievement. In this regard, an earlier study by Kiboss and Tanui (2013) corroborates that learners had low motivation to study accounting concepts, which contributed to poor achievement, but the introduction of an e-learning programme significantly heightened both motivation and performance. Despite such interventions, classroom practices in many Kenyan schools remain largely teacher-centred, limiting active learner engagement and deep understanding of accounting concepts.

### **1.1 Statement of the Problem**

Despite the use of various instructional approaches in teaching the Accounting component of Business Studies at the secondary school level in Kenya, learner achievement has remained persistently low, with little evidence of sustained improvement in Kajiado County. Conventional teaching methods have been widely criticised for limiting learner participation; however, even the introduction of alternative instructional approaches has not consistently

translated into improved achievement in Accounting. Although cooperative learning strategies such as the Student Teams-Achievement Divisions (STAD) have demonstrated positive effects in enhancing learner achievement in some subject areas, their effect on the Accounting discipline remains underexplored and inconclusive. Furthermore, learner motivation has been identified as a critical factor in academic performance; however, its role in shaping the effectiveness of STAD in Accounting instruction has not been sufficiently established. This creates a contextual and empirical gap regarding how STAD influences Accounting achievement and the extent to which motivation conditions this relationship among secondary school learners in Kajiado County, Kenya.

## 1.2 Research Objectives

The study was guided by the following objectives:

- i. To determine the effect of the STAD strategy on learner achievement in Accounting.
- ii. To establish differences in learners' achievement in Accounting when taught using the STAD strategy based on their levels of motivation to study Business Studies.

## 1.3 Research Hypotheses

The study tested the following null hypotheses at a significance level of 0.05.

**H<sub>01</sub>:** There is no statistically significant effect of the STAD strategy on learner achievement in Accounting.

**H<sub>02</sub>:** There is no statistically significant difference in learners' achievement in Accounting when taught using the STAD strategy across different levels of motivation to study Business Studies.

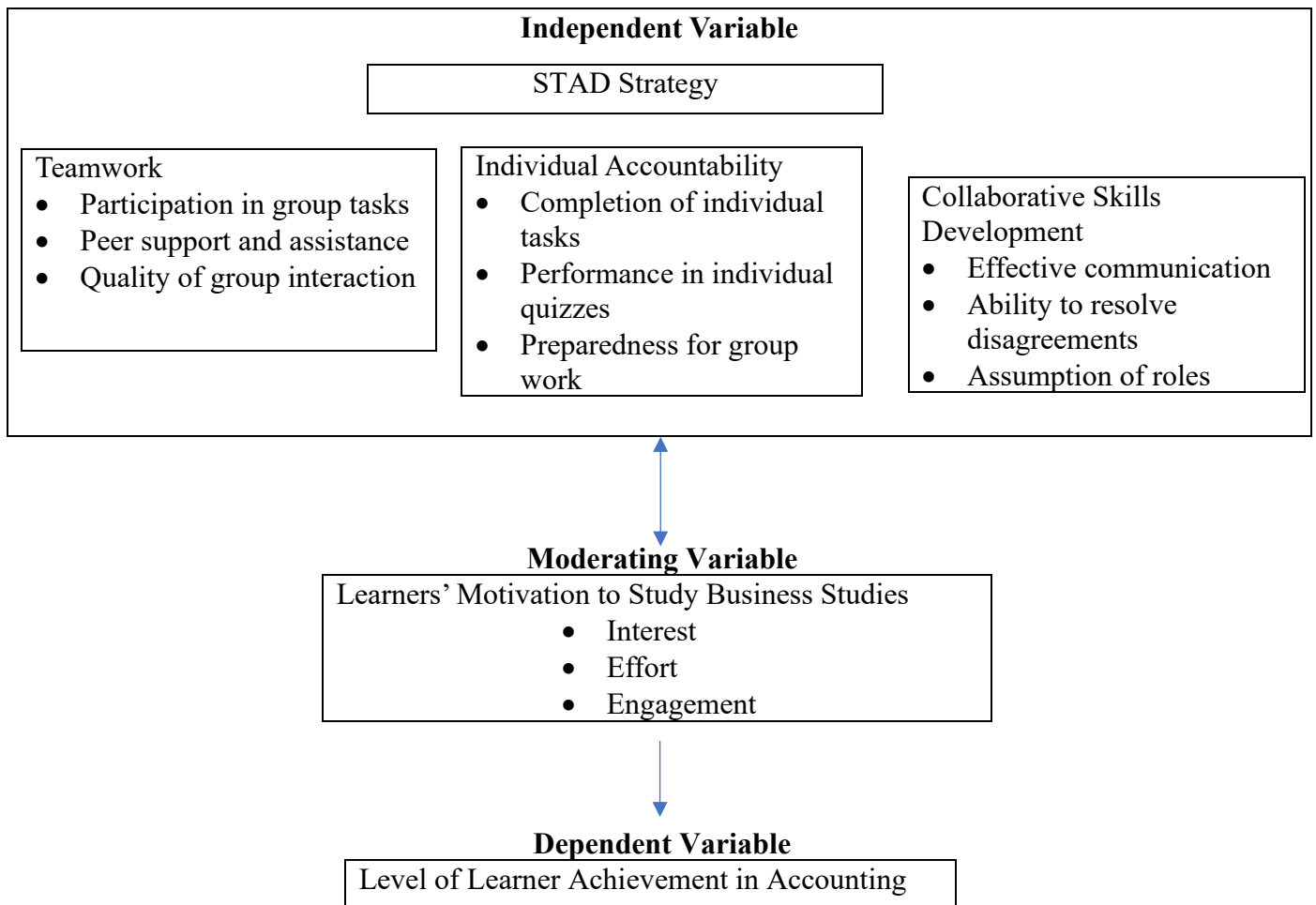
## 1.4 Theoretical Approach

This study was anchored in Social Interdependence Theory (SIT) and Self-Determination Theory (SDT). SIT, originally developed by Kurt Lewin in the 1940s and later refined by Morton Deutsch (1949), posits that the way goals are structured determines how individuals interact, which in turn influences outcomes. The theory underpins cooperative learning strategies such as STAD, where positive interdependence, individual accountability and promotive interaction enhance achievement. The theory has been widely applied in classroom-based studies to explain improved academic performance through group-based learning structures. Complementing this, SDT, advanced by Edward Deci and Richard Ryan in 1985, provides a robust framework for understanding motivation as a driver of academic outcomes. SDT emphasizes that learners' motivation is shaped by the satisfaction of three basic psychological needs; autonomy, competence and relatedness, which foster intrinsic motivation and enhance engagement and achievement. The theory has been extensively applied in educational research to explain variations in learner achievement and persistence across

contexts. In the current study, SIT explains how STAD as a cooperative learning strategy influence Accounting achievement, while SDT explains how learners' motivation operates as a differential factor that may strengthen or weaken this effect.

### 1.5 Conceptual Framework

The conceptual framework illustrates the relationship between the STAD strategy and learners' achievement in Accounting. It further shows how learners' motivation to study Business Studies acts as a differential factor influencing the strength of this relationship.



**Figure 1: Conceptual framework**

*Source: (Researcher, 2025)*

The framework proposes that STAD directly affects learner achievement in Accounting. However, the extent of this effect varies with learners' motivation, making it a key moderating factor.

## 2.0 Review of Related Literature

This section presents a review of related literature on STAD strategy, focusing on its effect on learner achievement in the Accounting component of Business Studies. It also examines how learners' motivation acts as a differential factor that may influence the effectiveness of STAD in enhancing academic performance.

### 2.1 STAD Strategy, Motivation, Teamwork and Learner Achievement

Teamwork is a fundamental dimension of STAD strategy that enhances learners' academic achievement through structured peer interaction. Beronilla and Natividad (2025) argue that when learners work in heterogeneous groups, they benefit from peer explanations, shared problem-solving and collective knowledge construction. In the same vein, a study by Puspitasari and Fatikhah (2023) on the effectiveness of the STAD cooperative learning model in enhancing Learners' conceptual understanding in biology at senior high school level reveals that cooperative learning environments such as STAD significantly improve academic performance because learners actively engage in discussions that deepen conceptual understanding and reduce learning difficulties. In addition, Bahari, Luthan, Azmi and Anshar (2021) posit that STAD-based teamwork encourages learners to verbalize their thinking processes, which strengthens comprehension and retention of Accounting concepts such as bookkeeping and financial analysis.

Further evidence indicates that teamwork enhances learner motivation and engagement, which in turn indirectly improves academic achievement. In this regard, Setiawan (2021) asserts that learners in cooperative groups demonstrate higher participation levels, improved communication, and a greater willingness to assist peers, leading to improved academic outcomes. Similarly, Gillies (2016) emphasizes that structured collaborative learning environments foster positive interdependence and active engagement, which strengthen both motivation and achievement. Additionally, structured group learning enhances motivation by enabling learners to operate within their zone of proximal development, as explained by social constructivist theory (Emmanuel et al., 2022; Maula & Khalim, 2026). However, despite these reported benefits, some studies caution that the effectiveness of teamwork is highly dependent on group composition, teacher facilitation and learner readiness, and may not automatically lead to improved outcomes in all contexts. Overall, teamwork serves as a critical mechanism through which the STAD strategy enhances both motivation and learner achievement in Accounting.

### 2.2 STAD Strategy, Motivation, Individual Accountability and Learner Achievement

Individual accountability ensures that each learner is responsible for their own academic performance within STAD groups. Recent research emphasizes that this dimension prevents social loafing and promotes equal participation by requiring learners to complete individual tasks and assessments after group learning activities (Munyao et al, 2022; Zhou, & Colomer,

2024). A study conducted by Rahman (2025) on The Effect of the Implementation of the Cooperative Learning Model Type Student Teams Achievement Division (STAD) on Creativity, Initiative, Motivation and Student Learning Outcomes in Rejang Lebong Regency corroborates that individual accountability significantly improves achievement because learners are motivated to prepare, participate and perform well in individual tests following group instruction. This ensures that cooperative learning does not mask individual weaknesses but instead strengthens personal mastery of content.

Additional studies confirm that individual accountability enhances academic discipline and self-regulated learning. According to Fernandez (2025), learners perform better when they know that their individual scores contribute to their overall group performance, encouraging responsibility and preparation. Additionally, study by Desai (2024) echoes that structured assessment within STAD improves retention and understanding of subject content because learners must individually demonstrate competence after group interaction. In Accounting education, Olatunji, Gbadamosi and Adeyemi (2024) add that this is particularly important because accuracy and independent problem-solving are essential for mastering financial concepts.

### *2.3 STAD Strategy, Motivation, Collaborative Skills Development and Learner Achievement*

Collaborative skills development refers to learners' ability to communicate effectively, resolve conflicts and assume roles within cooperative learning groups. Raihan and Zaki (2023) reveal that STAD enhances communication skills by requiring learners to explain ideas, negotiate meaning and coordinate group tasks during learning activities. Similarly, Mailo, Ondigi, Nasibi and Ndegwa (2026) observe that cooperative learning environments strengthen interpersonal relationships, teamwork and peer support, thereby improving learners' confidence and participation during classroom activities. Mugabekazi et al, (2025) corroborate that these skills are essential in promoting academic achievement because they enable learners to actively participate in discussions and contribute meaningfully to group learning outcomes.

Moreover, Silva, Farias and Mesquita (2021) affirm that cooperative learning environments improve leadership, responsibility and interpersonal skills, which are critical for effective group functioning. Learners develop the ability to manage disagreements constructively and assume specific roles such as leader, recorder, or presenter, which enhances both social and academic outcomes (Kohn, 2024). A study on The Effect of Group Cooperation on College Students' Learning Motivation conducted by Wei (2024) further shows that such structured collaboration improves learners' engagement and critical thinking abilities, which directly contribute to improved academic performance in subjects like Accounting.

## **3.0 Research Methodology**

This study adopted a quasi-experimental research design based on the Solomon four-group model to investigate the effect of the STAD strategy on learner achievement in Accounting and to examine motivation as a differential factor influencing performance among Form Three learners in Kajiado County, Kenya. The study involved four mixed public secondary schools, where two groups were exposed to the STAD strategy while two control groups were taught using conventional teaching methods. A sample of 211 students and six Business Studies teachers participated in the study, giving response rates of 95.91% and 100%, respectively. Data were collected using Accounting Achievement Tests, a motivation questionnaire, and teachers' interview schedules. The instruments were validated through expert review, while reliability was established using the Kuder- Richardson Formula 20 (KR-20). Quantitative data were analyzed using descriptive and inferential statistics, including t-tests, one way ANOVA and two-way ANOVA at a 0.05 significance level, while qualitative data from interviews were analyzed thematically to support interpretation of the findings.

#### **4.0 Findings and Discussions**

This section presents and discusses the findings of the study in relation to the stated research objectives and hypotheses. The study sought to determine the effect of the STAD strategy on learner achievement in Accounting and to examine whether learners' motivation to study Business Studies influenced achievement under the STAD instructional strategy.

#### **4.1 Effect of STAD Strategy and Motivation on Learner Achievement**

##### **4.1.1 Pre-test Motivation Levels**

Learners' motivation toward Business Studies and Accounting in particular was first examined during the pre-test phase and the results are presented in Table 1.

**Table 1: Learners' Motivation toward Business Studies- Pre-test Phase**

<b>Statement</b>	<b>SD</b>	<b>D</b>	<b>NS</b>	<b>A</b>	<b>SA</b>	<b>Mean</b>	<b>SD</b>	<b>Min</b>	<b>Max</b>
I study Business Studies because I love understanding how businesses operate.	66 (31.3)	70 (33.2)	40 (19.4)	23 (10.9)	12 (5.7)	2.27	1.14	1	5
I find learning Business Studies to be fun and rewarding.	57 (27.0)	72 (34.1)	37 (17.5)	31 (14.7)	14 (6.6)	2.4	1.18	1	5
I don't see why I should learn Business Studies; it doesn't seem useful to me.	25 (11.8)	31 (14.7)	41 (19.4)	57 (27.0)	57 (27.0)	3.43	1.28	1	5
I am motivated to learn Business Studies because it will prepare me for real-life business situations.	51 (24.2)	66 (31.3)	45 (21.3)	31 (14.7)	18 (8.5)	2.52	1.19	1	5
Solving Accounting problems in Business Studies gives me a sense of accomplishment.	55 (26.1)	61 (28.9)	41 (19.4)	33 (15.6)	20 (9.5)	2.53	1.21	1	5
No matter what I decide to study, high school Business Studies courses e.g. Accounting, would be very beneficial.	41 (19.4)	51 (24.2)	57 (27.0)	41 (19.4)	20 (9.5)	2.65	1.22	1	5
I wish to study Accounting because it will help me achieve my career goals.	49 (23.2)	64 (30.3)	47 (22.3)	35 (16.6)	16 (7.6)	2.56	1.17	1	5
I want to perform well in Accounting to make my parents and teachers proud.	41 (19.4)	51 (24.2)	49 (23.2)	45 (21.3)	25 (11.8)	2.81	1.24	1	5
I am motivated to learn Accounting because I want to get good grades for myself.	37 (17.5)	41 (19.4)	53 (25.1)	47 (22.3)	31 (14.7)	2.97	1.29	1	5
Accounting in Business Studies does not frighten me in the least.	39 (18.5)	43 (20.4)	51 (24.2)	45 (21.3)	31 (14.7)	2.85	1.25	1	5

I don't see why I need to learn Accounting; it doesn't seem useful to me.	31 (14.7)	41 (19.4)	43 (20.4)	55 (26.1)	41 (19.4)	3.23	1.27	1	5
I enjoy solving new Accounting problems.	45 (21.3)	53 (25.1)	45 (21.3)	41 (19.4)	27 (12.8)	2.78	1.23	1	5
I feel motivated to study Accounting because I believe it will improve my financial knowledge.	47 (22.3)	57 (27.0)	49 (23.2)	37 (17.5)	20 (9.5)	2.65	1.19	1	5
I put in extra effort to understand challenging accounting topics.	43 (20.4)	51 (24.2)	45 (21.3)	43 (20.4)	29 (13.7)	2.8	1.26	1	5
I actively participate in group discussions since I enjoy discussing Accounting topics with my classmates.	41 (19.4)	57 (27.0)	49 (23.2)	43 (20.4)	20 (9.5)	2.64	1.21	1	5
I use additional resources such as worksheets, textbooks and online materials to enhance my Accounting skills.	61 (28.9)	57 (27.0)	45 (21.3)	31 (14.7)	16 (7.6)	2.44	1.17	1	5
I sometimes find the Accounting component boring, but I keep going because I know it's important.	33 (15.6)	37 (17.5)	41 (19.4)	55 (26.1)	45 (21.3)	3.21	1.29	1	5
I sometimes wish I didn't have to study Accounting because it's difficult.	31 (14.7)	41 (19.4)	43 (20.4)	55 (26.1)	41 (19.4)	3.16	1.26	1	5
I am eager to improve my skills and knowledge in Accounting.	45 (21.3)	51 (24.2)	51 (24.2)	41 (19.4)	23 (10.9)	2.74	1.22	1	5
In my work life, having a solid Accounting background could be beneficial.	29 (13.7)	41 (19.4)	45 (21.3)	51 (24.2)	45 (21.3)	3.19	1.28	1	5

The findings indicate that learners generally exhibited low levels of motivation, with a grand mean of 2.74 out of 5.

A considerable proportion of learners disagreed with positive motivational statements such as enjoying Business Studies or finding it rewarding. This suggests that most learners lacked intrinsic interest in the subject at the beginning of the study. In contrast, a large number agreed with negative statements, indicating that they perceived Business Studies and Accounting as difficult, uninteresting, or of limited relevance. Although some learners acknowledged the potential usefulness of Accounting in real-life situations, this did not translate into strong motivation to engage with the subject.

Overall, the results in Table 1 confirm that learners entered the study with weak motivational orientation, which may partly explain the low performance observed at the baseline stage.

#### 4.12 Categorization of Learners by Motivation Levels

Based on the pre-test responses, learners were classified into two categories: Not Motivated (NMO) and Motivated (MO). The distribution of learners across these categories is presented in Table 2.

**Table 2: Learners' Motivation Levels in Accounting**

Motivation Level	EG1		EG2		CG1		CG2		Total	
	F	%	F	%	F	%	F	%	F	%
Not Motivated (NMO)	32	15.2	39	18.5	35	16.6	28	13.3	135	64.0
Motivated (MO)	22	10.4	21	10.0	14	6.6	20	9.5	76	36.0
<b>Total</b>	<b>54</b>	<b>25.6</b>	<b>60</b>	<b>28.5</b>	<b>49</b>	<b>23.2</b>	<b>48</b>	<b>22.8</b>	<b>211</b>	<b>100.0</b>

The findings show that 64.0% of learners were not motivated, while only 36.0% were motivated. This indicates that the majority of learners approached Accounting with limited enthusiasm and engagement. The distribution of motivation levels was fairly consistent across all groups (EG1, EG2, CG1 and CG2), suggesting that the low motivation levels were not influenced by group assignment at the pre-test stage. This uniformity across groups provided a reliable baseline for assessing the impact of the STAD intervention on both motivation and achievement.

#### 4.1.3 Post-test Motivation Levels

Following the implementation of the STAD strategy, learners' motivation was reassessed, and the results are presented in Table 3.

**Table 3: Learners' Motivation toward Business Studies- Post-test Phase**

Statement	SD f %	D f %	NS f %	A f %	SA f %	Mean	SD	Min	Max
I study Business Studies because I love understanding how businesses operate.	10 (4.7)	15 (7.1)	20 (9.5)	90 (42.7)	76 (36.0)	3.99	1.01	1	5
I find learning Business Studies to be fun and rewarding.	12 (5.7)	18 (8.5)	22 (10.4)	88 (41.7)	71 (33.6)	3.91	1.03	1	5
I don't see why I should learn Business Studies; it doesn't seem useful to me.	60 (28.4)	80 (37.9)	30 (14.2)	25 (11.8)	16 (7.6)	2.09	1.12	1	5
I am motivated to learn Business Studies because it will prepare me for real-life business situations.	8 (3.8)	12 (5.7)	18 (8.5)	92 (43.6)	81 (38.4)	4.08	0.97	1	5
Solving Accounting problems in Business Studies gives me a sense of accomplishment.	7 (3.3)	10 (4.7)	15 (7.1)	95 (45.0)	84 (39.8)	4.14	0.95	1	5
No matter what I decide to study, high school Business Studies topics, e.g., in Accounting, would be very beneficial	9 (4.3)	11 (5.2)	20 (9.5)	90 (42.7)	81 (38.4)	4.06	0.99	1	5
I wish to study Accounting because it will help me achieve my career goals.	6 (2.8)	8 (3.8)	12 (5.7)	100 (47.4)	85 (40.3)	4.24	0.91	1	5
I want to perform well in Accounting to make my parents and teachers proud.	5 (2.4)	7 (3.3)	15 (7.1)	98 (46.4)	86 (40.8)	4.25	0.9	1	5
I am motivated to learn Accounting because I want to get good grades for myself.	7 (3.3)	10 (4.7)	18 (8.5)	95 (45.0)	81 (38.4)	4.11	0.93	1	5
Accounting in Business Studies does not frighten me in the least.	8 (3.8)	12 (5.7)	20 (9.5)	92 (43.6)	79 (37.4)	4.07	0.96	1	5
I don't see why I need to learn Accounting; it doesn't seem useful to me.	55 (26.1)	70 (33.2)	35 (16.6)	30 (14.2)	21 (9.9)	2.34	1.08	1	5
I enjoy solving new Accounting problems.	7 (3.3)	9 (4.3)	15 (7.1)	96 (45.5)	84 (39.8)	4.14	0.94	1	5
I feel motivated to study Accounting because I believe it will improve my financial knowledge.	6 (2.8)	10 (4.7)	18 (8.5)	94 (44.6)	83 (39.3)	4.13	0.95	1	5
I put in extra effort to understand challenging Accounting topics.	8 (3.8)	12 (5.7)	20 (9.5)	95 (45.0)	76 (36.0)	4	0.98	1	5

I actively participate in group discussions since I enjoy discussing Accounting topics with my classmates.	9 (4.3)	11 (5.2)	20 (9.5)	92 (43.6)	79 (37.4)	4.02	0.97	1	5
I use additional resources such as worksheets, textbooks and online materials to enhance my Accounting skills.	10 (4.7)	12 (5.7)	18 (8.5)	90 (42.7)	81 (38.4)	3.95	1	1	5
I sometimes find the Accounting component boring, but I keep going because I know it's important.	50 (23.7)	60 (28.4)	40 (19.0)	45 (21.3)	16 (7.6)	2.56	1.11	1	5
I sometimes wish I didn't have to study Accounting because it's difficult.	45 (21.3)	55 (26.1)	42 (19.9)	50 (23.7)	19 (9.0)	2.6	1.1	1	5
I am eager to improve my skills and knowledge in Accounting.	6 (2.8)	10 (4.7)	15 (7.1)	96 (45.5)	84 (39.8)	4.11	0.94	1	5
In my work life, having a solid Accounting background could be beneficial.	5 (2.4)	8 (3.8)	18 (8.5)	95 (45.0)	85 (40.3)	4.16	0.92	1	5

The findings show a substantial improvement in motivation, with a grand mean increasing to 3.82. Learners expressed stronger agreement with positive motivational statements, including enjoyment of Business Studies, interest in solving Accounting problems and recognition of the subject's relevance to career goals and real-life applications. High mean scores were also recorded for indicators such as effort, participation, and confidence, suggesting that learners became more actively engaged in the learning process. At the same time, agreement with negative statements declined significantly. Fewer learners perceived Accounting as boring or overly difficult, and fewer questioned its usefulness. This shift reflects a transformation in learners' attitudes, from initial disinterest to increased appreciation and confidence in the subject.

Teacher feedback further supports these findings, indicating that learners became more enthusiastic and actively participated in lessons, particularly during group-based activities. This suggests that the STAD strategy played a key role in enhancing learners' motivation and engagement.

#### 4.1.4 Effect of Instructional Strategy and Motivation on Accounting Achievement

To determine the effect of instructional strategy and motivation on learner achievement, a two-way ANOVA was conducted and the results are presented in Table 4.

**Table 4: Effect of Instructional Strategy on Learner Achievement Based on Motivation**

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Squared	Eta
Corrected Model	3,215.48	3	1,071.83	16.35	.000	.19	
Intercept	286,423.62	1	286,423.62	4,368.94	.000	.95	
Motivation	1,102.55	1	1,102.55	16.81	.000	.08	
Group	2,689.37	1	2,689.37	41.00	.000	.17	
Motivation * Group	184.22	1	184.22	2.81	.095	.01	
Error	13,573.44	207	65.59				
Total	322,821.42	211					
Corrected Total	16,788.92	210					

*a. R Squared = .191 (Adjusted R Squared = .179)*

The findings indicate that instructional strategy had a statistically significant effect on learner achievement ( $F(1,207) = 41.00$ ,  $p < 0.001$ , partial  $\eta^2 = 0.17$ ). This shows that learners taught using the STAD strategy performed significantly better than those taught using conventional methods. The effect size further indicates that the instructional strategy accounted for 17% of the variance in learner performance, highlighting its strong influence. Similarly, motivation had a statistically significant effect on learner achievement ( $F(1,207) = 16.81$ ,  $p < 0.001$ , partial  $\eta^2 = 0.08$ ),

explaining 8% of the variance in performance outcomes. This confirms that learners who were more motivated achieved higher scores than their less motivated peers.

However, the interaction effect between instructional strategy and motivation was not statistically significant ( $F(1,207) = 2.81, p = 0.095$ ). This suggests that while both variables independently influenced learner achievement, their combined effect did not produce statistically significant differences across the groups. Despite this, descriptive comparisons indicate that the STAD strategy enhanced the performance of motivated learners more noticeably. Based on these findings, the null hypothesis  $H_{01}$  was rejected, as the STAD strategy had a significant effect on learner achievement in Accounting.

#### 4.15 Effect of STAD Strategy on Learners' Motivation

Further analysis was conducted to examine the effect of the STAD strategy on learners' motivation, and the results are presented in Table 5.

**Table 5: Effect of STAD Strategy on Students' Motivation**

Group	N	Mean	SD	Std. Error	Min	Max
EG1	54	58.47	11.382	1.548	34	78
EG2	60	60.85	12.104	1.562	36	81
CG1	49	53.72	10.963	1.566	29	75
CG2	48	51.68	11.247	1.623	27	73
<b>Total</b>	211	56.12	11.998	0.827	27	81

The findings show that learners in the experimental groups (EG1 and EG2) recorded higher mean motivation scores compared to those in the control groups (CG1 and CG2). This suggests that exposure to the STAD strategy contributed to increased motivation among learners.

To determine whether these differences were statistically significant, a one-way ANOVA was conducted, and the results are presented in Table 6.

**Table 6: One-Way ANOVA Results on Motivation Scores by Group**

Source	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	2,487.36	3	829.12	6.42	.000
Within Groups	26,528.74	207	128.16		
Total	29,016.10	210			

The findings indicate that the differences in motivation levels across the groups were statistically significant ( $F(3,207) = 6.42, p < 0.001$ ). This confirms that the instructional strategy had a meaningful effect on learners' motivation. Further analysis using Tukey HSD post hoc tests (Table 7) revealed that learners in the experimental groups had significantly higher motivation scores than those in the control groups.

**Table 7: Multiple Comparisons of Motivation Change (Tukey HSD)**

(I) Group	Test (J) Group	Test	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval
EG1	EG2		-0.85	0.72	0.642	-2.34 – 0.64
	CG1		12.42*	0.74	0.000	10.20 – 14.64
	CG2		11.98*	0.75	0.000	9.74 – 14.22
EG2	EG1		0.85	0.72	0.642	-0.64 – 2.34
	CG1		13.27*	0.73	0.000	11.08 – 15.46
	CG2		12.83*	0.74	0.000	10.62 – 15.04
CG1	EG1		-12.42*	0.74	0.000	-14.64 – -10.20
	EG2		-13.27*	0.73	0.000	-15.46 – -11.08
	CG2		-0.44	0.73	0.915	-2.63 – 1.75
CG2	EG1		-11.98*	0.75	0.000	-14.22 – -9.74
	EG2		-12.83*	0.74	0.000	-15.04 – -10.62
	CG1		0.44	0.73	0.915	-1.75 – 2.63

However, differences within the experimental groups and within the control groups were not statistically significant. This indicates that the STAD strategy had a consistent positive effect on motivation across all experimental groups.

In summary, the findings of the study demonstrate that both instructional strategy and motivation significantly influenced learner achievement in Accounting. Learners taught using the STAD strategy performed better than those taught using conventional methods and learners with higher motivation consistently achieved better outcomes than those with lower motivation. STAD Strategy had a statistically significant effect on learner achievement in Accounting. The null hypothesis  $H_{02}$  was also rejected, since learner motivation significantly influenced achievement, leading to differences in performance across motivation levels under the STAD strategy.

## 5.0 Conclusion

This study established that the STAD strategy is an effective instructional approach for improving learner achievement in Accounting among form three students in Kajiado County, Kenya. Learners exposed to STAD consistently outperformed those taught using conventional methods, confirming the value of cooperative, learner-centred pedagogies in enhancing academic outcomes. The findings further demonstrated that learners' motivation plays a significant role in shaping achievement, with highly motivated learners attaining better results across instructional conditions. Notably, the STAD strategy not only improved performance but also enhanced learners' motivation by fostering interest, participation, confidence, and recognition of the relevance of Accounting to real-life and career contexts. Although the interaction between motivation and instructional strategy was not statistically significant, descriptive trends indicated that STAD strengthened the benefits of motivation. Overall, the study underscores the importance of

integrating cooperative learning strategies with efforts to enhance learner motivation in order to optimize achievement in Accounting.

## 6.0 Recommendations

Based on the findings of the study, several recommendations are made to improve classroom practice, guide future research and inform instructional policies. Teachers of Business Studies are encouraged to adopt the STAD strategy in teaching the Accounting component in order to enhance active learner participation, promote peer support and improve academic performance. In addition, future studies should investigate the long-term effects of the STAD strategy on learners' achievement and motivation across different educational levels and subject areas. Furthermore, curriculum developers and education stakeholders should consider integrating cooperative learning strategies such as STAD into official teaching guidelines and teacher training programmes for Business Studies.

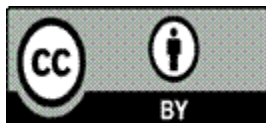
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